THE SCOTT KELTIE REPORT 1885 AND THE TEACHING OF GEOGRAPHY IN GREAT BRITAIN

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ADDRESSING THE GEOGRAPHICAL ASSOCIATION, as its President, in 1914, John Scott Keltie spoke of ‘the crusade’ which the Royal Geographical Society had begun 30 years before on behalf of ‘the improvement and elevation of geography and a better recognition of the subject in education of all grades’. He was modest about his own role in the ‘crusade’. ‘I happened to be’, he said, ‘the fly on the wheel of the movement’ (Keltie, 1914). Was he too modest? What was the real significance of his role? To answer such questions we must remind ourselves of the nature of the ‘crusade’ and of the Scott Keltie Report.

But, first, at this Centennial Celebration of the publication of the Report in the RGS Supplementary Papers, 1886, let us recall John Scott Keltie himself. We shall have to forget that we are in Kensington Gore and imagine ourselves back in the increasingly overcrowded rooms of the Society in 1 Savile Row.

Sir John Scott Keltie

At the time of his appointment as the Society’s Inspector of Geographical Education, John Scott Keltie was 44 years of age. He was a Scotsman, born in Dundee. His father was a builder and stone mason. Keltie was educated at Perth and at the University of St Andrew’s which he left before taking a degree to embark on Presbyterian theological training, though he did not enter the Ministry. While still a student, Keltie had taken up journalistic and literary work and he joined the staff of Messrs W. and R. Chambers in 1861. He spent 10 years in Edinburgh and married Margaret Scott in 1865. He worked on Chambers’ Encyclopaedia and wrote notable books on A History of the Scottish Highlands and Highland Clans and Highland Regiments. He arrived in London in 1871 to join the editorial staff of Messrs Macmillan, becoming sub-editor of Nature two years later. He wrote geographical articles and reviews for The Times, especially on Africa which, at the time of exploration and European acquisition, offered many opportunities for a lively pen. He became a Fellow of the RGS in 1883. In 1884 he took on a role which was to last until the end of his life as editor (after 1919 jointly with M. Epstein) of The Statesman’s Year Book. He was selected Inspector of Geographical Education in 1884. He possessed a combination of qualities, including an interest in geography, an ability to amass and to digest information, skill in writing good prose, and a high degree of diligence which commended him especially to Douglas Freshfield, then one of the Honorary Secretaries who, as will be seen, had foreseen the use which could be made of a well-written investigative report.

While Keltie was still completing his report, the Society’s Librarian, Mr E. C. Rye, died and Keltie was appointed as his successor in March 1885. It was not then a full-time post and he had leave to pursue other work. Keltie worked well with the Assistant Secretary, Henry Walter Bates, ‘dear old Bates’ as he was known and, as H. R. Mill wrote, ‘he became indispensable’ (Mill, 1927): so much that, when Bates died, Keltie succeeded him in February 1892. The title was changed to Secretary in 1896. As an officer, after 1892 the principal officer of the Society, Keltie was in a strategic position to guide the discussions and negotiations which were necessary, especially with the Universities, to follow up the Report.

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He became very influential. Mill (1927) wrote that his success depended on 'quick intuition, great caution, kindly tact'. He could get to the heart of a subject in an incredibly short time. With his kindly and generous nature he had the rare knack of 'guiding by imperceptible influence'. He had many practical tasks. The reorganization of the Society's publications was one: the *Proceedings* became by 1893 *The Geographical Journal* which he edited until 1917 (jointly from 1915). He overcame the prejudice against the use of lantern slides, defeating the 'old upholders of the dignity of science' (Mill, 1927, 1951). He and Mill (who had become Librarian in 1892) were joint Secretaries of the Sixth International Congress held at the Imperial Institute in South Kensington in 1895. Unfortunately, Keltie fell ill just as the foreign members were arriving and for a day or two Mill had 'a nightmare life' getting the proceedings to move smoothly. Meanwhile the premises of the Society at 1 Savile Row were becoming quite inadequate. Keltie was active in searching for new premises and in 1912, at the age of 72, and with unimpaired vigour, he organized the move to Lowther Lodge.

Keltie gave much time to the British Association for the Advancement of Science through which the cause of geography could be advanced amidst the other sciences. He was a Secretary for many years of the Geographical Section and its President at the Toronto meeting in 1897. He did not neglect the Society's role in fostering exploration and was ready with helpful advice to travellers and explorers young and old. Nansen (*GeogrJ.* 69, 1927: 286–7) described him as 'a true son of Scotland, a noble man and a true friend'.

He continued to write. The geographical sections of the *Encyclopaedia Britannica* (10th edition) were his work. He initiated, with others, the *World Explorers Series* (Geo. Philip and Sons) and the *Story of Exploration* series. His principal books were *Applied Geography* (1890), *The Partition of Africa* (1893) and (with O. J. R. Howarth) *The History of Geography* (1913), a book which was still recommended reading in the first year of my own geography degree course in 1936.

After his retirement from the Secretaryship he became a member of Council and, in 1921, a Vice-President of the RGS. He was awarded the Victoria Medal in 1917. The Geographical Association honoured him as its President in 1914.

He was knighted in 1918. Honours came to him from geographical societies all over the world, among them Gold Medals from the Société de Géographie de Paris and the Royal Scottish Geographical Society. The American Geographical Society awarded him its Cullum Medal. He received the Orders of the North Star of Sweden, St Olaf of Norway, the White Rose of Finland. He was an honorary member of the Vienna Geographical Society and a corresponding member of practically every geographical society in Europe. His old university, St Andrew's, made him an honorary LL.D. (Rudmose Brown, 1930 Mill, 1927). Under his guidance the Royal Geographical Society had become a centre round which all good travellers revolved. 'Dr. Keltie' said Freshfield, 'has remained in the eyes of all men the incarnation of British geography' (*GeogrJ.* 50, 1917: 79–80).

