

STREET AND CITY PLANNING.

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BEFORE dealing with the modern practice of town planning, it will be instructive and interesting to trace the historical development of the art of city building, from the times of the Romans downwards to the present day.

These plans cannot be studied in all their architectural beauty in this country, as existing remains above ground are so scanty, but abundant examples are to be found in more southern climes, in Italy, and perhaps still more in Palestine and Syria, from which the author has lately returned.

In these countries city building was carried out on a scale of grandeur and magnificence, especially after the destruction of Jerusalem, when Roman colonisation was more widely extended, new towns rising on all sides under the auspices of the governors, or at the expense of the emperors, especially Trajan, A.D. 98.

These towns were laid out on the rectangular system, with two main streets at right angles intersecting one another at the centre, where a tetrapylon was placed, whilst on both sides of these main colonnades, the temples, the municipal buildings, and theatres stood. One of the most perfect of the ruins of these cities is

JERASH,

which lies about 50 miles N.E. from Jerusalem.

The town is entered from the south through a large triumphal gate, resembling Trajan's arch at Rome; to the west of this is the "Naumachie," or theatre for the representation of naval battles; further north, and closely adjoining, is a large circus; all outside the walls of the city.

On the western side of the south gate is a temple, and closely adjoining it the southern theatre, 288 feet across, with 32 rows of seats.

North-east of the theatre is a semicircle of 56 Ionic columns still connected by an entablature, which probably enclosed the forum.

From the centre of this semi-circle, the great colonnade (the main street of the city) starts, and intersects it from south to north, it is about half-a-mile long, and 41 feet wide between the columns, of which there are 520 varying from 20 to 30 feet high, mainly of the Corinthian order,

with fine acanthus capitals, but some towards the forum and the north gate are Ionic.

A second row of columns runs along both sides of the street, with covered arcades along the fronts of the houses, sheltered from the heat of the sun, with open galleries above, on a level with the first storey.

At the intersections of the two main cross streets tetrapylons were placed, formed of pedestals enriched with statuary, supporting domes. These two cross streets were also flanked with columns.

The great temple of noble grandeur, probably dedicated to the sun, the tribune in the shape of a semi-circle, with a fountain in the centre, and the large basilica closely adjoined this main colonnade; whilst the baths and the gladiatorial theatre were placed along the northern cross avenue.

PALMYRA.

Another fine, and better known, example is Palmyra, which reached the height of its splendour under Zenobia (A.D. 267) and fully adopted the Græco-Roman culture.

Here the great street of columns, entered by a fine triple archway, is nearly three-quarters of a mile in length and of fine proportions, having had originally 375 Corinthian columns on each side about 55 feet high, connected by an entablature, flanked on each side by a covered colonnade which probably contained shops, whilst above was an upper gallery also roofed in.

All the columns are furnished with corbels, which once bore statues of worthy citizens, whose names may still be read in many cases.

Midway at the intersection of a cross colonnade, was a tetrapylon constructed of huge monoliths of Egyptian granite, and beyond this the colonnade bends slightly to the north, probably for perspective reasons.

The architectural effect of this columned street when perfect must have been magnificent, and the protection from the sun afforded by the covered colonnades of the utmost utility.

Not only were these towns planned on symmetrical lines with streets, as a rule crossing one another at right angles, and architecturally perfect, but their sanitation was good, and especial pains were taken to provide an abundant and pure supply of water.

When the author was at Latakia (*Laodicea ad Mare*) last June he spent some time in investigating the remains of the Roman town and harbour. The triumphal arch at the entrance to the old city is an architectural gem; the ruins of the great temple, that of the forum with its massive columns of Egyptian porphyry, some still bearing the names of

the citizens who gave them, and the craftsmen who wrought them, are still in existence; and from an artistic standpoint more valuable than all, a fragment of a column of pure white marble encircled with dancing girls carved by a master's hand. The life and motion of these figures, and the swing of the drapery, are, in their realism, second only to the celebrated *Nike of Samothrace* in the Louvre.

The author was fortunate enough during his stay, to have his attention drawn to the remains of the Roman aqueduct which supplied the town with water, traced it to its head weir on the *Nahr el Kebir* (Great River), a distance of 25 miles, and had it planned by his surveyors. For many miles it is perfect with its tunnels and numerous bridges, including an aqueduct 665 feet long, which when first built had a double stage of 14 arches, each 30 feet span, and 60 feet above the bed of the river, and he cannot help putting on record a tribute to the genius and skill of the Roman engineer who designed and carried out this great work 1,700 years ago.

