Geography and statecraft

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To cite this article: the Right Hon. Viscount Milner Gold Medallist of the Royal Scottish Geographical Society P.C., G.C.B., G.C.M.G. (1907) Geography and statecraft , Scottish Geographical Magazine, 23:12, 617-627, DOI: [10.1080/00369220708733801](https://doi.org/10.1080/00369220708733801)

To link to this article: <http://dx.doi.org/10.1080/00369220708733801>

Published online: 27 Feb 2008.

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THE SCOTTISH GEOGRAPHICAL MAGAZINE.

GEOGRAPHY AND STATECRAFT.¹

By the Right Hon. Viscount MILNER, P.C., G.C.B., G.C.M.G.,
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THERE is one respect certainly—no doubt there are many others, but they are less material to the present point—in which I am at a great disadvantage compared with the distinguished men who have on previous occasions delivered this Inaugural Address. My predecessors have all been men who, either by virtue of their scientific eminence or of their practical achievements as explorers, of the earth or air, might justly lay claim to the title of Masters in Geography. I can advance no such claim; and, while I am deeply sensible of the honour of being permitted to address this learned society, I am a little frightened at my own boldness in availing myself of the opportunity which your extreme indulgence has afforded me.

My excuse must be that, if I have no right to call myself a geographer, I am at least a firm believer in the value of geographical studies, and in their educational as well as their practical value. And so I venture to offer myself as a witness on the side of your science in the controversy, which is still going on, as to its right to a place among the recognised branches of the higher learning. If that question were to be submitted to a jury of men whose lives had been mainly devoted to affairs of State, I should have no doubt as to the verdict. I do not say that the opinion of men of this class should be alone decisive, but it is at least of some value. And I am confident that there are very few of them who would not agree with me in assigning to geography, as now pursued and taught, a high place among the studies which go to make up what the Germans

¹ The Inaugural Address delivered before the Society in Edinburgh on November 13, 1907.

call *Staats-wissenschaft*, a term for which I know no exact English equivalent, but which we may perhaps translate into "Political Science" or "the Political Sciences."

Not that I have any wish to insist on including geography among the political or moral sciences as distinct from the physical—if you will forgive my using these somewhat clumsy and inadequate but still necessary labels. Indeed it is one of the strong points about geography that it is not easy to classify in this fashion. It possesses, as has been truly said by one of its votaries, a synthetic value, or, to put it in simpler language, it forms an important link in the great chain of knowledge, and constitutes a meeting-point of the moral and physical sciences. It is one of the corner-pillars, if I may so express myself, of the Temple of Knowledge. You have only to think how closely it touches geology, and for the matter of that, botany and zoology also, on the one side, and history on the other. If I confine myself to-night to one of its aspects, I must not be thought to ignore or undervalue the others.

So much to prevent misunderstanding. And now only one more prefatory observation. The claim which I think geography can confidently advance to-day to an honourable and important place among the sciences could perhaps not have been advanced with anything like the same force one hundred or even fifty years ago. For the right of any study to such a place depends, I take it, on two things: the importance of its subject-matter, and the manner in which the study is conducted. Now as to the importance of the subject-matter of geography there could never be any dispute. But its methods were not always calculated to command equal respect. When I think of the maps, the text-books, and, worse still, the geographical lessons of my own childhood, I recall things to which the term "scientific" could by no legitimate stretch of language have been applied. Great indeed has been the progress in the methods of geographical study during my own lifetime, though no doubt the beginning of improvement dates further back. For something like a century a series of eminent men, from Humboldt onwards, men imbued with the highest scientific ideals, have been busy interpreting and systematising the ever-increasing mass of geographical knowledge. If our own country has been especially rich in great explorers, other nations, and above all the Germans, have helped to raise the status of geography by a philosophic treatment of the new as well as the old material. And it cannot now be long before geography obtains on all hands that full recognition as a science to which its modern developments so amply entitle it.