The decision to appoint an Inspector of Geographical Education

To return to the circumstances of his appointment as the Society's Inspector of Geographical Education: the society had for some time been interested in developing the educational aspects of its work (Stoddart, 1980). Among other moves, which had included approaches to the Universities of Oxford and Cambridge, it had introduced in 1868, at Francis Galton's suggestion, a scheme of Public School Medals (Galton 1909; Markham 1881) but the results had been disappointing. It was on Galton's motion, on 28 January 1884, that the Council decided to discontinue the scheme. But it was also agreed to consider 'whether any and what encouragement to geographical study should be substituted' and the question was remitted to a joint committee of the Scientific Purposes and Prizes Committees. The minutes of Council meetings provide only a rather bare record, failing to expose three months of the most vigorous argument. There were three main schools of thought.

Clements Markham, joint Honorary Secretary, was in favour of further developing a scheme which, with the Hon. G. C. Brodick, he had first put forward in 1879. His scheme had two parts. The first, which had in fact already been adopted, provided for
the instruction of intending travellers in survey and mapping: the second part, which lay in abeyance, would have provided instruction and regular courses of lectures in the elements of the other sciences most closely connected with geography (Markham memorandum 28 Feb 1884, RGS Additional Papers 95). Clearly Markham was for a gradualist and limited approach working within the Society itself. Lectures on astronomy, surveying and mapmaking might be tried: if successful, courses on the general principles of geography, on physical geography, and on geography connected with history, economics and the natural sciences might follow for both intending travellers and Fellows. He was against the appointment by the Society of a Professor of Geography. There was ‘no one in England possessed of enough acquaintance with all the different branches of geographical knowledge’. Nor would the establishment of a Professorship at Oxford be compatible with the Society’s objects or with the proper administration of its funds. But, he thought, Council would be glad to give encouragement to better teaching in the ordinary schools of the country. One step would be to persuade the Civil Service Commissioners to insist upon a proper knowledge of the subject in their examinations. Another might be the arrangement of lectures for teachers under the superintendence of the Council. He was also enthusiastic about prizes for boys on *HMS Worcester* and *HMS Conway* and the navigation school at Hull.

A different view was held by Francis Galton, a former Gold Medallist, former Honorary Secretary, Vice-President and, after 1854, an almost permanent member of Council. The Society, he advocated, should itself appoint a Professor for a limited term of years. He would inform himself of the state of geographical education at home and abroad and of the best diagrams, maps and other appliances. The Professor would give lectures in London and at schools, universities and other places of education, as the Society might determine. It was also appropriate to develop the instruction of intending travellers. This view appeared to win favour in the special committee and a motion to appoint a Professor for a term of three years at a salary of £300 per annum was put to Council on 25 February 1884.

Douglas Freshfield was not in favour and put down a qualifying amendment to the effect that, if such a Professor were appointed, the Society should communicate with the university authorities at Oxford and Cambridge with the object of establishing geographical lectures to be delivered to their members and under their authority, either by the Society’s Professor or other qualified lecturers. He brought forward a powerful memorandum in support of his view that the way forward lay through the universities, with financial support from the RGS. His proposals were, he argued, fully appropriate to a Society whose Charter (1859) included the aim of the advancement of geographical science; they were in accord with the Memorial to Council signed by many distinguished members in 1874. He had taken advice from men like Professor James Bryce and the Hon. G. C. Brodrick of Oxford, Professor Alfred Newton of Cambridge and the Rev. E. Hale of Eton College. No form of examination held by the Society would be acceptable. Further attempts to improve the quality of teaching must be aimed at producing better teachers with better equipment. The best way of gaining the interest of the rising generation of teachers was through the universities. Holding lectures at the RGS was no substitute. There were indications of support from prominent men at both universities.

Freshfield put forward three resolutions for discussion at Council on 24 March. The third of these, on continuing the instruction for intending travellers and providing for them lectures in the relevant sciences, need not concern us, except as an indication of Freshfield’s diplomatic gifts. The second followed the lines of his previous amendment: it was desirable to appoint lecturers but on their appointment the Society should communicate with the Oxford and Cambridge authorities. The first resolution, the one he really wanted to get through, proposed the appointment, at an expense of not more than £150, of an inspector of geographical appliances for one year . . . ‘to collect and arrange in the Society’s premises all the best text books, maps, models, diagrams and appliances published in England or on the Continent, and to report thereon’ (Freshfield memorandum).

It was desirable, perhaps essential, to win Markham round. A letter from Freshfield
to Markham of 11 March provided a possible basis for agreement (RGS Freshfield papers). The proposals for extending instruction to intending travellers to include the natural sciences were acceptable to Freshfield. He was also willing to agree to concede, though only from 1885, the possibility of appointing lecturers to give educational courses in, or superintended by the Society. The key lay in gaining Markham’s agreement to the appointment for one year of the inspector of geographical appliances. It was a clever gambit; a year would be gained, the report of the inspector would provide new evidence, the issue could then be reviewed in the light of the Report and the further opportunities for discussion that this would provide.

The Council agreed on 24 March, and £250 was set aside to cover the cost of the inspector, including travelling expenses. Applications were sought. There were two principal candidates. One was Mr James Robinson of Dulwich College which, with Liverpool College, where Galton’s brother-in-law, Dr Butler was headmaster, had carried off most of the Public School medals. On June 3, Keltie wrote to Bates applying for the post. ‘I have’, he wrote, ‘for many years given especial attention to geography and for the last ten years have written largely on geographical subjects... mainly in The Times, Nature, Encyclopaedia Britannica’. Most text books of recent years, he added, had come under his observation and criticism. He was asked to send in an outline of his plan of action and, very quickly, by 18 June, this was produced.

‘I understand’, he wrote, ‘the ultimate object of the Council... is to obtain such information as will enable them to take what measures may be in their power to obtain for geography a recognised position in the education of this country as well as to introduce improved methods of teaching the subject—more especially with reference to the higher schools and universities’. (RGS Keltie ms.)

On 23 June Keltie was appointed. A memorandum of guidance was issued to him by Council on 26 July, and published in The Times on 31 July; and he took up his duties immediately.

The Report

Keltie worked with efficiency and speed. He was a highly skilled investigator and reporter. Clearly, too, he had a genuine interest in geography and in education. By 17 May 1885, less than ten months after his appointment, his Report was in the Society’s hands. It comprised 74 pages of printed text and a slightly larger number in the appendices. He had visited seven European countries, in November and December 1884 and April 1885, and had obtained reports from other countries. He had issued a set of questions to 50 public schools and had visited 25 of them. A number of visits had also been made to Board Schools. Wherever he went, pupils’ work, text books, models, maps, atlases and teaching appliances were collected and sent back to London for an exhibition which was to be arranged as a way of disseminating the lessons of the Report (Keltie, 1886a).

