

II

THE PROBABLE DIFFUSION OF GREAT CITIES

Now, the velocity at which a man and his belongings may pass about the earth is in itself a very trivial matter indeed, but it involves certain other matters not at all trivial, standing, indeed, in an almost fundamental relation to human society. It will be the business of this chapter to discuss the relation between the social order and the available means of transit, and to attempt to deduce from the principles elucidated the coming phases in that extraordinary expansion, shifting and internal redistribution of population that has been so conspicuous during the last hundred years.

Let us consider the broad features of the redistribution of the population that has characterized the nineteenth century. It may be summarized as an unusual growth of great cities and a slight tendency to depopulation in the country. The growth of the great cities is the essential phenomenon. These aggregates having populations of from eight hundred thousand upward to four and five millions, are certainly, so far as the world outside the limits of the Chinese empire goes, entirely an unprecedented thing. Never before, outside the valleys of the three great Chinese rivers, has any city--with the exception of Rome and perhaps (but very doubtfully) of Babylon--certainly had more than a million inhabitants, and it is at least permissible to doubt whether the

population of Rome, in spite of its exacting a tribute of sea-borne food from the whole of the Mediterranean basin, exceeded a million for any great length of time.[13] But there are now ten town aggregates having a population of over a million, nearly twenty that bid fair to reach that limit in the next decade, and a great number at or approaching a quarter of a million. We call these towns and cities, but, indeed, they are of a different order of things to the towns and cities of the eighteenth-century world.

Concurrently with the aggregation of people about this new sort of centre, there has been, it is alleged, a depletion of the country villages and small townships. But, so far as the counting of heads goes, this depletion is not nearly so marked as the growth of the great towns. Relatively, however, it is striking enough.

Now, is this growth of large towns really, as one may allege, a result of the development of railways in the world, or is it simply a change in human circumstances that happens to have arisen at the same time? It needs only a very general review of the conditions of the distribution of population to realize that the former is probably the true answer.

It will be convenient to make the issue part of a more general proposition, namely, that the general distribution of population in a country must always be directly dependent on transport facilities. To illustrate this point roughly we may build up an imaginary simple community by considering its needs. Over an arable country-side, for

example, inhabited by a people who had attained to a level of agricultural civilization in which war was no longer constantly imminent, the population would be diffused primarily by families and groups in farmsteads. It might, if it were a very simple population, be almost all so distributed. But even the simplest agriculturists find a certain convenience in trade. Certain definite points would be convenient for such local trade and intercourse as the people found desirable, and here it is that there would arise the germ of a town. At first it might be no more than an appointed meeting place, a market square, but an inn and a blacksmith would inevitably follow, an altar, perhaps, and, if these people had writing, even some sort of school. It would have to be where water was found, and it would have to be generally convenient of access to its attendant farmers.

Now, if this meeting place was more than a certain distance from any particular farm, it would be inconvenient for that farmer to get himself and his produce there and back, and to do his business in a comfortable daylight. He would not be able to come and, instead, he would either have to go to some other nearer centre to trade and gossip with his neighbours or, failing this, not go at all. Evidently, then, there would be a maximum distance between such places. This distance in England, where traffic has been mainly horse traffic for many centuries, seems to have worked out, according to the gradients and so forth, at from eight to fifteen miles, and at such distances do we find the country towns, while the horseless man, the serf, and the labourer and labouring wench have marked their narrow limits in the distribution of the intervening

villages. If by chance these gathering places have arisen at points much closer than this maximum, they have come into competition, and one has finally got the better of the other, so that in England the distribution is often singularly uniform. Agricultural districts have their towns at about eight miles, and where grazing takes the place of the plough, the town distances increase to fifteen.[14] And so it is, entirely as a multiple of horse and foot strides, that all the villages and towns of the world's country-side have been plotted out.[15]

A third, and almost final, factor determining town distribution in a world without railways, would be the seaport and the navigable river. Ports would grow into dimensions dependent on the population of the conveniently accessible coasts (or river-banks), and on the quality and quantity of their products, and near these ports, as the conveniences of civilization increased, would appear handicraft towns--the largest possible towns of a foot-and-horse civilization--with industries of such a nature as the produce of their coasts required.