But I am not going to attempt to trace the history of those developments to-night. My humbler task is to try and illustrate the value of geographical knowledge, and of the geographical habit of mind, in the sphere of government and administration. We have had quite recently a brilliant example of what that knowledge and that habit of mind, when wedded to history and to a practical experience of great affairs, are capable of producing, in the lecture on "Frontiers" which was delivered at Oxford some ten days ago by Lord Curzon. Or, to take another instance, which touches more nearly the field of my own personal experi-

ence, there have been few State papers published this year which rival in interest Lord Selborne's "Review of the Present Mutual Relations of the British South African Colonies." The memorandum, in which the present High Commissioner discusses those relations, is substantially a plea, and a very earnest and effective plea, for Federation. It would be quite beyond the scope of this address to examine that plea in detail, but there is one point about it to which I wish to call attention, because it is so apt an illustration of the subject we are considering to-night. The point to which I refer is the great importance which is attached, and rightly attached, in this memorandum to purely geographical considerations. The argument for Federation, strong in any case, on racial, economic, and other grounds, becomes absolutely irresistible when you consider the physical conformation of the country. I am not thinking merely of the contiguity of the several States. Two countries may be contiguous and yet sharply divided by some natural obstacle. Over and over again in history such obstacles have delayed or prevented the political union even of kindred communities. But in the case of South Africa there are no such obstacles at all. In only one instance, that of the Basutoland enclave, does the political boundary correspond to any extent with natural facts. Basutoland is bounded for more than half its circumference by formidable mountain barriers, and has in all respects a more homogeneous character than any other South African territory. But almost all other South African frontiers are, from the geographical point of view, quite negligible, indeed in some cases quite absurd. They are the result of historical accidents, not to say of political blunders; in some cases, perhaps, of justifiable political expedients, but never of physical factors of any real importance. No doubt there are striking physical contrasts between different portions of South Africa. I shall have to refer to them presently, and they greatly reinforce my argument, for no statesmanship can be successful which fails to take account of them. But they stand in no relation whatever to the political divisions. Indeed it would almost seem as if a perverse destiny had chosen to unite the disparate, as it has certainly sometimes divided the wholly similar and consanguineous, in carving out the strange amorphous lumps of territory which constitute the South African States.

In saying this I must not be regarded as contending that it is any longer possible altogether to ignore these political divisions. History has her rights as well as geography, and we cannot escape from the consequences of the accidents, the blunders or the devices of the past. "*Le mieux est l'ennemi du bien*," and in attempting at this time of day a complete fusion of the South African States, even assuming such a fusion to be desirable, statesmen might easily imperil the success of that strong movement towards closer union which, wisely directed, is bound to be productive of most beneficent results. But I will say no more on this point. To do so would be to allow myself to be drawn into a political discussion wholly alien to my present object. That object is merely to consider some of the most striking physical idiosyncrasies of South Africa, and to consider them as illustrating the necessity of constant close attention to the geographical factor on the part of statesmen.

I fear that the limits of my time will hardly allow me to do more than take a very cursory glance at those idiosyncrasies, and that my theme may suffer in intelligibility and in interest from excessive compression. But there are at least a good many of my hearers who will be able to fill up from their own knowledge some of the many important features of the landscape which I must pass by unnoticed in my breathless dash from the slopes of Table Mountain to the southern shores of Tanganyika. For that, and nothing less, is the extent of territory which has to be passed under review. I see that that distinguished traveller, Mr. E. F. Knight, in his recently published book on *Over-Sea Britain*, defines South Africa as "all Africa to the south of the Congo basin." I do not know that in a strictly geographical sense that is not rather too liberal a definition. To my mind the southern edge of the basin of the Zambesi is a better dividing line, from the point of view of physical conditions, than the southern edge of the basin of the Congo. But there can be no doubt that, politically and administratively, South Africa does at present straddle on right up to the latter point. And this, indeed, is one of the greatest drawbacks of British South Africa—its unmanageable shape, the great interminable wedge driven from south to north into the heart of the continent with such inadequate outlets to east and west. You go from latitude 34° to latitude 8° , from a climate of South European mildness to the heart of the Tropics, a distance of more than two thousand miles; but for three-fourths of the distance on one side, and for more than two-thirds on both sides, you are flanked by foreign states. Where was geography when we refused to look after Namaqualand and Damaraland, and did not think it worth while to give thirty thousand pounds for Delagoa Bay? The courage, the enterprise and the farsightedness of individual Britons have indeed done wonders to counteract the laches of national policy. Livingstone, Rhodes, John Mackenzie—to name only the foremost—have left their mark upon the political map of Africa to a far greater extent than even the ablest and most energetic officers of the British Crown. But the shouldering of national responsibilities by private citizens, however splendid as a display of human courage and energy, is not without its drawbacks. Our vast South African dominion bears in its configuration, no less than in its haphazard administrative arrangements, the traces of the unscientific spirit in which Governments have trifled with the problems which only systematic governmental action can adequately solve. The extension of British authority from the Orange River to Tanganyika has been accomplished by the most extraordinary series of makeshifts in the history of the world. Many of the resulting tangles will, no doubt, be straightened out by federation, when it comes. But, behind the question of the federation of British South Africa properly so called, complicated in itself, yet at least engaging the thoughts of all the ablest men whom the country possesses, lies the question of the future of her vast tropical annexe—not *South Africa* at all in a geographical sense, though now administratively tagged on to her—and that is a matter to which no one, whether in South Africa or in Great Britain, seems disposed to give the slightest attention. Yet for geographers it is surely full of interest.

