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## MACKINDER AND THE PROFESSIONALIZATION OF GEOGRAPHY IN GREAT BRITAIN

*Abstract* - According to the thesis of professionalization of scientists, during the 19<sup>th</sup> century a well-defined social group of professional scientists emerged. That article tries out the professionalization thesis through a precise experience, that of Halford John Mackinder (1861-1947), British geographer, often considered founder of the modern discipline in his country. Mackinder's life and career proved to be congruent with the professionalization thesis, and in particular with the scheme devised by G.H. Daniels which divides the process in four moments: preemption, institutionalization, legitimation and autonomy. In fact, H.J. Mackinder contributed to define Geography's content and boundaries (particularly respect to Geology and History), to establish the first geographical Readership and the first geographical University School in England, to find its benefit for the society, and then tried to sustain himself by the profession of Geographer.

In the 70s of the last century came into vogue the discourse of professionalization of scientists. According to this interpretation, during the nineteenth century scholars from natural sciences (which, with a neologism of that time, began to be called "scientists" rather than "natural philosophers") came to be a well-defined and professional group, more or less in opposition to the clergy, guardian of the traditional doctrine of not empirical but deductive and religious derivation. This view was later challenged: in particular, some historians have criticized its proponents for an anachronistic use of twentieth-century sociological category of "professional", or excessive schematism<sup>1</sup>.

In this paper we do not examine in depth the stages and the nature of this discussion, since there wouldn't otherwise be space to develop what is the theme of this article. Therefore, the assumptions of the discourse on scientific professionalization in the nineteenth century, according to the features and the characteristics described below, are assumed as hypothesis. We will seek to avoid too rigid schemes, but we are well aware, however, that a certain degree of simplification is necessary in any approach that wants to pierce the veil of the natural complexity of the real.

The discourse of professionalization will be tested by observation through the prism of a personal life, that of Halford John Mackinder. This is a significant check because Mackinder was one of the most important British geographers of the period at the turn of nineteenth and twentieth centuries. First English reader in geography, he was often referred to as the founding father of modern geography in England (Wooldridge and Linton, 1955, p. 152; Parker, 1982, p. 8; Coones 1987, p. 22-24, Martin and James, 1993, pp. 205-208; Walford, 2001, p. 65) .

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1 Among the works that have adopted the perspective of the "professionalization" in describing the development of the British scientific community (the one that is most interesting for the purposes of this article) in the Victorian era, in addition to those contained in the references of this article, can be cited also: Burrow (1966), Cannon (1978), Heyck (1982), MacLeod (1988), Perkin (1989). Criticism to the application of the nineteenth century sociological models of professionalization are contained in: Geison (1978), Alter (1987), Goldstein (1987). A criticism of the lack of attention paid by historians to amateur scientists in the 19<sup>th</sup> century U.S. is in Kohlstedt (1976b) .

*The scientific and geographical professionalization in the 19<sup>th</sup> century* - Well before the publication of Darwin's *On the Origin of Species* (1859), the idea of evolution had already formed an important part of the scientific revolution that took place in previous centuries. There had been a shift from the fixity of thesis deduced by theology to discussion and empirical testing of hypotheses derived inductively from direct observation. From the Copernican revolution spreaded in astronomy an interest in the evolution of stars, galaxies and the universe around. Biology, having abandoned creationism, was going to take care of the evolution of living species. The modern geology began when scholars perceived that continents are not fixed entities but subject to the movement of tectonic plates.

The scientific revolution was accompanied by other processes: specialization, and therefore fragmentation of science itself, and its professionalization. Science is divided into various disciplines, various sciences, and polymaths became increasingly rarer because each subject had an increasingly larger corpus of techniques and methods which are difficult to absorb for those who hadn't a long academic preparation behind themselves (Stevenson and Byerly, 2000, p. 11). If the early modern scientists were often amateurs, in the literal meaning of the word, who found elsewhere the means to devote themselves to science and whose interests often touched many disciplines (*ibid.*, p. 8), in the nineteenth century took place the process of professionalization of scientists and of insertion of the new sciences in universities<sup>2</sup>. A tangible sign of that in Britain is the fact that in the mid-nineteenth century the Royal Society reconsidered its admission criteria, reserving it only to persons of recognized scientific stature (*ibid.*, 2000, p. 10). The process was obviously progressive (Kragh, 1998, p. 339; Gross, Harmon, and Reidy, 2002, p. 118): the fact that many scientists were able, for the second half of the nineteenth century, to find employment at universities, museums or scientific societies, did not eliminate the reality, still substantial, of private amateurs that, having their own means, dedicated themselves to science. One prominent example, in Britain, was Charles Darwin (Stevenson and Byerly, 2000, p. 11). Reingold has therefore proposed a classification less rigid than professionals vs. amateurs: in his opinion there could be found "enthusiasts" (amateurial supporters), "practitioners" (i.e. those who lived of science) and "researchers", the latter defined as those who assumed leadership of the scientific community (Rothenberg, 2011, p. 456).