SILCHESTER.

One of the most valuable examples of a Roman city in England is Silchester in Hampshire, the ancient *Calleva*. Stormed, sacked, and burnt, after the withdrawal of the Roman legions, it has ever after remained waste and uninhabited, and the excavations which have been carried on in recent years have resulted in the recovery of the perfect plan of the city.

The walls, about $1\frac{1}{2}$ miles in circuit, still remain, although stripped of their outer facing, the usual arrangement of four main gates, with wide streets connecting them intersecting in the centre, was carried out here, with subsidiary cross streets, dividing the city into rectangular blocks.

The forum, basilica, and curia, were placed close to the main crossing, the public baths were near the south gate, and a large amphitheatre stood outside the walls.

The dwelling houses had a foundation of masonry, the superstructures, in the majority of cases, being of timber.

NEW WINCHELSEA.

Coming down to mediæval times, a good example of a new town designed on the rectangular system is New Winchelsea, built in the thirteenth century by King Edward I. to replace Old Winchelsea, which was situated on a low sandy island, and was swept away and drowned, by great storms and inundations.

The new site is on the tableland of the promontory of Higham, with steep banks around, and surrounded on three sides by the sea.

Broad straight streets, crossing each other at right angles, divided the town into thirty-nine squares or quarters, on the central one rose the glorious church of St. Thomas à Becket, whilst massive gateways defended the approaches.

Deserted by the sea, Winchelsea has wasted away to a country town, but its scale of planning attests the foresight of its kingly builder.

THE IRREGULAR PLAN.

With the departure of the Romans, and the destruction of the greater number of their cities, the art of regular town planning in England died out, for the Saxons were no builders, and towns grew up in an irregular fashion, the houses mainly gathered along the old roads leading to them.

London is an example. "Augusta" of the Romans, as far as is known, lay deserted and silent for a long period, after the withdrawal of the legions, and the original geometrical plan was buried under débris and soil accumulations, until at present the Roman pavement of Cheapside lies eighteen feet below the modern one, whilst an irregular plan replaced the former regular one.

Within the walls London was hide-bound also by the great monasteries, whose buildings and gardens almost entirely encircled the city within its walls, and it was not until the dissolution that this ground became available for building. The land between the Strand and Watling Street was gradually covered, whilst towards the end of the eighteenth century, in order to meet the demand created by the increasing wealth of the merchants of the city for a better and more sanitary class of houses, the great estates of the nobles adjoining what is now Oxford Street, were laid out for building on a regular plan, and in a liberal manner, large, airy, with well planted squares, surrounded with terraces of houses, and frequently designed on broad lines with a view to architectural symmetry.

THE RADIAL SYSTEM.

This system consists in emphasizing certain important points in a city. At these spots a circle is placed with a statue, arch, or fountain in the centre; from this point broad streets radiate in all directions. This system has not been so freely adopted in England as on the Continent, where it was in use as early as the thirteenth century.

Paris, as reconstructed with its new boulevards and avenues, under M. Haussmann, is a magnificent example of this mode of planning.

Twelve avenues radiate from the Arc de Triomphe, three of which are 300 feet wide, seven more than 1,000 yards long, and in five directions

there is a clear view of a mile, most of these streets having a width of over 100 feet.

From other centres similar streets radiate, the majority of systems, however, being on a smaller scale.

The rectangular system has been generally adopted in North and South America; and the City of Santa Maria de Belem, Brazil, the capital of the State of Para, is a good example. This town was founded in 1616, but little was heard of it until the middle of the 19th century when it entered on a career of surprising prosperity, mainly caused by the rubber industry, the city rising in population from 5,000 in 1850, to about 120,000 at the present time.

The author visited Belem recently in order to design a scheme of sewerage works, and report on proposed new boulevards, and made a careful examination of its streets and squares.

The lands adjacent to the city are the patrimony of the municipality and are bounded on the north and west by the River Guajará, and on the land side by a semi-circular boulevard, struck with a radius of four miles from the Bishop's Palace.

The streets in the older portion of the city are narrow and irregular, but those in the newer part are broad and well paved with granite setts, whilst the boulevards are bordered with palm and other trees.