It was always in connection with a port or navigable river that the greater towns of the pre-railway periods arose, a day's journey away from the coast when sea attack was probable, and shifting to the coast itself when that ceased to threaten. Such sea-trading handicraft towns as Bruges, Venice, Corinth, or London were the largest towns of the vanishing order of things. Very rarely, except in China, did they clamber above a quarter of a million inhabitants, even though to some of them there was presently added court and camp. In China, however, a

gigantic river and canal system, laced across plains of extraordinary fertility, has permitted the growth of several city aggregates with populations exceeding a million, and in the case of the Hankow trinity of cities exceeding five million people.

In all these cases the position and the population limit was entirely determined by the accessibility of the town and the area it could dominate for the purposes of trade. And not only were the commercial or natural towns so determined, but the political centres were also finally chosen for strategic considerations, in a word--communications. And now, perhaps, the real significance of the previous paper, in which sea velocities of fifty miles an hour, and land travel at the rate of a hundred, and even cab and omnibus journeys of thirty or forty miles, were shown to be possible, becomes more apparent.

At the first sight it might appear as though the result of the new developments was simply to increase the number of giant cities in the world by rendering them possible in regions where they had hitherto been impossible--concentrating the trade of vast areas in a manner that had hitherto been entirely characteristic of navigable waters. It might seem as though the state of affairs in China, in which population has been concentrated about densely-congested "million-cities," with pauper masses, public charities, and a crowded struggle for existence, for many hundreds of years, was merely to be extended over the whole world. We have heard so much of the "problem of our great cities"; we have the impressive statistics of their growth; the belief in the inevitableness

of yet denser and more multitudinous agglomerations in the future is so widely diffused, that at first sight it will be thought that no other motive than a wish to startle can dictate the proposition that not only will many of these railway-begotten "giant cities" reach their maximum in the commencing century, but that in all probability they, and not only they, but their water-born prototypes in the East also, are destined to such a process of dissection and diffusion as to amount almost to obliteration, so far, at least, as the blot on the map goes, within a measurable further space of years.

In advancing this proposition, the present writer is disagreeably aware that in this matter he has expressed views entirely opposed to those he now propounds; and in setting forth the following body of considerations he tells the story of his own disillusionment. At the outset he took for granted--and, very naturally, he wishes to imagine that a great number of other people do also take for granted--that the future of London, for example, is largely to be got as the answer to a sort of rule-of-three sum. If in one hundred years the population of London has been multiplied by seven, then in two hundred years--! And one proceeds to pack the answer in gigantic tenement houses, looming upon colossal roofed streets, provide it with moving ways (the only available transit appliances suited to such dense multitudes), and develop its manners and morals in accordance with the laws that will always prevail amidst over-crowded humanity so long as humanity endures. The picture of this swarming concentrated humanity has some effective possibilities, but, unhappily, if, instead of that obvious rule-of-three

sum, one resorts to an analysis of operating causes, its plausibility crumbles away, and it gives place to an altogether different forecast--a forecast, indeed, that is in almost violent contrast to the first anticipation. It is much more probable that these coming cities will not be, in the old sense, cities at all; they will present a new and entirely different phase of human distribution.

The determining factor in the appearance of great cities in the past, and, indeed, up to the present day, has been the meeting of two or more transit lines, the confluence of two or more streams of trade, and easy communication. The final limit to the size and importance of the great city has been the commercial "sphere of influence" commanded by that city, the capacity of the alluvial basin of its commerce, so to speak, the volume of its river of trade. About the meeting point so determined the population so determined has grouped itself--and this is the point I overlooked in those previous vaticinations--in accordance with laws that are also considerations of transit.

The economic centre of the city is formed, of course, by the wharves and landing places--and in the case of railway-fed cities by the termini--where passengers land and where goods are landed, stored, and distributed. Both the administrative and business community, traders, employers, clerks, and so forth, must be within a convenient access of this centre; and the families, servants, tradesmen, amusement purveyors dependent on these again must also come within a maximum distance. At a certain stage in town growth the pressure on the more central area would

become too great for habitual family life there, and an office region would differentiate from an outer region of homes. Beyond these two zones, again, those whose connection with the great city was merely intermittent would constitute a system of suburban houses and areas. But the grouping of these, also, would be determined finally by the convenience of access to the dominant centre. That secondary centres, literary, social, political, or military, may arise about the initial trade centre, complicates the application but does not alter the principle here stated. They must all be within striking distance. The day of twenty-four hours is an inexorable human condition, and up to the present time all intercourse and business has been broken into spells of definite duration by intervening nights. Moreover, almost all effective intercourse has involved personal presence at the point where intercourse occurs. The possibility, therefore, of going and coming and doing that day's work has hitherto fixed the extreme limits to which a city could grow, and has exacted a compactness which has always been very undesirable and which is now for the first time in the world's history no longer imperative.