Claval (1964) and Capel (1981, pp. 79-82) identified a significant gap between modern geography, roughly post-1870, and the previous one. In particular, the Spanish scholar attributes the 'institutionalization' of geography to several factors, including its instrumentality to European imperialism (*ibid.*, p. 82), but it places particular emphasis on the increase of schooling, which induced a greater request of teachers and geographical texts, and therefore of the specialized agencies that can produce them (*ibid.*, p. 92-93). The spread of geography in the lower levels of education, according to Capel, preceded and stimulated it in the university system (*ibid.*, p. 97): so much so that in England, where the lower education spread more slowly, geography necessitated more time to become established in the university (*ibid.*, p. 147).

According to George H. Daniels' thesis (1967, p. 152), the professionalization process had four phases: preemption; institutionalization; legitimation; achievement of professional autonomy<sup>3</sup>. The first phase, which Daniels calls "preemption", refers to the exclusive possession of knowledge. Science from general became "esoteric" or, if you will, "elitist": a complex knowledge not only far from the common feeling of religious nature, but too specialized for scholars who do not devote themselves exclusively to it (*ibid.*, p. 152). The common man was no longer able to master or even just handle such in-depth and specialized knowledge, which became prerogative of a small elite of "initiated". The old "democratic" knowledge, based on the mere collection of facts, was replaced by a scientific and elitist one trying to

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2 According to Woolgar (1988) in 1800s ended the "amateur stage" of science and began the "academic stage", destined to end in 1940 to make room for the "professional stage" (i.e. applied science in industry and in the armed forces).

3 See, for a mention of the controversy aroused by the sociological thesis of Daniels: Numbers (1976, p. 497).

explain them (producing, for this very reason, disputes) (*ibid.*, p. 155). Vehicle of transmission of this esoteric knowledge (which corresponds to the shift of terminology from "natural philosophy" to "science") were journals, as instruments not informative but turned to the narrow confines of specialists (*ibid.*, p. 154): De Solla Price (1986, p. 8) has calculated that if journals were about 10 in 1700, they had become about 100 in 1800 and 10,000 by 1900. Bell (2006, p. 21) has renamed this stage of "darkening" of science to society as 'black boxing'.

The esoteric nature of science, however, posed the problem of the relationship and communication with the rest of society, which was addressed in the institutionalization stage. The institution defines who is part of a scientific community and who is not, but on the other hand is also used to communicate science to the public and to receive support. The institutional structures placed researchers in separate scientific fields, as a professional class, protecting its autonomy, determining the correct procedure and moderating disputes with some "official" sanctions on the theses accepted and those not accepted (Thurs, 2007 p. 5). The institutionalization served not only to separate scientists from non-scientists, but also followers of a science from those of another: it involved the definition of clearer boundaries between disciplines (*ibid.*, p. 96). Bell (2006, p. 21-22) believes that the transition from the "natural philosopher" polymath to the specialized "scientist" respond to different stimuli: having a definite prospect for career advancement; being able to handle the subject with greater security; meeting the modern need of classify and divide everything; claiming precise university spaces. With the authority that science had earned in society, in the third phase sought and obtained the legitimation of its claim. The esoteric and professional knowledge could clash with the more common general knowledge and needed, more so in a democratic society, public support; support that could be only win by showing its social utility (Daniels, 1967, p. 160).

On the fourth and last phase, the achievement of professional autonomy, Daniels' essay doesn't pull out. He believed, in fact, that it was chronologically unrelated to the time limit he had given to his survey, ie 1860, in relation to the U.S. case (*ibid.*, p. 152). May help us Rothenberg (2011, p. 455), according to which one of the two "strands" of professionalization was the development of employment opportunities that would support the differentiation between the various scientific groups. Although Daniels' thesis has the serious flaw of not sufficiently explain the last stage of the process of professionalization, and although his essay is focused on the North American context, he announced his intention to develop a general framework (Daniels, 1967, p. 151), which for the most part we will follow in this paper in an attempt to verify the discourse of professionalization of geography at the light of Mackinder's story.

It is important to note that the four phases described by Daniels can not be considered fully consecutive one another, but naturally tend to overlap. The same order as presented by the American scholar is in doubt. Capel (1981, pp. 98-99), describing a decade later the same processes, makes institutionalization preceding the reformulation of the content of geography, since in his interpretation the increase in job opportunities made converge on geography brilliant personalities of various training, stimulating a lively hybridization from which the discipline reborn.

In this paper we will attempt to demonstrate that the four phases described by Daniels were all present in British geography in the second half of the nineteenth century, and that will be done analyzing the career as geographer of Halford John Mackinder, perhaps the most important British exponent of the subject in those years. In the following pages it will be see how Mackinder's contribution to the professionalization of British geography framed in, and contributed to, its preemption, its institutionalization, its legitimation and also to the achievement of professional autonomy by geographers.