Numerous squares are laid out, and planted with flowers, palms, and shrubs; and the whole district within the municipal boundary, far beyond the existing roads and buildings, is planned out in one comprehensive scheme.

The main avenues, with trees on the edges of the footpaths, are 82 feet, and the secondary roads, 65 and 50 feet wide, respectively; whilst the rectangular building blocks between them vary from about 656 to 984 feet in length, and 328 to 492 feet in width.

The bulk of this land laid out is forest, and three miles from the city a municipal wood has been enclosed, and well laid out with water, cascades, winding paths, and shrubberies, and the site for another wood has also been reserved.

The effect of this foresight is that the expansion of the city is regulated on well thought out lines, and irregular or ill-designed suburbs are avoided.

MODERN TOWN PLANNING.

Towns should be planned on a comprehensive scheme, which should be on broad lines.

The best laid out towns are those which are in the hands of one or two

great landowners only, who have ample funds to retain the services of competent professional men, not only to plan the town, but also to design the houses, and maintain a high standard of architectural excellence in contradistinction to builders' architecture, with which so many new suburbs are disfigured.

On the other hand, the most unsatisfactory towns are those which are owned by a large number of small proprietors unable to employ competent men, and anxious to realize the utmost sum from their small holdings, each being laid out to the best individual advantage, without considering the effect on the remainder of the lands which the town is spread over.

In town planning a combination of the systems already described with contoured roads in the suburbs, will produce the most pleasing result.

The rectangular system has many advantages, but it has the great disadvantage of entailing a longer distance in getting from point to point, and diagonal streets, radiating from the centres of business and pleasure, such as the railway station, town hall, theatre, etc., should be combined with such a plan.

The principal business streets of the town should be straight, but in the suburbs, where detached houses are built, curved lines give the best effect.

Straight streets should not exceed half a mile in length, for long, straight streets are especially liable to dust clouds. Spacious and handsome streets, with good sanitation, should be supplemented, however, with artistic houses, designed by a qualified architect.

English people are gradually getting more appreciative of beauty and art in their surroundings, and large numbers will not live in inartistic and monotonous dwellings, however sanitary they may be, and this feeling will probably gather force as years go on. A town designed, however, on artistic lines has a beauty and comfort of its own which renders it an ideal spot for residence.

WIDTH OF STREETS.

For towns of fair size, and where a considerable traffic may be expected, it is inexpedient to lay out through streets and roads of a less width than 40 feet, and for busy thoroughfares 60 feet should be the minimum, with footpaths together one-third of the total width.

This width of 60 feet allows for two footpaths each 10 feet wide, and a roadway 40 feet wide, which will take a row of carriages on each side of the curb, and leave space for three rows of traffic between.

For the business thoroughfares of large cities, 80 feet is not too wide.

The Royal Commission on London Traffic advises the following widths for new streets:—

Main Avenues.	Each footway.		Roadway.		Full width.	
1st Class Arterial streets	...	23	...	94	...	140
2nd „ „	...	18	...	64	...	100
3rd „ „	...	16	...	48	...	80
4th „ „	...	12	...	36	...	60
For development of suburban land	8	...	24 or 34	...	40 to 50	

The heights of the buildings should be proportionate to the widths of the streets. In all cases the latter should be of a uniform width throughout, in order to avoid a congestion of traffic.

London, with most cities and large towns, suffers from the inadequate width of its streets, the average width of new streets constructed by the Metropolitan Board of Works being 60 feet; but the increasing use of tramways and motor omnibuses demands liberal treatment in this matter.

Avenues or boulevards with trees, should be from 80 to 100 feet in width, with a strip of turf about eight feet wide on each side of the roadway on which the trees, about 30 feet apart, are planted; beyond this strip, and adjoining the boundary walls of the houses, would be the pavements, 10 feet wide each.

It is advisable to keep these turf strips well mown, and to enclose them with a light low fence, to prevent the turf being destroyed by foot passengers, whilst means of access to the houses from the roadway should be provided.

If this is not done, it is difficult to maintain the turf in order; and town councils sometimes remove the turf, and either gravel or brick over the slip.

Trees suffer from lack of water when bricked around, and also from being barked by horses being tied up to them, and the author has seen a large number of trees destroyed in this way. Ample iron gratings and proper tree-guards should be provided and maintained.