So far as we can judge without a close and uncongenial scrutiny of statistics, that daily journey, that has governed and still to a very considerable extent governs the growth of cities, has had, and probably always will have, a maximum limit of two hours, one hour each way from sleeping place to council chamber, counter, workroom, or office stool. And taking this assumption as sound, we can state precisely the maximum area of various types of town. A pedestrian agglomeration such as we

find in China, and such as most of the European towns probably were before the nineteenth century, would be swept entirely by a radius of four miles about the business quarter and industrial centre; and, under these circumstances, where the area of the feeding regions has been very large the massing of human beings has probably reached its extreme limit.[16] Of course, in the case of a navigable river, for example, the commercial centre might be elongated into a line and the circle of the city modified into an ellipse with a long diameter considerably exceeding eight miles, as, for example, in the case of Hankow.

If, now, horseflesh is brought into the problem, an outer radius of six or eight miles from the centre will define a larger area in which the carriage folk, the hackney users, the omnibus customers, and their domestics and domestic camp followers may live and still be members of the city. Towards that limit London was already probably moving at the accession of Queen Victoria, and it was clearly the absolute limit of urban growth--until locomotive mechanisms capable of more than eight miles an hour could be constructed.

And then there came suddenly the railway and the steamship, the former opening with extraordinary abruptness a series of vast through-routes for trade, the latter enormously increasing the security and economy of the traffic on the old water routes. For a time neither of these inventions was applied to the needs of intra-urban transit at all. For a time they were purely centripetal forces. They worked simply to increase the general volume of trade, to increase, that is, the pressure of

population upon the urban centres. As a consequence the social history of the middle and later thirds of the nineteenth century, not simply in England but all over the civilized world, is the history of a gigantic rush of population into the magic radius of--for most people--four miles, to suffer there physical and moral disaster less acute but, finally, far more appalling to the imagination than any famine or pestilence that ever swept the world. Well has Mr. George Gissing named nineteenth-century London in one of his great novels the "Whirlpool," the very figure for the nineteenth-century Great City, attractive, tumultuous, and spinning down to death.

But, indeed, these great cities are no permanent maëlstroms. These new forces, at present still so potently centripetal in their influence, bring with them, nevertheless, the distinct promise of a centrifugal application that may be finally equal to the complete reduction of all our present congestions. The limit of the pre-railway city was the limit of man and horse. But already that limit has been exceeded, and each day brings us nearer to the time when it will be thrust outward in every direction with an effect of enormous relief.

So far the only additions to the foot and horse of the old dispensation that have actually come into operation, are the suburban railways, which render possible an average door to office hour's journey of ten or a dozen miles--further only in the case of some specially favoured localities. The star-shaped contour of the modern great city, thrusting out arms along every available railway line, knotted arms of which every

knot marks a station, testify sufficiently to the relief of pressure thus afforded. Great Towns before this century presented rounded contours and grew as a puff-ball swells; the modern Great City looks like something that has burst an intolerable envelope and splashed. But, as our previous paper has sought to make clear, these suburban railways are the mere first rough expedient of far more convenient and rapid developments.

We are--as the Census Returns for 1901 quite clearly show--in the early phase of a great development of centrifugal possibilities. And since it has been shown that a city of pedestrians is inexorably limited by a radius of about four miles, and that a horse-using city may grow out to seven or eight, it follows that the available area of a city which can offer a cheap suburban journey of thirty miles an hour is a circle with a radius of thirty miles. And is it too much, therefore, in view of all that has been adduced in this and the previous paper, to expect that the available area for even the common daily toilers of the great city of the year 2000, or earlier, will have a radius very much larger even than that? Now, a circle with a radius of thirty miles gives an area of over 2800 square miles, which is almost a quarter that of Belgium. But thirty miles is only a very moderate estimate of speed, and the reader of the former paper will agree, I think, that the available area for the social equivalent of the favoured season-ticket holders of to-day will have a radius of over one hundred miles, and be almost equal to the area of Ireland.[17] The radius that will sweep the area available for such as now live in the outer suburbs will include a still vaster area.

Indeed, it is not too much to say that the London citizen of the year 2000 A.D. may have a choice of nearly all England and Wales south of Nottingham and east of Exeter as his suburb, and that the vast stretch of country from Washington to Albany will be all of it "available" to the active citizen of New York and Philadelphia before that date.