In Britain (except under the best School Boards such as London, Birmingham, Edinburgh and Glasgow, where great progress had been made, and also in some Teacher Training Colleges), he found the teaching of geography to be in an extremely poor state. With a few exceptions, schools had little place and no systematic plan for it. Especially in the ‘higher’ schools, but also elsewhere, teachers were groping in the dark. He reported that they had only a vague notion of the varied and interesting field embraced by the subject and had seldom received any training in the best methods of teaching it; and that there were universal complaints of the dearth of satisfactory text books, good maps and other apparatus. Geography ‘did not pay’: it had no place in the universities or in most of their school examinations, particularly in the Oxford and Cambridge Examining Board. It was therefore not merely neglected but often actively discouraged. Where schools had a science side there was usually some physical geography, not infrequently well taught. Except for this, the subject could ‘hardly be said to have a serious place in the bulk of our great public schools’.

Quite early in the Report, Keltie arrived at the important conclusion that ‘Geography should not be broken up’. Physical geography and political geography should be taught according to a common programme.
Were geography taught by qualified teachers as one single subject, all the parts of which are intimately connected, it would not only form a body of knowledge of high value, and cease to be the barren task which it is now taught, but it could not fail to be a real discipline (p. 457).

The only serious attempts to demonstrate its value along these lines had been made by Mr Green in his Short Geography of the British Islands and by the late Professor William Hughes of King’s College London.

As for methods and apparatus, but for a few exceptions, notably the London School Board, ‘the appliances are bad, and, as for method, there is none’ (p. 458). The maps available failed to compare in quality with those in use on the continent: hardly the fault of the publishers, he conceded, but a case of supply and demand. On text books, he quoted Green: ‘No drearier task can be set for the worst of criminals than that of studying a set of geographical text-books such as the children in our schools are doomed to use’. Green had set out a dream of what geography might become, but it remained a dream and a distant one.

The key to the problem lay in the attitudes of the universities. Scott Keltie took pains to sketch out the position at Oxford where historical geography was taught as part of history but where ‘anything which has the semblance of science was looked upon with small favour’. In 1883, the Cambridge Special Board of Biology and Geology had indicated its eventual wish to appoint teachers in geography, amongst other subjects. The prospects thus seemed more favourable at Cambridge than at Oxford. There were, however, supporters of the subject in both universities among them James Bryce, Professor H. N. Moseley, Professor Alfred Newton, and Professor G. H. Darwin. What was most needed was a clear and precise definition of the field of geography to put before each university. Keltie answered those who, though sympathetic like A. Geikie, thought the way forward lay in anchoring geography to an existing science, like geology, by arguing the need for a many-sided approach to the subject. He quoted a definition in use in Austria, ‘Geography studies the earth as a whole and the things on its surface as such, in their arrangement on that surface and each in their relations to it and to each other’ as a useful basis for argument (p. 471).

What Keltie did so well was to provide evidence of how different were matters on the continent. His letters to Bates (Keltie MS) record some of his journeys, rushing for trains, trying to meet all who were willing to give him time, attending seminars and classes, collecting material, living a hotel existence. He was warmly received and established cordial relationships. In addition to universities he went to military academies, government offices, map publishers and agencies, schools of various levels. In Germany, where there were already twelve chairs, he met, for example, Professor H. Wagner of Gottingen, the leading authority on geographical education: Professor Richard Lehmann of Munster, Dr Finger of Frankfurt-on-Main, the ‘inventor’ of Heimatkunde, Professor Alfred Kirchhoff of Halle (Hartshorne, 1939, p. 91), author of text books and a student of human activities in relation to physical conditions: Partsch of Breslau, H. Kiepert of Berlin, the eminent cartographer. He was clearly much impressed by the already renowned Professor Baron von Richthofen, then of Leipzig, where he had delivered his influential address in 1883. Kolb (1983) remarks that Richthofen was the man who provided scientific geography in Germany with its content and method, and who was producing specialist trained geographers. Germany was ahead of other countries (also see Hartshorne, 1939, 91–94). There were, naturally, variations in approach between provinces and universities, but German schools possessed worked-out schemes for geographical education from the youngest school year up to the university stage. He was attracted by the concept of Heimatkunde, a scheme of study which was already finding its way into London Board schools and deserved the encouragement which E. G. Ravenstein had provided (1884). Schemes of study and examples of lessons given in the Higher German schools, the Gymnasie and Realschulen, demonstrated the importance of the teacher rather than the text book, the converse of the English position. He attempted a characterization of the German conception of geography as studying ‘the surface of the earth . . . not only of its configuration but of all those influences which shape and modify it, especially when regarded as man’s habitation and the theatre of his development’ (p. 492). Memoranda for the Appendix on tasks, methods and schemes of study were obtained
from Richthofen, Partsch, Kirchhoff, Kiepert and Wagner. These were to be valuable demonstrations, for use at home, of what could be done. It was, one feels, Richthofen who impressed him most. His chair, wrote Keltie, ‘appears to me to approach more nearly than other chairs in its methods and subjects to the ideal of an English University chair’ (p. 494).

Austria was following fast on the heels of Germany. But no country had made more progress in recent years than France. In 1871 Professor Levasseur of the Collège de France and Professor Himly of the Sorbonne had written an official report on the position of geography for the Minister of Education. Much had been done to remedy the deficiencies which the report had revealed. Geography had been the handmaid of history, but physical geography was increasingly becoming the basis of the subject. Vidal de la Blache at the École Normal Supérieure regarded physical geography as the sub-stratum of the subject. Improvements were still needed but France was catching up. The situation in Italy was satisfactory and hopeful, with chairs in geography in the principal universities. In Switzerland he found only one chair, at Zurich, but well-developed school-teaching in the more advanced cantons, Zurich, Bern and Basel. Geography in Belgium had no place in the universities, though progress was expected in the near future. The subject was, however, provided for in the official programme for teaching in schools. In Dutch universities, physical geography was separated from ‘political’ geography except at the Municipal University of Amsterdam. There was a place for the subject in all classes of school though more particularly in the lower schools. Special attention was given to ‘economical’ geography.

