Anthropology in Transition: A Study of the Sciences of Man at the British Association for the Advancement of Science, 1866-1870

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The candidate confirms that the work submitted is his own and that appropriate credit has been given when reference has been made to the work of others.

Abstract

The institutional history of Victorian anthropology during the 1860s has concentrated on disputes between members of the Ethnological Society of London (ESL) and the Anthropological Society of London (ASL), and the way that these disputes were apparently resolved with the foundation at the start of the next decade of the Royal Anthropological Institution (RAI). What previous accounts have missed out, however, is that this latter amalgamation became possible only thanks to sustained interaction between these two groups, especially throughout the later 1860s at the annual meetings of the British Association for the Advancement of Science (BAAS) – meetings that took place outside of London, involving many other groups with interests in the developing sciences of Man and typically taking place in a much more public, and publicized, manner than did ESL or ASL meetings. Drawing extensively on the periodical literature of the era, along with archival materials and other previously unstudied primary sources, this thesis reconstructs this protracted process of consolidation via a close examination of debates over the sciences of Man with a special focus at the five annual meetings of the BAAS between 1866 and 1870. By relating this reconstruction to major historical themes, including the professionalization and institutionalisation of science, science and religion, and the role of science in the public sphere and vice versa, the thesis attempts to bring the historiography of anthropology into closer contact with recent trends in scholarship on Victorian science generally.

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A.M.D.G.

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AR	*Anthropological Review*
ASL	Anthropological Society of London
BAAS	British Association for the Advancement of Science
BMJ	*British Medical Journal*
BSAP	*Bulletin de la Société d'Anthropologie de Paris*
DCB	*Dictionary of Canadian Biography*
DDE	*Dictionnaire du darwinisme et de l'évolution*
DIA	*Dictionary of Irish Architects*
DIB	*Dictionary of Irish Biography*
DSAB	*Dictionary of South African Biography*
ESL	Ethnological Society of London
GM	*Geological Magazine*
JASL	*Journal of the Anthropological Society of London*
MEB	*Modern English Dictionary*
NBD	*Naval Biographical Dictionary*
ODNB	*Oxford Dictionary of National Biography*
OED	*Oxford English Dictionary*
PASCE	*Proceedings of the American Society of Civil Engineers*
RAI	Royal Anthropological Institute of Great Britain and Ireland

SAL	Society of Antiquaries of London
SMJ	*Scottish Medical Journal*
SPA	Society for the Protection of Aborigines

1.0 Introduction

1.1 Rethinking the Sciences of Man in the 1860s

In 1871, after several years of methodical work, Charles Darwin published *The Descent of Man.*[1] With this celebrated book, the sciences of Man in Britain, which were seeking disciplinary consolidation, found definitive intellectual support from a novel evolutionary framework. In the same year the amalgamation of the Ethnological Society of London (ESL) and the Anthropological Society of London (ASL) was finally achieved, resulting in the establishment of the Royal Anthropological Institute of Great Britain and Ireland (RAI).[2] This year also saw the publication of one of the most representative works of this new vision of anthropology, *Primitive Culture* by Edward B. Tylor, which along with *Descent*, affirmed the place of anthropology under an evolutionary model.[3] These developments effectively brought to a close a tumultuous decade for these institutions, characterized at the start by opposing groups and entrenched positions, throughout which there had been no hope in sight of reaching a consensus that could form the basis of a strong future for the sciences of Man in Britain.

This thesis is an inquiry into the changes that, throughout the later 1860s, made the 1871 consolidation possible. Its focus is the forum where robust

[1] On Darwin and *The Descent of Man*, see Gruber *et al* 1974, Schwartz 1984, Kenny 2007, Radick in Ruse 2013.
[2] Stocking 1971, Stocking 1987: 238-273. An interest point to note, the two Societies were "amalgamated" even despite the appearance of ASL in 1863, since during the years of separation, and they shared rooms in the same building, located in 4 St Martin's Place, Trafalgar Square. See "Residences Of The Ethnological Society Of London, Anthropological Society Of London, Royal Anthropological Institute" (unpublished manuscript).
[3] Sera-Shriar, 2013b: 145.

consensus first began to emerge: the British Association for the Advancement of Science (BAAS). The BAAS could function in this way, as the London societies could not, because of its role as a neutral forum in which not only members of the ESL and ASL could come together, but also anyone else interested in the sciences of Man, even those with no specific affiliation. At the same time, the Association offered the best venue for presenting different subjects to the public, whether as attendees at its annual meetings held around the country or as reader of copious newspaper and magazine coverage of the meetings.

Despite the recognised importance of the BAAS for the advancement of Victorian science,[4] its importance for understanding the development of specific sciences has not been explored until very recently. Efforts to bring about reconciliation among those who were interested in the sciences of Man began in earnest at the 1866 meeting in Nottingham,[5] with the opening of a specific section, the Department of Anthropology, within Section D, itself renamed that year as Biology. Two famous Darwinians, Thomas H. Huxley and Alfred Russel Wallace, have been highlighted as being responsible for the momentum that had been given to the sciences of Man[6] and of a special place for anthropology at the BAAS from the early 1860s.[7] The encouraging start at Nottingham, however, was followed by turbulence over the next few BAAS meetings, which nevertheless concluded at the end of the decade with an agreement that satisfied all parties: the amalgamation of the metropolitan societies into a single institute

[4] Cannon 1978: 201-224, Morrell and Thackray 1981: 96-163.
[5] This was the formal beginning, although there were tentative agreements made at the 1865 meeting in Birmingham. The first attempts were made by James Hunt, with strong opposition from Sir Roderick I. Murchison. For a more detailed story, see Ch. 2.0. See also Withers 2010: 174-176.
[6] Lyons in Barr 1997, Henderson 1958, Sera-Shriar 2013a.
[7] Hodgen 1973, Stocking 1987: 254-262.

which would, from that moment, be in charge of dissemination and support for the discipline. After several years of continuing disputes and discussions, the sciences of Man had finally become a more defined and unified field. While presenting its analysis within a wider historical context, this thesis focuses in on the crucial five years between 1866 and 1870, in order to examine in detail the complexities involved in the consolidation of the sciences of Man.

How then did the sciences of Man come to this point? This thesis examines this question and a series of related questions. How far did discussions away from the embattled context of the ESL and ASL contribute to the achievement of consensus? To what extent has the focus on the Metropolitan societies obscured the wider context of discussion concerning the sciences of Man? What role was played by characters whose work was not reflected fully by the actions of metropolitan societies? What role was played by the public impact of these discussions? Did amalgamation result in a coherent and well-formed discipline? Did this merger achieve the aim of professionalizing the discipline by separating it from other forms of knowledge and practice, such as religion? Did the consolidation of Victorian anthropology in 1871 really amount to disciplinary unification?

In considering the sciences of Man within the BAAS in the 1860s the significance of the Association as a forum for discussion parallel to the events that happened at the same time in London becomes clear. Discussions in the Association were a clear sign of the diversity of interests that were included at that time in the sciences of Man, since we can find the presence not just of ethnologists or anthropologists, but also of phrenologists, archaeologists, and travellers, among others. The definitions proposed during the 1860s put emphasis

on that diversity, and contrary to defined specific limits –of anthropologists and ethnologists – a discussion occurred in which almost any topic that addressed some aspect of man could fit those definitions.[8] According to Secord in *Victorian Sensation*, to conceive a unified science was a difficult undertaking, due on one hand to the diversity of its practice, and also to the different ways in which it was perceived, which differed between gentlemen practitioners, the metropolitan scientific institutions, or the man in the street.[9]

Furthermore, the enormous diversity of competing notions of the sciences of Man found in the BAAS during the 1860s did not come to an end in 1871. Both in the BAAS and in London there was an ongoing and competing diversity that has been obscured by the more consolidated notion of the sciences of Man suggested by the RAI. In a parallel to the establishment of the RAI, a small group of former members of the ASL created a new version of its society, the London Anthropological Society. This Society privileged issues which were not considered in other learned societies: maintaining an almost exclusive interest in physical anthropology. However, its main purpose was to maintain an alternative view to the consensus reached by the RAI.[10]

The lack of consensus can also be seen in something as simple as the proper name which defined the sciences of Man.[11] It was an argument that marked the relationship between the two main associations dedicated to the study of man, each striving to use "Ethnology" or "Anthropology" as the proper name.

[8] The definitions that better exemplified this position were Broca (1859), Hunt (1863), and Wallace (1866), than with small differences, exemplified the practice of anthropology during the 1860s, the study of man in all his varied aspects.
[9] For an ample discussion on different perceptions about science, see Secord 2000, Ch. 12 to Ch. 14.
[10] The group was short-lived, lasting just over a year, but which published the first volume of a journal, *Anthropologia*. See Stocking 1987: 256-257.
[11] Stocking 1971.

Ethnology was a word with a longer pedigree, and referred to the study of man and his cultures, especially those considered primitive; anthropology, which etymologically related more closely to the study of man, began to discuss in greater detail the physical study of man. Each word, however, focused only on a part of what in the end was the practice of the sciences of Man in Britain at this time. Among the many specific practices that those who studied Man scientifically were engaged in were comparative studies of anatomy, knowledge of primitive cultures, the study of languages, their origins and their composition, works on physiology, and the mind. Whatever the label which would describe the practitioners of the sciences of Man, discussions outside London show people interested in those issues that could not be categorized simply as "ethnologicals" or "anthropologicals".

The backgrounds of those who addressed these issues were equally diverse. Although there were many naturalists, there were also doctors, lawyers, phrenologists, politicians and explorers who dedicated themselves to the study of man. That diversity in the practice and the backgrounds of those involved in the sciences of Man forces a reconsideration of what has been said so far about Victorian anthropology, especially in the crucial 1860s. This thesis shows that participants interested in the sciences of Man in the BAAS meetings are a reflection of this diversity, a situation that leads to a reconsideration of the lack of homogeneity in the sciences of Man, since despite having a single object of study, there was a wide variety of approaches.

This thesis, then, proposes a parallel story about the institutionalisation of Victorian anthropology from a forum undervalued by historians (the BAAS), offering a multidisciplinary vision which combines elements such as religion and

the importance of the locality. The following sections briefly review the historiography relevant to the thesis, under five headings: the sciences of Man, the BAAS, the beginnings of the professionalization of science and disciplinary formation, the relationship between science and religion, and the impact of discussions about science in public and especially in the provinces. The chapter concludes with an overview of the thesis, ending with a section on the history of the BAAS and the sciences of Man up to the 1860s.

1.2 Historiographical Orientation

A. The Sciences of Man

The standard historiography of the sciences of Man in the Victorian era has focused particularly on two institutions that I have already mentioned: the ESL and ASL.[12] Along with their main leaders such as James Hunt, John Lubbock, John Crawfurd and Thomas Henry Huxley, the current story is focused on the development of these institutions as the fundamental pillars on the development of the sciences of Man. Later, the focus is on the final agreement for the amalgamation that would unify forces after several years of confrontation, and allow a determined advance for the new discipline, anthropology.[13]

George W. Stocking's classic work examines in detail many aspects of what happened within anthropology through the entire Victorian era. Stocking's work is not entirely chronological, since he presents different aspects of the history of Victorian anthropology which follow parallel paths. His first interest is to establish how the idea of civilization was discussed in Britain, but also in

[12] Burrow 1963, Rainger 1978, Stocking 1987.
[13] Stocking 1987: 254-257.

France and Germany, as part of each country's effort to promote its view on the progress of society. The main background presented on the British case is ethnology, developed and promoted in the 1830s by the Bristol doctor James Cowles Prichard. Prichard represented a tradition within the sciences of Man that was strengthened by the work of travellers who collected information from different races around the world. Another important aspect in the development of Victorian anthropology emphasized by Stocking was the introduction of Darwin's ideas, which in many ways changed the sciences of Man, bringing a change of vision that would impact the anthropological practice. Stocking's book also importantly summarizes the context of the different institutions involved in the study of Man during the nineteenth century.[14] Inevitably for such an extensive survey, not all issues are examined in the same depth. The BAAS is one of those aspects that is more neglected, as Stocking gives a broad idea of metropolitan institutions, and marginally, what happened outside.

The neglect of the BAAS is also to be found in other studies of the sciences of Man in Victorians times. Stocking,[15] Burrow[16] and Rainger[17] have emphasized the institutional development of anthropology, especially the founding of ASL and RAI. Haller,[18] Lorimer[19] and Fee[20] themselves have presented various theoretical aspects of the discussions about the human races, as well as the sexual politics of Victorian anthropology. Gruber[21] and Kenny[22] have

[14] Stocking 1987.
[15] Stocking 1971.
[16] Burrow 1963.
[17] Rainger 1978, Rainger 1980.
[18] Haller 1970a, Haller 1970b, Haller 1971.
[19] Lorimer 1988.
[20] Fee 1973.
[21] Gruber 1974.
[22] Kenny 2007.

emphasized the role of Darwin and natural selection in the debate on the origin and age of the man, especially in relation to *The Descent of Man.*

Among the recent literature on the sciences of Man, the work of Desmond and Moore's study of Darwin's attitudes to slavery and the human races has been amongst the most innovative. Although not a work strictly on the history of anthropology, it provides many details on the discussions about the origin of man between the 1830s and the 1870s, following the argumentative axis of the development of the evolutionary vision of Darwin in parallel with his commitment against slavery, in the line with the efforts of his family to abolish slavery.[23] Another example that emphasizes the importance of Darwin's ideas regarding the study of human races, their origin and classification, is the work of B. Ricardo Brown. The most important point for Brown is classification, based on a historical account of the different perspectives from which the problem of how to classify the Man has been addressed, as in the case of polygenism. However he again stresses the influence of Darwin on the subject of the origin of man, very much like Desmond and Moore's proposal.[24] More recently, Sera-Shriar has deepened our understanding of the development of British anthropology in the nineteenth century through a detailed analysis of the ideas of authors who stood out for their contributions to this development, such as James C. Prichard, Robert G. Latham, James Hunt, and Edward B. Tylor. A key part of this work emphasizes the role of observational practices as a way to reinterpret the disciplinary history of British anthropology.[25]

[23] Desmond and Moore 2009.
[24] Brown 2010.
[25] Sera-Shriar 2013b.

The focus in this thesis on the BAAS as a more open forum for discussion of the sciences of Man opens a new perspective on the theme. Particular interest in the sciences of Man within the BAAS has not developed, except for small works such as those by Sillitoe, which briefly reconstructs what happened during 1860s, through to the consolidation of Section H, in 1884.[26] Analysis of what had happened within the Association has been limited, usually only referencing very specific events, such as discussions that have marked the historiography of science. An example is the famous debate between Huxley and Samuel Wilberforce, at the BAAS meeting at Oxford in 1860[27] (Figure 1.1) which, though it emerged from a discussion not directly related to the sciences of Man, quickly became the most familiar icon of the impact of Darwin's ideas about the evolution of man on anthropology.[28]

[26] Sillitoe 2004, Sillitoe 2005.
[27] Lucas 1979, Gilley 1981, Jensen 1988, Gauld 1992.
[28] Another debate happened at the same meeting but with little historiographical impact: once again discussion was led by Huxley, but in this debate Huxley clashed with the anatomist Richard Owen, especially over their differences of opinion about the anatomical similarities between humans and gorillas. See Rupke 2009: 194-196.