This does not for a moment imply that cities of the density of our existing great cities will spread to these limits. Even if we were to suppose the increase of the populations of the great cities to go on at its present rate, this enormous extension of available area would still mean a great possibility of diffusion. But though most great cities are probably still very far from their maxima, though the network of feeding railways has still to spread over Africa and China, and though huge areas are still imperfectly productive for want of a cultivating population, yet it is well to remember that for each great city, quite irrespective of its available spaces, a maximum of population is fixed. Each great city is sustained finally by the trade and production of a certain proportion of the world's surface--by the area it commands commercially. The great city cannot grow, except as a result of some quite morbid and transitory process--to be cured at last by famine and disorder--beyond the limit the commercial capacity of that commanded area prescribes. Long before the population of this city, with its inner circle a third of the area of Belgium, rose towards the old-fashioned city density, this restriction would come in. Even if we allowed for considerable increase in the production of food stuffs in the future, it still remains inevitable that the increase of each city in the world

must come at last upon arrest.

Yet, though one may find reasons for anticipating that this city will in the end overtake and surpass that one and such-like relative prophesying, it is difficult to find any data from which to infer the absolute numerical limits of these various diffused cities. Or perhaps it is more seemly to admit that no such data have occurred to the writer. So far as London, St. Petersburg, and Berlin go, it seems fairly safe to assume that they will go well over twenty millions; and that New York, Philadelphia, and Chicago will probably, and Hankow almost certainly, reach forty millions. Yet even forty millions over thirty-one thousand square miles of territory is, in comparison with four millions over fifty square miles, a highly diffused population.

How far will that possible diffusion accomplish itself? Let us first of all consider the case of those classes that will be free to exercise a choice in the matter, and we shall then be in a better position to consider those more numerous classes whose general circumstances are practically dictated to them. What will be the forces acting upon the prosperous household, the household with a working head and four hundred a year and upwards to live upon, in the days to come? Will the resultant of these forces be, as a rule, centripetal or centrifugal? Will such householders in the greater London of 2000 A.D. still cluster for the most part, as they do to-day, in a group of suburbs as close to London as is compatible with a certain fashionable maximum of garden space and air; or will they leave the ripened gardens and the no longer brilliant

villas of Surbiton and Norwood, Tooting and Beckenham, to other and less independent people? First, let us weigh the centrifugal attractions.

The first of these is what is known as the passion for nature, that passion for hillside, wind, and sea that is evident in so many people nowadays, either frankly expressed or disguising itself as a passion for golfing, fishing, hunting, yachting, or cycling; and, secondly, there is the allied charm of cultivation, and especially of gardening, a charm that is partly also the love of dominion, perhaps, and partly a personal love for the beauty of trees and flowers and natural things. Through that we come to a third factor, that craving--strongest, perhaps, in those Low German peoples, who are now ascendant throughout the world--for a little private imperium such as a house or cottage "in its own grounds" affords; and from that we pass on to the intense desire so many women feel--and just the women, too, who will mother the future--their almost instinctive demand, indeed, for a household, a separate sacred and distinctive household, built and ordered after their own hearts, such as in its fulness only the country-side permits. Add to these things the healthfulness of the country for young children, and the wholesome isolation that is possible from much that irritates, stimulates prematurely, and corrupts in crowded centres, and the chief positive centrifugal inducements are stated, inducements that no progress of inventions, at any rate, can ever seriously weaken. What now are the centripetal forces against which these inducements contend?

In the first place, there are a group of forces that will diminish in

strength. There is at present the greater convenience of "shopping" within a short radius of the centre of the great city, a very important consideration indeed to many wives and mothers. All the inner and many of the outer suburbs of London obtain an enormous proportion of the ordinary household goods from half a dozen huge furniture, grocery, and drapery firms, each of which has been enabled by the dearness and inefficiency of the parcels distribution of the post-office and railways to elaborate a now very efficient private system of taking orders and delivering goods. Collectively these great businesses have been able to establish a sort of monopoly of suburban trade, to overwhelm the small suburban general tradesman (a fate that was inevitable for him in some way or other), and--which is a positive world-wide misfortune--to overwhelm also many highly specialized shops and dealers of the central district. Suburban people nowadays get their wine and their novels, their clothes and their amusements, their furniture and their food, from some one vast indiscriminate shop or "store" full of respectable mediocre goods, as excellent a thing for housekeeping as it is disastrous to taste and individuality.[18] But it is doubtful if the delivery organization of these great stores is any more permanent than the token coinage of the tradespeople of the last century. Just as it was with that interesting development, so now it is with parcels distribution: private enterprise supplies in a partial manner a public need, and with the organization of a public parcels and goods delivery on cheap and sane lines in the place of our present complex, stupid, confusing, untrustworthy, and fantastically costly chaos of post-office, railways, and carriers, it is quite conceivable that Messrs. Omnium will

give place again to specialized shops.