Streets in which trees are planted should be of ample width, otherwise the trees when fully grown render the houses dark, and the occupiers complain, and ask that the trees should be thinned out.

The fronts of the houses in good residential and suburban districts, should be set back at least 30 feet from the centre of the row of trees.

The plane and the small leafed elm do well in the south of England.

The author makes it a practice never to cut down a fine tree in developing a building estate, unless under absolute necessity: by a little

thought, and by judicious planning, this pernicious habit, so prevalent in the suburbs of London, and which destroys the beauty of a residential suburb, may be avoided.

If a row of handsome trees exists by the side of a roadway of insufficient width, it can be left untouched on a strip of turf of ample width, curbed and channelled, as an island, the roadways being carried on each side of it; or if the road is not to be widened, the houses may be set at an adequate distance, the trees left, and a grass lawn kept well mown and protected by posts and chains, with a private carriage drive along the fronts of the houses.

PAVEMENTS.

Where possible and the traffic is light, the author uses red paving brick. Its colour is pleasing to the eye, it is springy to walk on, and dries rapidly after a shower; asphalt remains wet and muddy long after the brick pavement is dry.

Tar pavements are unpleasant in colour, and hot and dusty in summer. For the footways of the urban portion of great cities, natural stone pavements are the most durable and best.

HEIGHTS OF HOUSES.

In order to produce a pleasing effect and to admit ample sunshine and air to the dwellings, the heights of houses should be in proportion to the breadths of the streets along which they are built; for an ordinary street, the width between the fronts of the houses should equal their height.

For such free admission of sunshine, the widths of the streets should increase, and the heights of the houses lessen, the further north the town is situated. It has been stated that children brought up on the ground floors of artisans' dwellings in London are sicklier than those residing on the higher floors of the same buildings, where they have more sunshine and air.

In Paris the houses are built to the following heights, subject, however, to revision in exceptional cases. The measurements are taken from the highest point of the paving to the entablature:—

In thoroughfares less than 25 ft. 6 in. wide, 39 ft. 6 in. high.			
Do.	from 25 ft. 6 in. to 32 ft. 0 in.	„	50 ft. 0 in. „
Do.	„ 32 ft. 0 in. to 65 ft. 6 in.	„	60 ft. 0 in. „
Do.	„ 65 ft. 6 in. and upwards		65 ft. 6 in. „

In the business quarters of large cities, where the price of land is exceptionally high, and in numerous cases is still rising, the principles

enunciated cannot be fully enforced, and as the premises are mainly used for business purposes, there is not the need for such restrictions as are necessary in the residential portions of a town; but still the thoroughfares are dark and often sunless, while the American skyscraper, samples of which are in existence in England, is unsightly, and fatal to architectural symmetry. Some restrictions seem needed, in the public interest, to control private liberty, and regulate the erection of such towering buildings.

SQUARES AND OPEN SPACES.

In the designing of a modern town, ample space should be allotted for this purpose. The village green and the broad market place in country towns, are examples to be followed.

Squares or rectangles of houses set around gardens, form a pleasing feature in a building estate. The gardens are usually reserved for the use of the occupiers of the houses, a small additional yearly rent being charged for the privilege in the lease from the ground landlord, who keeps them up.

The gardens in a square should preferably be of the same shape, with well-rounded corners, although an oval looks well, but is subject to the disadvantage of a great waste of land at the angles of the square, and consequent varying width of roadway.

For rectangular gardens, a length of three times the width, is a good proportion; in some cases these gardens are placed at the backs of the houses, from which there is direct access to them.

Squares and gardens should be kept as low as a proper provision for drainage will allow, be well planted with trees, shrubs, lilac, laburnum, etc., and have spaces of turf set apart for games.

Terraces of houses have been usually built around squares, but about thirty years ago such houses began to get out of fashion, and an increased demand for detached houses set in. The author has laid out no more residential terrace houses of a high class since (except in exceptional circumstances), or sanctioned any private basement houses. Servants generally dislike living in the latter, and tenants are difficult to obtain. A basement built town now has usually an exceptionally large number of empty houses.

The evils of bad planning are often seen conspicuously on entering a town by railway. The line runs in many cases between rows of mean cottages, backed on to it in order to save a small amount in the cost of laying out. It is needless to say such squalid gardens and sanitary conveniences are most unsightly. A broad road should run alongside the

railway on which the houses would front, the backs being opposite one another; in such a case it would be necessary (by an arrangement with the Railway Company) to leave sufficient space for additional lines of way when required.