*Towards the professionalization of British Geography* - Sally G. Kohlstedt, in her study on the formation of the American scientific community (1976a) notes that around 1825 began to manifest a tension between amateurs, devoid of common interests and objectives, and scientists instead animated by professional ambitions (*ibid.*, p. 16). The latter were to set in motion the push to promote the study

and teaching of science, giving rise to the AAAS (American Association for the Advancement of Science), in which amateurs were still the majority, but control was firmly in the hands of professionals (*ibid.*, p. 133). A similar process can be identified in the story of the Royal Geographical Society (RGS). The RGS was founded in 1830 at the instigation of a club for travelers, and had many members from aristocracy and military (Stoddart, 1980 Table 1, cf. Keltie, 1917, p. 350). Stoddart (1980, p. 191) wrote of a "somewhat amateur, if not dilettante, approach to a subject not yet established in professional terms". In its act of birth the RGS stated as its purpose "the advancement and diffusion of this branch of knowledge so important and entertaining - geography" (RGS Archives, 1830). This is emblematic not only for the underscoring of the 'entertaining' character of geography, but also for the fact that 'promotion' and 'diffusion' are mentioned but not 'advancement'. Daniels (1967, p. 159-160) shows that in fact the passage from diffusion to advancement is a tangible sign of professionalization. During this period, the main activities of RGS were to collect and publish facts and information relating to geography (Markham, 1880). Even in the journal of the Society almost all articles were related to the exploration or the topography of the innermost parts of the globe. In 1837 the Secretary of the RGS, writing a report on the progress of geography, placed in the foreground the great explorations and then the topographical surveys (Secretary, 1837, p. 174), while completely omitted for reasons of space were studies concerning the geographical distribution of humans, animals and plants: the Secretary explained that such shortage would hit only the most superficial readers (*ibid.*, p. 194). Geography was still, recovering Daniels' scheme, at the stage of a mere "collection of facts".

In mid-century, two prominent personalities intervened to foster a change in the nature of the subject towards an analytical and explanatory one, and therefore scientific in the modern sense of the term: Sir Roderick Impey Murchison, several times (for a total of sixteen) president of the RGS between 1843 and 1871, which valued human geography as much as physical geography (Gilbert and Goudie, 1971, p. 509); and Thomas Henry Huxley, a central figure in promoting the entry of natural sciences in the British education system and the professionalization of scientists (Lyons, 1999, p. 11), who in his influential *Physiography* recommended to describe the physical characteristics of the world no longer in an harmonious framework with the teleological spirit of the past, but in a diachronic plot based on the principle of cause and effect (Stoddart, 1975, p. 20-21, 32).

After Murchison and Huxley, the physiognomy of the RGS and the British geography had changed. Although the Society had, in the '70s, two thousand members of which many amateurs, the Governing Council, whose members were recruited by co-optation, was instead the preserve of qualified persons (Stoddart, 1980, p. 191-193; Blouet, 1987 pp. 34-37). Particularly strong within the Council of the Society was a group of educators, who considered a priority to consolidate geography on the scientific, academic and university levels. It must, however, deal with those who preferred instead to persevere in the traditional emphasis on exploration.

The early 70's saw the death, in order, of Murchison (1871) and the famous explorer and missionary David Livingstone (1873). Then began what Max Jones (2005, p. 314) has defined a real transformation of the RGS, from then on dedicated on one hand to the training of a new generation of explorers (but not more adventurer but rather scientists), on the other to the distribution of the knowledge so collected through education. We recognize here the outlines of what Daniels would define "phase of legitimation": greater scientific rigor within its ranks, and thus differentiation from the rest of society, but dialogue with it to obtain its support. Notes Stoddart (1980, p. 194, 200) that this 'revolution' within the RGS was conducted not by scientists but by "talented amateurs" as Francis Galton and Douglas Freshfield: this is explained by the fact that, at the time, in the Society professionals were only geologists, which, however, by virtue of increasing specialization, went separating by geographers, leaving to the latter the task of creating their own professional niche.

*Mackinder and the preemption: On the Scope and Methods of Geography* - The attempts of educators to maintain control of the RGS and to promote the scientific study of geography continued, ups and downs, in the following decades. In this climate, in March 1886, the then twenty-four Halford John Mackinder made his entrance in the Royal Geographical Society. Since the autumn of the previous year,

the young Mackinder had chosen to devote to geography his lessons part of the extension lectures of Oxford<sup>4</sup>. He chose as name of the course the one of "New Geography", to not provoke adverse reactions in that "large percentage repelled by the very word geography and its then arid associations" (School of Geography 89, I, 1<sup>5</sup>).

