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The British School of Geography

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T. W. Freeman (Great Britain)

THE BRITISH SCHOOL OF GEOGRAPHY

Here it is proposed to consider some of the main characteristics of British geography mainly from the time when it was permanently established in the oldest universities, at Oxford in 1887 and at Cambridge in 1888. There had been times long before this when geography had been taught in the universities, for as J. N. L. Baker and E. W. Gilbert have shown¹, Baldwin Norton gave lectures in Magdalen College in 1540 and 1541 and Richard Hakluyt (1552-1616), who spoke of geography as "the eye of history", gave public lectures at some date after 1574 which were the new geography of the day and apparently consisted of commentaries on old and new maps. University College, London² can claim to have appointed the first Professor of Geography in Britain in 1833, when Captain Alexander Maconochie (1787-1860) gave lectures on Arctic and Asian exploration to large audiences and endeavoured to interest students in regular mental activity. He found this as difficult as it has constantly proved to be and resigned in 1836 to become private secretary to Sir John Franklin, the new Governor of Van Deimen's Land. No suitable successor was found and the appointment lapsed. Another notable figure of the nineteenth century was William Hughes³ (1817-1876), who wrote manuals for schools and delivered a number of lectures that were published later. He was for many years Professor of Geography in King's College, London, which became part of the University and also in Queen's College, which remained a school. His published lectures show a broad conception of geography, clearly influenced by German scholars but his ideas were not worked out on an academic level. Francis Galton (1822-1911), a cousin of Charles Darwin, published in 1855 a thirty-page paper⁴ on geography that is

¹ J. N. L. Baker, *History of geography in Oxford*, [in:] *Papers by J. N. L. Baker*, Oxford 1963, pp. 119-121; E. W. Gilbert, *Richard Hakluyt and his Oxford predecessors*, [in:] *British Pioneers in Geography*, Newton Abbot 1972, pp. 30-43.

² R. G. Ward, *Captain Alexander Maconochie, R. N., K. H., 1787-1860*, [in:] "Geographical Journal", 126, 1960, pp. 459-468.

³ T. W. Freeman, *A hundred years of geography*, London 1961, 1971, pp. 39-40, 313.

⁴ F. Galton, [in:] *Cambridge essays by members of the University*, published by John W. Parker and Son, West Strand, London 1855, pp. 79-109. For a discussion of Francis Galton see T. W. Freeman, *The Geographer's Craft*, Manchester 1967, pp. 22-43.

remarkably like many that have appeared since then in its range of ideas. Galton was a man of wealth, dividing his time between sport, travel and science: he never had paid employment but was an enthusiastic supporter of various societies, including the Geographical and the Meteorological Societies based in London.

Geographical societies have a variety of aims and the Geographical Society established in 1830 with Royal patronage was primarily concerned with world exploration and mapping. At many times its presidents stated firmly that the society was not a political body, still less a governmental agency with an imperialistic policy. Many of the members were senior army or naval officers and other men of affairs who were deeply concerned about the spread of British influence through the world, and not least in the expansion of the British Empire. Imperialism was linked with the fascination of exploration and of world mapping as essential to the spread of civilisation through the darkest forests and the most frozen tundras; and the benefits that could be conferred by the spread of Christianity and of commerce were frequently stressed. From 1851 the annual meetings of the British Association for the Advancement of Science included, in Section E, papers on geography throughout the week—described by one regular patron as “an intoxicating rush”—and these consisted mainly of talks on exploration selected by the Royal Geographical Society. But this was not all, for the R.G.S. was anxious to promote education in schools and colleges and in 1869-1885 awarded medals on the results of a competitive examination taken by boys (no girls ever entered) in schools. The aim was to provide explorers of the future with a background of appropriate knowledge and was in fact part of the policy of the Society to strengthen the observational skill and academic knowledge of explorers, many of whom were more concerned with adventure than with scientific enquiry. The scheme was not particularly successful and the real advance came with the work of (Sir) John Scott Keltie (1840-1927) who spent a year touring continental Europe and produced his famous *Report* in 1886⁵.