THE HOUSING AND TOWN PLANNING BILL.

The object of this Bill, so far as it relates to the second purpose, is to enable the Local Government Board to authorise a local authority (which means the council of any borough or urban or rural district) to prepare a town planning scheme within its area, and failing local action, provided the Local Government Board are satisfied of the necessity of the same, the Board could order the local authority to prepare a scheme and submit it for approval, and when approved it shall have effect as if enacted in the Act.

This Bill is a step in the right direction, namely, of providing that future extensions of our towns are laid out on one broad scheme, which plan should be settled in conference and co-operation with the landowners, and be subject to the approval of a central authority guided by the best expert advice. Both French and German municipalities possess far greater power than similar authorities in England, and the former are in the habit of making plans for the future development of their towns. The Royal Commission on London Traffic advises that all new streets, when ground previously unoccupied is to be built upon, should be laid out of sufficient width, and in accordance with a proper plan: that power to define frontages be given to local authorities, but that special provisions, where an undue proportion of building land is required for main traffic, should be made, with, in all cases, power to appeal to a central authority; and they also point out that in the absence of some controlling authority, the widths of roads in many of the London suburbs are defined merely with reference to local convenience, and the wishes of the owners of the building sites.

In France far greater foresight has been exercised. About 1750, instructions were issued that every town of more than 4,000 inhabitants should prepare a plan of its streets, together with recommendations as to the future lines to be adopted.

In Paris, the Prefect of the Seine has extensive powers. In 1793, a commission of artists laid down the various improvements which seemed desirable to them, and many of these were gradually carried out.

In order that the Prefect may have independent technical advice on architectural questions, there is a standing council of experts presided over

by the Minister of Fine Arts, the members of which are chosen from architect members of the Institut de France, and leading architects of the day. The result of the remodelling of Paris shows the importance of having a well thought-out plan on broad lines, which can be carried out gradually from time to time, until the whole scheme is fully realised.

The widening of streets insufficient to accommodate the traffic, not only of the present day, but what may reasonably be expected in the future, is an important question. In France widened frontage lines are laid down in such streets with provision for rebuilding in accordance with the same when the houses are worn out.

The advisory Board of Engineers to the London Traffic Commission advise that all such streets as evidently require widening should be so declared, and scheduled without delay, and that all occupation of forecourts or gardens within a prescribed distance from the centre of the roadway should be forbidden under proper arrangements for compensation.

This prohibition of buildings over forecourts is much needed, as shops built in such situations with dwelling houses behind, with access through the former are dangerous in case of fire, unless exceptional precautions are taken. It appears to be desirable that the powers advised for London, with any needed modifications, should be extended to the country generally, and if powers for planning and widening are exercised judiciously, with full consideration for the interests of all parties concerned, joined to a higher standard of architectural merit, the results would not fail to be beneficial to the future development of English towns.

[*This Discussion applies also to the paper by MR. WILLIAM HARPUR, page 465, and MR. RAYMOND UNWIN, page 471.*]

MR. W. KAYE PARRY (Dublin) said the speaker referred to the difficulties which resulted from the existence of short leases and sub-leases in postponing the period at which improvements in town planning were rendered possible. In Ireland in the case of one town with which he was connected the projected roads which the landowners were willing to construct could not be made owing to the existence of these leases. He trusted that in any legislation which was contemplated some machinery would be provided to deal with this difficulty.

MR. J. WALKER SMITH (Barrow-in-Furness) said that he did not see any great difficulty in town planning itself, but the difficulty was the means to enforce the development of the town upon the lines laid down.

Birkenhead had evidently been laid out on good and liberal lines, but the

Town Council must have had something beyond the ordinary powers to enable them to put their scheme into effect.

Paris was, perhaps, the most perfect example of the radial system of town planning in existence, and Frankfort-on-Main was an admirable example of town planning. The means at the disposal of Paris and Frankfort were largely accountable for the excellent results in those cities, for in Paris Baron Haussman had almost absolute power for the acquisition of property, and unlimited funds at his disposal. In Frankfort-on-Main the excellent results were largely attributable to the power which that corporation had freely exercised, and to such an extent that they were the owners of 75 per cent. of the area of the city. They had bought at agricultural prices the land which previously surrounded their city, and as that land had become developed by buildings so they had extended their purchase; always buying, upon the periphery system, their town area at agricultural prices, and obtaining for the benefit of the municipality the increased value consequent upon development.