Figure 1.1 Oxford Museum[29]

We can highlight for example the work of Ellegård which includes a short analysis of the presence of Darwinism in the meetings of BAAS between 1859 and 1872, which focused also on the discussions about the origin of man in different sections though not with the same motivations outlined above. Ellegård highlights that "it was recognized that the meetings […] served a propagandistic function, papers had to be selected not only on the strength of their scientific quality, but also for their appeal to the general public".[30] On the specific case of the sciences of Man and the BAAS, the best known works are those by Hodgen[31] and Stocking.[32] Hodgen briefly presents the origins of ethnological discussions, especially the importance of the questionnaires prepared by James Cowles Prichard and Thomas Hodgkin following the meeting in Birmingham in 1839,

[29] *Illustrated London News* 6 October 1860: 310.
[30] Ellegård 1990: 92.
[31] Hodgen 1973.
[32] Stocking 1987.

which were given to captains and travellers to obtain information about different human groups with whom they came into contact during their travels around the world. In the case of Stocking, his work focuses on the long run of Victorian anthropology, and it is not his main objective to analyse the development of scientific institutions. Nevertheless, he draws attention to the discussions between the two metropolitan societies for control of the sciences of Man, pointing out that "the major arena of dispute was the annual meeting of the British Association",[33] and he provides a very brief history of what happened throughout the 1860s, while emphasizing what happened in London. The most extensive work that has been done on the BAAS in recent years is that of Withers, which suggestively explores the development of geography as a discipline within the BAAS between 1831 and 1939. Withers does not only emphasize the history of geography as a science, but also highlights the "historical geographies of science" as a way to understand the different ways in which science has been developed in specific contexts and moments. For the purpose of this thesis, it is important to emphasize the way in which he argues on three specific aspects of the place of geography, ethnology and anthropology in the BAAS; subject content, sectional relationships and scientific status.[34] Although Withers briefly discusses what happened with the sciences of Man during the 1860s, he leaves the door open to delve further into the importance of that decade for consolidating the study of Man at the BAAS as a single discipline.

Interest in the Association, and in particular in what happened in relation to the sciences of Man, has not been addressed systematically. In this sense, this

[33] Stocking 1987: 254.
[34] Withers 2010: 165.

thesis addresses a parallel story of the sciences of Man focusing not just on well-known characters such as Huxley, or the metropolitan discussions between ESL and ASL, but also on a detailed account of the first steps of anthropology as a unified discipline.

One of the main challenges we face is to explain the formation of a discipline like anthropology. In a pre-disciplinary history, the study of humans has been characterized by scholars with the more neutral phrase 'sciences of Man'. This terminology has its origin in David Hume (1771-1776) and his *A Treatise of Human Nature* (1739).[35] The term has the advantage of connecting actors with Hume's classical statement of the need to understand Man as a whole, an idea shared by different definitions of anthropology during the 1860s. Stocking highlights the complexities of the institutionalisation of anthropology, noting that "it is not surprising that the paradigm metaphor, which helped to illuminate the intellectual reorientation from ethnology to evolutionary anthropology, does not adequately characterize the day-to-day anthropological activity",[36] which was, in practice, extremely varied, to the point that the term discipline may be appropriate only in a very broad sense. Stocking provides what can be considered the standard explanation on the formation of anthropology as a discipline, by focusing on different aspects, such as institutions, publications, theories, and methods, all of them relevant in order to understand the general context of Victorian anthropology, though always based on the discussions in the metropolis.

[35] Tredennick 2011: 8.
[36] Stocking 1987: 268.

Sera-Shriar goes a step further, giving a concise account of British anthropology as a changing discipline during the nineteenth century, considering that anthropology was not an observational arm-chair discipline but a field-based science,[37] an emphasis in the practice as a distinctive disciplinary feature which can help to speak about anthropology as a discipline.

However, considering the sciences of Man and focusing on the BAAS, helps to bring out more clearly the full complexity of the contest over disciplinary identity in the 1860s. It was not just about anthropology and ethnology, as the ASL/ESL story might suggest, it was about a plethora of interlocking and competing discourses and practices in phrenology, medicine, natural history, geography, archaeology, philology, etc., and also of different people with diverse backgrounds looking for a collective identity. This thesis address these questions, providing an innovative view about how the sciences of Man became a discipline, a point that will be addressed in more detail below.

B. The BAAS in the 1860s

There have been a number of important and valuable studies of the history of the BAAS, exploring its origins and operations. While these studies provide important background to the present study, they have not attempted the kind of detailed study of the role of the Association in the development of a particular science as provided in the present study.

The classic work of Morrell and Thackray exposes splendidly the early years of the BAAS.[38] From a detailed description and study of archive material, they give us a vivid image of the Association, its operation, and the characters

[37] Sera-Shriar 2013b: 2.
[38] Morrell and Thackray 1981.

involved in its founding and consolidation. A point to highlight for present purposes is the importance Morrell and Thackray attach to the separation that was intended to demarcate the new association from the values of the great English universities of the era, Oxford and Cambridge, as the promoters of science. This did not mean a break with the values of Anglicanism and natural theology as the BAAS became a common space for both Anglicans and dissenters, sharing the common idea that there was design in Nature, while not necessarily agreeing as to its theological significance.[39]

At the same time, MacLeod and Collins in *The Parliament of Science* presented a work that highlights statistics, from the founding of the Association until the 1970s.[40] Through a series of essays, they deepen analysis not only in the origins of the Association, but also in other key areas in order to have a complete view of their operation. MacLeod and Collins look to the particular conception of science that the early BAAS sought to promote, while at the same time describing an incipient process of professionalization. Their account of the BAAS also highlights the public character of the Association which marked operations from its establishment, giving particular emphasis to its strong links with the provinces, in clear contrast to the London-focused centralization that had been given to previous scientific developments. This view of the BAAS was based in part on two major papers by Orange that help us to understand both the origins and the impetus to science in the provinces.[41] Cannon, meanwhile, sought

[39] See Topham in Harrison 2010: 59-79.
[40] BAAS 1981.
[41] Orange 1971.

to highlight the role of the Association in Victorian Britain in promoting the growing interest of the wider society in science, particularly in the provinces.[42]

Ellegård's work again deserves special mention, because although BAAS meetings were not the focus of his work, the public aspect of the meetings, reflected in the different periodicals and newspapers, allowed the summary presentation of the main events related to Darwin's ideas of meetings that took place between 1859 and 1872.[43]

Withers's book deserves special mention, not only for being one of the few recent works to have focused on the BAAS meetings, but especially for the level of detail of the investigation, without neglecting the sophistication of the arguments around the development of a specific discipline, such as geography. Withers's approach to the analysis of a single discipline is undoubtedly a breakthrough in the general understanding of the importance of BAAS meetings as drivers of Victorian science. Unlike Morrell and Thackray's work which mainly covered aspects of the organization and politics around BAAS, Withers achieves a reconstruction of how geography was changing over one hundred years, thereby giving a working model for other disciplines. One aspect that gives great depth to this work is the numerous primary sources. This is not a minor detail, if we consider that Withers himself points out the problem that arises in getting information about the BAAS: from official documents such as the minutes with an uneven coverage of what happened at each meeting to reports in newspapers that also varied greatly in their description and their perception of what happened, while also sometimes providing references to the public reaction

[42] Cannon 1978.
[43] Ellegård 1990: 62-94.

to the discussions.[44] Above all, an aspect that should be emphasized from this work is the focus on the importance of the local, what Withers characterizes as the historical geographies of science, which takes up an important aspect of the objectives for which the BAAS was founded in 1831, which was to bring science to the province. In this regard, as noted by Withers, there are two related aspects: "the first that science is not a standard enterprise and that it reflects local conditions in its making, cognitive content, mobility and reception, the second that science is a social construction, reflecting and directing particular social and political interests in those localities".[45] As noted in the previous section, a major contribution of Withers is to highlight the close relationship that existed between geography, ethnology and anthropology in the BAAS, an example of the interrelationships between scientific practices, where disciplinary boundaries overlapped, based on the Empire interests, in which geography was not only the study of physical aspects of the territories, but also of the human groups inhabiting them.

This thesis draws on these points, as they serve to pay attention to a discipline such as anthropology, with a complicated story in and out of the BAAS, which in the 1860s took its first steps towards becoming a disciplinary unit. As already mentioned, this decade is also of particular interest for the development of Darwin's ideas, as well as being a period in which important discussions on the origin of man were given. Taking up these ideas, the disciplinary development of anthropology becomes of particular interest, since the BAAS was the forum where the struggle between the two metropolitan

[44] Withers 2010: 13-14.
[45] Withers 2010: 4. An important recent work on the local significance of Victorian BAAS meetings, along with other scientific congresses, is Miskell 2013.

institutions was played out, and where the first steps were taken towards the unification of the practice of the sciences of Man. The work of Withers provides an especially valuable explanatory framework for a study of the development of a single discipline within the bounds of the BAAS, a scientific institution that must be assessed with particular care due the influence of the local in the dissemination and development of science, a particularity that gives to the Association a different perspective on how science was conceived.

C. Professionalization and Institutionalisation

Victorian science in the mid-nineteenth century has been described as a time of conflict between the practitioners of science: on the one hand the amateurs, which included clergy and gentlemen; and on the other the rising group of professionals, especially young men who saw in science a chance to establish itself in society. This is the vision that is generally recognized as the standard picture when talking about the professionalization of Victorian science, in line with the issues raised by the classic work of Frank Turner.[46] Those advancing professionalization found in BAAS one of their main strongholds, which Turner exemplifies with the presence and participation of Anglican clergy as presidents of sections; in the first 35 years of the Association their presence was noticeable in all, including as Presidents of BAAS, while in the next 35 years their presence was markedly shrunk, reduced to only 3 chairs in 2 sections.[47] A symbol of this transition was the famous debate between Huxley and Wilberforce at the Oxford meeting in 1860, on the theme of Man, a moment that can be seen as one of

[46] Turner 1978.
[47] Turner 1978: 367.

Huxley's first attempts to promote his vision of science as a professional alternative.

As discussed throughout this thesis, the professionalization of science especially within the BAAS is not a simple story of amateurs against professionals. It is clear that the presence of religion within the BAAS (and by this we mean not only clergy but also lay people with religious beliefs) declined throughout the 1860s, especially in the number of presidencies of sections. Nevertheless, their continued presence, including in discussions related to the sciences of Man, meant that they continued to have an important role (such as in the confrontations in 1867 and 1869 between John Lubbock and the Duke of Argyll), quite as much as the continued participation of characters with backgrounds as lawyers or politicians who were interested in anthropological topics. Promoting the participation of people with such diverse backgrounds was related to the initiative of the Association of giving importance to the local, a goal which, as we will see, impacted on meetings.

In fact, it is challenging to understand the process of professionalization that was part of the consolidation of science. As Turner showed, there were attempts by leaders of the BAAS in the 1860s to exclude religious concerns from the practice of science, but these proved to be only of limited success. The search for positions and recognition for scientists became critical for many of the Association's members. The forum created by the Association, with its emphasis on objective, scientific progress, was the ideal vehicle with which to publicly promote the vision of scientists as professionals, although it is clear that the distinction between professionals and non-professionals is complex and multi-faceted.

A recent study of the professionalization of science and its impact on religious discourse in the BAAS during the 1870s gives special attention to the role of sermons during the meetings of the Association, as part of a re-examination of the supposed conflict between science and religion and its implications for the secularization of science.[48] Although the aim of the paper is not to discuss the professionalization of science, it serves as an example of Turner's proposal, especially by conceiving the conflict between science and religion as one of the main reasons that secularization was promoted in the BAAS – as a synonym for professional – as an alternative to religion – which was characterized as amateur.

Now, when speaking about professionalization, we can see what Morrell[49] describes as a series of aspects of the process of scientific professionalization during the nineteenth century: "full-time paid positions directly related to the possession of scientific knowledge"; "specialized skills, which functioned as public certification of scientific competence"; procedures of training given and received at universities; specialized publications, with a particular language; a growing feeling of group-solidarity and self-consciousness, expressed both linguistically and institutionally;[50] and award systems to recognize the best practice, as a way to characterize the emergent new kind of practitioners of science. Morrell also emphasized the role of associations like the BAAS in this process, since they were important in proposing a models of how science might operate successfully. The BAAS focused its efforts on obtaining the favour of the

[48] Toal 2012.
[49] In Olby *et al* 1996: 982-984. For another account of this process, see Kjaergaard 2002.
[50] A clear example of this is the coining of the word "scientific" by William Whewell in 1833, at a meeting of BAAS in Cambridge. It was first published in an anonymous review of *On the Connexion of the Physical Sciences*, by Mary Somerville, (written by Whewell), a year later: see Yeo 2003: 5.

public and removing potential obstacles to the progress of science in the context of the "decline of science" debate. However, this was not always the Association's objective. The consolidation of the sciences did not necessarily lead to professionalization along any of the six lines mentioned above. Many of the members of the Association were gentlemen, with clear interests in science, but not all of them necessarily sought a post at a University, or received pay for their work. Many of those interested in the sciences of Man had a variety of professional backgrounds, such as doctors, barristers or politicians, so involvement in this field did not involve a single motivation.

As will be seen throughout this thesis, the theme of amateurs against professionals is useful at some points to help understand some of the attitudes about the advancement of science in the BAAS, but the same theme is not necessarily always useful. Turner can be useful in general terms in order to understand the relevance of discussions, such as those by Huxley on the role of science in society for example, but misses the point in regard to describing the state of science in the province. As we will see in the next section, the presence of religion in the BAAS meetings was much more important than the number of clergymen in the meetings might suggest.

Now, if we consider these six points of professionalization identified by Morrell, it is difficult to identify any large number of anthropologically involved individuals who met all the requirements. On these criteria, Darwin would not be a professional, but Huxley would be. Wallace would be closer to professional status than Darwin. James Hunt, head of the ASL, would be far from being a professional. In summary, in the mid-1860s, the status of a professional in science was one that would take many years yet to fully develop.

Alberti touches on many of these issues in his portrait of the professionalization of biology in nineteenth-century Yorkshire,[51] providing more insight into how complicated it can be to describe a professional of science in Victorian times. In general terms, his is a good description of the complexity of the relationship between amateurs and professionals, especially during the arrival of specializing practices in laboratories which worked to the detriment of those who focused on a vocation for science and did not have special qualifications in their background. At the same time, Alberti's history connects with the idea of the deepening development of science in the provinces, depicting the formation of a community of biological investigators in locations far from the movements in London. This is a work that brings forward a model to follow for the development of a specific discipline in the provincial context, as in the case of this thesis.

Also, this thesis will show that among those involved in the sciences of Man at the BAAS in the 1860s, there were many who were not employed in doing formal research on the topic, such as those who came into contact with diverse human groups by travelling around the world without, however, doing so with ethnographical ambitions in view. Also, the range of professional backgrounds was extremely varied, most of the times involving people that can be described as amateurs in Turner's terms, but who had a legitimate interest in the study of Man. It is also important to note the active participation of people from the provinces, or even from overseas, a point that can give new information about the practice of science in different places. Such work reveals that the advancement of science – and in the same way its professionalization – was not

[51] Alberti 2001.

the same in London as it was in the provinces, another reason to be careful when characterizing the practitioners of science as amateurs or professionals.

But professionalization is just part of the development of a scientific discipline. The complexity of scientific development makes the formation of a discipline equally complex to consider,[52] a problem for historians handling the rich diversity of forms of practice and theory in the period. We need to move to consider disciplines as knowledge in motion, in the sense that their limits are dynamic, in which different factors have to be considered, such as: internal and external intellectual processes, internal social processes, economic and social factors, among others.[53] Another view about how dynamic scientific disciplines can be is mentioned by Schaffer. He describes the ambiguity of a discipline, "as account of the world and programme for action",[54] stating the need for interdisciplinarity which provides "with innovative and flexible responses to ever more complex realities".[55]

Recently, however, historians have, begun more generally to explore the ways in which disciplines have come to develop. As one of the better examples of constructivism in history of science we can note the work of Jan Golinski, who establishes that professionalization has a limited explanatory scope when analysing the institutionalisation process of a scientific discipline,. He suggests, instead, focusing on "the local setting of science – the academy, court, university, laboratory, or lecture theatre – and on the particularities of practice that

[52] Lemaine *et al* 1976: 4.
[53] Lemaine *et al* 1976: 13-14.
[54] Schaffer in Barry and Born 2013: 57.
[55] Schaffer in Barry and Born 2013: 58.

characterize it".[56] Moreover, he claims that it is "disciplinarity" which can help us to understand the formation of a social identity for a group of practitioners, a concept inspired by Michel Foucault's work. Golinski argues that this offers an alternative to the professionalization model – such as the one proposed by Morrell for example – focusing on "the social dimension of scientific expertise and its extent through society".[57] For the purpose of this thesis, it is also important to note the importance for Golinski of scientific training, a point emphasized in relation to experimental sciences, but also useful if we consider the relevance of the practice in any field of knowledge; this practice, over time became "instituted in the sciences".[58]

Also noteworthy is the historiographical analysis of David Cahan, who recognizing the lack of specific research on institutions and scientific communities, focuses on providing an overview of the development of communities throughout the nineteenth century.[59] Alongside Golinski, Cahan recognizes the limitations of "professionalization", emphasizing instead the need for a social vision of scientific communities that "may be characterized as consisting of populations of individuals who share similar cognitive interests and values that serve to provide them with a collective social identity and to advance individual scientific careers and group needs".[60] This definition also recognizes the variety of individuals and backgrounds, stating that they become institutionalized when they "act in concert over an extended period of time and

[56] Golinski 1998: 55.
[57] Golinski 1998: 69.
[58] Golinski 1998: 72.
[59] Cahan in Cahan 2003: 291-328.
[60] Cahan in Cahan 2003: 293.

perceive themselves as bound together in some particular professional manner".[61] Cahan notes that this sense of group can be characteristic not only of an 'institution', but also of a 'community', 'discipline' or 'school', examples of the complexities of how to properly describe a group of practitioners of science. Also, these groups are not just strictly formal and academic groupings, but also can be social organizations or physical structures.[62] From all these kind of scientific groupings, and despite how diverse they can be, they share one common characteristic, a collective identity. For Cahan, the BAAS is one example of a scientific community at a national level, in the line of other national bodies such as the Gesellschaft Deutscher Naturforscher und Ärtze in Germany and the American Association for the Advancement of Science in USA, but in every case he is emphasizing how difficult can be characterizing a scientific grouping.