At the time, geography in Britain was rooted only in the lower levels of education, and generally it consisted in the mnemonic acquisition of lists of cities, places, products, plants and animals (Coones, 1989, p. 13 ). A little higher-level space, indeed modest, began to be acquired in the new science colleges of province (Slater, 1988, p. 169-180), but in the universities lacked fixed teachings, not to mention degree courses (Unstead, 1949 p. 47). Occasional geography teachings were offered in the course of history or in the one of natural sciences, but in absence of professional geographers, historians and geologists were to keep them. This state of affairs was reported in 1886, in a report published on mandate of the RGS by J.S. Keltie (1886a and 1886b), who compared the teaching of geography in England to the more advanced on the continent. It was the encounter with Keltie, on the sidelines of a conference held in London on December 22, 1885, which had led Mackinder (at the time bachelor's degree in zoology and modern history, qualified lawyer and teacher of economics in the extension lectures) to turn finally to geography (SoG 88, II, 14; Coones, 1989, p. 15).

The teaching activities of Mackinder, and his attempt to communicate a new and more modern scientific geography, did not go unnoticed from the leadership of the RGS, who invited its young member to develop and deliver a speech on his own conception of the subject (Mackinder, 1921, p. 377; SoG 88, II, 14; 89 SoG, I, 1). The text was approved by the competent authority and the President of RGS Sir Clements Markham - by the latter with emphatic tones: "[...] the reading and consideration of this paper will form an era in the history of our Society" (Mackinder, 1887a, p. 172).

The title was emblematic (*On the scope and methods of geography*), and the paper can fall into the category of preemption, as aiming to claim the status of the discipline as a science (and therefore not easily accessible by all), and its possession by a new class, the geographers (opposing "raids" by historians and geologists in the discipline). It was, therefore, to define the boundaries of geography towards the outside of science and towards the followers of other sciences (Mackinder did no secret that one of his goals was to win the skepticism of critics about the indefiniteness of the subject to conquer a place at university level) (*Ivi*, p. 141).

Much of Mackinder's intervention served to deny a strict division between physical geography and human geography, with the first "an appendix of geology, the other of history" (*ibid.*, p. 142). In his view, they are just two branches of a single geography: human geography is the culmination of the geographical investigation, but must be based on the physical (*ibid.*, p., 1431). By analyzing the interaction between geographical phenomena, rather than just describe it, it was possible to identify cause-effect relationships that, in the opinion of Mackinder (1887a, p. 147, 160), were the element that gives scientificity to geography.

With regard to the distinction between geology and geography, at the time not perfectly clear,

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4 One of the most comprehensive books on the genesis, history and principles of extension lectures was written precisely by Mackinder: Mackinder and Sadler, 1890.

5 The bibliographic references to the archive known as the "Mackinder Papers" and preserved in the Bodleian Library (Oxford University) from now on will use the abbreviation "SoG", which stands for "School of Geography" (indication on the boxes that containing the documents), followed by the number of the box (original numbering of the fund). Note that the other two figures, in references in the text and in brackets in the final bibliography, are coordinates useful to identify a document within this fund that is not ordered, but do not refer to actual signatures on document itself. They refer instead to a framework, developed by this author, and published in Scalea (2013, p. 319-331). The presence of such a framework, which is a list of the contents of the archive, allows the identification of a document regardless of the actual position may it going to take because of changes voluntarily or involuntarily made by subsequent scholars who examine the archive. The same framework has been sent to the Bodleian Library, which puts it at the disposal of the new scholars of the fund, in order to hopefully be able to standardize references to the archive. The Roman numeral refers to the envelope, the Arab to the document inside the envelope. In the final bibliography, under "Documents Archive", the document is indicated for extended via a brief description (which corresponds, where present, with the original titration).

Mackinder (*ibid.*, p. 146-147) claimed that, although the two subjects shared many data, they differed in the scope of their research, face to the past for geology and to the present for geography. With regard to the difference between history and geography, Mackinder (*ibid.*, p. 154) identified a symbiotic relationship which, however, remarked the difference between the two professions: the historian studies documents of the past and uses geography to contextualize them; the geographer in the study of the interaction between man and environment uses history as a means of verification of its claims.

In the following years the geographer of Gainsborough devoted himself to investigate the qualities of the "geographical specialist", which he described as an eclectic and synthesizing scientist, who must learn mathematics, physics, geology, economics, and history (Mackinder, 1888, p. 532; Mackinder, 1921, p. 382, cf. Mackinder 1895, p. 375). He or she also had to master three arts: observation, mapping and teaching (Mackinder, 1895, p. 374-375) and had a perception "almost artistic" of the landscape (*ibid.*, p. 373). The ideal geographer for Mackinder (*ibid.*, p. 376, cf. SoG 88, II, 7 and Mackinder, 1935, p. 10), had to be a trained man of imagination, able to imagine three-dimensional objects and to read a map not unlike the way a musician reads the score, converting in his head the silence of the paper in music. Mackinder had therefore developed a definition and described a methodology to justify the claim of the status of science to geography. By doing so, he had pledged to affirm the unity of the subject and to prevent the geography was ripped to shreds by the more established "contiguous" science. Finally, he praised the quality of the geographer, emphasizing the large and difficult skills that he or she should possess. The role played by Mackinder with *On the Scope and Methods of Geography* and his other early writings appears to be consistent with the stage of preemption described by Daniels. From a purely descriptive and elementary geography, within the reach of anyone with normal memory performance, was passed to propose an analytical and advanced one, which required a broad background of scientific knowledge. The geographical knowledge was subtracted from the masses and reserved to the "esoteric" circle of scientists; moreover he outlined the figure of a new professional scientist, the geographer, who could take possession of that knowledge without having to share it with geologists, historians and scholars of other subjects.