The day of awakening appeared to be at hand. Unfortunately the Royal Geographical Society never established branches in provincial cities, but in 1884 both the Scottish Geographical Society and the Manchester Geographical Society were established. Both shared in varying degrees the concerns of the Royal Geographical Society, which could be broadly grouped under six headings—cartography, exploration, imperialism, Christian missions, commerce, education. Naturally they reflected the interests of their time and the Manchester society was particularly enterprising in providing advisory services for the cotton merchants then so prominent in the city. The Scottish society was anxious to study the homeland, then as now. In 1893 the Geographical Association was founded as an organisation primarily concerned with teaching in schools and colleges, though its first aim was to work in the historic public schools where, in spite of the failure of the Royal Geographical Society's

⁵ Published in *Supplementary Papers, Royal Geographical Society*, 1, 1886, pp. 443-594, as *Geographical Education—Report to the Council of the Royal Geographical Society*. For Keltie's assessment of later progress see his *Thirty-years progress in geographical education*, [in:] “Geographical Teacher”, 7, 1913-1914, pp. 215-225.

medals scheme, there were some promising signs of liberalisation of the curriculum. As it happened, the Geographical Association gave immense service to geographical education, especially when, from 1894 in Wales and from 1904 in England, new day grammar schools were established for pupils aged eleven to eighteen under enlightened Acts of Parliament. The Geographical Association has been singularly successful in meeting the needs of teachers of Geography at all levels of education in close association with the Universities. Study of the journals of the Royal Geographical, the Manchester and the Scottish societies, shows that their editors were watching the growth of continental European geography with interest. As yet, American geography was advancing slowly: but W. M. Davis was beginning to publish the papers that were to be so influential later. Various publishing houses engaged geographers to write handbooks, gazetteers and textbooks for schools and a number of famous map firms were flourishing, notably Bartholomew and Johnston in Edinburgh. Keltie's report showed convincingly that Britain was far behind continental Europe, in effect France and Germany, in geographical education and the first among many needs was to establish effective teaching in the universities.

It was possible to make a living as a geographer outside the universities and schools in the nineteenth century, notably with map and book publishers. George Goudie Chisholm (1850-1930) held no full time university appointment until he became the first Lecturer in Geography at Edinburgh University in 1908 and Hugh Robert Mill (1861-1950) had a varied career, as his fascinating autobiographical volume shows, writing textbooks, giving lectures under the University Extension Scheme to adult audiences, working as librarian to the Royal Geographical Society and from 1901 for the British Rainfall Organisation. Even those who had university appointments were glad to supplement incomes that might be as low as £100 a year, provided in equal shares by the Royal Geographical Society and the Manchester Geographical Society to Henry Yule Oldham, the first teacher in Manchester University in 1892 and to his successor Andrew John Herberston (1865-1915) in 1894-1896.

Supplementary income was acquired from textbook writing, external lecturing and in some cases school examining as well as work for publishing firms. Halford John Mackinder (1861-1947), a man of dynamic personality and unlimited energy, was a true professional, strongly influenced by German thought in geography, deeply concerned for detailed regional study and at the same time an ardent student of world political geography. Having an Honours degree in History, he turned to geography to explain much that he had learned of past time and, having presented a challenging paper at the Royal Geographical Society in 1887 on the "New Geography", he was an obvious choice for the new Readership at Oxford, where he proved to be a dynamic influence. The appointment at Cambridge in 1888 of F. H. W. Guillemard (1852-1933) was less fortunate for he retired after one year "owing to ill-health" and spent much of his remaining forty-odd years on remunerative work for publishers. He was succeeded by John Young Buchanan (1844-1925), whose main interests were in oceanography and geomorphology. Mackinder's concern for regional study and Buchanan's for systematic study were to be of crucial significance

in British geography, for Oxford and Cambridge spoke with different voices. But this was not the only reason for a wide disparity of approach to geographical study between one geographer and another as well as a marked difference in the content of courses between one university and another.