The causes which have led to the phenomenally rapid advance of the outposts of Empire in Southern Central Africa and the consequences involved in it are so striking an illustration of the interaction of geographical and political influences that I venture to direct your attention to them for a few minutes.

The dominant physical fact about South and South-Central Africa is the great irregular tableland which constitutes so large a portion of it, and which carries the climate of the temperate zone into the heart of the tropics. The great average elevation of the country, with its vast stretches of undulating but not often mountainous high land, is the cause of most of the distinctive features of its life. Historically, economically, politically, nothing is really intelligible as long as the significance of that primary fact is not fully grasped. In South Africa men of European race thrive and multiply exceedingly in latitudes which are generally fatal or debilitating to the white man. Their splendid physique is due to the bracing air of these large expanses of lofty open country. But inasmuch as the high tableland is not the whole of South Africa, but is flanked and intersected by regions of lower altitude, which are tropical or sub-tropical not only in latitude but in climate, the white race is here inextricably intermingled with coloured races, equally prolific, equally at home in the country, which show no signs of succumbing to the European impact. Indeed in one respect the Bantu tribes, or at any rate the finest of them, have the advantage over men of European origin, for they seem to flourish alike in the lower and the higher altitudes; whereas, except in the extreme south, the white man is never at his best on the low ground. From this intermingling of alien races, ranging from the most highly civilised to the almost barbarous, have arisen social and political problems of the greatest complexity, and all South African history is woven on that woof.

But I must not be led astray by the innumerable topics of interest which the high plateau suggests. My present concern is with a single feature of it—the fact, namely, that it is most easily ascended from the southern end. Even the central and northern portions are, as a rule, more accessible from the south, despite the greater distance, than they are over much shorter distances from the east and west. For from the west, though the slopes are favourable, the intense aridity of the country makes progress difficult or impossible, and on the east there is a tremendous mountain barrier to be climbed. No doubt that barrier is not and never was impassable, and in recent times it has been crossed by no fewer than three lines of railway, the existence of which will greatly affect the course of future development. But even with the railway, and much more before the railway, the approach from the south was incomparably easier and more natural than from the east. It is like the difference between climbing a steep ladder and walking up a comparatively easy flight of steps. Add to this, the fact that the European settlers of the south had their base in a favourable climate (for only on the extreme south and south-west is the low-lying coast-belt temperate and healthy for men of white race), while the European settlers on the east had their base on a hot and humid shore. And bear in mind,

further, that the settlers of the south belonged to sturdy Teutonic races, in whom the tendency to expansion was still strong, while the settlers on the east, if they could be called settlers at all, belonged to a small nation in which, despite its glorious past, the exploring and colonising impulse was exhausted.

There you have, of course only in the broadest outline, the causes which led to the colonisation of South Africa from the south, the forward pressure of European immigration, if I may so express myself, on vertical rather than on horizontal lines. It was up the series of lofty terraces which lead from the south and south-west to the centre of the great plateau that Europe first invaded South Africa, and then spread, as it is still spreading, its colonists to right and left over the most eligible portions of it. It was a great continuous northward movement, no doubt with a considerable lilt, especially in its early stages, to the east, that is to the better watered and therefore more fertile side of the tableland, but still in its general direction a broad wave sweeping steadily towards the Polar Star. On and on, "with painful steps and slow," went the pioneers of European civilisation, until they could just discern on the far horizon the constellations which had shone over the heads of their fathers in their ancient home—strange constellations to most of them who had looked up since infancy at Achernar and Canopus and the Pointers and the Southern Cross.