Another proposal is from Martin Daunton, who claims that popularisation and diffusion of knowledge is a process of legitimisation. But as he also states, knowledge is a complicated term. Daunton prefers to speak about organisation of knowledge instead of disciplines, since "it involves a combination of the social and institutional foundations of knowledge, the processes of obtaining cultural authority in order to speak as a knowledgeable person",[63] as a way to describe what a group of practitioners knows about a specific field. Similarly to Cahan, he noted the dynamism of knowledge, changing and varying from group to group, at different times, and even in different locations. From a historical perspective, in the nineteenth century "disciplines emerged and became well established with

[61] Cahan in Cahan 2003: 293.
[62] Cahan in Cahan 2003: 293.
[63] Daunton 2005: 10.

societies, professorships and journals",[64] there was nothing preordained that established the disciplinary limits, since differences arose between England and Scotland, London and the provinces as much more generally between Britain and Continental Europe.[65] In addition, he argues that "disciplines formed a hierarchy, determined by the status of their practitioners, the social cachet provided by different forms of knowledge, and the intellectual standing of their epistemology".[66] Daunton's analysis emphasizes that in Britain a scientific discipline must be experimental; this point became of particular importance for our purpose in relation to the status of the sciences of Man during Victorian times. In the same volume, John Pickstone describes in general terms science in England as incorporating a great variety of practices that in the past were described as being part of a unique science, but this unity can be seen as a political construction, in which the BAAS played a major role.[67] The sciences underwent many changes during the century, motivated by a lesser control of clerics, driven by aspiring professionals looking to establish societies and universities as part of a legitimisation process, and the BAAS played an important role in bringing order to science and scientific disciplines.

But not all the disciplines were experimental, such as the social sciences[68] and more particularly the sciences of Man. Withers provides a good example of this situation, when speaking about the relation of ethnology with geography. Knowledge about Man became part of the dominion of geographers, since both practices had the same interest in the end, to provide knowledge inspired in

[64] Daunton 2005: 12.
[65] Daunton 2005: 12.
[66] Daunton 2005: 12.
[67] Pickstone in Daunton 2005: 44-47.
[68] Porter in Cahan 2003: 254-290.

political intentions, such as the expansion of the Empire. Of special interest is how Withers presents the relation of the two disciplines in the context of the BAAS, by showing in this way the importance of the Association in developing civic sciences, showing how the disciplines were shaped by its practitioners and presenters – professionals and amateurs –, the places for its practice and dissemination – museums, universities, public halls –, as much "the imprint of local circumstances".[69]

Considering what was said by Golinski, Cahan, Daunton and Withers, the sciences of Man in the BAAS during the 1860s should be considered as part of a process of institutionalisation, in which a group of men of science who had Man as their objective, found a space – physical, social and intellectual – in which to share this common interest, at the same time influenced by local circumstances, as were the different cities visited by the Association. Also, the sciences of Man showed a variety of practices that were conceived under the same name that can be seen as a reflection of dynamism, in the search for disciplinary stability.

D. Science and Religion

The BAAS was founded as a result of discussions among scientific men from diverse religious traditions who were held together by a liberal view of how to practice science in relation to religion, and men of faith were important and influential throughout.[70] At the beginning of the 1860s, however, the presence of clergymen-naturalists in the Association declined, particularly as part of the organizational structure, but with moderate participation in the various sections, after many years of being a dominant part of most of the sections.

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[69] Withers 2010: 4.
[70] Morrell and Thackray 1981: 1-34, 224-245.

If there is an event that has been written about endlessly, linking the BAAS and discussions on science and religion, it is the rather well-known confrontation between Huxley and Wilberforce in 1860. Another widely discussed moment was the presidential address given to the BAAS by Tyndall in 1874.[71] These are two moments that have marked the discussion of science and religion within the BAAS and have been responsible for accentuating the conflict between them. But these are in fact far from representative moments. The result that has always been assumed to arise from that conflict is the pre-eminence of science over religion, a clear advancement of a position usually related with a progressive view of the world.

On science and religion in the Victorian era, a fundamental work is Turner's "The Victorian Conflict between Science and Religion: A Professional Dimension".[72] His general approach, framed by a sociological reading of the conflict between the two and emphasizing the professionalization dimension, has served as a base for many of the later claims that have appeared in the historiography on Victorian science. Clear examples of this conflict, the aforementioned examples of 1860 and 1874, as well as the emergence of Darwin's ideas, were the base which allowed the final public break between the two, for the benefit of the ever more important cause of scientific naturalism. An important part of Turner's analysis is to focus on the science-religion conflict within scientific institutions such as the Royal Society and the BAAS. As part of his proposal for the development of the professionalization of science, as mentioned in the previous section the importance he attributes to the decreasing

[71] Barton 1987, DeYoung 2011.
[72] Turner 1978.

role of clergymen in institutional activities is noteworthy. Turner evidences this by considering the number of chairs in different Sections within the BAAS, in two periods – 1831 to 1865, and 1866 to 1900 – , showing that the role of clergymen was less with the passage of time, always in parallel to the advancement of new scientific professionals.[73] Turner's analysis of the BAAS engages then in the impact of clerics which had a representation at an institutional level, but this was not necessarily a reflection of the same clergy participating in other activities during each meeting, or the fact that presidents of the Association or of sections openly stated their views on religious subjects. This point will be discussed below in the cases of Dundee in 1867 and Exeter in 1869, when the presidents showed how important was religion for their perspectives as amateurs of science (in the case of the Duke of Buccleuch) and as science practitioners (in the case of George G. Stokes).

Now, Turner states that there was a seemingly inexorable conflict between amateurs – identified as clergymen and gentlemen – and professionals – young men who were rising scientists – and this explains the conflictual relation between science and religion as two different and competing world-views in Victorian times. A discussion about how useful conflict can be as a rhetorical tool can be found in a recent edited volume, *Science and Religion: New Historical Perspectives* in which Geoffrey Cantor does emphasize the topic, in particular its importance to historians in the period for characterizing the relationship between the two forms of knowledge. But his approach focuses on considering the possibility of a conflict between the two subjects at different levels: people, institutions and doctrines. In Cantor's view, the risk of the conflict

[73] Turner 1978: 366-377.

thesis lies in falling into extreme views, promoting a vision that can appear anachronistic and subjective.[74]

More generally, the complexity of this type of study, as Bernard Lightman,[75] John Brooke and Cantor[76] have all noted, has made historians adopt different positions – conflict, harmony, independence, dialogue, and integration – with the consequence that their work has become selective in the evidence it employs, all too often taking for granted the complexity and diversity of the subject. In the light of these observations, Turner's view of the BAAS, insightful as it is, can be seen to tend to iron out the complexity of religion's presence in the Association. Due to local influences, in every meeting religion had a different kind of presence, such as clergymen from different churches, some of which acted as Presidents of Sections, or were speakers presenting papers, or were preaching in a church on the presidential speeches. In short, Turner's account can be too simplistic to explain the relation between science and religion inside the BAAS.

Nor should it be forgotten that the Victorian era, was, after all, a strongly religious period.[77] Science had to find its place in such a society, sometimes through conflict, sometimes through interaction. In order to understand discussions in the specific case of the sciences of Man, the framework provided by the relation between science and religion can give a different point of view: a view that can give us a better understanding of it.

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[74] Cantor in Dixon *et al* 2010.
[75] Lightman 2001.
[76] Brooke and Cantor 2000.
[77] Mitchell 1996: 243-260.

A meeting of the BAAS was an event in which religion traditionally had a prominent place. The week's activities included alongside the experimental demonstrations and geological tours, sermons aplenty, a fact recently noted by Toal.[78] From its inception, the BAAS sought to promote the advancement of science in parallel with the constant presence of religion.[79] Considering these points, we can recall Geoffrey Cantor's book on the Great Exhibition as an example which shows that this iconic technological event of the nineteenth century was overwhelmingly enmeshed in the intensely religious culture of the period,[80] which in turn can make us reconsider how far the BAAS really was secular in the 1860s. Both Cantor and Toal help to highlight how simplistic Turner's account is as a description of the interaction between science and religion and at the same time how complex that interaction really is, a point we want also to emphasize in this thesis.

Throughout this thesis, the intention is to show how this interaction between science and religion occurred in different ways, and certainly not always as a necessary or permanent conflict. The sciences of Man were particularly conducive to such discussions. The very presence of a specific space in which to present the sciences of Man was itself the subject of religious discussions. As we shall see, the refusal to reopen the Anthropology Department at the Dundee meeting in 1867, and its subsequent reopening in Exeter in 1869, are good examples of how the science-religion interaction played a distinctive role in a local context. Although in neither of the above cases can

[78] Toal 2012.
[79] Indeed, a particular view of science, which consisted more of a vocation or cultivate a particular commitment to specific knowledge. See Morrell and Thackray 1981.
[80] Cantor 2011.

one speak of the whole town being against or in favour of an open forum for the discussion of the sciences of Man, large segments of local society found discussion of the sciences of Man to be the perfect excuse to air their differences. In this sense, we want to follow David Livingstone's argument, that "reconstructing the historical relations between science and religion might […] benefit from a localizing strategy that seeks to situate responses or encounters in their respective socio-spatial settings"[81] as a way to understand the different contexts and the diverse influences that religion can have on science, according to social and cultural factors, related with the locality.

It should be noted, too, that the Association became a forum in which diverse views were represented, and so topics on the agenda included not only the practice of science, properly speaking, but also political and ideological topics closely intertwined with religious ones, such as American slavery, as we saw earlier brought out by Adrian Desmond and James Moore.[82] During the 1860s, as Turner showed, the presence of clerics in the Association declined significantly; yet their participation in sections D and E was nevertheless highly visible, through continuous presentations and discussions related to the ideas of Darwin, and in many cases, their application to man. Often, the clerics were part of the contribution of the local organization.[83]

E. The Public and the Provinces

From its beginning, the Association gave fundamental emphasis to locality. This is a point better characterised recently by Withers in his important study of

[81] Livinsgtone, in Numbers and Stenhouse 2001: 8.
[82] Basalla *et al* 1970, Desmond and Moore 2009.
[83] Ellegård 1990: 62-94.

geography in the BAAS. Withers sets out to "examine the connections between geography and science as social practices in place, using the BAAS as the central example and the relations between the geography of science and the science of geography as the ordering principles".[84] His approach thus serves to explore how different scientific practices were correlated with specific social environments, as is the case of the sciences of Man.

Jim Secord's work is exemplary when it comes to the analysis to be done on the impact and development of an idea in particularities of the provinces.[85] Based on a precise reconstruction of responses in various locations, Secord provides vivid images of how the publication of *Vestiges* was received in the mid-1840s. Each city, with different social, academic and cultural characteristics received Robert Chambers' vision differently. Similarly, Paul Elliott's work on the origins of evolutionary thought in the provincial Midlands can be highlighted as a concrete example of the reception of a scientific idea at the provincial level.[86]

In the case of the BAAS, the importance of the local aspect has not gone unnoticed. Orange stressed the importance accorded to the Association since its founding in 1831, in distinction to other learned societies, in seeking to assist all those practitioners interested in science in the provinces.[87] On the other hand, Lowe highlights the impact of the partnership between amateurs and professionals on provincial scientific culture, as the force that functioned as a

[84] Withers 2010: 3.
[85] Secord 2000.
[86] Elliott 2003.
[87] Orange 1972.

counterweight to the scientific culture of London.[88] Withers *et al* have pointed out the importance for the advancement of science of its location, that is "the importance of the sites and social spaces in which such knowledge was made and received by different people",[89] as a way to describe the development of geography as a discipline, with the BAAS as an explanatory framework. In a related work, Withers *et al* have pointed out the importance of "the geographical mobility of the BAAS as a key feature in the association's construction of itself, and of science for the public, as a 'cultural resource'",[90] since there is more to "know about the workings of the BAAS and of its meetings in its different 'urban settings'",[91] an idea also emphasized in this thesis in relation to the sciences of Man.

The Association had a decisive impact on the advancement of science throughout the provinces, functioning as a counterweight to scientific life in the metropolis. That impact could be seen in the cities that received annual meetings: the occasion brought about improvements in local infrastructure including streets, houses and hotels, and especially the buildings which would function as the meeting venue. There were four main advantages for a city in receiving the BAAS: first, economic benefits derived from the visit of many delegates; secondly, several improvements in infrastructure; thirdly, intellectual and moral benefits to the local society; and fourthly the opportunity for people from the provinces to present their work to the scientific elite.[92] Other benefits to be noted included the fact that the leading specialists who attended the meetings

[88] In Macleod and Collins 1981: 118-145.
[89] Withers *et al* 2006: 435.
[90] Withers *et al* 2008: 386.
[91] Withers *et al* 2008: 38. See also Miskell 2013.
[92] Frost 1853.

were a valuable source of free expertise. Another benefit, particularly prior to the significant spread of the provincial theatres and music halls, was the Association's entertainment value. Another advantage to the locality was the opportunity provided for civic display.[93]

Over recent decades, historians have become increasingly aware of the importance, both within local contexts, and at the national level, of newspapers as carriers of scientific news and debate. A classic example is Secord's article on Andrew Crosse's electrical experiments and the creation of life in the 1830s, in which he emphasized the importance of newspapers in publicizing Crosse's experiments. The experiments were initially performed in private, but after being presented during the 1836 BAAS meeting, the press became a powerful dissemination tool among the public.[94] Another example that shows the importance of the press in the dissemination of science among the public in the provinces is the case of the Bridgewater Treatises. As explained by Topham, "the meeting of the British Association for the Advancement of Science held in Bristol in August 1836 was the ideal means by which to convey a book like Buckland's into the wider social world",[95] and it was thanks to newspapers such as *Athenaeum* and *Literary Gazette* that the discussions reached a wider national audience.

A good example that shows how informative newspapers can be in understanding public perceptions of scientific debate is the classic work of Alvar Ellegård's, *Darwin and the General Reader*.[96] Although his main aim was to

[93] MacLeod and Collins 1981.
[94] Secord in Gooding *et al* 1989: Ch. 11.
[95] Topham 1998: 257.
[96] Ellegård 1990.

document the impact of Darwin's ideas in the period between his two flagship publications, Ellegård analyses briefly the impact on the BAAS meetings during the same time period, 1859-1871, providing us with a clear overview of how Darwin's ideas were discussed and perceived among the different newspapers that reported on those meetings. The presence of Darwin's ideas in BAAS meetings was highly variable, but an increase was particularly notable after 1866, the same year in which the Department of Anthropology opened, and in which Darwinians such as Huxley, Hooker, and Galton became conspicuously involved in the organization. Ellegård's work is simply stunning, with 115 reviewed publications, most relating to London. But this work is now very dated, and despite its value in understanding the public reception of Darwin's ideas, there are more sophisticated and modern accounts to follow.