Correspondents and acquaintances supplied him with some information on Sweden, Spain, the United States and Canada.

So the Report demonstrated what could be done and gave a possible conceptual basis on which the subject could be established in British universities. It was now, as he wrote, ‘for the Society to supply the necessary impulse to induce the bodies that rule or direct the course of British education to take up geography in an intelligent spirit’. The Society could do much to assist, advise and instruct teachers by devising schemes of study, running courses and encouraging good text books, but leadership had to be provided by those (in the universities) who made geographical research their occupation.

The crusade

The Report was presented to the Society on 17 May 1885. Now the crusade could get under way. Preparations for the exhibition had begun earlier on 8 February with the appointment by Council of a committee to draw up a practical scheme. Even before the Council had fully considered the Report, the President, Lord Aberdare, gave the conclusions pride of place in his Presidential Address on 8 June. For geography to be given its proper place it would be necessary to ‘bring the force of public opinion to bear upon the schools and the universities’ (Aberdare, 1885): a clear indication that the Society was prepared to fight. On 30 June, a letter from Keltie appeared in The Times commenting on the revised instructions to school inspectors and arguing for the more thorough training of teachers at the normal schools in the methods of Heimatskunde and in other ways of making geography an interesting and lively subject.

The Exhibition which Keltie had collected, together with material submitted by publishers, took longer to arrange than had been hoped, largely because of the large quantity of books, maps, atlases, specimens of pupils’ work and apparatus to be classified and catalogued. But within six months all was ready in three large rooms in The Galleries, 53 Marlborough Street. The Marquis of Lorne, President, opened it in style on 8 December (Proc. RGS NS8, 1886: 52–55). In the centre of the large room was a relief of the Monte Rosa group at 1:150 000: another major exhibit was a contoured relief map of the sea bed around the British Isles by Mr J. B. Jordan. Maps were arranged so that the work of different publishers could be compared. Apparatus used by the London School Board was shown. There were supporting speeches from Lord Napier, Francis Galton, Mr Sowerbutts from the newly formed Manchester Geographical Society and Mr Bartholomew from the Royal Scottish Geographical Society. It was to be a national campaign, the Exhibition was to go on tour.
A programme of lectures and discussions was arranged to accompany the Exhibition. On 15 December, E. G. Ravenstein spoke ‘On the Aims and Methods of Geographical Education’ advocating the adoption of the *Heimatwunde* principle which could be extended from the local to the global scale. Ritter’s comparative method could, he thought, be used profitably. Powers of observation and description could be developed in pupils. Keltie himself gave the second lecture ‘On Geographical Appliances’ stressing the values of laboratory study, teaching in the open air and methods of map interpretation. He had no doubt that publishers would be found to meet the demand for high class work in geographical apparatus. The third lecture was given on 19 January 1886 by James Bryce on ‘Geography in its Relation to History’: the meeting point of geography and history lay in the study of environmental differences and in discovering the various effects on man as a political and state-forming creature created by the geographical surroundings. A week later, Professor H. N. Moseley FRS, spoke ‘On the Scientific Aspects of Geographical Education’, stressing the importance of physical geography and the need to make a further attempt to introduce the subject into universities. While all the lectures gave rise to discussion, that on Moseley’s paper raised again the much debated question of the relationship of physical geography to geology. The importance of this issue in the discussions on the possible introduction of geography into the universities has already been indicated by Stoddart (1980).

Another valuable contribution to discussion of the Report was a substantial review article under the title ‘What Geography ought to be’ which Prince Kropotkin, whom the RGS, and Keltie in particular, had befriended, contributed to the December 1885 number of *The Nineteenth Century*.

The Exhibition and the lectures were an undoubted success. More than 4000 people had visited it in London. Said the Marquis of Lorne at the Anniversary Meeting on 24 May 1886:

> The mind of the public has been aroused and greatly enlightened on the subject: our best schools and universities have expressed their willingness to cooperate as far as possible in carrying out improvement; and there can be little doubt that our proposed further action will bring results which the Council and all interested in geography have long desired (Lorne, 1886).

The proposed further action was agreed by Council on 28 June (*Proc. RGS* NS8: 527–30). Approaches were to be made to the Universities of Oxford and Cambridge with alternative schemes for the appointment of Lecturers or Readers with financial assistance from the Society. Exhibitions of £100 were to be offered to students of geography who had attended the lectures at the universities for geographical investigations, either physical or historical, approved by Council. Support was given for University Extension courses in geography. There were to be prizes for pupil teachers. The *Proceedings* were to be sent to 40 Public School libraries.

By September, the Exhibition which was travelling round the country to Manchester, Edinburgh and Bradford had arrived in Birmingham to be shown at the annual meeting of the British Association for the Advancement of Science. The opportunity was too good to miss and Freshfield delivered an important paper on 3 September on ‘The Place of Geography in Education’ (*Freshfield*, 1886). *The Times* carried a substantial report the next morning. Freshfield set out his platform for the subject. There were four main points. Geography was ‘the comprehensive name for the study of man’s physical environment on the surface of this planet and of the interaction between it and the human race’. Second, geography had a coordinating role for the sciences by supplying ‘a frame in which to exhibit and review the local relations and interaction of the natural sciences’. Thirdly, it enabled one to appreciate the ‘reciprocity between the physical constitution of countries on the one hand and the development of their people and states on the other’. Fourthly, it had an exceptional value as ‘the transitional and connecting link between the natural sciences and history’: it was the ‘mediator and uniter’ between the rival camps of educationalists, classical and scientific. The case for geography, he claimed, was riding on the streams of both expert opinion and public sentiment.

Further action followed. A committee of the British Association was appointed ‘for the purpose of cooperating with the Royal Geographical Society in endeavouring to
bring before the authorities of the Universities of Oxford and Cambridge the advisability of promoting the study of geography by establishing special chairs for the purpose' (*Proc. RGS NS9*: 120–121). The committee included members from Oxford, Professor H. N. Moseley, Mr Vernon Harcourt, Rev. H. G. George and, from Cambridge, Professor T. McK. Hughes, Professor A. Newton, as well as E. G. Ravenstein and members from public schools. It resolved on 12 January 1887 to request the Council of the British Association to give their support to the representations and offers which were being made to the universities by the Society (*Proc. RGS NS9*: 698).