Mr. Harpur had referred to certain additional powers to those nominally possessed which the Cardiff City Council had recently become possessed of, but on looking at the section that Mr. Harpur quoted he found it was practically an extract from the Barrow-in-Furness Act obtained in 1875.

The Corporation of Barrow had very extensive powers for the development of their borough, the exercise of which had resulted in there being an absence of slums. It was by their local Act left with the municipality to decide what the width of new roads should be from 80 feet downwards, and from their decision there was no appeal. The minimum width of street was 40 feet, and by the powers of their Act the lines which new streets should take were determined by the Corporation, and a builder was prevented from putting one brick upon another until the street had been laid out in accordance with the lines and the width which the Corporation prescribed, and the kerb and foundation had been laid.

The clause in the Town Planning Bill that seemed to him to be of the greatest value was the one that permitted corporations to purchase land.

MR. J. MUNCE (Belfast) said that some of the powers referred to in Mr. Harpur's paper as new had been in force in Belfast from 30 to 40 years.

Since 1865 the Corporation could require a new street to be made 70 ft. wide, but under no circumstances did they permit one to be less than 30 ft. Houses could also be kept back 35 ft. from streets where less than 70 ft. wide.

This distance could be fixed when the building plan was lodged, but was usually dealt with at the same time as the street plan.

Streets need not be made too wide if the buildings were set well back, because a wide street was more expensive to repair, cleanse, and light; better make it suitable for the traffic likely to use it and leave our successors to widen it, if need be; they would not require to buy buildings for the purpose, front gardens

only. This method secured the air space, prevented overbuilding, and made the locality healthy. The tramways were laid in streets 60 ft. wide and upwards, which had proved of immense advantage. When plans were lodged for laying out new streets the surveyor required the streets to be of such widths as he thought right, and had the ground to widen the existing road or street given up, the compensation being the street works on the land given up.

Sec. 48 of Local Act, 1878, enabled the position and direction of any new street to be altered; the defect in the Act of 1865 was remedied by Sec. 45, so now cross streets could be required every 200 yards, whilst Sec. 63 provided that no building in a street made since 1878 could exceed the width of that in height, and Sec. 84, that no new dwelling-house could be erected in any street unless there was an open space of 30 ft. in front (that prevented dwellings being erected in old narrow streets unless they were set to give the space in front) compensation was not payable in any of the foregoing. Under Sec. 51, Act 1878, if the corporation wished a street laid out in a particular place before the owner was ready to do so, they had power to do it, and pay the whole or part cost.

Another very valuable power was that conferred by Sec. 46, Act 1850, whereby better pavements and larger sewers than usual could be asked for in view of future drainage and expense of repair, etc., and the corporation paid part of the cost.

If lines of widening required in existing streets and roads, and building frontage lines were laid down on the town plans, so that anyone calling at the office could see what was proposed, it would save a good deal of worry to the official and heartburning to the owners. His experience was that owners fall in with reasonable views, but he was afraid in some towns the lines were not settled until it was seen who the developing owner was, and then personal feeling on the part of councillors came into the case, and impulsive decisions resulted.

MR. C. H. COOPER (Wimbledon), dealing with Mr. Harpur's reference to the avarice of the landowners, observed that if one wanted to see the best-planned towns in this country one would go into those districts where practically the whole town belonged to a single individual. He could point to many examples which to a great extent refuted what Mr. Harpur had said. In many instances landowners offered ground to the local authorities for the widening of streets, but the local authorities declined to accept such offers unless the roads were made up by the owners, the result being that land was lost to the towns. Lately he had had to approach a speculator for a quarter of an acre of land, and he had no difficulty in getting what was wanted, providing the council fenced in the ground. His experience was that if one approached owners at the proper time and in the proper way, one always got what was required. If the landowner were such a fearful wretch as he was supposed to be why in the world did he set back his houses? Time after time, when houses were set back in that way

the local authority afterwards allowed them to be brought out to form shops. If anyone were to blame in this matter he thought it was the local authority and not the landowner.