*Mackinder and the institutionalization: the Oxford Readership and School* – In 1887, the year of *On the Scope and Methods of Geography*, British geographers were still lacking of positions and structures within universities. In addition, in the RGS there was yet a strong current thinking that exploration should be a priority with respect to the promotion of geography. For educators of the RGS, then, a double challenge was posed: to maintain control of the Society and to create new strong positions in educational institutions. The same paper of Mackinder was part of both of these logics: to promote the cause of geography outside (Mackinder, 1887a, p. 141) and that of education within (89 SoG, I, 1; SoG 89 X, 1; SoG 88, II, 14; Scargill, 1976, p. 444).

Since the early '70s, the RGS was committed to the promotion of geography at university level and was courting both Oxford and Cambridge. In 1884 the RGS Council had decided to support the appointment of a professor of geography if the two universities had given their consent and assistance (on these events, see Wise, 1986). Four days after the discussion of *On The Scope and Methods of Geography* at the headquarters of the RGS, February 18, 1888, the "Times" gave news of the debate, taking much part in favor of educators and the promotion of university geography. In addition, the December 8, 1886, that is before Mackinder uttered his address, it had appeared on the "Oxford Magazine" an anonymous article entitled *A Plea for Geography* (1886, a copy SoG 88, IV, 2), which follow widely themes of *On the Scope and Methods of Geography* - then not published but already handed over to the Education Committee of the RGS - so much so that it was assumed that Mackinder was the author<sup>6</sup>.

The time was ripe. On February 28, Oxford University announced the decision to appoint a Reader in

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6 To support the idea that Mackinder wrote it was Coones (1987, p. 8). According to Brian Blouet (1987, p. 38) to write it was instead a certain JF (or JR) Heyes, inspired, however, by the draft produced by Mackinder.

Geography, with a five-year contract and an annual salary of 300 pounds, the burden of which it was decided to divide equally between the university and the RGS (Scargill, 1976, p. 444). A joint committee of seven members, two appointed by the RGS and five by the University, was appointed to choose the person who would hold that role. The fact that the choice fell back on a young man depended on the relative modesty of the wage and the uncertainty of the long-term prospects, which made the location less desirable to more established scholars. Mackinder presented himself as an obvious choice. He had also convinced Clements Markham, who in 1884 declared himself still skeptical about the possibility of finding a person who mastered both human and physical geography (Wise, 1986, p. 369)<sup>7</sup>. In addition, the committee included a number of "educators" of the RGS.

The readership of Oxford was the first in a British university in geography from the sixteenth<sup>8</sup>. Beyond the high symbolic value, from the practical point of view, however, it suffered numerous flaws. The salary, as already mentioned, was not high and Mackinder had for a few years to continue teaching in extension lectures also. Derogating to his own convictions, he was forced to take separate courses in physical geography and human geography to attract more students (Mackinder, 1888, p. 532), and even so for years had very low participation in the teaching of physical geography (Mackinder, 1921, p. 378; Mackinder, 1931, p. 321; Mackinder, 1894, p. 29-30). Also, not everyone within the RGS appreciated his work. Already in September 1887, presenting his program during the annual meeting of the British Association, he went to meet more or less heavy criticism from a number of colleagues who considered it too ambitious or too little attentive to geology (Mackinder, 1887b, p. 698 -701). Later, others reproached him for not having lived up to his convictions on the unity of geography<sup>9</sup>.

In the early 90s a tough clash inside the RGS on the conferment of fellowship for women led to the resignation of the Honorary Secretary Freshfield and the return to presidency of Clements Markham<sup>10</sup>. Educators greatly weakened and Markham imposed a drastic redirection of funding from educational activities to missions of exploration (Blouet, 1987, p. 90). Payments in favor of extension lectures were interrupted, and Mackinder left them to devote himself to the new university college founded by him in Reading, and from 1897 as well as to the readership. In the opinion of the President of the Society, the work of Mackinder was too uncontrolled and was not giving tangible results (Scargill, 1976, p. 446).

