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SETTLEMENT ON THE CARIBBEAN MAINLAND

TO appreciate, on the one hand, Great Britain's centuries-old experience of the Caribbean, and on the other, her difficulty both in maintaining an adequate development of the islands and in beginning the utilization of the mainland interior, is to confront a Colonial paradox. In respect of commerce and industry as also in matters social and cultural, British Guiana and British Honduras are among the most primitive of British dependencies; yet there is no satisfactory explanation of their neglected condition save the competition of other tropical lands which, not necessarily more favoured in physical endowment, have yet the advantage of a relatively skilled indigenous or immigrant population.

As the Commonwealth frontier tends to recede from monsoonal Asia, the value, in terms of agriculture and commerce, of each remaining tropical dependency becomes ever more significant; and the prospective contribution of the Caribbean lands has recently come to be estimated with an urgency previously unknown. In the interests of the indigenous population as much as in that of its own, Great Britain cannot afford longer to allow this, or any other, region of the Commonwealth to lie neglected.

The findings of the first of two Royal Commissions on the British West Indies were delayed by the Second World War; but the report came soon afterwards¹. By intention, its geographical scope, though general, referred more particularly to Jamaica and the lesser islands, the social and economic needs of which approached a state of emergency. One vital question concerned the congestion on certain of the islands and the possibility of a planned redistribution of their populations by emigration. Conferences organised in 1944 and 1946 by the Anglo-American Caribbean Commission resolved that a study should be made of the British, Dutch and French Guianas as possible outlets for congestion; and the appointment of the second Royal Commission² implemented some of the recommendations. The instructions of the Commission were to advise whether or not migration to the mainland Colonies was possible, and to report whether those Colonies were able, without detriment, to absorb at least some part of the surplus population of the islands.

Such terms of reference necessarily demanded of the Settlement Commission particularly close investigation of both the existing resources of British Guiana and British Honduras and the extent to which they were used and capable of more extensive and intensive utilization. No Royal Commission of our time has been more hindered in its task by the paucity—or, over large areas, by the absolute lack—of scientific records; and the appreciation of men of science will be unstinted for the Commission's recommendation, both to particular Colonial administrations and to the Colonial Office, to make immediately possible certain basic surveys, without which, as preliminaries, effective calculation of the possibilities offered by the hinterlands of Guiana and Honduras cannot be expected. When it has been by no means invariable for reports on Colonial dependencies to be accompanied by more than the most elementary cartographic documents, it is a pleasure to record the greatly improved equipment of maps with which the present report is provided.

Because of widely different space relationships—it is important to recall that the two Colonies are separated by the entire length (1,800 miles) of the Caribbean—and their greatly contrasted areas, it is perhaps not altogether appropriate, on geographical grounds, to include both in one report. Moreover, in respect of history, there is little to associate them. British Honduras, the less important of the two, with only one-tenth the area of British Guiana, is rather more effectively populated, though even so a population density of 7 per square mile is wretchedly inadequate. Wide dispersal of sparse settlement is obviously the main determinant, both of frustration to past efforts towards cultural and economic betterment, and of present hopes to provide homes for the surplus population of the British West Indies.

The realistic language of the report is one of its most satisfying features; as also in the case of its predecessor—the Moyne Report—there is no desire to gloss over the frequently disconcerting evidence of the backward condition of the Colonies. It is clearly shown that there can be no question of rapid improvement in the *tempo* of economic development in these hitherto neglected lands, and that their absorption of immigrants from the crowded islands cannot exceed 100,000 (men, women and children) within the space of the next ten years, even if the organisation of the necessary transport should be assumed. To draw off from the more crowded islands during the next decade a mere 4 or 5 per cent of their total population would seem to be a modest enough project, yet the Commission is aware that the scale of operations, including the great distances to be covered and the need for careful selection of the best types of immigrants from a wide variety of islands, should lead to cautious hopes. The inevitable conclusion from study of the report is that the possibilities of transferring a sufficient number of residents to relieve congestion on the islands are not nearly so important as the problem of selecting immigrants who by physique, outlook and skill are best suited to equip those agricultural enterprises which are recommended.

The reader will find in the report a most able discussion of the climatic prospects for white settlement in this essentially tropical zone. In general, a favourable future for the health of white peoples is foretold, and the significance of this is related to the need—in order to fulfil the development plans recommended—for considerable numbers of skilled Europeans who, it is stated, are not likely to be impeded by tropical disease—granted certain safeguards. On the other hand, close settlement of Europeans is very unlikely, in the official view, except in certain specially suitable areas, of which the Rupununi Savannahs and Kanuki Mountains in Guiana and the Cayo district of Honduras are outstanding instances. But it might be added that the economic inducement to the white man, anywhere in the tropics, to remain in that zone, even for a limited time, must be made particularly attractive. The mainland of tropical America is unlikely, in my opinion, within a foreseeable future, to compete for white labour in a very limited market with certain more favoured tropical lands of higher reputation.