At first, as I have said, in the days of the ox-waggon, the movement was very slow. It took two centuries before the most northerly outpost of continuous European settlement had reached the edge of the tropics, and even then that settlement was very thin and partial, with great bordering expanses of wilderness or of barbarism, and with long distances between the principal centres of population—all circumstances tending to estrange the settlers from the old European lands, the cradles of their race, and even from one another. But the great point is that by the middle of last century, just two hundred years after Van Riebeeck had established the first permanent settlement at the foot of Table Mountain, the invasion from the south had got a real grip of the centre of the great tableland and was twelve hundred miles on its way to the heart of Africa, while the European planters in the east had little more than a nominal hold even of the coast-land and had made no impression on the elevated interior of Africa at all.

And then came the railway, by far the most potent of modern inventions in transforming the life of mankind, potent and revolutionising everywhere, but most of all in thinly peopled and newly settled countries, and, among these, of incomparable potency in South Africa owing to the vast distances which separate its chief centres of European settlement, and to its almost total lack of navigable waterways. Great as is the influence of the iron road everywhere, and innumerable as are its effects, there is no portion, I believe, of the whole habitable globe in which its importance, compared with that of all other factors, is so great, so overshadowing, as in South Africa. But for the first twenty or thirty years railway development in South Africa, which then moved at a snail's pace compared with the tremendous rush of recent years, was busy in

linking up the coast ports with comparatively near and long-established inland places. If it followed the course of northern expansion at all, it followed it at first for a special reason, namely, in order to get at those centres of mineral wealth which happened—a most momentous fact—to be situate far inland, far to the north, right on the line of that advance of which I have been speaking. And so it came about that when, some five-and-twenty years ago, the great scramble for Africa began; when the European nations which were already in possession of long-neglected strips of the African coast woke up, and fresh European nations dashed forward to secure the yet unappropriated parts of it; when one and all, old occupants and new comers, began to push on their boundaries with might and main from every available starting-point, until they met and not infrequently collided in the centre—at this critical juncture the railway from Cape Town was already at Kimberley, upwards of five hundred miles on the way to the north, and, more important still, on the crown of the tableland, with the great gradual climb already accomplished, and hundreds upon hundreds of miles of comparatively level going in front of it. By virtue of that railway, coming from the oldest British port and passing in its whole course through settled British territory, Great Britain had a big start in the race for Southern Central Africa, just as by virtue of her occupation of Egypt she had a similar start in the race for the Northern Central regions, which contain the head-waters of the Nile.

Continuous settlement for twelve hundred miles from south to north and a railway, not indeed so far advanced as that, but still far advanced, and above all, having overcome the chief difficulty of all railways from the coast to the centre of Africa, the great climb; these were the advantages which the owners of the southern littoral possessed as compared with those of the eastern and western coasts in their converging movements towards the centre of the sub-continent. And thus British authority was pushed forward from the southern extremity of Africa up more than a third of its whole length before other Powers, advancing from the east and west, brought their frontiers together in front of it and so finally barred the road for any further advance. From Cape Town to the furthestmost point of North-Eastern Rhodesia is more than two thousand miles as the crow flies, and I need not say how many more as the traveller has to go. But the whole breadth of Africa at that point is only about seventeen hundred miles, and the distance from the borders of North-Eastern Rhodesia to the nearest point on the sea-coast is only about four hundred. No doubt it is true that this distant protruding spur of our vast South and South-Central African dominion has been approached rather from the east, by the Zambesi and Shire Valleys, than up the central plateau. But it is also true that our authority in that corner would hardly have been established, and could with difficulty be maintained, if the country between the four lakes Nyassa, Tanganyika, Bangweolo, and Mweru were not connected at its south-western angle with that huge oblong block of British Colonies and Protectorates and Spheres of Influence which now stretches from Cape Town to Katanga. And to the boundary of Katanga at any rate we have got by the direct

northward movement, though the distance thither is just twice as far that way as it is from either the eastern or the western coast.

That is the story in its simplest form. Of course in its details it is vastly more complicated. And there is one detail of such importance that even in this hasty review I must just refer to it. When the scramble for Africa began in the early eighties Great Britain, owing to past misunderstandings and mistakes, and to a policy which, among other things, ignored geography, and tried to separate the inseparable, had lost control of the more important—eastern—half of the northward march of European colonisation, and its most advanced posts were no longer on British territory. In 1882-83 the Boer Republic on our right flank had pushed far ahead of the furthest limit of British authority and was some four hundred miles nearer to the centre of Africa. And the fear was that foreign Powers, availing themselves of the split between Boer and Briton, might use the Transvaal to bar the road to the further advance of British influence and civilisation. It was under the impulse of that fear that Rhodes made the great dash, or rather the series of great dashes, to the north, which have resulted in the extraordinary elongation of the British portion of South Africa.