The geographer of Gainsborough, however, did not give up its projects in the field of education. On the contrary, the readership experience allowed him to realize the need to train geographical specialists who, in quality of teachers in the lower grades, would train British pupils for advanced study of the subject in universities (Mackinder, 1890, p. 420; Mackinder, 1895, p. 378). In 1893 he founded, together with B.B. Dickinson, the Geographical Association, for teachers of geography of every order and degree, to facilitate the exchange of material and teaching experiences (Unstead 1949, p. 55). His goal, however, was to create a stable institution that would guarantee the training and employment of professional geographers: an institute of geography on the model of those who he had been able to visit during his trips to Harvard and in Germany (Cantor, 1962).

Mackinder knew he could not carry out his project without the support of Markham and, strong also of the consideration that the latter had for him as a scholar and teacher, he tried to reconcile it with the programs of the RGS' new president. For example, the creation of the Geographical Association found the support of Markham, because it allowed him to delegate to another entity that pedagogical work which he considered secondary for the RGS. Regarding the plan for the institute of geography, Mackinder labored under two aspects to win the sympathy of the President of RGS. The first was to propose the creation of the institute in London and embedding in it the courses of preparation for

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7 After the appointment of Mackinder at Oxford, Markham pinned the event in his diary describing the young scholar of Gainsborough as "a geographer of exceptional ability and great power of exposition" (quoted in Scargill, 1976, p. 444).

8 Although in previous centuries there were different occasional teachings of geography, no one had even been appointed lecturer in the matter. This rank was instead recognized in the sixteenth century to Baldwin Norton. One can not speak of "chair" because, in the Anglo-Saxon system, the chair is the sole prerogative of Professor.

9 He defended himself from such accusation in: Mackinder (1890, pp. 419-421)

10 On this affair see: Bell e McEwan (1996).

exploration wanted by Markham: that suited with Markham's aim of centralization and with his emphasis on scientific training of the explorers (Blouet, 1987, p. 90). Secondly, Mackinder sought to gain further credit in Markham's eyes wearing the clothes of explorer and engaging with a deed: climbing Mount Kenya, whose peak was still unconquered (SoG 88, II, 2; SoG 88 II, 14). Mackinder conquered it September 13, 1899, earning the applause of the President of the RGS (in whose honor he has named a chain of hills) for his exemplary exploration (Kearns, 2010, p. 191).

Thanks also to the preparation of the African expedition, the RGS had supported Mackinder's project (President, 1897, p. 603). On October 1, 1899 Mackinder, with the financial support of the Society, became director of the new School of Geography, University of Oxford (Scargill, 1976, p. 488).

*Mackinder and the legitimization: on utility of geography* - According to the scheme proposed by Daniels, as geographical knowledge was made "esoteric" (we might say "scientific") the subject institutionalized with the first readership and the first university school, the next step was to legitimize it in society. In fact, as it can be imagine, this step took place in conjunction with the others, and from the beginning amateurs of geography did their best in describing its social utility.

*On the Scope and Methods of Geography* opened with the recognition of the next exhaustion of "virgin" lands, and thus of the possibility of exploration, and the need for geography to find a new *raison d'être* (Mackinder, 1887b, p. 141). The first, and perhaps most important, was to act as a bridge between humanities and natural sciences. Mackinder believed that specialization (*ibid.*, p. 145, 154) had been pushed up to "disintegrate culture" (*ibid.*, p. 159-160), in particular by creating an abyss between humanities and natural sciences (*ibid.*, p. 145). In the modern era, according to Mackinder (*ibid.*, p. 160, 1921, p. 378), the bridge subject could be just geography, thanks to its hybrid nature of half natural, half-humanist "philosophy of man's environment" (Mackinder, 1942, p. 129), which brings together, integrates and synthesizes the knowledge derived from other disciplines (Mackinder, 1935, p. 10-11; SoG 89, I, 1).

The ambition that geography could serve as a common cultural basis was supported by its versatility, in the opinion of Mackinder (1887, p. 159-160), that made it useful not only to the man of science or letters, but also to the political or the merchant. While history has a "sterilizing" effect on acting, geography is more valuable for most people (Mackinder, 1921, p. 383): allows to acquire the "philosophical faculty of thought and expression" without losing the contact with current events (Mackinder 1931, p. 322). The merchant, the military and the politician will benefit from the study of geography because it will make them capable of facing problems concerning the spatial dimension of the Earth's surface (Mackinder, 1895, p. 376, cf. Mackinder, 1890th, p. 3-4).

Geography is maximally valuable for statesmen since, in Mackinder's opinion (1921, p. 380), "think strategically" and "think geographically" are synonymous. He compared a political map of the world to the "cartographic expression of the eternal struggle for existence" (Mackinder, 1902, p. 343). One of his most famous works was written just to urge Britain to be more realistic in its political action (Mackinder, 1919, p. 27-37).

On historical times, geography for Mackinder is useful to a people as a whole. A people, in fact, can effectively change the environment only if it knows it enough (Mackinder, 1930, p. 305-311). It is through the study of geography that humanity can overcome that inertia and redirect history, dictated primarily by the unequal distribution of resources on the globe (Coones, 1987, p. 18).