Disparity of view and of practice arose not only for the varying background of the geographers themselves but also of the reasons for which different universities established courses in geography. In some cases economists wished to include courses in commercial geography, as for example in Manchester where Yule Oldham was appointed in 1892 as Lecturer in Political and Commercial Geography. At Liverpool Percy Maude Roxby (1880-1947) was at first attached to the Economics Department and advised by Professor Gonner to deepen his knowledge by spending much of his time at the city's docks. In Leeds the beginning, in 1913, was actuated by a need to provide courses for management apprentices on the railways and this remained one major responsibility under Llewellyn Rodwell Jones (1881-1947) and his successors including Charles Bungay Fawcett (1883-1952) who worked at Leeds in 1919-1928. But from the early pioneer days at Oxford and Cambridge geographers were needed to train teachers, not only in regular university courses but also in the special summer schools which were greatly appreciated and strongly supported. Mackinder and many others spread the gospel of geography through the cities, towns and villages of the land in extramural classes regularly attended by a wide variety of people.

Especially though by no means exclusively in the newer subjects of the University curriculum, people may become specialists in studies differing from those chosen for the initial degree. As noted earlier, Mackinder was an historian, and so too were P. M. Roxby, John Norman Leonard Baker (1893-1971), Alan Grant Ogilvie (1887-1954) and Edmund William Gilbert (1900-1973). In the work of all these geographers it is possible to recognise the influence of their initial training as well as of their postgraduate experience which ranged from careful study of the Diploma course in Geography by Gilbert to the acquisition of a research degree at Oxford for an oceanographical study with extensive travel in France, Germany and America by Ogilvie. Other geographers were initially economists, notably G. G. Chisholm whose *Handbook of Commercial Geography*, originally published in 1889, has been reissued in new editions ever since. John McFarlane (1873-1953), having studied History and then Economics, taught both geography and economics at Manchester University in 1903-1906 and then geography alone: of him, as of others, one might say that they became geographers by transmutation. This was notably and beneficially true for geography in the case of Herbert John Fleure (1877-1969) who at first taught botany, zoology and geology at Aberystwyth University College, became professor of Zoology in 1910 and from 1908 also lecturer in Geography and finally from 1917 professor of Geography and Anthropology. Fleure was drawn into geography not only by a development of his interests from the scientific basis of life to its varied human manifestations but also by the immediate and practical need to help teachers, including those already in service as well as those studying in the universities. A number of geographers were initially geologists, including Sidney

William Wooldridge (1900-1963) and Arthur Austin Miller (1900-1968), while H. R. Mill was initially a chemist and was led to geography through a growing interest in all the physical world as well as by the relation between man and nature⁶. Marion Isabel Newbigin (1869-1934) worked successfully as a biologist and gave great service to the Royal Scottish Geographical Society from 1902. Later she wrote books on plant and animal as well as on regional and political geography.

Many prominent writers of the time were arguing that the idea of relationship between different studies should be considered more adequately. This was in part a development from the work of Charles Darwin, whose *Origin of Species* was published in 1859, the year when both von Humboldt and Ritter died. The totality of environment in its intricate relationship with humanity was stressed by figures as diverse as the biologist-sociologist Patrick Geddes (1854-1932) and the great South African statesman General Smuts, with his view of *Holism* in which the whole was always greater than the parts. The idea of the unity of all creation comes out strongly in the first chapter of Vidal de la Blache's *Principes*, gathered together by E. de Martonne for publication in 1922 and issued in M. T. Bingham's English translation as *Principles of Human Geography* in 1926. Clearly such a view gave many geographers a strong sense of purpose, for they were concerned with what in nature was not divided (to use a famous line of Vidal de la Blache) while some also drew strength from a saying (perhaps original but perhaps not) of A. J. Herbertson that geography was not concerned with the distribution of one phenomenon on the earth's surface but with all.

When geography entered into full University status as a subject for the Honours degree, first in Liverpool in 1917, then in Aberystwyth in 1918, and in London and Cambridge in 1919 with several other universities in the next few years, some universities were puzzled by the apparently unlimited claims of many of its practitioners. They were also puzzled by the differences between individual geographers. And as if this was not enough, some geographers found it hard to decide what they should teach; at least this was true of more thoughtful minds for many of the less critical hitched their waggon to one chosen human star in whose views all necessary wisdom was to be found. As an elderly nun expressed it to the author "When I did my Honours course in the 1920's the staffs were keen but they did not seem to know what to teach". In short it was a time of challenge, in which geography had won the battle for recognition but might be in danger of losing the peace that followed. As a result a wide variety of people were appointed as geographers in the universities, including natural scientists (with several geologists), historians, economists and others, with some explorers such as Robert Neal Rudmose Brown (1879-1957) in Sheffield and Frank Debenham (1883-1965) in Cambridge.