It must always be remembered how timid, tentative, and dear the postal and telephone services of even the most civilized countries still are, and how inexorably the needs of revenue, public profit, and convenience fight in these departments against the tradition of official leisure and dignity. There is no reason now, except that the thing is not yet properly organized, why a telephone call from any point in such a small country as England to any other should cost much more than a postcard. There is no reason now, save railway rivalries and retail ideas--obstacles some able and active man is certain to sweep away sooner or later--why the post-office should not deliver parcels anywhere within a radius of a hundred miles in a few hours at a penny or less for a pound and a little over,[19] put our newspapers in our letter-boxes direct from the printing-office, and, in fact, hand in nearly every constant need of the civilized household, except possibly butcher's meat, coals, green-grocery, and drink. And since there is no reason, but quite removable obstacles, to prevent this development of the post-office, I imagine it will be doing all these things within the next half-century. When it is, this particular centripetal pull, at any rate, will have altogether ceased to operate.

A second important centripetal consideration at present is the desirability of access to good schools and to the doctor. To leave the great centres is either to abandon one's children, or to buy air for them at the cost of educational disadvantages. But access, be it noted,

is another word for transit. It is doubtful if these two needs will so much keep people close to the great city centres as draw them together about secondary centres. New centres they may be--compare Hindhead, for example--in many cases; but also, it may be, in many cases the more healthy and picturesque of the existing small towns will develop a new life. Already, in the case of the London area, such once practically autonomous places as Guildford, Tunbridge Wells, and Godalming have become economically the centres of lax suburbs, and the same fate may very probably overtake, for example, Shrewsbury, Stratford, and Exeter, and remoter and yet remoter townships. Indeed, for all that this particular centripetal force can do, the confluent "residential suburbs" of London, of the great Lancashire-Yorkshire city, and of the Scotch city, may quite conceivably replace the summer lodging-house watering-places of to-day, and extend themselves right round the coast of Great Britain, before the end of the next century, and every open space of mountain and heather be dotted--not too thickly--with clumps of prosperous houses about school, doctor, engineers, book and provision shops.

A third centripetal force will not be set aside so easily. The direct antagonist it is to that love of nature that drives people out to moor and mountain. One may call it the love of the crowd; and closely allied to it is that love of the theatre which holds so many people in bondage to the Strand. Charles Lamb was the Richard Jefferies of this group of tendencies, and the current disposition to exaggerate the opposition force, especially among English-speaking peoples, should not bind us to

the reality of their strength. Moreover, interweaving with these influences that draw people together are other more egotistical and intenser motives, ardent in youth and by no means--to judge by the Folkestone Leas--extinct in age, the love of dress, the love of the crush, the hot passion for the promenade. Here, no doubt, what one may speak of loosely as "racial" characteristics count for much. The common actor and actress of all nationalities, the Neapolitan, the modern Roman, the Parisian, the Hindoo, I am told, and that new and interesting type, the rich and liberated Jew emerging from his Ghetto and free now absolutely to show what stuff he is made of, flame out most gloriously in this direction. To a certain extent this group of tendencies may lead to the formation of new secondary centres within the "available" area, theatrical and musical centres--centres of extreme Fashion and Selectness, centres of smartness and opulent display--but it is probable that for the large number of people throughout the world who cannot afford to maintain households in duplicate these will be for many years yet strictly centripetal forces, and will keep them within the radius marked by whatever will be the future equivalent in length of, say, the present two-shilling cab ride in London.

And, after all, for all such "shopping" as one cannot do by telephone or postcard, it will still be natural for the shops to be gathered together in some central place. And "shopping" needs refreshment, and may culminate in relaxation. So that Bond Street and Regent Street, the Boulevard des Capuchins, the Corso, and Broadway will still be brilliant and crowded for many years for all the diffusion that is here

forecast--all the more brilliant and crowded, perhaps, for the lack of a thronging horse traffic down their central ways. But the very fact that the old nucleus is still to be the best place for all who trade in a concourse of people, for novelty shops and art shops, and theatres and business buildings, by keeping up the central ground values will operate against residence there and shift the "masses" outwardly.