First came the march of the pioneers into Mashonaland in 1890 which interposed a belt of British settlement between the northern Transvaal and the Zambesi. Then followed in 1893 the Matabele War and the subjection of the whole country up to that river. These events gave us the great region now known as Southern Rhodesia. But Rhodes could not rest content with the boundary of the Zambesi. He was haunted by the thought of the rapidity with which all the vacant spaces of the world were being appropriated by one European Power or another, and he was bent on preserving as large an area as possible for his own countrymen. And so, before his death in 1902, despite failures of his own seeking and interruptions for which he was not to blame—despite the Raid and the Rinderpest, the Matabele Rebellion, and the great Boer War—he had succeeded in acquiring certain large trading and administrative rights beyond the Zambesi up to the very confines of the Congo Free State, and in inducing the British Government to throw its aegis over them. These are the countries now known as North-Western and North-Eastern Rhodesia, and, like Southern Rhodesia, virtually incorporated in the British Empire, though no doubt in a much more rudimentary stage in respect of development and administration. It had taken more than two hundred years to carry European authority from Cape Town to Kimberley. It took less than twenty to advance it from Kimberley northwards to a distance twice as great—a colossal achievement which we owe to the energy, the daring, and the geographical imagination of a single man.

And all the time the railway was being pushed forward with unexampled speed, as it has been since his death—not much less than a hundred miles a year on an average. Indeed, without the railway following close behind, anything like effective occupation would have been impossible. It is the fashion just now to decry the rapid extension

of railways through these thinly peopled and as yet unproductive regions, and to condemn them if they do not pay in a commercial sense. And no doubt the railways of Rhodesia, though they have been constructed with remarkable economy, will be some time before they can stand that test. But then it is an absurd test to apply to railways in a country where there are no other means of communication, where they are the only roads, the indispensable conditions alike of economic progress and of civilised government, where they are creating the development which it is their ultimate destiny to serve. Were the Roman roads expected to pay in a commercial sense? If railways were never to be built into the wilderness, the wilderness would remain what it was for all the centuries before railways were invented to conquer it.

And now perhaps enough has been said to enable us to make a fair estimate of this latest stage in the European invasion of Africa from the south, to realise the causes of its feverish haste, the boldness of its conception, and at the same time its inevitable defects. It has been a movement along natural lines, but unduly accelerated by accidental political causes. But for the scramble for Africa, even the restless genius of Rhodes might not have gone so fast or so far. And while it is impossible not to admire the spectacle of this private citizen—for after the end of 1895 he ceased to be even Prime Minister of the Cape—undertaking and financing a great enterprise of State, ensuring the concurrence of a reluctant Government by saving it all expense, and paying his way by a mixed appeal to the speculative instincts and the patriotic ambitions of his countrymen, it is no disparagement to him to say that this is not the best imaginable way in which an Empire can be built. He followed the only lines possible under the circumstances. He spent his life in the task. Our gratitude is due to him for the vast opportunities which he created or preserved for us. But Southern and Northern Rhodesia alike will long bear the traces of the strange expedients which had to be adopted in getting them started, and a great many problems will have to be solved before either of them can be satisfactorily fitted into the framework of South Africa or of the Empire.

On the future of Southern Rhodesia I have no intention to dwell. By however complicated a process, it is bound some day to become a part of self-governing South Africa. But its great tropical annexe presents features of different character, and sooner or later we shall have to apply Mr. Haldane's prescription and do a little thinking about them. And when we do, a strange tangle of interests, and a difficult choice of alternative courses, will come up for consideration. First of all there are native rights, and in one part of the country at least—in Barotseland—the yet surviving, if truncated, authority of a native monarch who is one of the most meritorious of his kind. Then there are the commercial and administrative rights of the Chartered Company, the real rulers of the land. But they are not absolute rulers, for the Imperial Government has, through the High Commissioner, very wide and substantial if somewhat indefinite power of control. And lastly,

there rises in the distance the vision of a Federated South Africa, which may wish to sweep away all of these, and to govern the whole region free from any interference, as Tombuland and Pondoland are governed by Cape Colony, and as Zululand is governed by Natal.