Several of the graduates from the new Honours schools became university teachers. Laurence Dudley Stamp (1898-1966), having graduated in Geology, was one of the first graduates in Geography of London University in 1922, with his wife Elsa. Few people were able to take two initial degrees but students of Stamp's work will realise that it rested on a strong scientific foundation though its application was of

⁶ H. R. Mill, *An Autobiography*, London 1951.

immense human significance. In time some geographers became planners, not only of rural and urban land use but in industry and the civil service. During the interwar period few careers appeared to be open to geographers except teaching in universities if one were academically successful or in schools if one were less successful. Only after—as during—the 1939-1945 war was a wide range of careers opened to geographers. It is true that in a few universities, notably Cambridge, special attention was given to intending colonial surveyors, service candidates and overseas administrators but in most university departments virtually all the students were prospective teachers.

Another characteristic of British Geography was that students in different universities almost appeared to be learning different geographical languages. In Liverpool, Roxby gave course in Human Geography that covered all human time, while in Manchester in 1930-1944 Fleure gave courses that included not only geography but anthropology and archaeology as well. In London C. B. Fawcett took the view that the last hundred years were of more significance than all previous history while Fleure argued that it was the duty of geographers to study human life from the beginning of time, prehistoric as well as historic. Some teachers in universities were little concerned with the historical aspects of geography at all for they took the pragmatic view that study of the present provided more than an adequate challenge to the student. And as if such differences of view were not enough, there was also the division of view about the place of regional and systematic geography, arising particularly between Oxford and Cambridge through a tradition inherited from the initial appointments in 1887 and 1888. To students in universities where an attempt was made to give some teaching in both systematic and regional geography it seemed strange that at Cambridge one chose two out of four subjects in systematic geography, geomorphology, cartography, historical geography, economic geography. One could therefore qualify for a degree without any training in the physical or human aspects of the subject. By contrast in Glasgow all the papers in the final Honours examination were on regional geography, while in Edinburgh systematic aspects were taught in the third year with regional aspects in the fourth. The emphasis on individual work for a dissertation differed widely from none at all in London and Glasgow to a considerable examination weighting in some other universities; in addition some universities concentrated entirely on local regional studies, as in Oxford and Edinburgh, while others allowed students a wide choice of subjects. Unfortunately, some geographers indulged in an unseemly denigration of those whose methods differed from their own, tersely expressed in the comment on a distinguished geographer that he was a regional geographer as “we of a later time are systematists”.

In Britain there is no central control of geography teaching in universities by any governmental agency or by any commission made up of university teachers and others. The University of London provides a syllabus for students taking external degrees by private study or following courses at various technical colleges. For many years students at a number of university colleges, such as Nottingham, Hull, Leicester, Exeter, and Southampton, sat for London degrees but all these have now become independent universities with the power of defining their own syllabus.

The alternatives given in the London syllabus were wide, but the examining of candidates by boards appointed by the university gave a guarantee that students in the various university colleges had degrees of equal merit, class for class, with those of students from the colleges of London University. The choice of options was wide and might have made transfer from one university college to another difficult: still more difficult (and rare) is movement from one university to another at the undergraduate level. Argument in meetings that a certain method of examining, or a certain type of teaching, is practised in other universities is not likely to meet a favourable response from colleagues unless the action suggested is obviously desirable. The various geographical societies have no control over the universities, though the Royal Geographical Society appoints one member of the board responsible for appointing the Professor of Geography at Oxford. Even the National Committee has no direct influence over courses in universities for its work is practically unknown to most working geographers. The Institute of British Geographers, established in 1933, never aspired to control of geography teaching in universities but was founded to publish monographs and, after the war of 1939-1945, papers also. The Social Science Research Council and the Natural Environment Research Council are advisory bodies with funds available for post-graduate research but while their responsibilities include reasonable enquiry into the progress made they have no power to direct research in any chosen direction.