In the new academic session the campaign continued. On 31 January 1887, a new, brilliant lieutenant, soon to be a General, was produced. In less than two years H. J. Mackinder had made a resounding name for himself through his lectures for the Oxford Extension Movement on 'The New Geography' (Gilbert, 1961; Parker 1982). It was reported that one course of lectures in Manchester had been attended by 105 elementary school teachers and had influenced the geographical teaching of 6000 pupils (*Proc. RGS NS9*: 173). It is said that reports of Mackinder's lectures had reached Francis Galton via a relative at Oriel College, Oxford (Scargill, 1976). Galton was also active in the Extension Movement: he had been a founder member of the London Extension Society (Burrows, 1975). But probably more significant in its consequences was a meeting which took place between Mackinder and Scott Keltie at the exhibition of geographical appliances in London in the Christmas vacation 1885–6. As events developed, the Society spotted Mackinder's potential as 'the competent man' who had so far been sought in vain, and as the missionary who would provide for the universities 'clear ideas of what geographers would propose to include in the field of their science'.

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*Plate I*

*John Scott Keltie, 1884*
Mackinder was asked by Bates to write down his ideas on ‘The New Geography’ (Mackinder, 1921). His paper was passed on for reading to Clements Markham who reported to the Council, ‘I am inclined to anticipate that the reading and consideration of this paper will form an era in the history of our Society’ (Unstead, 1949). So it was to prove. According to Blouet (1975), Mackinder saw himself as a ‘skirmisher brought in by certain influential members of the RGS, including Freshfield, Galton and Bates, with the purpose of bringing to a head a struggle which had been smouldering for some time amongst the members of the Society’. This was too modest a view: he answered Freshfield’s urgent requirement for ‘a representative of geography who would secure a hearing by his wide knowledge and powers of making the subject attractive’ (Unstead, 1949). Francis Galton made this point even more emphatically in the discussion on the paper:

it was a great thing to have a gentleman like Mackinder, of University distinction, who knew his own mind, who had attracted large audiences in the provinces, who was enthusiastic in geography, a believer in its cause, and who, he was sure, would leave no stone unturned to further the interests of geography. . . He was destined to leave his mark on geographical education (Mackinder 1887, p. 166).

Mackinder was still not quite 26 years of age. His lecture ‘On the Scope and Methods of Geography’ advocated the unity of the subject and the study of the reciprocity between human action and the physical environment. It included the vivid representation of the ‘wrinkled tablecloth of south-east England’ and the patterns of human life which had grown up upon it. J. N. L. Baker has remarked that the basic ideas were not original: most, if not all, had been employed by William Hughes, of King’s College London, before his death in 1876. But what mattered in 1887 was the perfection of timing coupled with the brilliance of exposition. Mackinder, with his courage, power of presentation and force of personality, produced ‘a classic document in the history of the development of British geography’ (Unstead, 1949).

In the discussion support for Mackinder came from Francis Galton, Professor H. G. Seeley, of King’s College London, James Bryce, M. P., and, powerfully, from Douglas Freshfield. The Times, again, no doubt, well primed, carried a favourable report of the discussions on 18 February 1887.

Already, on 10 February, the first meeting of RGS representatives (Francis Galton, Hon. G. C. Brodrick and Douglas Freshfield) with delegates of the Hebdomadal Council of Oxford had taken place. On 18 February, a deputation (Francis Galton, Sir Thomas Wade, General J. T. Walker, Douglas Freshfield) met members of a committee of the Senate of the University of Cambridge (Proc. RGS NS9: 188). At the evening meeting on 28 February 1887, General Strachey, Vice-President, was able to announce that the Society had been officially informed that the University of Oxford had decided to establish a Readership in Geography for five years (ibid: p. 254).

Scargill (1976) has already given an account of developments at Oxford. Final agreement was reached in May, the RGS undertaking to contribute £150 each year for five years (half the cost of the Reader’s salary). H. J. Mackinder’s appointment to the post was announced in June. At the right hour, the right man had emerged. Discussions with the University of Cambridge continued for a little longer. In February 1888, four lectures on ‘Principles of Geography’ were given in the University by General Strachey, then President of the Society (Strachey, 1888). Strachey was a peppery but scientifically distinguished man who had achieved distinction on active service in India as far back as the Mutiny, had contributed significantly to irrigation works and railway development there, and had earned fame as a climatologist. There was ‘no uncertain sound’ about Strachey’s opinions, wrote Holdich (1908).

The appointment of a lecturer at Cambridge, F. H. H. Guillelmand, was announced on 12 June 1888 though, as Stoddart (1975) has related, it proved more difficult to find the right man for Cambridge than for Oxford. Scargill and Stoddart have already described the further growth, not without difficulties, of the subject in Oxford and Cambridge. It is enough to say here that the Society continued its involvement with generous financial support and with advice. There remained the tasks of establishing full schools of geography and Honours degrees in the subject. The first main objective,
the making of appointments in the universities, had been reached in four years from the time of Scott Keltie’s appointment as Inspector.

The Society continued to press for the improvement of teaching in schools. Colonel Sir Charles Warren’s Presidential Address to the British Association had dwelt again on this subject on 1 September 1887, noting progress in the Board Schools but the continuing problem in the public schools (Warren, 1887). Two further aspects of the continuing campaign may be of special interest on this occasion.

The International Geographical Congress 1895

We have seen that the Sixth International Geographical Congress met in London in 1895, Keltie and H. R. Mill being joint secretaries. Geographical education was a principal subject on the agenda. There was some excellent stage management. Sir Clement Markham’s opening address set the tone: ‘The first subject which will engage the attention of the Congress is that of geographical education’. France, Germany and most of the continental neighbours were far in advance of Great Britain. He felt strongly that the future of geography in Britain depended upon the training of teachers. But

the authorities of the Universities of Great Britain are not even aware that geography is a distinct branch of knowledge. . . Practically they deny that it is an independent subject of study and merely treat it, when it receives any attention at all from them, as subsidiary to history or some other recognised subject.