MR. E. W. M. CORBETT (Cardiff) said that, as a rule, on the Marquis of Bute's estate, for which he was the surveyor, they, in laying out land, had as far as they could foresee provided main streets to accommodate through traffic, and instanced Cathedral Road, which had been formed for many years before it was built over. He thought the majority of landowners would not object to a street planning act which would prevent the laying out of land in a selfish and avaricious manner, but if such an act was to be accepted and become a success, where a man's land was taken for the benefit of the community or other landowners he must be fairly compensated, and here he had to disagree with Mr. Harpur, who had said that the compensation should be based on the agricultural value of the land: this was clearly quite unfair, the market value at the time the land was taken should of course include prospective value. He referred to some instances of unfortunate planning in Cardiff which Mr. Harpur had especially pointed out, and explained the circumstances under which they arose. The great difficulty landowners and corporations had in such a town as Cardiff was to foresee the future necessities; and with every wish to make ample provision for the future, mistakes would inevitably be made. He instanced the case of a road at Roath Park that the corporation could have made as wide as they liked, but which they made 40 feet, and which was already found too narrow, as showing how difficult it was to foresee what developments might take place.

MR. R. W. CASS (Farnham) agreed with Mr. Harpur that a fair but not inflated value should be paid to owners of land required for improvements under the Town Planning Bill, and also suggested that where it could be proved that such improvements increased the value of land, such for example as converting agricultural into building land, with a frontage to the proposed improvement, or otherwise materially increasing its value, such land should be made contributory to the scheme, or otherwise rated for the purpose. He had known cases where land having a market value of under one hundred pounds per acre, had, by reason of public improvements, been increased to a market value of fourteen hundred pounds per acre.

MR. JOHN S. BRODIE (Blackpool), speaking with regard to the difficulty Mr. Harpur had in getting a suitable boundary between adjacent estates, said he thought that difficulty cropped up in almost every case. It was best to deal with the matter in a rough and ready way, and refuse to pass the building estate plans until the parties came to an understanding agreeable to the authority. Very often he was hard put to find a valid reason for refusing to pass the plans, but fortunately Blackpool possessed very comprehensive clauses in local acts

dealing with the laying out of new building estates, and in practically every case he had been able to get good street planning as between adjacent estates by encouraging a spirit of compromise on both sides. By sec. 53 of the Cardiff Corporation Act, 1894, it was provided that the Corporation should make compensation to all persons injuriously affected by the exercise of the powers of that section. There they had the crux of the whole question in nine out of ten cases of town planning. It often happened that by a little purchasing of land the Corporation could ease the strain between adjacent landowners to a considerable extent, and get good results if only they could acquire the land at a reasonable price. Mr. Corbett had stated a somewhat extreme view of the question from the landowner's side. Municipal engineers did not wish to associate themselves with any attempt to seize land below its proper market value. But what he would strongly urge was, that if, through The Royal Sanitary Institute, they could impress on the Local Government Board, in passing their present Town Planning Bill through Parliament, the desirability of simplifying the procedure of land purchase by municipalities, they would confer a great benefit on the community. Very often, in acquiring small areas of land for improved town planning, it is not the price paid to the vendor that is complained of, but the disproportionate cost of law, valuers, witnesses, &c., called by the vendor, all of which must be paid by the authority. It was desirable that the costs should be limited by an automatically applied scale, so that if the vendor chose to call a crowd of experts, he should do so at his own expense. He had studied the Government's Town Planning Bill carefully, and he thought there was not any clause in it which would help them in this.

Mr. HARPUR (Cardiff), replying, said that in questions between a corporation and landlords matters might often be more easily arranged if left to the engineer on the one hand and the land agent on the other. With regard to Ninian Road, the corporation had spent a large sum over Roath Park, and it was for reasons of economy that the road was made only 40 feet wide; but as the corporation owned the land on one side of Ninian Road, and none of such land was built on, the road could at any time be widened without the necessity of acquiring any land whatsoever.

The Local Government Board was to blame more than any other body for the bad planning of many of our narrow streets and for the lack of open spaces. The Public Health Act, 1875, empowered local authorities to make by-laws, subject to the approval of the Local Government Board. That Board, however, provided them with a model set of by-laws; and what model had they set them? The model of a 36-ft. street and a 10-ft. backyard, in which latter there might be a privy and an ashpit, over which the air must pass which the people had to breathe.

Mr. C. BROWNRIDGE and Mr. SCOTT-MONCRIEFF also took part in the discussion.