Everything therefore conspires, in theory, to give individual geographers the right to choose their own research. As the number of geographers has increased, the power of heads of departments has diminished: no longer are they able to control, even if they should wish to do so (and some never did), the research and publications of their colleagues. It may well happen that a head of a department knows nothing of a book or article of a colleague until it appears. The effort may be that people work in isolation when they might prefer to work in collaboration with others but in some instances two or more colleagues may combine in some joint enterprise, resulting perhaps in the publication of a book which is a series of related essays. For those who wish to work as soloists, the British system is excellent even though it may seem to be anarchic in character. There are no "schools of geography" if this is understood to mean powerful groups led by dominant figures though naturally there are groups of people sharing cognate interests who welcome the opportunity of meeting on occasion, either during some large gathering such as the annual conference of the Institute of British Geographers or at a specially convened gathering. All this is clearly indicative of increasing specialization and completely refutes the view expressed, in some cases with vehemence, by some senior geographers twenty years ago that "geography is one" and that therefore at conferences such as those of the Institute of British Geographers no division into sections should be permitted.

Behind such a view of the unity of geography was the idea that everybody with any serious claim to be regarded as educated in the subject should have some basic knowledge of all its aspects. This would include a knowledge of physical geography, at least including an understanding of the theories of W. M. Davis on landscape

evolution, with glaciation, of climatology including the world distribution of climate, of vegetation types in the home country and over the world, of world population distribution, agriculture, industry and the main aspects of world political geography. And some of the teaching given was of remarkable quality. It was for example expected that a student provided with averages of monthly rainfall and temperature could locate almost any climate station in the world: the author, ignoring his own attempts to do this, can only testify that several of his students in Dublin were able to do this when confronted with a set of previously unseen figures in an examination. Sketch map drawing was encouraged so that many students learned to analyse and visualise countries, and even continents or such vast areas as China with considerable skill. Such basic knowledge is still taught in many American universities though many younger (and perhaps older) British geographers would regard it as "elementary". But as a basis of world understanding it may be more useful than a course that begins with a few "principles" of economics or sociology, perhaps even with texts in such subjects as recommended books. Many struggles have been fought in staff meetings about the inclusion of geology in the first year degree course, even for those students who may eventually wish to become geomorphologists. Fifty years ago it would have been taken as axiomatic: now the probability is that most first year-courses will certainly include some training in mathematical techniques leading to some form of quantitative study later. Fifty years ago the main, and probably the only, contact with mathematics was in the teaching of map projections.

A world view was what many geographers had to offer in the past, combined with some specialism and some experience of detailed work in some chosen area. The immediate contact with some local area certainly tempered the tendency to generalisation that was inherent in world study, for the local area might well reveal the fallacy of generalisation. In many cases the emphasis in universities on thesis writing based on fieldwork as a compulsory part of the degree course began a process of research and thought that might last through a whole career. It surprised a student, for example, who had been taught that certain crop rotations were characteristic of particular regions of Britain to discover in their own fieldwork, that individual farmers had widely differing practices on what appeared to be the same type of land. And when students of physical geography went out to see for themselves, doubts dawned on the veracity of the theories of W. M. Davis and others. Since then, it appears, the Davis' theories have been under a cloud of disbelief that has now partly dispersed but the passion for argument among geomorphologists is such that one can only stand back and admire their stamina. It is certainly true that many of the advances in British geography came through local survey carried out with varying intensity.