He concluded by requesting that the Congress would not part without drawing up a resolution on the subject. . . ‘which will materially strengthen the hands of those who are in need of such assistance and encouragement’. Papers on geographical education were given by Professor E. Levasseur, the French authority, and Professor Dr Richard Lehmann of Munster. For Britain, a new rising star was given a leading place on the stage. A. J. Herbertson, then at Owen’s College, Manchester, spoke on 27 July on ‘Geography in Secondary Education’. He too requested a resolution of the Congress. As was usual at that time, a committee was formally established to consider it. Chief Justice Daly, the delegate of the American Geographical Society, Professor Lehmann, Professor Levasseur, Mr Herbertson and Mr Mackinder formulated the resolution which was agreed by the Vice-Presidents and carried unanimously—

That the attention of the International Congress having been drawn by the British members to the educational efforts being made by the British geographical societies, the Congress desires to express its hearty sympathy with such efforts, and to place on record its opinion that in every country provision should be made for higher education in geography, either in the universities or otherwise (Congress Report: 783).

It was another potent weapon for use in the continuing crusade, Mackinder said ‘the meeting in England has given an international importance to the subject of geographical education and this should prove of great national service to us’ (Congress Report: 90).

The Geographical Association

From one of the members of the Congress, B. Bentham Dickinson, came a report on the Geographical Association for Improving the Teaching of Geography, which had been founded in 1893. It will be recalled that Dickinson, of Rugby, had had the idea of forming a small private association of fellow teachers to obtain and exchange lantern slides. His idea had been encouraged by the RGS which had authorised him to use the names of Freshfield and Mackinder as conveners of a meeting (Warrington, 1953). The group of eleven teachers met at Christ Church, Oxford, on 20 May 1893. Mackinder took the chair.

The outcome was more important than the immediate purpose. Dickinson wrote ‘Mr Mackinder, with his well-known directness, summed up the discussion and proposed the formation of an Association for the improvement and status of Geography’ (Dickinson, 1931). A committee was formed of which Dickinson became Honorary Secretary. Mackinder was chairman for many years and energetically guided the work. Membership of the Association increased gradually, reaching 100 by 1899. Among the
most energetic members was Dr H. R. Mill who, as Librarian of the RGS from 1892, was working in friendly cooperation with Keltie. Mill’s *Hints to Teachers on the choice of geographical books for Reference and Teaching* (1896), the kind of aid to teachers that Keltie had recommended, was a major step forward in the Association’s work. Douglas Freshfield became the first President in 1898. In his Presidential Address 1904 he emphasised the continuity of effort. To the Royal Geographical Society, he said, ‘we owe the inception of our enterprise. They first dug where we now water. But the soil still needs a good deal of digging’ (Freshfield, 1904). The support of the Society was certainly influential, especially in improving the regulations for geography laid down by the examining boards.

Dickinson was able to report in 1897 that the work of the first four years had gained for the Association a definite position in the educational world. He remarked of Freshfield that his acceptance of the invitation to assume the Presidency ‘at once raised the status of the Association’. Freshfield had undoubtedly been very disappointed indeed by the decision of the RGS in 1893, taken amid much acrimony, against the admission of women to Fellowship and had retired from the Honorary Secretaryship (Warrington, 1953). Incidentally, according to Mill (1951: 95), Freshfield it was who eventually secured the admission of women in 1913. Through the Geographical Association Freshfield found a new outlet for his drive for the improvement of geographical education. He was its President for 14 years until 1911 and remained in H. J. Fleure’s words ‘a great source of strength to the young Association’ (Fleure, 1953). New personalities emerged, most notably A. J. Herbertson, Mackinder’s first assistant at Oxford, who became Honorary Secretary in 1900 and began the publication of *The Geographical Teacher*, the forerunner of Geography. Perusal of the early volumes brings alive again the vigour of the discussions of the time, for example, on regional surveys, local studies, the use of maps, classroom practice, syllabus formation. The first volume carried Herbertson’s splendid paper ‘On the One-Inch Ordnance Survey Map, with special reference to the Oxford sheet’ together with a copy of the map itself (Herbertson, 1902). Here was the university teacher providing the kind of leadership for teachers of which Keltie had dreamed. Also notable in the first volume is the report of an address by James Bryce on ‘The Importance of Geography in Education’ (Bryce, 1902) yet another example of the continuing crusade. Others took up responsibility. One such was G. G. Chisholm (Wise, 1975) who had deputized for Freshfield in his absence and came to play a leading part. J. F. Unstead was much involved and as more university teachers were appointed they too played their parts well, among them H. O. Beckit, P. M. Roxby, James Fairgrieve and the never to be forgotten H. J. Fleure, to name only some. By 1914 when Keltie gave his Presidential review of 30 years progress, there were over 1000 members (Keltie, 1914). He was, on the whole, satisfied with the progress that had been made, especially in schools where the ‘battle had been fought and won, and the future of the subject in schools of all grades rests chiefly with the teachers’ (Keltie, 1914: p. 221).

One object remained, that of geographical research itself. This had been much in the minds of Freshfield, Keltie and their supporters. Eventually as universities all over the country recognized the value of geography the results of research began to appear. A new outlet for research was required and almost fifty years after the crusade had begun the university teachers themselves set about providing it by forming in 1933 their own body, the Institute of British Geographers. It is noteworthy, in view of what has sometimes been thought, that Keltie’s successor as Secretary of the RGS, A. R. Hinks, was a founder member (Steel, 1984; Garnett, 1983).