Cantor more recently has engaged in the study of newspapers in the Victorian era to assess the impact of one of the most important events of the Victorian era, the Great Exhibition of 1851. Cantor is especially concerned with how religious commentators saw the event. This last work again emphasizes religion as one of the predominant themes in Victorian life. The historiography focused on the relationship between science and religion, especially during the Victorian era, is abundant, even if we refer exclusively to the BAAS.[97]

We should not lose sight of the BAAS's role, as a means for the dissemination of science. In particular, the BAAS was a key means for disseminating a vision of the world that was taking shape in society, and which had leading characters with clear interests in its promotion, even against other already established visions, such as religion. The BAAS enjoyed a privileged

[97] Cantor 2011.

position in clarifying such discussions.[98] Unlike so many other learned societies, which were often closed to everyone except their members, the BAAS distinguished itself by allowing anyone interested in attending to do so, including women. The presence of women at the meetings was one of the major and controversial developments proposed by the BAAS as part of the process of opening itself to the public, although the possibility of women speaking at meetings took almost forty years to arise (see chapter 5.0, for the presentation of Lydia Becker and its impact).[99]

The coverage of the media on what happened during the meetings was very detailed at times and, along with the presence of the general public, increased the possibilities of popularizing issues to do with the origin and antiquity of man. The case of discussions about the sciences of Man is an excellent framework for investigating, on the one hand, the impact on the public of such discussions, and on the other, the question of how this impact had direct implications on the consolidation of the nascent discipline.

However, historians have not subjected such sources to extensive study, even though they clearly prove to be hugely important sources for understanding public encounters with scientific debate in general, and the debate about the sciences of Man in particular. An analysis of what happened to the sciences of Man in the BAAS meetings during the 1860s gives us a radically different approach to the perception of the studies on Man from an understanding that explores how the scientific debate interacted with the public debate as reflected in newspapers both metropolitan and local.

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[98] Basalla *et al* 1970.
[99] For a much more detailed work on women as audience at BAAS cf. Higgitt and Withers 2008.

1.3 Outline of the Thesis

In order to understand the importance of the BAAS, the development of the sciences of Man within the Association, and the public impact of the media on both, within the framework of discussions between science and religion, what will be required above all is an approach in which the local nature of the meetings must be understood according to the particularities of each of the cities that hosted meetings, and it is important to consider political, religious and social aspects in every one of the host cities.

This thesis focuses on an analysis of what happened in relation to the sciences of Man, at BAAS meetings, with special focus in the period 1866-1870, as the moment of consolidation of a specific department. This period is considered pragmatically, in order to focus in on how the sciences of Man were presented and developed in a dedicated space and to have the possibility to deepen the history around the Department of Anthropology, considering the extant tensions between the metropolitan societies and in this sense to emphasize the complexities of such a union. Of course, these years continued an existing debate on the sciences of Man within the BAAS that stretched back at least as far as 1839, when the Association was involved in the production of ethnological questionnaires. However, by focusing in detail on the five transitional years, 1866-1870, it is possible to examine them in much more revealing depth than would have been possible had a larger time-frame been selected. Nevertheless, the thesis seeks to locate the detailed study that forms its primary focus within a larger history, starting with the historical preliminaries at the end of this chapter. The following chapter then provides a summary of the discussions on Man during the first half of the 1860s, that provides a better background on the

discussions and tensions between the ESL and ASL in London and in the BAAS meetings from 1863 to 1865. The next five chapters focus on successive meetings: Nottingham in 1866; Dundee in 1867; Norwich in 1868; Exeter in 1869; and Liverpool in 1870. I am not only going to discuss each event, but also what happened before and after each meeting of relevance to the sciences of Man. At the same time, each chapter delves deeply into the life and work of individuals committed to the sciences of Man but who have often been ignored by historical studies about the subject. Characters such as Alfred Russel Wallace, John Crawfurd, James Hunt, Thomas Huxley, and less known figures, such as Charles Staniland Wake, Joseph Kaines, Frederick Bridges and Walter Cooper Dendy, taken as a group, are not figures that have been characterized as anthropologists, even though they practiced it consistently, from a committed point of view on issues related to Man.

This work presents various challenges at the outset. There were many definitions of anthropology in the period; depending on one's reading of them, they could include any study of Man. James Cowles Prichard, in 1842, defined ethnology in his *Researches into the Physical History of Man* as: "The history of nations termed ethnology, must be mainly founded on the relations of their languages". Anthropology, in the words of the French anthropologist Paul Broca, in 1859, corresponded to the study of the most varied aspects of Man. This same definition was used by James Hunt in his first discourse as president of ASL (1863), and as discussed in the first chapter, by A.R. Wallace as President of the Department of Anthropology.[100]

[100] Broca was named Honorary Fellow of the Society on 21 April, 1863. See [Anon.] 1863: i.

As will be seen throughout the chapters, the local context was vital for the development of the sciences of Man in particular, determining its success at first, a subsequent move away from being rejected and a final return to consolidation, in which each local environment played a fundamental role.

In order to understand the public impact of the meetings, understanding media such as newspapers is fundamental. It was not only the big national newspapers and periodicals, such as the *Times*, the *Athenaeum*, the *Morning Post* and the *Daily News*, among others, which gave enormous coverage to the meetings, that mattered, but also local media from which it is possible to get closer to the society. Fortunately, this work nowadays can be achieved with the use of technologies such as digitized databases, allowing a detailed search through key words, a work that a few years ago required long and heavy labour.

The framework of science and religion is without doubt a complex one to address. As already mentioned, the objective of the Association was to advance science, by promoting a vision of it that sought to keep it apart from other issues, such as politics and religion. The practice, however, was varied. Within the Association there were speeches from clergymen, and members who adapted a variety of religious positions. Some members took advantage of the meetings for explicitly and openly speaking against religion, but those positions reflected particular views, against an individual, an institution or a doctrine.

In getting to know the BAAS thoroughly, the archives of the Association give a view of part of the story. From documents such as minutes, propaganda and tickets, it is possible to reconstruct much of what happened during the week of the meeting. However, the BAAS was much more than the single annual meeting, since much of the work of organization and arrangement was conducted

throughout the year, in the heat of discussions in metropolitan societies, or in correspondence between the members and fellows. At the same time, the impact of the meeting was filtered to the public via publications, such as the annual Reports and press coverage. To understand the Association, all of these points need to be taken into consideration. For the specific case of the sciences of Man, the meetings of the Association were closely linked with what happened between the ESL and ASL, and to a lesser extent the Royal Geographical Society. That is why what happened in these societies and among its members is also relevant to understanding what eventually happened in each of the meetings.

In this regard, it is useful first to briefly explain what happened in the first half of the 1860s, in order to establish the basis on which they discussed the learned societies of London devoted to the study of the sciences of Man. From this discussion, the objective then is to focus on the period from 1866 to 1870, since the first specific space for the sciences of Man was opened in 1866, and the years that followed were a series of ups and downs in the consolidation of an inclusive discipline for the study of man. Darwin's *The Descent of Man* (published in 1871), which it has often been assumed marked a formal beginning for anthropology, is well known, but little has been said concerning the events that happened during the last years of the 1860s. This period was the formal beginning of the science of man in the BAAS. The discipline's final consolidation occurred several years later, in 1884, with the establishment of Section H, anthropology.

Chapter 2 will give an overview of the state of discussions on the sciences of Man in London, particularly among "ethnologicals" and "anthropologicals" (from the foundation of ASL in 1863), to know the main discussions that were

brought to the scope of the BAAS, in the search for disciplinary consolidation, since the discussion focused among other things on the appropriate name, and in a parallel sense, what should be the best practice for discipline.

Chapter 3 will address the meeting of 1866 in Nottingham. This was the first concrete step in the quest to establish the sciences of Man as part of a consolidated science, marked by the opening of a Department of Anthropology, chaired by Alfred Russell Wallace and on the initiative of Thomas Huxley, Francis Galton, James Hunt, among others. This year, under the influence of Huxley, section D formerly Zoology and Botany, was renamed as Biology, with the specific idea of promoting a field of the study of life which was much more inclusive. I will also stress the interests and work of Wallace in relation to Man, as part of his on-going research on the transformation of species.

Chapter 4 will deal with Dundee in 1867, a meeting which delivered a hard blow to the public image of the sciences of Man, after the refusal of the General Committee of BAAS to re-open the Department of Anthropology. Despite this, it will be shown that the sciences of Man were present, both in the BAAS and beyond. On the one hand, presentations by John Crawfurd, the long-standing President of the ESL, placed ethnological themes in a leading role; and on the other hand, a side event, organized by Hunt and the “anthropologicals”, demonstrated that the sciences of Man were welcome in Scotland. This meeting will allow us to see how complex the relations between the sciences of Man and other cultural aspects, such as religion had become.

Chapter 5 takes a trip to Norwich, where in 1868 the sciences of Man were present in a particular way. The third edition of the International Congress of Prehistoric Archaeology was organized in England in this year, in parallel with

the annual meeting of the BAAS: this was a perfect occasion to bring together people interested in the sciences of Man from Britain and other places. In this setting, we will see that the sciences of Man remained a topic of interest within the Association, as, in addition to the Congress, there were important discussions such as that between Broca and John Hughlings Jackson.

Chapter 6 will introduce the re-opening of the Department of Ethnology, at the 1869 meeting in Exeter, chaired by a great name within the nascent discipline of anthropology, Edward B. Tylor. Again, these discussions started to be seen as anthropology in a specific sense, but it was also clear that beliefs played a key role in the evolution of the future of the science of man. The meeting was marked by the previous disagreements between Huxley and Hunt, but Hunt's sudden death after the meeting opened the final way for the amalgamation of the sciences of Man within the Association.

Chapter 7 will analyse the consolidation of the Department of Anthropology at Liverpool in 1870. Here I highlight the emblematic nature of these developments, in a city that combined a strong presence of science with the entrenched beliefs of various denominations. More cordial relations between the associations interested in the sciences of Man achieved at the BAAS meeting led eventually the foundation of the Royal Anthropological Institute of Great Britain and Ireland (RAI) in the following year.

1.4 Historical Preliminaries

When looking in more detail at what happened in connection with the meetings, before, during and after them, a little background on the operation of the BAAS is necessary.[101]

Founded in 1831 in York (Figure 1.2), one of the BAAS's primary aims was the diffusion of science in the provinces, but the Association was not principally about defining science. It was also importantly an attempt to foster support for the scientific enterprise.[102] Previously the leading scientific institutions had been located in London. With that in mind, the creation of an association to visit several cities in the provinces, in an itinerant way was proposed. The decision as to which cities to visit was taken a year in advance of each meeting. The cities sent representatives and proposals to promote themselves, and the General Committee took the decision by considering various criteria. In order to make progress throughout the country, if one of the meetings had been carried out in the North, the following meeting would preferably be in the South. Any city which hosted the BAAS, had to meet a minimum standard of facilities, both for the different academic activities and comfortable accommodation of all the guests. An important part of the decision rested on the presence of local societies to help disseminate and support the event, as well as the participation of local personalities.[103]

An overview of the BAAS must not lose sight of some features that made the Association both a social and academic success. The presence and approval

[101] This section is developed from an analysis of official reports, complete with the description by Morrell and Thackray in their book on the Association, which devoted the last part to a detailed explanation of how the organization was determined from the early years. In almost every meeting there was a change in the sections and subsections, but the same hierarchy of decision persisted from the start. See Morrell and Thackray 1981: 451-531.
[102] Only up to 1846. See Morrell and Thackray 1981: 245-256.
[103] Withers 2010: 1-23.

of the aristocracy was key to the Association's achievements, these connections provided greater economic resources, and also direct paths to power. An example of aristocratic participation in the Association can be seen in the designation of Prince Albert as President in 1859. One of the justifications for the inclusion of such luminaries was to strengthen the local aspect of meetings, especially in cities which did not have a strong presence of characters related to science. In the same vein, the influence of local character was present to the extent that the local community sought, by means of assistance, propaganda or support in the organization of various events.

Figure 1.2 Yorkshire Museum[104]

One of the major concerns of the Association was its public nature. Given that the organising committees always sought to obtain more resources for the advancement of science, to give a greater sense of coherence to the initiative and to prevail before the Government in search of recognition, the idea of presenting work in a public context became imperative. With the passage of the years, the

[104] Image taken from http://www.ypsyork.org/about-yps/yps-history/the-yorkshire-museum/.

success of the partnership between scientists and public could be measured by the ever-increasing participation and subsequent registration of members. Dissemination was achieved in two specific ways – through the publication of Reports, and the chronicles and descriptions of meetings that appeared in both metropolitan and provincial newspapers. Regardless of their political or religious inclination, Victorian newspapers reported what happened during the annual meetings. Reports could range across a spectrum from small and specific references to the event, to entire columns and complete transcripts of what was said during the meeting. Comments covered not only what had happened in the presentations and subsequent discussions, but also what had happened in the social events organized in parallel: excursions to historical and representative places at each venue, the conversaziones, or as happened from 1867, talks for the working classes. Unlike the rest of the events that were exclusive to the members of the Association, the latter sought to cover the population in general through lectures given by some of the most renowned members.

The Association proposed, from the beginning, to undertake an annual meeting, which lasted a week, or more if required. Meetings were always held during the summer; the most common time was between August and September. The place where each meeting would be held was decided by a General Committee; once the venue was chosen, arrangements were carried out by the officers of the Association.

The General Committee was a group of members of the Association and was in charge of all events. It consisted of the President and Officers for that year and those previous, as well as the authors of reports in the Transactions of the Association, members who had some role related to the various sections and who

published in the reports, delegates belonging to Philosophical Societies which had published reports or set out in the places where had succeeded the meetings of the Association, foreigners who had been invited by the President and Secretaries to present at the meetings by virtue of their intellectual merit, and the Presidents, Vice-Presidents and Secretaries of the sections. Another feature was the designation of a Council, which took care of any matters relating to the Association in the intervals between meetings.

The General Committee was responsible at each meeting for assigning members to the Sectional Committees. The election of members was a way of finding the most appropriate according to their interests, so that they could carry out presentations and discussions in the best possible way. These committees would report which research topics were the most appropriate to be reported during the current year, and put into consideration which would be the best for subsequent years. They could also recommend the publication of Reports on the status and progress of particular sciences, carried out by competent persons, to provide information during the annual meetings.

Each year a Committee of Recommendations was organized, which was responsible for receiving and considering recommendations from the various sections, to be reported in turn to the General Committee, which could then take measures to guide the progress of science. In particular, it was in charge of solving issues relating to Grants of Money, Requests for Special Researches, and Reports on Scientific Subjects.

A Local Committee was formed with Officers who were responsible for assisting in all the necessary arrangements for each meeting. The local committee included prominent members of each city, in order to facilitate this task. The

Officers of the Association were the President, two or more Vice-Presidents, one or more Secretaries, and a Treasurer, who could be elected annually.

The 1860s is a key decade for understanding the further development and consolidation of subjects such as biology and anthropology. It was in this decade when many foundations were laid for critical discussions and publications. The publication of Darwin's theory for example, gave new frameworks of explanation for current discussions on topics such as the origin of the human races. Approaches to understanding human nature diversified, in the same way in which interests in science did. One of the points highlighted here is how diverse the practices of the sciences of Man were, as exhibited by submissions to sections D and E.

The development of the sciences of Man in the BAAS was a slow journey. The topic's first appearance came in 1832 in a paper,[105] a year after the Association was inaugurated by the renowned exponent of ethnology, the physician James Cowles Prichard. That year there was a single presentation, but Pritchard's efforts continued. Between 1839 and 1842 Prichard persuaded the Association to appoint a committee to be responsible for circulating ethnographic queries.[106] The first time a space was granted to ethnology was in 1844, as a subsection under the same name, within Section D, Zoology and Botany. Several years later, in 1850, ethnology was relocated to a subsection within Section E, which was renamed Geography and Ethnology.