And no doubt there is much to be said for this solution, which is likely to commend itself, when the time comes, to any British Government, because it would be such a saving of trouble. But there is also much to be said against it, especially from the South African point of view. If I were a South African statesman there are certain considerations connected with the gravest of all South African problems which might give me pause. South Africa has got her own native population to digest. It is not that they are absolutely so very numerous. The country could easily carry a much larger population, not only of whites but of blacks, and would economically, at least for the present, be all the better for a greater supply of black labour. But if not absolutely very numerous, they at any rate greatly outnumber the whites, and they are increasing, to all appearance, quite as fast. Can it be to the interest of South Africa to annex to herself another great region peopled wholly by blacks, and thus permanently to increase the disproportion of the two races within her confines? It may be said that the healthy high plateau continues beyond the Zambesi, that white men will be able to make their permanent home there in appreciable numbers, and that therefore the distinctive features of South African life will be reproduced in those distant regions, and the whole country from the Southern Ocean to the Congo basin assume in time a more or less homogeneous character. For my own part, I greatly doubt the likelihood of such a result. The power of altitude to counteract the effects of latitude is an interesting question about which no man can as yet afford to speak very positively. I can imagine a Johannesburg on the Equator. I think it quite possible that there are in British East Africa considerable tracts which will carry a permanent white population. But one has yet to be satisfied that, with the exception of a few favoured spots, the same can be said of North-Western or North-Eastern Rhodesia. They seem rather to present the distinguishing features of a tropical colony or plantation, and such a colony is ever an ill-assorted yokefellow for those of the European self-governing type. Southern Rhodesia, or at any rate a certain portion of it, is already on the border-line between the two. Northern Rhodesia seems decidedly to cross that border-line. The present association of the two appears to be in the nature of a political accident or makeshift and not to be based on essentials. If that is so, it would not appear to be inevitable, it may even be thought unnatural and undesirable that, when Southern Rhodesia is drawn, as she ultimately must be, and ought to be, into the South African group of States, she should carry her northern annexe along with her.

On the other hand, there is no doubt the question of access. The region beyond the Zambesi is only accessible to us either through foreign territory on the east or through what will presently be a self-governing Dominion, like Canada, Australia, or New Zealand, on the south. There would be something anomalous in the position of a Crown Colony or

Protectorate which could not be reached directly from the sea or from some region of similar status to its own. Moreover, the railway which will ultimately traverse this country from end to end is a continuation of the great Trunk Line of South Africa. There are thus, no doubt, considerations of great weight on either side, and we have perhaps cause to be grateful that, for the time being, Rhodesia is still in the possession of the Chartered Company, and that there is no need to settle the difficult question of its future distribution and administration in a hurry. The system of extending the bounds of Empire by the agency of Chartered Companies is open to many objections. There has been much in the methods of this particular Company, especially during its earliest years, which it is impossible to regard with approval. But the British South Africa Company has at least two great claims on our gratitude. It has kept a large and valuable portion of the Dark Continent under the British flag, and it has built up, in a remarkably short space of time, an administration which, if far from perfect, is at least competent, honest, and humane. Government by means of a company is necessarily a transient form of government. But in the case which we have been considering, it is a valuable stop-gap, valuable in maintaining a tolerable condition of affairs and affording time to work out with deliberation, and with a fuller knowledge than we yet possess of all the conditions of one of the least explored of habitable lands, the best permanent arrangements for its welfare.

And now I see that, starting from certain wide general considerations, I have been led to dwell, at perhaps excessive length, on a single, limited, and remote, though not unimportant or uninteresting, problem. But I venture to hope that in my method of approaching it I may to some extent have illustrated my main proposition, which is the inextricable association of your science with the art of statesmanship, and that in any views which I have propounded or suggested, be they right or wrong, I may at least not have offended against the spirit of scientific geography.

THE STUDY OF THE WEATHER AS A BRANCH OF NATURE KNOWLEDGE.¹

By MARION I. NEWBIGIN, D.Sc. (Lond.).

(*With Illustrations.*)

IN endeavouring to suggest to you methods of studying the weather in schools as a part of nature knowledge, it may be well to begin by considering very briefly the aims which should inspire a course in nature study, for our methods will be naturally largely influenced by our aims. The object of such a course is, I take it, twofold. We want in the first

¹ A lecture delivered to a class of teachers in connection with the University of Aberdeen on May 11, and also at the Outlook Tower, Edinburgh, on October 30, 1907.