*Freshfield and some of his allies*

Dorothy Middleton, writing of George Adam Smith, has indicated the importance of the influence of ‘those geographers, more common in an earlier generation than today, who are led by enjoyment of the open air to an appreciation of landscape and thence to an understanding of its effect on mankind’ (Middleton, 1977). Such a man was Douglas Freshfield, who, more than any other, gathered the forces, led the crusade and followed it through to success. Freshfield was still only 40 years of age at the time of the completion of Scott Keltie’s report. He had taken honours in law and history at
Oxford and had been called to the Bar but, having ample means, never practised. From boyhood he had been familiar with the Alps and had ascended Mont Blanc while still at Eton. It was a time when the enjoyment of mountaineering as a sport rivalled scientific research as a motive. The Alpine Club had been born in 1857 and the first volume of the Alpine Journal appeared in 1863. T. G. Longstaff remarked (Geogr J. 83: 1934) that Freshfield had made at least 20 first ascents in the Alps in the 1860s and 1870s. But his great geographical work was accomplished in the Central Caucasus, an area, at the time of his 1868 journey, very little known to European geographers and inadequately mapped. His Travels in the Central Caucasus and Bashan appeared in 1869: he was still only 24. It is a remarkable book, full of enthusiasm and reports of adventures with hampering officialdom and hostile tribesmen. The first ascents of Kazbek and Elbruz were notable mountaineering feats. What impresses still more is Freshfield’s eye for country and power of description. Many gaps in knowledge were filled, and misconceptions corrected. His ‘strolls’ around Tabreez and Tiflis yielded vivid little pen-pictures, the product of a perceptive eye. Freshfield was to re-visit the Caucasus again in 1887 and 1889 and to write much more about the region (as well as his classic biography of de Saussure (Freshfield, 1920). A new map was constructed from his observations by E. A. Reeves, the Society’s Instructor and Map Curator. Reeves who had joined in 1878 remarked that Freshfield was ‘always held in the greatest esteem’ and that ‘he was always a great worker in the cause of geography. . . one of our leading authorities on all mountaineering and Alpine matters; and on geographical education, too. his view was greatly respected’ (Reeves, n.d: 43–46). He was to become President of the RGS from 1914 to 1917.

More important to our present theme is the influence which he exerted on the Society’s educational policy during his term of office as Honorary Secretary 1881–94. ‘His power of organisation and abilities’, reported Longstaff, made his tenure of office memorable. He had great powers of persuasion. He applied these to many, including Clements Markham, his colleague as Honorary Secretary. Markham had looked ‘with some hesitation’ on the proposal for insisting on the place of geography in national education and providing grants towards the costs of appointment of teachers at Oxford and Cambridge. But, wrote Freshfield, ‘it was partly through my persuasion that he overcame any doubts: and the scheme once launched, he joined with all customary energy in its furtherance—in fact he adopted it as his own’ (Freshfield, 1916). Markham served at various times on the geographical boards of both universities. There is also extant an article in which Markham urges upon his old school, Westminster (of which Richard Hakluyt had been a pupil) that ‘there is no study so fascinating, no pursuit so absorbing as geography in its different phases’ (Markham, 1902).

Freshfield, were he here to speak for himself, would, I am sure, say how much pleasure he obtained from his work, in its early years, for the Geographical Association and how he rejoiced in the improvement of geography that it was instrumental in achieving.

I propose to say little about Francis Galton whose name has appeared frequently. Freshfield said of him that he was ‘more critical than constructive, ever at hand ready to point out objections to schemes that were substitutes for his own’ (Freshfield, 1927): an understandable comment in view of the debates of 1883–84 but perhaps a little severe in the light of Galton’s very long interest in geographical education. Galton himself wrote in 1909 (p. 212) that ‘I helped in this at first but Mr Brodick and Mr Douglas Freshfield and others took the matter more thoroughly in hand’. That too is an understatement of his contribution. However, according to Stoddart (1986: 87) Galton was equivocal in his support for Keltie. But Professor Freeman and others have written at length about Galton and he need not be dwelt upon further (Freeman, 1967; Middleton, 1975).

Of all those who supported Freshfield and Keltie probably the most eminent was James Bryce. Bryce had learned from his father, James Bryce the younger (1806–77), a brilliant teacher of mathematics and geography at Belfast Academy and Glasgow High School. James Bryce the younger loved field studies and explored the geology of Northern Ireland (especially the Giant’s Causeway), Scotland and northern England. His end came on the shores of Loch Ness through wielding his geological hammer too vigorously and disturbing rocks which fell upon him. Our James Bryce, born in Belfast
in 1838, numbered Humboldt's *Aspects of Nature* among the books of his childhood. Later he was to rise to eminence as historian, political scientist, diplomat and statesman (Ions, 1968). He was three times a Cabinet Minister, a very distinguished Ambassador to Washington and one of those who helped to found the League of Nations. Queen Victoria said of him, 'I like Mr Bryce. He knows so much and is so modest'.

What did Mr Bryce know that made him so valuable an ally? He had travelled and climbed extensively in Iceland, the Pyrenees, the Tatra, and in Mauna Loa (where he nearly fell into the volcano). In the late 1870s he had travelled widely in southern Russia, Armenia and the Caucasus. He had climbed Ararat in 1878, alone for the last stages. His interest in Trans-Caucasia must have brought him into contact with Freshfield. He became an advocate of the Armenian cause. For a time he had contemplated joining Garibaldi. His experiences, also on travels and surveys in the United States, had brought home to him the close relationship of geography and history. Geography was, or could be, 'the key to history' (Bryce, 1902). Geography, with its training in observation, brought students of the Human Sciences into contact with the Natural Sciences.

Bryce had also gained valuable experience of English schools while serving as an Assistant Commissioner for the 'Taunton' Schools Inquiry Commission 1864–67. He had written a report on the schools of Lancashire, Shropshire, Worcestershire, Monmouthshire and South Wales. Thereby he had helped to prepare the way for Forster's Education Act of 1870.

At Oxford his reputation was high. It had been gained originally through his Arnold Prize Essay later published (1864) as *The Holy Roman Empire*. He had refused to sign the 39 articles on admission to Trinity College, Oxford. From 1862–89 he was a Fellow of Oriel, and from 1870–93 Regius Professor of Civil Law. He had been associated with the beginnings of Owen's College, Manchester. He had advocated closer links between secondary schools and universities, as well as the raising of standards of education for women. He had argued for the public right of access to the Scottish Highlands. He was a Member of Parliament from 1880–1906. Keltie obtained from him a helpful letter which was included in the Appendices to the report. ‘One would therefore believe that both teachers and the more advanced students of history would largely profit by the establishment of a Chair of Geography, one of whose main functions would be to treat of the physical features of the world and especially of the dwelling places of the great civilised races as praecognoscenda for history’. Moreover, a good teacher of physical geography would. . . ‘greatly interest and stimulate young men by pointing out to them how and what to observe and indicating the relations of the various sciences of observation to one another’ (Report: Appendix Z).