The inclusion of ethnology with geography was a response to the close relationship between the study of the physical characteristics of a particular

[105] Morrell and Thackray 1981: 284.
[106] Stocking 1987: 243, Withers, 2010: 169.

place and the human groups that inhabited it. In a nutshell: "...physical geography provided a means wherein human differences might be explained - as 'determined' by that environment".[107] Recently, Withers describes the closeness between geography and the sciences of Man, to a lesser extent as "a story of human geography" and to a greater degree as "an account of the geography of humans", without neglecting the importance of key figures such as Murchison, who prompted that union based on particular interests.[108] In that sense, there were common points between ethnology and geography, since both "involved the sciences of survey and distribution",[109] and were the subject of strong debates in which practice became a concern for the practitioners, in the search of a sectional identity. As pointed out by Withers, these discussions also had a political connotation, since knowledge about the people who inhabited the British Empire became part of the need for knowledge.

The BAAS was a unique forum to promote science to the public. Building on the various advances which were made in metropolitan societies during the early years of the decade, annual meetings were the perfect place to seek to consolidate the subject. This continuing search for spaces permitted cultivation of interest in the sciences of Man to continue.

[107] Withers 2010: 167.
[108] Withers 2010: 165. See also Stafford 2002.
[109] Withers 2010: 165.

2.0 Man after the *Origin*: Debates and Institutions in London and Beyond, 1860-1865

2.1 Introduction

When Darwin published *The Origin of Species* in November 1859 he made no explicit mention of man, except for a promising sentence: "Light will be thrown on the origin of man and his history".[1] Nevertheless, it was easy to infer from a general reading of the work that humans were related to progenitors similar to apes.[2] Several authors have highlighted the importance of the subject of the origin of man that emerged from that time, whose reflection can be seen in the reviews of Darwin's work,[3] the public interest generated by the contacts and experiences of travellers with Indian tribes and primates[4] or by the human "attractions" presented as spectacles,[5] and the discussions around the complicated issue of slavery.[6]

These events and discussions occurred mostly in the early 1860s in London, where the principal learned society on the study of man was based, the Ethnological Society of London (ESL), which in turn was the meeting place for

[1] Darwin 1859: 488. Darwin showed a clear interest in man from his beginnings as a naturalist, as were their notebooks. These materials, together with the experience gained during the voyage of the Beagle, as his contacts with Fuegians, Gauchos, black slaves, Hottentots, were instrumental in the development of which would be his most important work on Man, *The Descent of Man* (1871) and *The Expression of Emotions* (1872). See Richards in Hodge and Radick 2009, Rodriguez-Caso *et al* 2012, Radick in Ruse, 2013.
[2] Radick in Ruse 2013: 175. For an ample discussion on the topic of Man in *Origjns*, see Bajema 1988, Bowler 1989, Cooke 1990.
[3] Ellegård 1990.
[4] For example, the accounts of the travels around the world of naturalists like Darwin, Livingstone, Tylor, Wallace, among others. See Stocking 1987: Ch. 3, Sera-Shriar 2013b: Ch. 2.
[5] Browne and Messenger 2003, Qureshi 2011.
[6] Desmond and Moore 2009.

those interested in these discussions. The topics treated in ESL were essentially the outlines of the proposal of the founder of ethnology, James Cowles Prichard.[7] However from 1861 the situation changed under the guidance of the former colonial administrator John Crawfurd, whose personal interests were much closer to those of his friend, the perennial president of the Royal Geographical Society, Sir Roderick I. Murchison, in which ethnology became an extension of geography, always from the empire's interests in having better information not only of the territories but also from indigenous peoples inhabiting them.[8]

For all that historians of science, such as Desmond and Moore in *Darwin's Sacred Cause*, and more recently Sera-Shriar in *The Making of British Anthropology*, have done to improve our knowledge of the debates on Man in Britain in general, and in London in particular, in the first half of the 1860s, what has been missing up to now is a vivid sense of how London functioned scientifically in relation to the provinces, and in particular how, from 1863, and the founding of a new society, the Anthropological Society of London, the annual British Association meetings taking place outside of London served to mediate, and shape, the debates in London.[9] This chapter aims both to provide the background necessary to understand the ESL-ASL rivalry and to chart its growing dynamics at the first three BAAS meetings to take place after the ASL's founding.

From the above, this chapter will focus on showing the general situation of the sciences of Man in the first half of the 1860s. The first section will serve to

[7] Stocking 1987: 48-53, Withers 2010: 168-173, Sera-Shriar 2013b: 27-30.
[8] Stocking, 1987: 245, Stafford 1989: 221, Withers 2010: 172.
[9] Stocking, 1987: 254. In a more specific way, BAAS became the place for the battle on Darwinism, a situation that frequently ended in the case of Man. See Ellegård 1990: 67.

expose the main features of the two learned societies devoted to the study of man, provide a brief history of ESL until 1859, giving way to the process that resulted in the founding of ASL, with James Hunt as the main promoter of this breakup, in order to have an overview of the respective development of each society. The next section will show the overall features that were the difference between the two societies, with particular emphasis on the origin of man, politics and religion, since as noted by authors such as Stocking these were the main disagreements that stood out in their coexistence over eight years. Finally, the last section will serve to emphasize what happened at BAAS meetings from the appearance of ASL in 1863, a time in which the annual meetings of the Association became the battlefield in search of legitimacy for the proper study of man.

2.2 Institutional Background on the Sciences of Man

A. Ethnological Society of London until 1859

During the nineteenth century in Britain, the study of man grew to such an extent that a number of different groups came into existence as forums for sharing their common interest. One of the first groups to be formed from a purely philanthropic and humanitarian interest was the Aborigines Protection Society (APS), influenced mainly by Quakers and Evangelicals, who during the 1830s expressed their concern over colonialist policies and the treatment of the 'uncivilized'.[10] It was only in 1807 that the slave trade was abolished, particularly thanks to the efforts of William Wilberforce, which resulted in the

[10] Stocking 1987: 240-241.

Slave Trade Act, while it was only in 1833 that slavery was finally formally abolished in the British Empire, thanks to the Slavery Abolition Act.[11]

It is worth mentioning that before the appearance of ESL, another learned society briefly emerged called 'Anthropological Society of London', which was founded by the engineer John Isaac Hawkins, a fervent practitioner of mesmerism who was President of the society throughout its existence. The society functioned from February 1836 to 1842. Unlike that society with the same name founded nearly thirty years later, this society was consolidated as a phrenological club, which later became the 'Christian Phrenological Society'. Although short-lived due to financial difficulties, it is one of the first organizations in which phrenology and anthropology are explicitly related in a society devoted not to philanthropy but to empirical practices.[12]

APS focused on humanitarian and missionary work, which over the years not entirely satisfied some of the members who showed an academic interest in the 'uncivilized', dark-skinned races of non-Europeans who were around the world. One of these characters, who deeply marked ethnology as a discipline was the Bristol doctor James Cowles Prichard. His vision, based on philological studies especially, found a group such as the APS in which to consolidate, despite efforts to incorporate the ethnological theme in both APS and in BAAS. Prichard made the first presentation on ethnological topics in 1839 in the ambit of the Association, 'On the Extinction of Human Races', but it did not have the impact he expected.[13] Nonetheless, the Association set up a committee led by Prichard

[11] Carter and Mears 2011: 99-100.
[12] Jorion 1981: 142-143.
[13] Stocking 1971: 371, Stocking 1987: 243.

himself in order to prepare and circulate a questionnaire to help the voyagers to collect ethnographic information.[14]

Figure 2.1 James Cowles Prichard[15]

An event that prompted some members of the APS to seek a more focused academic institution was the creation in 1839 of the Société Ethnologique de Paris.[16] The Quaker physician Thomas Hodgkin was one of the first to suggest expanding the APS along these lines, especially after a visit to Paris where he could see the success of the new society.[17]

[14] Morrell and Thackray 1981: 284-285, Stocking 1987: 243, Withers 2010: 169-170, Sera-Shriar 2013b: 72.
[15] Cunningham 1908.
[16] On the state of French ethnology at the beginning of nineteenth century and its influence on early British ethnological methods, see Stocking 1964, Sera-Shriar 2013b: 54-56, 64-71.
[17] Rainger 1980: 711-712, Stocking 1987: 243.

Such success became apparent with the formation of auxiliary societies, even in the Port of London. The internal situation of the APS in 1842, especially after the tragedy of the Niger expedition, led to a reorientation. As part of this reorientation it was proposed that the Society begin a policy of defending the weak by recording their history, that the best way to help Aboriginal people was to study them.[18]

This reorientation was not entirely successful. In July 1842 the then Secretary of the APS, Richard King, proposed the formation of a new society to adopt the 'ethnological' vision on the same lines proposed in Paris. Although the response was poor at the beginning, the eventual support of Hodgkin was fundamental for the establishment of the new society under the name of the Ethnological Society of London in 1843. The main purpose of the new group, according to King and Hodgkin was "to create a forum where 'gentlemen of science' could discuss the anatomy and physiology of different races, examine historical records, trace the form and meaning of various languages, present papers, and debate issues such as whether all humans shared a single ancestral origin".[19]

With the formation of the new society, there was a situation that was recurrent throughout the years with other societies devoted to the study of Man, in that some of the new members of the ESL maintained a dual affiliation with the APS.[20] ESL members accepted the new institutional vision, in which ethnological research was emphasised above humanitarian or philanthropic interests. At the same time, King recognized the importance of the British Empire

[18] Stocking 1987: 244.
[19] Sera-Shriar 2013: 57.
[20] Stocking 1987: 244-245.

in the ethnological enterprise, since the development of ethnographic materials were tied to imperial expansion.[21]

By the late 1850s the situation seemed to improve for ESL with the contributions of new members representing the latest trends in the fields of physical anthropology and archaeology. Among those members were included Joseph Davis, Joseph Thurnam, John Beddoe and Robert Knox, who had been expelled in 1855 but was reinstated in 1858.[22] Among the prominent figures with interests related to archaeology were Henry Christy, Lane Fox and John Evans, though undoubtedly the most outstanding member who joined at this time was James Hunt. These new members helped to definitively change the scope of ethnology.

B. James Hunt as Institutional Instigator

As recently noted by Sera-Shriar, historians of science have paid little attention to Hunt, a physician and speech therapist well known at the time. Born in 1833, his early interest in medicine was given by the influence of his father, Thomas Hunt (1802-1851), a speech therapist known for having developed new techniques for the treatment of stammering and stuttering. Hunt succeeded in improving the techniques developed by his father, based on the knowledge of anatomy and physiology, which he obtained studying in Cambridge and Giessen, Germany. It was during his stay in the latter that he came into contact with transcendentalism and comparative anatomy. Hunt's career as a therapist allowed him to obtain large financial resources, plus the ability to treat influential figures

[21] Sera-Shriar 2013b: 63.
[22] Stocking 1987: 246-247. For a recent study about the role of Knox and the development of observational training in ethnology, see Sera-Shriar 2011.

of London society, both of which were important for his future as a promoter of anthropology.[23]

His initial interest in ethnology emerged from his own interest in medicine and in language, issues that were at the core of the discipline.[24] But his view was that anthropology should be based on anatomy and physiology, a position he would keep in the coming years.

Tort portrays Hunt as an extremely dynamic man, which was apparent from the moment he joined the ESL in 1856.[25] This dynamism was notable, considering that four years after joining as a member, he was appointed Assistant Secretary of the Society along with Thomas Wright in 1859, a position he maintained until his resignation in 1862. As noted by Sera-Shriar, Hunt was a "young and ambitious researcher, he was very active at the society and consequently his status rose quickly".[26] By the late 1850s, the ESL maintained a humanitarian element, influenced in the Quaker roots of the APS, which collided sharply with the racial views held by the new members, especially by Hunt.[27] With the death of Prichard in 1848, the leadership of the Society seemed to be filled, and in that sense Hunt "recognized that there was an opportunity for him to position himself as a scientific reformer, and he set out to establish and promote what he believed to be a sound disciplinary foundation built upon rigorous theoretical and methodological principles".[28]

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[23] Sera-Shriar 2013b: 111.
[24] Sera-Shriar 2013b notes the cases of James Cowles Prichard, Robert Gordon Latham, Richard King and Thomas Hodgkin.
[25] Tort 1996, vol. 2: 2290.
[26] Sera-Shriar 2013b: 111.
[27] On this matter, Hunt said his view on race was always influenced by the teachings of Robert Knox. See Stocking 1987: 247.
[28] Sera-Shriar 2013b: 111-112.

In his role as secretary, Hunt was assigned the task of reviving the *Journal* of the Society. In this regard, it is worth noting the importance Hunt gave to communicating the different tasks and activities of the members of the Society towards a larger audience. Just to note, these tasks were particularly emphasized within the scope of the BAAS, from his belief that the presence of an autonomous space would consolidate ethnology.[29] The reports made by Hunt on some engravings found in Sierra Leone, resulted in a complicated discussion which ended up in organizing a committee to resolve the differences between some of the members involved. This committee was formed by Hunt with Hodgkin and Christy, the latter two both renowned abolitionist Quakers. In the minutes of the Society there is only reference to "some differences of opinion" as a result of these discussions, but as a consequence of this Hunt decided to resign from the ESL. There was more to Hunt's resignation than a disagreement about art. Sierra Leone was a colony of freed slaves that had been of interest to humanitarian groups and British missionaries for many years. These engravings therefore represented for some members of ESL, particularly those more closely aligned with humanitarianism, an example of the capabilities of the blacks, which had little to do with the 'primitive'.[30] Another important point is that from the beginning of 1860s Hunt believed that ethnology lacked sufficient observational evidence – such as that provided by anatomy and physiology – due to an overemphasis on the study of language and a dependency on biblical explanations for origin of humans. This last point contrasted with his polygenist vision, in addition that the ESL had an increasing presence of personages who

[29] Sera-Shriar 2013b: 112.
[30] Stocking 1987: 247.

sought to reform ethnology from the perspective of Darwin's ideas, such as Alfred Russel Wallace (1823-1913), John Lubbock (1834-1913) and Huxley.[31]

This situation prompted Hunt to found a new learned society focused on the sciences of Man, the Anthropological Society of London. Hunt had several justifications for why was it necessary to found a new group: he considered necessary the existence of a "publishing body", the main discussion topic had to be physical anthropology, and especially he should have the possibility to freely discuss "various exciting questions which current events were bringing into prominence", in other words the American Civil War. This set of reasons account for the need for Hunt to create a forum in which to present racial and political issues in an institutional framework that would justify it.[32]

In a similar manner to what happened with ESL in its foundation, Hunt modelled the ASL on the French example. The model was the Société d'Anthropologie de Paris, founded in 1859 by French physician and anthropologist Paul Broca, and conceived anthropology as the science that was in charge of the study of Man's whole nature. From this idea Hunt considered that anthropology could deal with the big issues of Man (man's relationship with nature, his physical, psychological characteristics, etc.), while ethnology solely focused on describing the history of the races.[33] This vision was that which Hunt would take care to defending and spread through the new metropolitan learned society.

[31] Sera-Shriar 2013b: 112-113.
[32] Stocking 1987: 247.
[33] Hunt 1864: lxxxiv-lxxxvii, Stocking 1987: 247-248.

Figure 2.2 Paul Broca[34]

C. Anthropological Society of London (1863-1871)

The new society gave new impetus to the study of man in Victorian England. From its beginning, it was founded "with the object of promoting the study of Anthropology in a strictly manner",[35] following Hunt's vision, which as mentioned above was inspired by the anthropological proposals of Broca. The ASL grew rapidly, in the next two years reaching 500 members; the dynamism of Hunt moved the Society in general, although one cannot fail to note that the internal life was marked by continuing problems between members and numerous resignations. The progress of the society inspired similar societies in other cities in Britain, the most notorious being Manchester.[36]

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[34] "Paul Broca" by anonymous/unknown - Wellcome Library. Licensed under Public domain via Wikimedia Commons - http://commons.wikimedia.org/wiki/File:Paul_Broca.jpg#mediaviewer/File:Paul_Broca.jpg.

[35] Rainger 1978: 51.

[36] Stocking, 1987: 248.