The most notable deficiency in the resources of the two Colonies is their inadequate mineral wealth. Normally, precious stones or metallic ores were the

earliest economic objective in most tropical dependencies before maturity brought a broadening of their commerce and industry. There can be little doubt that, as in Northern Australia, for example, geographical discouragement to the search for easily accessible resources of high value and light weight has been a main cause of present economic stagnation. Moreover, in the case of each Caribbean Colony now under review, the likely return on capital outlay in forestry and agricultural development would certainly be slow, even if the development areas were—as, in fact, they are not—accessible to both labour and markets. Given the complete absence of satisfactory communications in the hinterlands of both Colonies, the prospects for commercial agriculture are necessarily gloomy, as the Commissioners, from abundant evidence, tactfully insist. In their modest words: "If little else results from our recommendations, at least the construction of certain good roads into the interior would lift the veil and open up the substantial possibilities which, we believe, exist. Until that is done we fear that periodic inquiries into the industrial and other possibilities of the interior of the Colony will be impossible to follow up and consequently unfruitful." Although this was written with reference to British Guiana, it applies equally to British Honduras. From their own meagre resources alone, the two Colonies cannot support the expense and organisation of the preliminary surveys and preparation of the ground necessary for the new agricultural and industrial enterprises proposed. In consequence, the report is urgent on the need for the establishment of a local development corporation in each Colony. These bodies would necessarily be dependent upon the Colonial Development Corporation for the greater part of their finances, as well as for the services of expert consultants.

In view of the inadequacy of the data on geographical conditions within each Colony, it was inevitable that the Commission would prepare a statement on the characteristics of the little-known regions which make up the hinterland and form the greater part of each Colony. These geographical statements, which have been woven into the fabric of the report, have been prepared by officers well acquainted with the regional concept of geography; each Colony is analysed on a basis, not of administrative subdivisions which have little relation to geographical realities, but of approximations to 'natural regions'. Indeed, so successful is the geographical presentation that the report should become an essential text for the study of the West Indies.

Space is not available for reference to more than a small proportion of the recommendations intended for the rehabilitation of agriculture which the report presents. Only one further observation is possible here; it refers to sugar production, the industry which easily dominates the life of British Guiana. The expansion expected is indicated by a proposed annual target of 230,000 tons of sugar, or about one-third more than the output for 1946. Although it would seem reasonable to hope, by reason both of the extent of the land capable of sugar-cane cultivation and of the long tradition—from the middle of the seventeenth century onwards—of successful sugar cultivation based largely on East Indian immigrant labour, that the sugar industry would offer a big contribution to the further settlement of British Guiana, the report briefly negatives the probability of this. The reasons do not, however, seem to be adequately explained in the report; and comparison between

British Guiana and, for example, Natal, the natural endowment of which for sugar-growing is certainly no greater, makes the official view difficult to accept. The comparison here is with a much smaller territory than British Guiana and one, moreover, with strictly limited possibilities of increased sugar acreage; yet its already planted sugar area is five times greater than that of British Guiana and is much more effectively settled by East Indian immigrants of the type that the Caribbean authorities might well consider further as suitable for settlement.

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¹ West India Royal Commission Report. (Cmd. 6607.) (London: H.M. Stationery Office, 1945.) See *Nature*, 157, 254 (1946).

² Colonial Office, Report of the British Guiana and British Honduras Settlement Commission. (Cmd. 7533.) Pp. viii+360. (London: H.M. Stationery Office, 1948.) 7s. 6d. net.

ROTATION AND TERRESTRIAL MAGNETISM

IN 1923, H. A. Wilson put forward a conjecture whereby an electrically neutral, gravitating mass was supposed to be endowed with some of the properties of a charge; the phenomena of electromagnetism and gravitation, hitherto surprisingly independent, were to be related. The suggested relation was that the motion of the gravitational field of a mass should result in magnetism, just like the motion of the electric field of a charge. If the gravitational field of a mass is as strong as the electric field of a charge, then the one should be as potent in producing magnetism as the other. (Equality of strength of the fields can be defined by means of two equal masses and two equal charges.) For a rotating object this theory would predict proportionality between angular momentum and magnetic moment.

Wilson himself pointed out that this conjecture was not tenable. The rectilinear motion of a mass did not result in any measurable magnetic field, and any such effect would conflict with the well-tried principles of special relativity. It was just a surprising fact that the magnetic moment which this theory would predict for the earth was close to the measured value.

More recently, when evidence was forthcoming regarding the magnetism of some stars and of the sun, Blackett revived great interest in such considerations by suggesting that the same relation would fit remarkably well also in the case of these objects.

At a Geophysical Discussion of the Royal Astronomical Society held on February 25, the present state of such theories and their experimental and observational justification were under discussion. Prof. L. Rosenfeld was in the chair, and opened the discussion with a brief statement regarding the present state of the subject.

Dr. S. Runcorn presented much observational material. He pointed out that recent measurements of stellar magnetic fields, carried out by Babcock in the United States, are in good agreement with the suggested formula, if one accepts the statistical evidence for the rotation speed of such stars. The sun's field is now regarded as variable, but this does not necessarily point to a variable mechanism for the origin of a primary field.

The history of the earth's field has recently been investigated by the examination of ferromagnetic