Bryce, it should be said, was himself a brilliant teacher who could, as reported by H. A. L. Fisher, attract undergraduates even on summer Saturday afternoons. He was ‘an alert, wiry, grey-bearded man with clean cut features and flashing blue eyes. . .’ (Ions: 84).

Despite the many calls to public service that were made upon him, Bryce continued his interest in geographical education. A paper from him will be found in the first volume of *The Geographical Teacher* and he was, for many years, a Vice-President of the Geographical Association. Many appreciations have been written of Bryce, but few by the geographers whom he greatly helped. The RGS, however, honoured him with its Honorary Membership (Freshfield, 1922).

Another ally was the Hon. George Charles Brodrick, a member of Council 1869–79. He had travelled in India in his youth, returning to Balliol College where he had a very distinguished academic record and was President of the Oxford Union. He also took a London Ll.B degree and read for the Bar but turned to journalism and joined the staff of *The Times* in 1860. It is said that he wrote no less than 1600 articles between 1860 and 1873, mainly on political themes. He was described as 'a liberal, philosophical radical reformist'. He failed in three attempts to enter the House of Commons. Galton acknowledged his help in establishing the scheme of Public School Medals (Galton, 1909). He was a member of the London School Board 1877–79. In 1881 he became Warden of Merton (D.N.B. 2nd Supp. 1912). He spoke strongly in the discussion after Bryce’s lecture in January 1886 urging on the RGS the importance of establishing a
university lectureship at Oxford. He was a representative of the Society in the discussions which took place over the establishment of the Readership and later did much to pave the way towards the establishment of the School of Geography (Scargill, 1976; Galton, 1909).

There was also, to give one further example, Professor H. N. Moseley, Fellow of Merton College and Linacre Professor of Human and Comparative Anatomy in the University of Oxford. Moseley had studied natural science in Vienna and Leipzig, as well as Oxford. His reputation had been firmly established as botanist on the Challenger expedition 1872–76. He visited the USA and Canada and wrote an important report on Oregon. Already a Fellow of the Zoological and Linnean Societies, he had joined the RGS in 1881. Moseley’s Exhibition series lecture on 26 January 1886 revealed his knowledge of the progress of geography in German and Austrian universities. Physical geography, he said, ought to form part of every liberal education. Blouet (1975) has suggested that Mackinder’s appointment at Oxford owed a good deal to Moseley who had been his Professor when Mackinder had obtained his First in Natural Sciences in 1883 and had thus acquired the interest in the biological sciences that was to prove influential in his geographical work.

Stoddart (1975) has already indicated the assistance received from Professor Alfred Newton of Cambridge. More should also be said, among others, of E. G. Ravenstein but Grigg has already written an appraisal of his work (Grigg, 1977). However, Ravenstein may have had more influence at the time than Grigg has indicated.

Conclusion

What John Scott Keltie, then, only a ‘fly on the wheel’? Clearly, Douglas Freshfield was the leading force: it was he who brought Scott Keltie into the line of battle. But would the crusade have been so successful without Keltie’s achievement in producing the Report so quickly, organizing the Exhibition and taking leading roles both as a speaker and in the skill of his organizing work accomplished so effectively from his chair in the Library at 1 Savile Row?

Mackinder said in 1895 that ‘as a consequence of Mr Keltie’s report... to begin with and as a consequence of a gradually increasing interest in the subject there is an esteem for geography which, although I will not say it is universal, is vastly different from that which existed eight years ago’ (Congress Report, p.90). There were immediate practical results. The Exhibition had inspired changes. To give but one example, the Bradford School Board and Bradford Grammar School had placed themselves in the forefront of the movement to improve teaching methods by devising a competition (Proc. RGS NS9, 1887 pp. 250–251). A review of F. D. King’s map of Yorkshire originally produced for that competition and later published (Proc. RGS NS10, 1888 p. 184) commented ‘this map is the direct result of Mr Keltie’s remarks’ at the opening of the Exhibition in Bradford and ‘shows a very marked improvement’. Publishers revised and improved maps and books and such improvements were to become general. In his ‘Reminiscences’ to the Geographical Association, its founder B. B. Dickinson wrote ‘The exhibition was an object lesson to the general public and to our publishing firms’ and ‘The Report is an important historical document from which even modern teachers might glean valuable hints’ (Dickinson, 1931). Professor R. N. Rudmose Brown suggested that the Report ‘may be regarded as inaugurating the scientific study of geography in the schools and universities of Great Britain’(Rudmose Brown, 1937). Late in life, Freshfield wrote to Scott Keltie ‘When I look at the Society’s activities now and what they were in 1870 I think we may say between us we broke a good many bad traditions and set up a lot of new activities’ (Freshfield MS, 3 June 1926). This puts Keltie’s role as that of a friend and partner. The evidence which he compiled of the standing of the subject elsewhere, of the equipment in use, of the teaching methods, of the evolving theories, especially in Germany, of geographical science, provided the ammunition for the crusade. Once it was launched, his abilities as a speaker and organizer placed him as a leading member.

Freshfield said, when thanking Keltie for his Presidential Address to the Geographical Association (Keltie, 1914)
For many years we have worked together in this matter of geographical education... The initial advance was made when you were sent abroad. When you came back you urged that the first step needful for the improvement of geographical education was to attack the older Universities. The Council acted strenuously on your Report. From that time onwards there has been no halt in our progress.

He also said

All geographers are grateful to Dr Keltie for the wonderful way in which he has worked for their science. Dr Keltie has done, perhaps, the most remarkable work that has been done for geography by any man in this generation. Keltie had been 'the man at the wheel' (Freshfield in Keltie 1917: 376).

Mackinder wrote to H. R. Mill in 1935, 'It is indeed for both of us a glorious thing to have lived to see what I soberly believe is the beginning of the triumph of our youthful ideas' (RGS archives). He readily acknowledged John Scott Keltie as the man who had provided him with his great opportunity and whose Report had been the basis on which that triumph had been built. Mackinder, in 1914, said that it was Scott Keltie's Report which had 'broken the circle'. 'I am', said Mackinder, 'speaking in praise of my father in geography'. (Keltie, 1914). There could hardly be a finer tribute.

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