In 1928, when the International Geographical Union held a congress in England, twenty-six authors combined to produce *Great Britain: essays in regional geography* edited by A. G. Ogilvie. As in many such volumes, not all the essays were of equal merit but the volume showed that many of the university teachers with a few other specialists had studied their own areas carefully. The work was eagerly studied for, as E. W. Gilbert remarked when talking of his transfer from history to geography,

“there was so little to read”⁷. Encouragement was also given to local regional studies by the publication each year of a handbook on the district around the town where the British Association annual meeting was held. From 1930 the Land Utilisation Survey of Britain, with the driving power of L. D. Stamp, began the survey of the whole country on the scale of 1:10 560 and the results were published on the 1:63 360 scale, with local memoirs in ninetytwo parts by sixty-six authors and finally Stamp’s summary volume, *The Land of Britain: its use and misuse* in 1947. This was often described as the modern Domesday survey: in fact H. C. Darby began the study of the original Domesday survey which, foreshadowed in a number of articles in periodicals, was published with various collaborators from 1952 onwards. In 1936, a volume of essays appeared, under Darby’s editorship, as *The Historical Geography of England before 1800* and in 1973, *A New Historical Geography of England* was published, but with no chapters on prehistoric and Roman times (on which a vast literature had accumulated elsewhere) and with a full consideration of the nineteenth century. While these books dealt with the whole of England, much of their merit lay in their dependence on local studies of many periods and many places. That a number of professional historians had developed an interest in geography can only be welcomed. It was often said by enemies or even by critical friends that geographers borrowed or even stole so much from others but contributions have been made to other workers as, for example, Sir Arthur Tansley showed in his use of geographical material in his classic *British Islands and their Vegetation* of 1939.

By 1939 there were clear signs of advance in British Geography, even though the number of geographers was small and many of them were fully occupied in building up university departments of geography with limited resources. During the War many geographers were engaged in writing handbooks on various countries or in some other form of national service. But long before the war was over it was clear that a replanning of Britain would be necessary and that as Stamp and a few others had foreseen there would be abundant opportunity for geographical work, not only in teaching but in various governmental offices. Steadily the opportunities became apparent and many geographers became planners though departments of geography still have their own distinctive education and left the technical training of planners to others with practical experience. In short, the contribution of geographers has been all the greater because they have done what they could do and no more. A planner needs an education of great breadth, in which law, economics, architecture, aesthetics, even social psychology may be useful and at times necessary.

New opportunities abounded. Not the least of these was an obvious need to study towns on which there were some pioneer studies, of which a number were influenced by Walter Christaller’s work of 1934 and others by French historical studies or by American urban zones, sectors and C.B.D.’s. There was no single paradigm. Rural studies owed much to the work of the Land Utilisation Survey but the fieldwork was done during a period of agricultural depression when there was little control of land use. Conservation became the watchword and in time a new survey of land

⁷ E. W. Gilbert, personal communication.

use was begun by Alice Coleman on a far more detailed basis of mapping than its predecessor. The designation of National Parks and other amenity areas was an enterprise in which many geographers were helpful and to this the special work of Nature Conservancy was added. Transport studies attracted some geographers, though fewer than the subject warranted and in some areas of the country the problems created by the decline of basic industries were studied. Problems of redefining administrative districts were discussed for a long time, as it was not until 1974 that a final solution was reached. Geographers gave considerable service by their study of obvious human problems such as administrative boundaries and also in work on mineral resources (including sand and gravel), the reclamation of derelict land, the study of coastlines and of water supplies. Many served on committees or working parties at which a pragmatic approach was welcomed.

Specialisation continued and had both merits and demerits. The great ideas of the relationship of all the animate and inanimate world might become remote and such fundamental issues as possibilism or determinism were rarely discussed and even—by the thoughtless—condemned as banal. Some geographers fell into the dangerous state of mind that their own specialism was “all we know on earth and all we need to know”. For a time much was lost. There was a regrettable failure to produce a series of regional geographies planned by Nelson, for of fourteen volumes planned only six appeared and the series was abandoned. A volume of regional essays edited by Jean Mitchell, *Great Britain: geographical essays*, 1962 and the volume prepared for the 1964 Congress, J. W. Watson and J. B. Sissons, *The British Isles: a systematic geography* were useful contributions. But regional geography was unfashionable, though strangely enough it came back in a different form as regional economic development, concerned largely with current problems. It could well be argued that the traditional form of regional geography was trying to do more than was really possible. There has been a welcome outpouring of articles and books on individual towns, including London, and on various aspects of land use and agriculture. It would certainly no longer be possible to say that there was “so little to read”, for specialists of any kinds are not only active but vocal.