And once people have been driven into cab, train, or omnibus, the only reason why they should get out to a residence here rather than there is the necessity of saving time, and such a violent upward gradient of fares as will quite outbalance the downward gradient of ground values. We have, however, already forecast a swift, varied, and inevitably competitive suburban traffic. And so, though the centre will probably still remain the centre and "Town," it will be essentially a bazaar, a great gallery of shops and places of concourse and rendezvous, a pedestrian place, its pathways reinforced by lifts and moving platforms, and shielded from the weather, and altogether a very spacious, brilliant, and entertaining agglomeration.

Enough now has been said to determine the general nature of the expansion of the great cities in the future, so far as the more prosperous classes are concerned. It will not be a regular diffusion like the diffusion of a gas, but a process of throwing out the "homes," and of segregating various types of people. The omens seem to point pretty unmistakably to a wide and quite unprecedented diversity in the various suburban townships and suburban districts. Of that aspect of

the matter a later paper must treat. It is evident that from the outset racial and national characteristics will tell in this diffusion. We are getting near the end of the great Democratic, Wholesale, or Homogeneous phase in the world's history. The sport-loving Englishman, the sociable Frenchman, the vehement American will each diffuse his own great city in his own way.

And now, how will the increase in the facilities of communication we have assumed affect the condition of those whose circumstances are more largely dictated by economic forces? The mere diffusion of a large proportion of the prosperous and relatively free, and the multiplication of various types of road and mechanical traction, means, of course, that in this way alone a perceptible diffusion of the less independent classes will occur. To the subsidiary centres will be drawn doctor and schoolmaster, and various dealers in fresh provisions, baker, grocer, butcher; or if they are already established there they will flourish more and more, and about them the convenient home of the future, with its numerous electrical and mechanical appliances, and the various bicycles, motor-cars, photographic and phonographic apparatus that will be included in its equipment will gather a population of repairers, "accessory" dealers and working engineers, a growing class which from its necessary intelligence and numbers will play a very conspicuous part in the social development of the twentieth century. The much more elaborate post-office and telephone services will also bring intelligent ingredients to these suburban nuclei, these restorations of the old villages and country towns. And the sons of the cottager within the

affected area will develop into the skilled vegetable or flower gardeners, the skilled ostler--with some veterinary science--and so forth, for whom also there will evidently be work and a living. And dotted at every convenient position along the new roads, availing themselves no doubt whenever possible of the picturesque inns that the old coaching days have left us, will be wayside restaurants and tea houses, and motor and cycle stores and repair places. So much diffusion is practically inevitable.

In addition, as we have already intimated, many Londoners in the future may abandon the city office altogether, preferring to do their business in more agreeable surroundings. Such a business as book publishing, for example, has no unbreakable bonds to keep it in the region of high rent and congested streets. The days when the financial fortunes of books depended upon the colloquial support of influential people in a small Society are past; neither publishers nor authors as a class have any relation to Society at all, and actual access to newspaper offices is necessary only to the ranker forms of literary imposture. That personal intercourse between publishers and the miscellaneous race of authors which once justified the central position has, I am told, long since ceased. And the withdrawing publishers may very well take with them the printers and binders, and attract about them their illustrators and designers.... So, as a typical instance, one--now urban--trade may detach itself.

Publishing is, however, only one of the many similar trades equally

profitable and equally likely to move outward to secondary centres, with the development and cheapening of transit. It is all a question of transit. Limitation of transit contracts the city, facilitation expands and disperses it. All this case for diffusion so far is built up entirely on the hypothesis we attempted to establish in the first paper, that transit of persons and goods alike is to become easier, swifter, and altogether better organized than it is at present.

The telephone will almost certainly prove a very potent auxiliary indeed to the forces making for diffusion. At present that convenience is still needlessly expensive in Great Britain, and a scandalously stupid business conflict between telephone company and post-office delays, complicates, and makes costly and exasperating all trunk communications; but even under these disadvantages the thing is becoming a factor in the life of ordinary villadom. Consider all that lies within its possibilities. Take first the domestic and social side; almost all the labour of ordinary shopping can be avoided--goods nowadays can be ordered and sent either as sold outright, or on approval, to any place within a hundred miles of London, and in one day they can be examined, discussed, and returned--at any rate, in theory. The mistress of the house has all her local tradesmen, all the great London shops, the circulating library, the theatre box-office, the post-office and cab-rank, the nurses' institute and the doctor, within reach of her hand. The instrument we may confidently expect to improve, but even now speech is perfectly clear and distinct over several hundred miles of wire. Appointments and invitations can be made; and at a cost varying