Following one of Hunt's biggest concerns, the Society was distinguished by a profuse publishing activity, which included translations of foreign works,[37] the *Anthropological Review*, the *Journal* and even a *Popular Magazine of Anthropology*. Both the *Popular Magazine* and the *Anthropological Review* were bodies that Hunt also used to disseminate his own ideas.[38] But again, the ASL institutional life revolved around the interests of Hunt, and as we will see one of these interests, possibly the brightest, was the search for recognition for anthropology in BAAS.[39]

But unlike the ESL, the focus of the "anthropologicals" was not only the analysis of scientific issues, but there was a clear mixture of science and political manoeuvring.[40] Even in his *Introductory Address on the Study of Anthropology*, Hunt's approach to anthropology was emphasised in scientific terms, differentiating between ethnology and anthropology, always placing the latter as a much broader discipline to the study of man. Explicitly, Hunt wanted to make it clear that the new society would be based entirely on empirical observations to discuss the real place of blacks in nature for example, with the hope that "the objects of this Society will never be prostituted to such an object as the support of the slave-trade, with all its abuses".[41]

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[37] For example: *Introduction to Anthropology* (1863), by German psychologist and anthropologist Theodor Waitz (1821-1864), *Force and Matter* (1865), by German philosopher and physician Ludwig Büchner (1824-1899), *The Plurality of Human Race* (1865), by French naturalist and anatomist Georges Pouchet (1833-1894), *The Travels of Pedro de Cieza de León, A.D. 1532-50, Contained in the First Part of His Chronicle of Peru* (1865), by Spanish conquistador and chronicle of Peru Pedro Cieza de León (1520-1554), among many other examples.
[38] Stocking 1987: 248.
[39] Sera-Shriar 2013b: 112.
[40] Rainger 1978: 51.
[41] Hunt 1863: 4, Rainger 1978: 52.

However, as has been pointed out by Desmond and Moore, one of the fundamental premises of Hunt and the members of the ASL was his abhorrence of the idea of a common origin for all races, and some of those members were strong supporters of the Confederate side in the American Civil War. In fact, as discussed more fully below, the pro-slavery stance of the ASL was strengthened over the years, as can be seen in publications such as 'The Negro Race', by the polygenist American physician and surgeon Josiah Clark Nott (1804-1873),[42] who had an ASL Honorary Fellowship[43] and was described as "the greatest living anthropologist of America".[44] Also noteworthy is the first British consul in Fiji, William Thomas Pritchard (1829-1907), who in his short essay 'On the Extinction of the Aboriginal Tribes', takes a harsh critique of colonial policies and in particular the decline of indigenous populations as a result of disease and alcohol, introduced by the whites,[45] a view that was contrary to Hunt's vision. This kind of writing makes it clear that discussions with political overtones were very common during the short life of the ASL. With these examples, it is worth noting again that both ASL and ESL were groups in which no single vision was shared among members, but instead, there was a diversity of opinion.

In the press one can see a reflection of the impact of the new society. For example, in 25 July, 1863, the *Athenaeum* published a review of 'The Races of the Old World: A Manual of Ethnology', written by American philanthropist and

[42] Nott was influenced by the racial theories of another American physician, Samuel G. Morton (1799-1851), considered one of the founders of the physical anthropology. See Ricardo 2010: 62-64.
[43] *TASL* 1863: i.
[44] Nott 1866: 102n, Desmond and Moore 2009: 332.
[45] Pritchard 1866.

abolitionist Charles Loring Brace.[46] Overall, the approach of Brace started from the traditional view of ethnology at the time, a comparative study of peoples, with emphasis on its history and culture. *Athenaeum* highlighted the benefits that the new learned societies would bring to the development of studies of man, and especially the Anthropological Society of London, with particular emphasis placed on the figure of Hunt.

Figure 2.3 Charles Loring Brace[47]

We could read that it was necessary to "give up all dogmas, confess our ignorance as to knowing anything about the laws regulating man's origin and development, and be willing to begin *de novo*, only basing our opinions on actual

[46] 'The Races of the Old World. A Manual of Ethnology', *The Athenaeum*, July 25, 1863: 106.
[47] "CharlesLoringBrace". Via Wikipedia - http://en.wikipedia.org/wiki/File:CharlesLoringBrace.jpg#mediaviewer/File:CharlesLoringBrace.jpg.

demonstrable facts, and arguing solely from the logical inference of such data", stating in their opinion the need of a new vision for the sciences of Man.

Another example used to show the impact of the split can be seen in May 1865. In the *Eclectic Review* appeared a provocative piece titled 'The Dark Races'.[48] The *Review* was a publication with a monthly circulation of 1500 copies per month,[49] but this example can gives an idea of the impact of discussions about race in the religious sphere and in Victorian society.

The author strongly criticized the ASL's political stance, especially with reference to some of the publications of the Society with respect to blacks. Although the lists of members of the ASL showed a large presence of clergymen, as discussed below, the treatment of theological themes about man and his place in nature were treated "with scoffing and scorn".[50] The author further stated that given the stance taken several years ago by the ESL on these issues, the existence of another society such as the ASL was unnecessary.

In his opinion, the vision established by the "anthropologicals" focused only on the study of the body or skeleton of man, meaning that they missed out on the external, such as the customs, ceremonies, domestic uses, which he considered the focus of the "anthropologicals" was human nature, but regardless the soul. On the other hand, the author highlighted the work of ethnology, the study of humanity in a comprehensive sense, and indeed anthropology was understood as part of this study. In this sense, the author states that the ASL exited solely to keep "the essential debasement, degradation, and simiatic

[48] 'The Dark Races', *The Eclectic Review*, May 1865: 465-477.
[49] Ellegård 1957: 31.
[50] 'The Dark Races', *The Eclectic Review*, May 1865: 466.

relationships of the black".[51] In short, to maintain a definite political stance in support of slavery.

These are just some examples of how ASL entered the field of Victorian discussions on Man. In the next section, we will focus on raising generally some of the fundamental differences between the two societies on common issues, but it should be clear that such generalizations cannot cover all of the members of either society, there was great diversity of opinion.

2.3 Points of Disagreement

Having generally raised the history of both societies, the discrepancies that existed between the two groups will now be presented. It should be noted that these differences in many cases are difficult to generalize, considering that both societies shared members, and that there was not necessarily unified criteria around many topics. From classic works like Stocking, one can conclude that in both societies were some generalities: ESL was traditionally associated with monogenism on the line raised by Prichard in the 1830s, on the other hand ASL has been described primarily as polygenetic, also in line with the ideas held by its founder, Hunt.[52] These generalizations can blur vision on specific policies of any of the two societies, but at the same time it is very useful to locate general postures held by the leaders of both groups.

One of the issues that caused major confrontation between the two groups were the ideas of Darwin. Overall ESL was closer to these ideas, including major supporters of Darwinian (such as Huxley, Lubbock, Tylor, Wallace), although there were also cases like Tylor and Wallace who initially also belonged to the

[51] 'The Dark Races', *The Eclectic Review*, May 1865: 466.
[52] Stocking 1987: 248-254.

ASL.[53] In fact over the years the ESL became a bastion of the ideas of Darwin and Huxley Lubbock as president, while ASL maintained strong opposition, as seen in the speeches and publications of Hunt.

Although it's true that Darwin's ideas and monogenism were supported by the ESL as a perfect relationship, therefore no one can say that all members of ESL were evolutionists, or instead all the "anthropologicals" were anti-Darwinians. As already mentioned, the fact that many members belonged to both societies, makes any possible generalization quite complicated. Stocking suggests differences in social origin and status in relation to the members of both societies. The "anthropologicals" seemed to come from social traditional established backgrounds but marginal positions, while "ethnologicals" mostly were from dissenting middle-class backgrounds of the type which can be described as the intellectual aristocracy.[54]

In the next sections, I briefly show three aspects that allow us to understand the differences in general that led to the separation of these two groups. These issues are: the origin of Man, politics, and religion.

A. The Origin of Man

When we talk about the origin of man, we refer possibly one of the most controversial discussions that took place in the Victorian era, particularly from the perspectives of science and religion. Monogenist tradition was deeply rooted in Christianity, from the reading of Genesis which established the singular origin of mankind. Prichard was a Quaker, who built this view from his work on the

[53] Stocking 1987: 248.
[54] Stockford 1974: 165-186, Stocking 1987: 251.

history of human races, especially from the study of the origin of language. The proposal of Prichard held a common origin for all human races, and the differences between them were the result of their history. This position was more widely held in the ESL, where in addition to Prichard, there were other great supporters of monogenism such as Hodgkin and the linguist Robert G. Latham. Within the ESL, one can speak of a transition from a classic monogenism, entrenched in religious conceptions, which by early 1860s with the particular influence of Darwin's ideas were considered outdated, to make way for a "new form of monogenism" as it was called by Hunt, a position that considered a common origin for the human races from a naturalistic point of view. It is worth noting the close relationship that existed between the ideas on the origin of man and its political consequences. When Hunt decided to resign from the ESL, it was largely because he wanted to use derogatory illustrations of African people to support the idea of polygenism, which the President Hodgkin strictly opposed. As Kenny mentioned, despite the growing interest in polygenism within ESL, the perspective of most of its members sided with the anti-slavery position, a position not shared by Hunt.

It should be noted here, that as mentioned above, generalizations can be misleading. One of the most important figures in the ESL, Crawfurd, did not support the monogenist cause, who since joining ESL openly expressed his belief in the existence of different races resulting from separate creations by God in the various regions of the globe. As discussed below, this position was very similar to that held by Hunt.

Furthermore, the emergence of ASL was based on polygenism. The main promoter of this idea was Hunt, who on numerous occasions openly stated his

belief that the races were different by virtue of having a different origin, although it should be noted that Hunt never returned to the idea of special creations. In general, one can assume that those who accompanied Hunt on the adventure of ASL shared a commitment with polygenism, although a review of anthropological publications makes it clear that there was not a level of commitment as that displayed by Hunt. The ASL President never missed an opportunity, whether it was in writing or in meetings, to reaffirm the importance of his polygenist vision, which as we shall see, was intimately connected with his politics.

On this issue, it is worth remembering here what happened to Wallace in 1864. As noted by Desmond and Moore, after returning from the Malay Archipelago, his experience with the Dyaks together with his deep socialist commitment made him reaffirm the importance of a single origin of the human races, but at the same time having known different human groups, convinced him to search for a way to reconcile monogenism and polygenism. On 1 March, 1864, in a "virtuoso performance",[55] Wallace presented his proposal to the "anthropologicals" about the origin of the human races from the perspective of natural selection. Returning to the idea of a vast geological time, Wallace stated that all races had a common origin and that natural selection served its function, allowing diversity which then resulted in the different races, to a point in which the anatomical changes ceased, although the brain present in all races, remained under the influence of natural selection, producing different languages, skills, technologies, societies, etc.[56] Let us remember that Darwin's ideas were not

[55] Desmond and Moore 2009: 342.
[56] Wallace 1864.

appreciated by the "anthropologicals", so their reaction was totally opposite, as they felt that Darwin's proposal – and thus Wallace's – could not really explain how the races could have been homogeneous at some point in history. While it is true that attendees were very harsh in their criticism of Wallace presentation and subsequent publication, it was nevertheless a watershed. Darwin had very favourable reviews despite some theoretical differences, and others represented it as "a new era in anthropology".[57]

In this sense, we must remember that one of the greatest fears of the Association at the time of accepting the representation of disciplines devoted to the science of man, were its political implications. With this, we can see that although in theory both societies were pursuing a naturalistic study of man, politics was involved on all sides, particularly in the case of slavery. Next, we will see in greater detail the political positions advocated by both groups.

B. Politics

Although the slave trade was banned in 1807, and that slavery had been abolished throughout the Empire in 1833,[58] the issue did not lose potency. In the early 1860s slavery was given new significance thanks to the American Civil War, and was during this conflict that the two societies separated. As mentioned at the beginning of this section, the ESL was founded from humanitarian and philanthropic interests, which to some extent could be considered contrary to imperial policies. In fact, this was part of the reason that ethnology was initially rejected as part of the BAAS. The founders of BAAS sought to separate science

[57] Bouverie-Pusey 1864: clxxiii, Desmond and Moore 2009: 343.
[58] Desmond and Moore 2009: 1.

from political and theological positions, which in their view would allow for different interests and visions to better meet in a single forum.[59] In the case of ethnology, and particularly the criticisms made by Thomas Hodgkin of the cruelty and devastation caused by the British Empire, it is clear that their fears were not unfounded. Nevertheless, as mentioned before, in 1838 both Hodgkin and Prichard succeeded in presenting their anti-imperialist visions, a situation that led ethnology put back in the dark for several years. It was not until 1842, the time of separation between APS and the humanitarian policies of ESL, that ethnology became a form of science openly supported by the Association.[60]

Ironically, from that moment, ethnology found its place not independently, but with geography, as arranged by Murchison. This view clearly met the intent from both disciplines to collaborate in learning about the territories of the Empire and also from the people who inhabited them. This decision found support from Crawfurd, who served as ESL president from 1861, who had formerly served as a colonial administrator in India, which makes his support for the decision less surprising, as does the good relationship he had with Murchison for several years. Despite this relationship, it should be noted that throughout its history, ESL avoided religious and political issues. We can see this in their media, items were far from sensitive subjects, well outside politics or religion, and remained close to scientific topics.

At the other extreme, there is the case of the ASL. Although since its foundation was established "with the object of Promoting the study of Anthropology in a strictly scientific manner", the practice was very different,

[59] On the relations between science and religion and the origins of BAAS, see Morrell and Thackray 1981: Ch. 5.
[60] Morrell and Thackray 1981: 285.

because from the start the ASL consciously mixed science with politics, and this occurred mainly due to the enormous influence of its founder and president, Hunt. The scientific approaches supported by Hunt were the basis of a concrete policy on the issue of race. If we analyse the first mentions of Hunt on the work of anthropology, it is clear that between anthropology and ethnology was little difference in practice, because the topics of interest to both groups overlapped. Here we must consider what Stocking emphasised, that Hunt's resignation from ESL was motivated by differences of opinion about the prints found in certain engravings found in Sierra Leone by Robert Clarke, although deep discussion led to the 'advanced' character they could show the people who made these engravings, a very different view to that held by Hunt, who clearly questioned the intelligence of blacks.[61]

Hunt's rejection of the single origin of races were held in physical anthropology work, very popular in France and the United States, but of little use in Britain at that time. Hunt was by far the dominant figure in the ASL, the other members who were part of the council as Charles Carter Blake, William Bollaert, Richard Francis Burton, John Frederick Collingwood, Richard Charnock, Joseph Barnard and Berthold Seeman, all shared a polygenist vision, but their contributions were scarce. In fact, the most important function of the members of ASL was to provide the funds necessary to maintain outreach efforts through various media created for this purpose by Hunt.[62] The dominance of Hunt can be seen from the fact of being one of the few members of the Society who published, in addition to his writings clearly show his politics.

[61] Stocking 1987: 247.
[62] Stocking 1987: 248.

The case of the American Civil War was revived on numerous occasions, as part of anthropological discussions at meetings of both societies in London, and also in the BAAS. The newspapers reported more than once Hunt showing support to the Southern cause, and Clarke was described more than once as a confederate. It should be born in mind that one reason why no ESL members were identified as North supporters was perhaps largely thanks to the political ambiguity maintained throughout its history.

It is clear that in terms of politics, there was a big difference between the two societies: the ESL was always more cautious, unlike the ASL, which openly mixed political and scientific issues from its founding. As we shall see in the next section, the differences between the two groups not only focused on the political, but also on religious grounds.