Although perusal of British geographical works from the days of G. G. Chisholm's 1889 *Handbook of Commercial Geography* will show that there has been a continuing use of statistical materials, the modern “breakthrough” in recent and especially associated with the publication of P. Haggett's book *Locational analysis in human geography* of 1965 and of *Models in Geography* of 1967 edited by R. J. Chorley and P. Haggett. The influence of works by American and Swedish geographers and regional scientists, as well as of the tragic figure August Losch who died in 1945 but whose work *The economics of location* was published with help from others in 1954, has been generously acknowledged by the British writers. Undoubtedly the use of new mathematical methods, fortunately coinciding with the ability to handle vast masses of data by computers, has given a new research tool applicable to any aspect of geographical study though opinions differ about the significance of the new synthesis. Haggett, unlike some of his followers, has from the beginning sounded a note of caution. He says (*op. cit.*, pp. 277-278) for example that

The failure of the place-work-society chain of causation used by Vidal de la Blache or the material-orientation hypotheses of Weber has been followed by a half-century of cautious fact-finding in which our rate of data accumulation has far outrun our capacity to create models to explain its significance. Indeed, one of the sadder consequences of the retreat from environmental determinism in human geography has been an unwillingness to risk launching new hypotheses.

Undoubtedly fact collection, in itself, cannot lead to understanding and model building is a service to future workers. But models need continual testing for—especially in human distributions—circumstances change. This was foreseen in some of the stimulating contributions to urban geography, for even the most casual field study showed that cities were in a perpetual state of transition and transformation. In physical geography, such classic models of those of W. M. Davis or C. A. Cotton appeared to be based largely on the artistic skill to demonstrate what had been seen while leaving unanswered many questions about the actual erosive or constructional power of wind, water and ice. It was to such problems that attention was directed and it may perhaps be justly said that the New Geography of this time is facing the same problems that engaged the thought of earlier workers, the pattern of distribution of phenomena on the earth's surface in circumstances of perpetual change.

Fears that quantitative methods will lead to mathematical abstractions that appear inhuman are sometimes expressed. This is not new for geographers of a generation ago were likely, when dealing for example with migration movements, to encounter similar comments. Such fears are based on sympathy for people and have led to studies in "perception" broadly concerned with the regard individuals have for the environment, and especially its social qualities. The world people make for themselves is the world that has meaning for them. They may not choose to use certain market centres, certain social facilities, certain opportunities for sport, entertainment, education and much else. Just as man makes the economic world so he makes the social world. This is not to say that the work on patterns has no meaning but rather that it can only be understood in human terms. Along with this there has been an increasing concern for the quality of the environment, and especially for the conservation of much that should be preserved in town and countryside. At least this means that people are acquiring more care for the heritage of the past as an amenity for the present and the future. It does not mean that no change is possible but that aesthetic as well as economic circumstances must be considered. It does mean control of building on coasts, or the limitation of forest planting in central parts of the Lake District to preserve its open character and even its use for sheep farming. Some geographers go further and went to develop a new geography with a definite political gospel. They take the view that "social commitment" must be a major concern at all times and that geographical study should itself have a gospel to preach. Past geographers, they say, have been "bourgeois", holding views of white supremacy, even fettered by their religion in some cases from accepting enlightened views, obstructing social advance by their lack of understanding for humanity in general. Resisting the comment that they are the "bleeding hearts brigade"

of this generation, it would be relevant to say that many geographers of earlier times have been deeply conscious of the needs of all mankind and have hoped that knowledge of the world might itself be a contribution to the welfare of humanity.

British geography is no monolithic structure dominated by a few powerful figures. It is well that it should be so. Geographical societies, the Institute of British Geographers, the universities and the research councils have all been helpful to its progress but all have recognised the value of individuality in academic work. Any who wished to form a school to provide an orthodoxy, are likely to find only a limited response for it will prove difficult to persuade others that they have the one pearl of great price. Naturally there have been groupings of like-minded people, at times able to act as pressure groups, but anyone who acts as self-appointed *deus-ex-machina* is likely to achieve only limited appreciation. If it may seem that the British have been pragmatic rather than philosophical, that may be indicative of growth rather than finality. There is no orthodoxy but rather a continuing searching for truth.