from a penny to two shillings any one within two hundred miles of home may speak day or night into the ear of his or her household. Were it not for that unmitigated public nuisance, the practical control of our post-office by non-dismissable Civil servants, appointed so young as to be entirely ignorant of the unofficial world, it would be possible now to send urgent messages at any hour of the day or night to any part of the world; and even our sacred institution of the Civil Service can scarcely prevent this desirable consummation for many years more. The business man may then sit at home in his library and bargain, discuss, promise, hint, threaten, tell such lies as he dare not write, and, in fact, do everything that once demanded a personal encounter. Already for a great number of businesses it is no longer necessary that the office should be in London, and only habit, tradition, and minor considerations keep it there. With the steady cheapening and the steady increase in efficiency of postal and telephonic facilities, and of goods transit, it seems only reasonable to anticipate the need for that expensive office and the irksome daily journey will steadily decline. In other words, what will still be economically the "city," as distinguished from the "agricultural" population, will probably be free to extend, in the case of all the prosperous classes not tied to large establishments in need of personal supervision, far beyond the extreme limits of the daily hour journey.

But the diffusion of the prosperous, independent, and managing classes involves in itself a very considerable diffusion of the purely "working" classes also. Their centres of occupation will be distributed, and their

freedom to live at some little distance from their work will be increased. Whether this will mean dotting the country with dull, ugly little streets, slum villages like Buckfastleigh in Devon, for example, or whether it may result in entirely different and novel aspects, is a point for which at present we are not ready. But it bears upon the question that ugliness and squalor upon the main road will appeal to the more prosperous for remedy with far more vigour than when they are stowed compactly in a slum.

Enough has been said to demonstrate that old "town" and "city" will be, in truth, terms as obsolete as "mail coach." For these new areas that will grow out of them we want a term, and the administrative "urban district" presents itself with a convenient air of suggestion. We may for our present purposes call these coming town provinces "urban regions." Practically, by a process of confluence, the whole of Great Britain south of the Highlands seems destined to become such an urban region, laced all together not only by railway and telegraph, but by novel roads such as we forecast in the former chapter, and by a dense network of telephones, parcels delivery tubes, and the like nervous and arterial connections.

It will certainly be a curious and varied region, far less monotonous than our present English world, still in its thinner regions, at any rate, wooded, perhaps rather more abundantly wooded, breaking continually into park and garden, and with everywhere a scattering of houses. These will not, as a rule, I should fancy, follow the fashion of

the vulgar ready-built villas of the existing suburb, because the freedom people will be able to exercise in the choice of a site will rob the "building estate" promoter of his local advantage; in many cases the houses may very probably be personal homes, built for themselves as much as the Tudor manor-houses were, and even, in some cases, as æsthetically right. Each district, I am inclined to think, will develop its own differences of type and style. As one travels through the urban region, one will traverse open, breezy, "horsey" suburbs, smart white gates and palings everywhere, good turf, a Grand Stand shining pleasantly; gardening districts all set with gables and roses, holly hedges, and emerald lawns; pleasant homes among heathery moorlands and golf links, and river districts with gaily painted boat-houses peeping from the osiers. Then presently a gathering of houses closer together, and a promenade and a whiff of band and dresses, and then, perhaps, a little island of agriculture, hops, or strawberry gardens, fields of grey-plumed artichokes, white-painted orchard, or brightly neat poultry farm. Through the varied country the new wide roads will run, here cutting through a crest and there running like some colossal aqueduct across a valley, swarming always with a multitudinous traffic of bright, swift (and not necessarily ugly) mechanisms; and everywhere amidst the fields and trees linking wires will stretch from pole to pole. Ever and again there will appear a cluster of cottages--cottages into which we shall presently look more closely--about some works or workings, works, it may be, with the smoky chimney of to-day replaced by a gaily painted windwheel or waterwheel to gather and store the force for the machinery; and ever and again will come a little town, with its cherished ancient

church or cathedral, its school buildings and museums, its railway-station, perhaps its fire-station, its inns and restaurants, and with all the wires of the countryside converging to its offices. All that is pleasant and fair of our present countryside may conceivably still be there among the other things. There is no reason why the essential charm of the country should disappear; the new roads will not supersede the present high roads, which will still be necessary for horses and subsidiary traffic; and the lanes and hedges, the field paths and wild flowers, will still have their ample justification. A certain lack of solitude there may be perhaps, and--

Will conspicuous advertisements play any part in the landscape?...