C. Religion

The ESL was more open to include religion as part of its discussions. As already mentioned, the ESL was founded after the split with the APS, which itself had been formed from a distinctly religious commitment, because the preponderance of Quakers and evangelicals among its founders.[63] Over the years, the commitment to the humanitarian mission was declining, to become the main reason why some members sought to establish an alternative, much more attached to the natural human study. As previously mentioned, monogenist posture, maintained mostly within ESL was associated initially with a view much closer to traditional religious views, in which the common origin of man is associated with the original couple described in Genesis. This position, to the

[63] Stocking 1987: 245.

extent that religion lost influence within ethnology, led to a new interpretation, in which the origin was associated with a common origin for all races of men, an argument that later found strong support from the recognition of the antiquity of Man and the work of Darwin and Wallace.[64]

The founding of the ASL had nothing to do in principle with a concrete support or opposition to religion, but from the political positions held throughout its history there are elements of criticism from Hunt and some other "anthropologicals" towards the work of the missionaries. This situation resulted from the support given by missionary groups in regions of West Africa, which started from a vision in which there was no superiority of whites over blacks. This situation drove some members of the ASL, which were congenial with the missionary work, to look for new institutional alternatives, even closer to more traditional views of religion. Among them, the best known was James Reddie, who promoted the creation of the Victoria Institute in 1865 (also known as the Philosophical Society of Great Britain), as a repudiation of publication of Darwin's *Origin of Species* and *Essays and Reviews*, considering that conducive to "erroneous views of nature".[65] The aim of the new institution was to defend the truths revealed in the Scriptures, which over the years consolidated as a profoundly creationist institution. Hunt also reaffirmed his position with the publication 'On the Negro's Place in Nature', which maintained his rejection of missionary and humanitarian work. This reactionary stance against religion was one of the triggers for the weakening of ASL in their later years, and that at least

[64] Rodriguez-Caso *et al* 2012: 268.
[65] Numbers 1993: 141.

255 resignations were due to the alienation produced by offensive statements relating to religious themes.[66]

But when referring to religion, we should not just focus on the beliefs of its members, but also in the way as learned societies approached their study, particularly in relation to the "savages". In ethnological descriptions of various tribes, important parts of the information were on the beliefs of the societies' members, but also on the way that, as learned societies, they approached the study of the religion of others, particularly with the understanding that Christianity was the pinnacle of civilization, all part of a clear vision of progress, which was a typical idea in Victorian culture.

The interest in this kind of description can be found at ESL from its inception, as when Prichard mentions:

> The intercourse of traffic between neighbouring countries, the introduction of a new religion or of new habits of life, especially when rude and barbarous tribes have been brought into near connection with civilized ones, have given rise to great changes in the original idioms of nations, and have caused languages originally different to approximate.[67]

For ASL, we can mention here the dispute that occurred in 1865 between the historian and explorer William Winwood Reade (1838-1875) and the first Bishop of Natal, John William Colenso (1814-1883).[68] On 14 March, Reade presented a paper on the work of missionaries in West African communities, in which he criticized the fact that after many years of effort the natives had not changed their pagan beliefs, because from their perspective the British Christianity contained elements that blacks could not assimilate. For Reade, missionary work was a waste of economic resources, and that although the missionaries try hard, he

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[66] *Journal of ASL* 1869: v, Rainger 1978: 69.
[67] Prichard 1848: 316.
[68] Reade 1865; Colenso 1865.

referred to blacks in this way: “No one will be rash enough, I presume, to say that God created these wretched creatures in order to punish them hereafter; and I have already shown that Christian missions do not tend to elevate them in the moral scale”.[69]

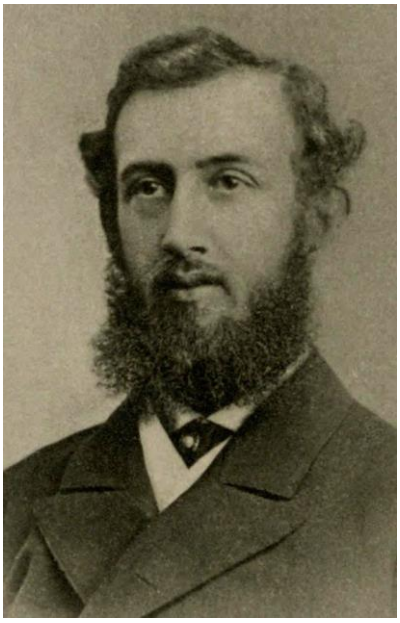

Figure 2.4 William Winwood Reade[70]

At the next meeting Colenso replied to Reade, taking a vigorously opposing view. From his experience working in South Africa, he was able to highlight the enormous efforts of the missionaries throughout Africa, and he put a special emphasis on the ability of Africans to believe in the Christian God in the same way as the whites, and he conceived that they were part of the same family:

> But I do say that this feeling of love for our kind – this sense of the essential brotherhood of the great human family, – whether sprung from one first pair or more, whether developed from lower races or not, – which binds us all together as beings gifted with reason and conscience, and therefore capable of knowing, loving, and glorifying our Creator, and of loving and honouring each other, as reflecting the image of God, – this

[69] Reade 1865: clxviii.

[70] "William Winwood Reade (1910) headshot" by See source information. - *The Martyrdom of Man*. Licensed under Public domain via Wikimedia Commons - http://commons.wikimedia.org/wiki/File:William_Winwood_Reade_(1910)_headshot.jpg#mediaviewer/File:William_Winwood_Reade_(1910)_headshot.jpg.

> spirit, in short, which prompts the missionary to go, and the friends of missions at home to send him, while at the same time they are not found neglecting the calls which God makes upon them in His Providence nearer home at their very doors, – is quite as noble and generous as the spirit of scientific inquiry, which carries men into other fields of arduous and patient labour, and which has led, I believe, a recent traveller to risk the dangers of the West African coast in search of our (supposed) ancestral ape.[71]

As can be seen, in both cases religion ended up playing an important role in the way in which both societies ended up defining their respective views on sensitive issues such as the origin of man, or the diversity of races. So, briefly these are the general characteristics of the two societies. Considered next is the main topic of their discussion throughout their eight years of coexistence, the dispute for recognition within BAAS.

2.4 BAAS Meetings, 1863 – 1865

Discrepancies between the two groups as we have seen occurred on different topics, but above all the objective of both groups was to establish a position within the scientific community. As part of this dispute, the BAAS forum became an ideal battlefield. From the formation of the ASL in 1863, one of its main aims was to open a specific space for the study of Man, and thus the recognition of anthropology as a discipline.[72]

Since the inception of the BAAS, ethnology had been excluded due to its relation to sensitive topics in the political, social and religious senses.[73] The first attempts to incorporate anthropology were made by Prichard who in 1832 was the first to contribute with a presentation on the contributions of philology and

[71] Colenso 1865: cclxxxi.
[72] Stocking 1987: 247-248, Sera-Shriar 2013b: 112-113.
[73] Morrell and Thackray 1981: 283.

anatomy to human history. After this first attempt was excluded another attempt, made in 1834, was apparently refused by two of the founders of the Association, Harcourt and Phillips, who believed that Man's place in the animal kingdom was not subject to discussion and that talk about races affected their Eurocentric sense of superiority.

Figure 2.5 John William Colenso[74]

An attempt to incorporate ethnology into the BAAS program was made by Hodgkin in 1837, to propose a presentation that sought to defend the policies of the APS, but it is clear that the Association had greater affinity for the promotion of colonial policies, making his criticism's untenable for some of the managers of

[74] "John William Colenso by Carlo Pellegrini" by Carlo Pellegrini - Published in Vanity Fair, 28 November 1874.Downloaded from http://www.darvillsrareprints.com/Images/images/Vanity%20Fair/Clergy/colensso.jpg Transferred from en.wikipedia; transferred to Commons by User:Dcoetzee using CommonsHelper. Original uploader was Craigy144 at en.wikipedia 20 January 2006 (original upload date). Licensed under Public domain via Wikimedia Commons - http://commons.wikimedia.org/wiki/File:John_William_Colenso_by_Carlo_Pellegrini.png#mediaviewer/File:John_William_Colenso_by_Carlo_Pellegrini.png.

the Association.[75] Despite these attempts, Prichard managed in 1839 to have the Association establish a committee to prepare and circulate ethnographic questionnaires. He even managed to obtain funds, but as pointed by Hodgkin, were really insufficient: between 1839 and 1842 were assigned £33.[76]

In relation to colonialist policies, and the frictions between the Association and the humanitarian APS, it is worth recalling here Morrell and Thackray's description of Hodgkin and Prichard presenting at the meeting of 1838, which in their opinion explains why the managers of the Association resisted the claims of ethnologists. On the one hand Hodgkin and Prichard's proposals sought to emphasise the APS political vision, while on the other hand they condemned the British as "the greatest exterminators of aborigines and that man, the highest of animals, was nevertheless 'an object of natural history.'"[77]

With the founding of the ESL in 1843, as a result of the separation of the APS, every element related to philanthropy or criticism of British colonialism was removed. In fact, by excluding all those elements of friction, ESL adapted itself to the BAAS view of science. According to Morrell and Thackray, "The fit remained less than perfect, because a natural history of man could obliterate the distinction between the physical and moral which was so precious to the liberal Anglicans".[78]

From the separation of both societies, Hodgkin in his role as chairman of the APS sought no more pressure on its case and its connection with ethnology in the BAAS. In fact this prudence paid off: in 1843 and 1844 were allocated £40

[75] Morrell and Thackray 1981: 284, Stocking 1987: 243.
[76] Morrell and Thackray 1981: 284-285.
[77] Morrell and Thackray 1981: 285.
[78] Morrell and Thackray 1981: 285.

by the BAAS for ethnological research. Another achievement was that in 1844 there was established a subsection for ethnology in Section D, which on this occasion belonged to the same Hodgkin, Richard King and Robert Gordon Latham. It was not until 1846 that ethnology was designated as a subsection in the Report.[79]

Despite these achievements, including the fact that in 1847 Max Müller listened to more than a dozen presentations, the concern did not decrease for the Association in the sense that ethnologists could introduce political or religious topics. On the other hand ethnologists extensively discussed the subordination of the discipline to zoology, as in the opinion of Prichard ethnology was not dealing with current issues of nature, but rather with the history of the past, so that discipline would be more related to other fields such as geology or archaeology.

The subordination of ethnology to zoology did not last long. In 1850, Sir Roderick I. Murchison, who in turn did not agree with the subordination of geography to geology, managed to establish an exclusive section which brought together geography and ethnology.[80] This success of Murchison was also a clear reflection of the trust still existed in this era on colonialist and imperialist policies in the context of BAAS.

In a similar way, the consolidation of Section E under the new vision established by Murchison, coincided with a decline in the ESL, which resulted in the new section being dominated by geographers. Among the reasons explaining this decline it was believed that the Crimean War had been a factor, or perhaps a renewed influence of religion. In fact the situation within ethnological science

[79] *Report* 1846: xv, Morrell and Thackray 1981: 286.
[80] *Report* 1850: xv.

was not healthy. The results of ethnographic questionnaires proposed by Prichard had not produced the expected results.[81] From these situations, the role of ethnology in the BAAS but also outside it, decreased markedly, with the exception of the work of Prichard, especially the third edition of his *Researches* (1848).

The situation of the sciences of Man in BAAS was stable from Murchison's decision to gather in the same section geography and ethnology. As mentioned above, the internal situation of ESL underwent a series of changes. This situation was reflected in turn in the state of ethnology in the BAAS.

From this moment, tensions between the two societies were transferred to the field of BAAS in what became a relentless search for the recognition of the respective views on the study of man.

A. Newcastle 1863

This meeting in Newcastle in 1863, described as a "feast of reason",[82] was the first meeting in which was given openly a confrontation between the two metropolitan societies in the BAAS forum. It should be noted that this year was very important for the sciences of Man, especially thanks to the publication of Darwin's ideas. Two works marked the discussion, *Antiquity of Man*, by Lyell, and *Man's Place in Nature*, by Huxley.[83] These early approaches to the study of man reflected the interest that existed between some big names in both the origin of man and his place in the natural history. In this sense, Darwin's proposal gave a new frame for these discussions.

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[81] Stocking 1987: 243.
[82] *Newcastle Courant* August 21, 1863.
[83] For a discussion about the influence of Lyell's account on Lubbock's *Pre-Historic Times*, see Wilson 2002.

As pointed out by Ellegård, this meeting was the first occasion in which reference was made to Darwin's ideas in a presidential speech.[84] The engineer William Armstrong, a traditional discourse in which he recapitulated the achievements of science throughout the year, when making mention of the achievements of biology, highlighted the role of Darwin's vision as a feasible option in order to account for the way in which natural phenomena such as evolution could be explained rationally, a view that in the opinion of the same Ellegård was generally shared by the informed public.[85]

Despite this first mention of Darwin, the meeting was not characterized by an increased presence of Darwinian ideas in presentations or discussions. It was rather Huxley who attracted the most comment. Rolleston in his role as chairman of the Physiology subsection commented favourably to the recent book of Huxley and other presentations supporting the naturalistic view of the origin of man and his relationship with other organisms such as chimpanzees. However, the impact of those discussions was minimized by the absence of Huxley, a situation which caused great dissatisfaction among the public.[86]

But anthropological subjects were present not only through Huxley but as mentioned before by those applying Darwin's theories to the case of man, in this case through one of the most controversial issues for the British society at the time, the place of blacks. Discussions focused in section E with two very active protagonists in the discussions, the presidents of the two learned society devoted to the study of man: John Crawfurd, president of ESL, and James Hunt president of the newly founded the ASL.

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[84] Ellegård 1990: 73.
[85] Ellegård 1990: 74.
[86] Ellegård 1990: 74.

Despite the differences that had already emerged after the appearance of the ASL as a split of ESL, both maintained a common point in their discussions: their rejection of Darwin's ideas. It is also interesting to note that despite differences both held on the origin of man, both defended polygenism, and in both cases defended the superiority of white over black. The press highlighted the political implications of this discussion, to the point of characterizing Blake Carter as a confederate, alluding to the political slavery and racial supremacy held by the Confederate States of America.

Hunt would become the star of this discussion. With two presentations, one on 27 August on anthropological classification and another the next day about the physical and mental characteristics of black people, he made clear his stance that from the anatomical data one could justify not only the different origins for races but also slavery.[87] This position was articulated in response to Huxley, who from his Hunterian Lectures claimed that anatomy could not justify slavery, and polygenism was absurd.[88] In fact, the title of the presentation (and subsequent publication) by Hunt was a word game referring to the work of Huxley. Huxley promoted the idea of a common ancestor, whose origin was in the ancient past, but stated that slavery had no place within that vision. This vision was shared also by Darwin, on the understanding that provided a new basis for understanding the sciences of Man, a vision that Hunt never accepted.

[87] *Report* 1864: 139-140. Later, Hunt presented the issue again at a meeting of ASL on 17 November with the title 'On the Negro's Place in Nature', which in turn was published as a pamphlet of 60 pages per Trübner and Co.
[88] Desmond 1994: 325.

As it has recently been noted by Sera-Shriar, discrepancies between the two characters were key to the future of the human sciences in England.[89]

During this meeting there took place the first attempts by the ASL in their quest for recognition for their discipline. Although not specifically the BAAS forum, Hunt had made it clear from his first speech as president of the ASL that one of the key objectives of the new learned society would be seeking recognition for anthropology. At the meeting of 3 November, 1863 of the ASL, he highlighted the efforts to negotiate with the General Secretary of BAAS, the possibility of a different subsection within section E in which exclusively would be read presentations on anthropological issues, and even "ethnologicals". As the report's author Blake mentioned, negotiation yielded no satisfactory result for the cause of the ASL and presentations were conducted entirely in the manner previously agreed in Section E. This situation did not discourage the members of ASL, but encouraged them at future meetings of the BAAS to continue striving for this recognition, while also attempting to promote the image of anthropology in a new sense for the public, defining what were the true objects of anthropological study and holding up examples of poor anthropological research.[90]

At least for Hunt and other members of ASL, their presence within section E was a breakthrough, but it was clear that there was still much to be done in the search for anthropology's consolidation. Hunt mentioned how difficult it had been to have to hear a lot of frivolous obsessions against the recognition of anthropology as a proper name, since in his opinion the practice

[89] Sera-Shriar 2013b: Ch. 4.
[90] Blake 1864.

were carried out for some several years in section E as to force such recognition. Striking in any case, that the main opposition to the presence of anthropology within BAAS did not come from the ESL members, but from people who were "quite incompetent to judge where was […] required for the progress of a true science of Man".[91]

ASL efforts included the presentation original themes, unlike ESL, whose presentations had been already made in London, but in the opinion of Blake, "the anthropological papers brought up by the delegates of the London Society were read only by sufferance".[92] According to Murchison, on the other hand, the presentations that were accepted of ASL were not read in those terms, but there were two factors to consider: the huge number of presentations, and that in the opinion of the members of the Section, the issues corresponded to "ethnologicals" and anatomical issues, which implied that in the background there was big news in the proposals. In fact, Murchison suggested that anthropology was not connected with ethnology, so that its place was the sub-section of Physiology, which invited anthropologists to seek accommodation in some other section of the Association more appropriate to their interests.