The biggest editorial success of Mackinder was represented by a series of textbooks on geography, designed for the compulsory school, which he named *Elementary Studies in Geography*. Education in general, for him who grew up in the era of the enlargement of suffrage to universality, was a safeguard of democracy (Mackinder and Sadler, 1891, p. 2, 46, 89; SoG, X, 1): an adequate education form the citizen giving him or her the necessary critical thinking for evaluating inputs from politicians and the press (Mackinder, 1913, p. 8).

Mackinder (1914, p. 251-252) furthermore did not forget that with their vote British citizens were called upon to support not only a nation, but the largest empire in the world. If history and literature were



used to develop patriotism in the population, geography in his opinion was the one that gave the practical tools to effectively govern overseas possessions (Mackinder and Sadler, 1891, p. 142, cf. Kearns, 2010, p. 189). Another result of the collaboration between Mackinder and M.E. Sadler was the activity of the Visual Instruction Committee, a body within the Colonial Office that was instituted to strengthen the imperial consciousness of the population through illustrated description of physical and human geography of the regions of the British Empire. Working with the photographer and illustrator Hugh Fisher, Mackinder realized *Eight Lectures on India* (Mackinder, 1910)<sup>11</sup>, in which emphasis was placed on the positive political and economic role played by London in the subcontinent (cf. *Ivi*, pp. 12, 20, 58, 130).

*Mackinder and the professional autonomy: living of geography* - Rationalization, systematization and seclusion of the subject in a separate compartment as an advanced science; its institutionalization in organizations attesting differentiation between specialist and non-specialist; the subject's legitimation in front of the society - are three stages required for scientific professionalization, at least in the scheme of Daniels, but that does not exhaust the process. Indeed, just missing is its crown: that is the ability for the adept to the new profession of living of it. The story of Mackinder is emblematic of the possibilities and the difficulties encountered in this direction by a British geographer who lived between the nineteenth and twentieth century.

Mackinder's father was a doctor in the province, whose family has reached a well off standard of living only shortly after the birth of John Halford (Blouet, 1987, p. 8). In 1874 the then thirteen Mackinder was sent to study at a private high school in Epsom specially created for the children of doctors. In those years, the availability of money of the teenager Mackinder was certainly poor, if to attend a lecture by physicist and educator John Tyndall he had to request a free entrance to the speaker (SoG 88, II, 9).

In 1881 he enrolled in Oxford in natural sciences thanks to a scholarship (Blouet 1987, p. 18-20). Received his B.A. in 1883 and having still two years of fellowship, Mackinder took advantage of the first for a second Bachelor's degree in history and the second to study law. He was aware that his studies in zoology didn't open many job opportunities (89 SoG, IX, 6), and hoped to make money from the second B.A. due to the enlargement in education then in progress in England (Blouet, 1987, p. 26). In 1884 he was also awarded a two-year research fellowship in geology (SoG 88, II, 14; Parker, 1982, p. 4) which allowed him to make a trip to Europe (but being careful to spend as little as possible) (SoG 88, II, 14). In 1885 he abandoned the course of jurisprudence to move, thanks to the support of his family, in London and there did directly an internship (Blouet, 1987, p. 28). He qualified for the next year and for a time practiced as a lawyer (*ibid.*, p. 29).

The move to London had placed Mackinder in a situation of urgent need of money, and also for that he got involved by M.E. Sadler in the extension lectures program of Oxford (SoG 88, II, 14 and 89 SoG, I, 1). Salary was sufficient for the maintenance of a single person and offered no career prospects (Blouet, 1987, p. 27). However, Mackinder was so much fascinated from teaching, and from geography that he discovered in those same years, to abandon the lawyer profession. In 1887 he obtained the readership at Oxford with a salary of £ 300 a year (Scargill, 1976, p. 444)<sup>12</sup>. Strong of the new income, in 1889 the geographer of Gainsborough could marry Emilie C. Ginsburg, daughter of the biblical scholar David<sup>13</sup>.

Although at that time the average gain of a resident in the United Kingdom was less than £ 56 per year (Clark, 2014) Mackinder (1921, p. 378) thought the wage is not very high, so much so that he continued to operate also in the extension lectures. With Sadler launched indeed in the foundation of an educational center in Reading, supported by the University of Oxford and a committee of local donors,

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11 On its realization see Ryan (1994).

12 Other £ 50 came from the RGS to visit Germany and update professionally (Blouet, 1987 p. 45).

13 They also had a son, in 1891, but he died in the crib. Later a conjugal crisis occurred and they separated.

and that a few decades later would become a university in itself, which still exists today. To run such a project Mackinder also gave up a tempting financial offer from the new University of Chicago (SoG 88, II, 14). In return, Oxford acknowledged him a senior studentship to act as principal in what was still a "university extension college" in Reading (89 SoG, I, 3 and 89 SoG, X, 1). Mackinder, however, continued to live in Oxford, where he maintained his readership, making commuting between the two cities about 40 km distant from each other. As a result, threatening to resign, he obtained from Oxford an increase in his salary as principal (SoG 89, I, 3).