But I find my pen is running ahead, an imagination prone to realistic constructions is struggling to paint a picture altogether prematurely. There is very much to be weighed and decided before we can get from our present generalization to the style of architecture these houses will show, and to the power and nature of the public taste. We have laid down now the broad lines of road, railway, and sea transit in the coming century, and we have got this general prophecy of "urban regions" established, and for the present that much must suffice.

And as for the world beyond our urban regions? The same line of reasoning that leads to the expectation that the city will diffuse itself until it has taken up considerable areas and many of the characteristics, the greenness, the fresh air, of what is now country,

leads us to suppose also that the country will take to itself many of the qualities of the city. The old antithesis will indeed cease, the boundary lines will altogether disappear; it will become, indeed, merely a question of more or less populous. There will be horticulture and agriculture going on within the "urban regions," and "urbanity" without them. Everywhere, indeed, over the land of the globe between the frozen circles, the railway and the new roads will spread, the net-work of communication wires and safe and convenient ways. To receive the daily paper a few hours late, to wait a day or so for goods one has ordered, will be the extreme measure of rusticity save in a few remote islands and inaccessible places. The character of the meshes in that wider network of roads that will be the country, as distinguished from the urban district, will vary with the soil, the climate and the tenure of the land--will vary, too, with the racial and national differences. But throughout all that follows, this mere relativity of the new sort of town to the new sort of country over which the new sorts of people we are immediately to consider will be scattered, must be borne in mind.

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[At the risk of insistence, I must repeat that, so far, I have been studiously taking no account of the fact that there is such a thing as a boundary line or a foreigner in the world. It will be far the best thing to continue to do this until we can get out all that will probably happen universally or generally, and in particular the probable changes in social forces, social apparatus and internal political methods. We

shall then come to the discussion of language, nationality and international conflicts, equipped with such an array of probabilities and possibilities as will enable us to guess at these special issues with an appearance of far more precision than would be the case if we considered them now.]

FOOTNOTES:

[13] It is true that many scholars estimate a high-water mark for the Roman population in excess of two millions; and one daring authority, by throwing out suburbs ad libitum into the Campagna, suburbs of which no trace remains, has raised the two to ten. The Colosseum could, no doubt, seat over 80,000 spectators; the circuit of the bench frontage of the Circus Maximus was very nearly a mile in length, and the Romans of Imperial times certainly used ten times as much water as the modern Romans. But, on the other hand, habits change, and Rome as it is defined by lines drawn at the times of its greatest ascendancy--the city, that is, enclosed by the walls of Aurelian and including all the regiones of Augustus, an enclosure from which there could have been no reason for excluding half or more of its population--could have scarcely contained a million. It would have packed very comfortably within the circle of the Grands Boulevards of Paris--the Paris, that is, of Louis XIV., with a population of 560,000; and the Rome of to-day, were the houses that spread so densely over the once vacant Campus Martius distributed in the now deserted spaces in the south and east, and the Vatican suburb replaced within the ancient walls, would quite fill the ancient limits,

in spite of the fact that the population is under 500,000. But these are incidental doubts on a very authoritative opinion, and, whatever their value, they do not greatly affect the significance of these new great cities, which have arisen all over the world, as if by the operation of a natural law, as the railways have developed.

[14] It will be plain that such towns must have clearly defined limits of population, dependant finally on the minimum yearly produce of the district they control. If ever they rise above that limit the natural checks of famine, and of pestilence following enfeeblement, will come into operation, and they will always be kept near this limit by the natural tendency of humanity to increase. The limit would rise with increasing public intelligence, and the organization of the towns would become more definite.

[15] I owe the fertilizing suggestion of this general principle to a paper by Grant Allen that I read long ago in Longman's Magazine.

[16] It is worth remarking that in 1801 the density of population in the City of London was half as dense again as that of any district, even of the densest "slum" districts, to-day.

[17] Be it noted that the phrase "available area" is used, and various other modifying considerations altogether waived for the present.

[18] Their temporary suppression of the specialist is indeed carried to

such an extent that one may see even such things as bronze ornaments and personal jewellery listed in Messrs. Omnium's list, and stored in list designs and pattern; and their assistants will inform you that their brooch, No. 175, is now "very much worn," without either blush or smile.

[19] The present system of charging parcels by the pound, when goods are sold by the pound, and so getting a miserly profit in the packing, is surely one of the absurdest disregards of the obvious it is possible to imagine.