In 1897, when the RGS interrupted its contribution to the readership, the salary of Mackinder for that particular job dropped from 300 pounds to 200 pounds (Scargill, 1976, p. 446) (the average earning in the UK was meanwhile ascended to £ 63.71 [Clark, 2014]). The same year came the separation with his wife Bonnie Ginsburg, who returned to live with her family. Nevertheless relations with the Ginsburgs remained good, so much true that Mackinder was with Hausberg B. Campbell, his wife's uncle, the co-sponsor of his expedition on Mount Kenya (1899). The latter had an estimated cost of £ 1200: RGS gave £ 200, while the remaining £ 1,000 was divided between Mackinder and Hausberg (Kearns, 2010, p. 100). Due to an incident in Kenya, Mackinder found himself having to shell out £ 130 more for an unnecessary load of rice brought to him by a British garrison: amount, returned home, he tried in vain to have back from the Foreign Office (SoG 92, I, 1 and 92 SoG, III, 1).

1899 also saw the crowning achievement of his goal to create a School of Geography. Mackinder, as Director and Reader, saw his salaries go back to 300 pounds, and could also have a new assistant (AJ Herbertson) to whom was awarded £ 270 a year (*ibid.*, p. 95-96). In January 1900, Mackinder also received the post of lecturer at the newly formed London School of Economics. Armed with this amount of assignments, the geographer of Gainsborough was able to give up part of his salary to increase that of another professor of the School of Geography (*ibid.*, p. 99-100).

Responsibilities, however, were becoming too much for both follow them with all due diligence and to not stir up ill-feeling around him, and so Mackinder abandoned in 1903 the leadership of the University Extension College, Reading, and in 1905 that of the Oxford School of Geography. However, he continued to teach in Reading, where he became Professor in 1907 (*ibid.*, p. 104-105). The associated loss of fees put back again, however, Mackinder in financial difficulties, which so received as a boon (SoG 88, II, 14) the appointment as director of the LSE in 1903, with an annual salary of £ 300 (Blouet, 1987, p. 126, n. 6). In fact, in later years a substantial part of the revenue of Mackinder was represented by copyrights from its geographical textbooks, published between 1906 and 1911 and who had a great success (Parker, 1982, p. 35).

The new project of Mackinder, however, was to abandon the academic work to devote himself to politics, and copyrights were not that enough (Blouet, 1987, p. 133)<sup>14</sup>. The opportunity came in the spring of 1908, when Lord Alfred Milner was able to convince Mackinder to leave the direction of the LSE in exchange for a pay of £ 850 a year for four years. Then the average earnings in the UK was just over £ 70 a year (Clark, 2014).

It has no sense here to inquire further into the life of Mackinder because, while continuing to teach in London for years, from 1908 onwards his main job was that of a politician and not of scientist.

*Conclusions* - In this article, we sought to use the story of HJ Mackinder, one of the most iconic British geographers of the period at the turn of the nineteenth and twentieth centuries, to illustrate the dynamics of professionalization of geography. In particular, it has been tested the G.H. Daniels' conceptual scheme of professionalization in four moments (pre-emption, institutionalization, legitimation, autonomy). The choice is motivated by the structural clarity of the theory: it is in fact wanted to avoid a direct intervention in the epistemological debate on the professionalization so that we can focus on the results of historical research on the geographer of Gainsborough.

The experiment has yielded positive results. Looking at the career of Mackinder through the prism of

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14 At the time a British MP did not receive any compensation.

the theory of Daniels, was observed that the former can easily be framed in the scheme proposed by the second.

Through one of his most important articles, *On the Scope and Methods of Geography*, and other minor writings, Mackinder worked hard to define the content of a scientific geography, and in doing so stated or reaffirmed the "right of possession" (pre-emption) of geographical specialists on the subject, with respect to both public opinion and other scientists (including geologists and historians) who were making raids and undermined the autonomy of the discipline.

Acting mainly within the RGS, Mackinder worked for the institutionalization of geography clinching two major successes: the readership and the School created in Oxford for geography. In the first case Mackinder merely fit into the final stage and reap the fruits of a long negotiation going on for years between RGS and the University, stimulated by the internal faction of "educators". In the second case, instead Mackinder was to take the initiative to propose the project and skillfully maneuvering within the RGS to get the support necessary for its realization.

Mackinder not only affirmed geography as an autonomous science, but also took care of legitimizing it in front of the society. It identified the major strengths in its practicality / usefulness in balancing modern culture by acting as a bridge between humanities and science, and in its strategic value.

Finally, it was noted that Mackinder could live performing the profession of geographer, but having to couple it with the directionship of colleges and universities, until he left the profession to devote himself to politics.

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