B. Bath 1864

The search continued for recognition in Bath, a meeting marked by the presidency of one of the most renowned Victorian scientists, Sir Charles Lyell. His speech as president emphasised the meticulous care in the treatment of scientific advances over the past year, but his discussion of Darwin's work is the

[91] Blake 1864: vi.
[92] *Anthropological Review* 1864.

most interesting. As mentioned in the previous section, two works were published in 1863 that marked the discussion of the origin of man, especially the clear involvement of evolution. Although Lyell was one of the authors of these books, and that his relationship with Darwin's views were made clear, as president of the BAAS he merely mentioned the issue once and only to referred to the agreement between both of them on the geological record and extreme fragmentation. As noted by Ellegård, this attitude was well received in the press, and especially the religious press,[93] considering that this was a meeting in which the religious presence was very strong, with the presence of many members of the Anglican Convocation, in which many evangelical scientists presented a statement in which they reaffirmed their faith in the harmony between God and his Creation. This statement was taken at the meeting of the Association, to counter the advance of the 'heresies' of Huxley. As reported by Desmond and Moore, these "schisms and splits appeared as they evangelized the delegates and destroyed the Association's decades-old veneer of religious neutrality".[94]

The momentum showed by ASL members the previous year, with a large share in number of presentations, and the thrust that Hunt demonstrated especially by seeking recognition for anthropology, decreased markedly. Hunt did not attend the meeting due to illness, so that the responsibility for continuing the negotiations to achieve an exclusive space went to the secretary of the ASL, Carter Blake.[95] Hunt's proposal, and consequently defended by Blake, was that Section E would include not only geography and ethnology, but also

[93] Ellegård 1990: 76.
[94] Desmond and Moore 1992: 525.
[95] *Anthropological Review* 1864: 294.

anthropology,[96] considering a resolution passed last year, which stipulated that one or more sub-sections, "should all endeavour to work harmoniously together".

Despite having the support of more than 430 members and under the consideration than other scientific societies based in London had appropriate representation in BAAS, the new proposal was not received positively. Although some geographers such as Captain Bedford Pim supported the motion, the rejection of Murchison was decisive, as the idea to incorporate a new theme to the section was practically impossible if one took into account the huge number of submissions already received each year. Moreover, in Murchinson's opinion and other members of Section E, there was little difference between the presentations already proposed by ESL and those proposed by Hunt and Blake, as they were mostly ethnological and anatomical. As has been noted by Withers, Murchison's position during the meeting, in his role as chairman of Geography was to stress the importance of the discipline, while using their close relationship with issues such as ethnology,[97] reaffirming his power within the Association.[98]

What is clear from the above is that the absence of Hunt drastically reduced the chances of the recognition of anthropology, as assessed by the "anthropologicals". On the other hand, the role of "ethnologicals" in the discussions was markedly reduced, considering that the main defence of the place of ethnology in the Association came from Murchison and not from Crawfurd in his role as president of ESL. A custom that was often given was to present BAAS works that had already been presented at meetings of ESL in London, which was

[96] BAAS Minute book: 215.
[97] *Report* 1864: 130-136, Withers 2010: 84-85.
[98] Howarth notes that this power lasted from 1851 to 1870. See Howarth 1951: 146, Withers 2010: 171-173.

not good for the "anthropologicals", who felt that the lack of originality affected the possibility of bringing the sciences of Man to a wider audience, as in the case that the newspapers were not interested in cover the BAAS meeting.[99] Examples of this situation included Crawfurd and his four presentations, ranging from archaeological topics to the supposed infecundity on what he called "human hybrids or crosses".[100]

Despite the setback, ASL made clear that they would persist in their attempt to consolidate an exclusive space for their discipline. In fact, they made clear their intention to request the opening of Section H, focused especially in anthropology.[101]

C. Birmingham 1865

As with the previous year, ASL members returned with renewed impetus in Birmingham. Unlike previous years, and from the experiences in Newcastle and Bath, the "anthropologicals" came to the meeting with high hopes for their cause. Again Hunt and Blake were commissioned to present to the General Committee a new proposal, which as we saw in the previous section, intended to open a new section devoted to anthropology. The result of the new account was not expected by the "anthropologicals", but unlike previous years their discomfort was very noticeable. The Association Council was responsible for opposing this new motion, with a recurring character in this discussion, Murchison.[102]

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[99] Blake 1865: iv.
[100] *Report* 1864: xiii.
[101] *Anthropological Review* 1864: 299.
[102] *Anthropological Review* 1865: 354.

After this decision was taken Hunt returned to defend the case to look again for his (and the ASL) position. His defence started making it clear that at no time had he sought to establish rivalry with other societies, but his main goal was that anthropology, or the science of man, should be discussed based on its merits within a purely scientific discussion. He resumed the case of what happened with ethnology and Prichard, because in his mind after the death of the latter, ethnology lost intellectual support to the extent to be added to geography, losing importance in comparison with the rest of fields of knowledge.[103]

To give added strength to his argument, Hunt stated that in his opinion the merits of anthropology should gain a space in the Association, from the large number of submissions that they could bring to the meeting, and the diversity of topics among which were included archaeology, descriptive anthropology or the same ethnology.[104]

This defence, though supported by some geographers such as Edward Belcher, again found resistance from Murchison based on two arguments: first, since its inception the Association restricted its sections to seven as cities that received the association each year could not accommodate a larger number, and the second, the proposal of ASL was the first in 34 years for a new section, but in the opinion of Murchison had to be consistent in that if given a place to anthropology, sections would also have to be given to agriculture or phrenology. Murchison's conclusion could not be less daunting: he suggested that ASL in their quest to advance their knowledge, organize their own conference.[105]

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[103] *Anthropological Review* 1865: 354.
[104] *Anthropological Review* 1865: 354.
[105] *Anthropological Review* 1865: 355.

Although it was a discouraging proposal, Hunt did not give up and continued his insistence. This insistence eventually bore fruit. Despite Murchison's resistance, some committee members generally had a greater willingness to seek solutions to the immediate rejection. That compromise proposal came from the Irish surgeon and naturalist Edward Perceval Wright. From the large number of submissions proposed by the "anthropologicals" he considered it a shame to lose them, especially from the difficulty to establish distinctions between the values of one science or another.[106] In his view anthropology should be incorporated into Section D for which it was proposed to open a subsection focused on physiology and ethnology, and clarified that he preferred to use the word ethnology as he considered it a better word. This motion was corrected by the antiquary and astronomer John Lee who suggested that this subsection will focus not only in physiology and ethnology but also on anthropology.[107]

These proposals were voted, and in principle all were rejected including Hunt's original proposal. From that time the situation was complicated for the "anthropologicals" because despite having more arguments to support their position they could no longer participate.

Hunt resumed his particular battle on Monday September 19 during the Committee meeting of Section E, and again suggested that anthropology should be recognized within the section or that there should be opened a special section for anthropology and ethnology, which resulted in a discussion in which the proposal was simply rejected. The next day, the linguist Kenneth R. H.

[106] *Anthropological Review* 1865: 357.
[107] *Anthropological Review* 1865: 357.

Mackenzie made a proposal that sought to end the dispute between "ethnologicals" and "anthropologicals".[108] That proposal was simply to replace the word anthropology for the science of Man, unlike the past days resolution did not have much opposition. This resolution made clear the need for a section or subsection in which to discuss issues related to the science of Man. That decision found support from the Committee of Section E and thus the resolution was sent to the recommendations committee, so it was adopted that in the future there would be a special section for the science of Man. This was certainly good news for the "anthropologicals", who accepted the recommendation without further discussion. It was from here that it was decided that the next meeting would open a special department for anthropology in Section D.[109]

Despite this victory, the situation between anthropology and ethnology still had some friction. Following the conclusion of the meeting, the "anthropologicals" met with the geologist John Phillips to solve what they considered important details. Despite having secured the opening of a new section, there was no intention on the part of the Association to remove ethnology from Section E, as "ethnologicals" had also protested his position within the structure of the Association.

Although for the "anthropologicals" this was not the right solution, the position of the General Committee was clearly in favour of allowing both ethnology and anthropology to coexist harmoniously within the Association. The discussion continued, at least among the "anthropologicals" for both ethnology and anthropology to come together in a single section, to thereby eliminate

[108] Mackenzie 1865: 191.
[109] *Anthropological Review* 1865: 365.

relations that did not benefit the interests of science of Man, in a clear critique of the relation with geography, or such as it would be from the next meeting, with biology.[110]

After three years, the situation for the "anthropologicals" changed for the better. Especially the last meeting made it clear that there was an interest in the Association to accommodate the sciences of Man. As pointed out by Stocking, much of the discussion between the two metropolitan societies focused on the appropriate name to describe a common practice.[111] What followed was the official creation of an exclusive space dedicated to the sciences of Man.

2.5 Conclusions

After the appearance of ASL in 1863, the environment for the sciences of Man in Britain changed dramatically. The discussion led to a confrontation that was not only between two groups, but was between two views on the scope of practice of the sciences of Man. On one hand, the "ethnologicals" led by Crawfurd and strongly supported by Murchison in the BAAS, managed to maintain a position of strength, while ironically, ethnology grew strong reciprocal relationship with geography. On the other hand, Hunt pressed for anthropology as a discipline to be recognized as the proper way to study man. Although it can be complicated, there are notable differences between the two groups, especially in relation with the origin of Man, religion and politics, which marked their speech, both in publications and in presentations. Table 1 represents the diversity of presentations in relation to the sciences of Man during the first half of the 1860s:

[110] *Anthropological Review* 1865: 366.
[111] Stocking 1971.

Contents	1861	1862	1863	1864	1865
Anthropology	0	0	6	3	3
Archaeology	0	1	2	2	4
Ethnology	6	2	7	15	11
Philology	2	1	2	0	1
Phrenology	0	0	0	1	1
Racial theories	1	2	3	3	1
Others	3	4	0	0	0
Total:	12	10	20	24	21

Table 1. Presentations related to the sciences of Man in BAAS meetings, 1861-1865

In this sense, BAAS became a battleground in the quest to establish a single view on the study of man, which encountered great opposition from the "ethnologicals". Despite such opposition, after three years of debate it was possible to open a department for anthropology, but without eliminating the ethnology of Section E. In this sense, it is important to stress, as Goldman has mentioned, that in the nineteenth century "the British Association was the dominant institutionalisation of intellectual life in Britain".[112] In this regard, the definition of Cahan for how we should characterize scientific institutions during the nineteenth century is useful to support the idea that the search for legitimacy within BAAS, a common space for everyone interested in the study of man, was the beginning of the process of institutionalisation of anthropology.[113]

[112] Goldman 2002: 52.

[113] Cahan says: "…scientific institutions and communities may be characterized as consisting of populations of individuals who share similar cognitive interests and values that serve to provide them with a collective social identity and to advance individual scientific careers and group needs. Such populations are naturally composed of individual scientists and their variegated associates, yet they only become institutions and communities when those individuals – perhaps only few in number – act in concert over an extended period of time and perceive themselves as bound together is some particular professional manner". Cahan in Cahan 2003: 293.

The role of Hunt as instigator of the new learned society must be recalled, from the perspective of a new space where those interested in the anatomical aspects of man could find a more suitable space for discussion. A point to note in both societies was the continued involvement of religious and political issues as part of their discussions, both in the metropolis and in the BAAS meetings.

From 1863 to 1865, BAAS meetings were the main place to discuss publicly the legitimacy of the two positions on the study of Man, ethnology and anthropology. The close relationship of the first with geography, a relationship particularly championed by Murchison and Crawfurd, prevented for several years a new space to be created, however, after several negotiations with Hunt as protagonist, a new Department was opened, with the intention of unifying the sciences of Man within the BAAS. The following chapters will aim to present in more detail the consolidation of the sciences of Man, now with the presence of two groups competing in the same space in a search that went beyond justifying a scientific position, but a competition for power over the study of Man.

3.0 Nottingham 1866: Man as an Integral Part of Nature, the Sciences of Man as an Integral Part of Biology

3.1 Introduction

"Men of science as well as other people must eat"[1] announced the *Nottinghamshire Guardian* in early 1866, as part of a series of worried articles relating to the state of preparations for the meeting of the Association in the city in half-a-year's time. There was some uncertainty about the local organization and if it would present Nottingham in an appropriate manner to the distinguished visitors, the 'Gentlemen of Science'. The concerns were understandable, as the city had been through a period of dramatic social and economic change in the wake of the Nottingham Enclosure Act twenty-four years before. Among the Act's casualties was the formerly large proportion of arable land around the city, whose citizens had previously taken for granted easy access to foodstuffs.[2] Now, however, provision of food was one of several areas where the locals were struggling to meet the demands of hosting the BAAS meeting. No one wanted to make a bad impression on a group of visitors composed, in the newspaper's words, "of the ablest and most learned men in science and art",[3] whose views

[1] *Nottinghamshire Guardian*, 17 November 1865; 2 February 1866.
[2] Beckett 2006: 220-252.
[3] *Nottinghamshire Guardian*, 2 February 1866. Five days before the start of the meeting another piece, entitled, 'The British Association', was published in the same newspaper, in which the concerned tone of the earlier piece gave way to a celebratory, festive one. A striking point worth highlighting in relation to the importance of the meeting for the city was the local perception of men of science as different – as apart from other men – and

were influential across science and politics.

Once the meeting was underway, the excitement was palpable. As the *Daily News* commentator wrote at the time:

> The British Association for the Advancement of "Science" has long since demonstrated its value by its success. Tried at first by the severe test of ridicule, and subjected afterwards to the severe test of theological suspicion, it has outlived them both, and its meeting has come to be one of the chief events of the holidays. Provincial towns and cities compete for the favour of its visits, and subscribe large sums to give handsome entertainment. It is a kind of democratic Parliament of science, meeting annually under a President elected for his scientific eminence alone, admitting all who choose to become members to a share in its deliberations, and trusting for support entirely to the popular interest in its scientific objects. The success of such an Association is evidence how large a place science has come to occupy in our modern life. Although science forms as yet but a small part of the education of the young, and the old Universities have only lately and jealously admitted it to a place in their curriculum, it occupies an ever-increasing share of the public attention, and meets us more and more at every turn.[4]

For the purposes of this thesis, the 1866 Nottingham meeting requires close attention not only because it saw the creation of the first Department[5] of Anthropology in the BAAS, but because the question of the implications for humans of the new evolutionary science hung over the whole of the proceedings. The overall atmosphere of the meeting was marked in a decisive way at the outset by the inaugural address of the elected President, the physicist W.R. Grove, who highlighted the doctrine of continuity, based on the ideas of Darwin. Darwin was not only present through the presentations and discussions of his

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the annual meeting of the Association as the time then these great men could get in touch with mere mortals. See *Nottinghamshire Guardian*, 17 August 1866.

[4] *Daily News*, 22 August 1866.

[5] During the meeting in Birmingham in 1865, it was decided to rename section Sub-Department, to refer to the subdivisions that were included in each section. See *Report*, 1868, p. xxx.

ideas, but he was also close to figures in key positions in the Association.[6] For the first time in the history of the Association, the atmosphere was favourable to Darwin's ideas and, more generally, to evolution. This favourable environment is evidenced by two novel aspects of the organization for that year: the name change for Section D from Zoology and Botany to Biology, and within this section, as noted, the first appearance of a Department of Anthropology.

This change was not only nominal, but had a direct impact on the composition of the Section, which now included three specific departments, Anatomy, Physiology and Anthropology, as well as other presentations on Zoology and Botany. Unlike previous years, the sciences of Man on this occasion were relocated from their traditional site in Section E, Geography and Ethnology, to be included as part of the new Section, Biology, in which the study of Man became fundamental. The task was not easy, for, as we have seen, the recent history between the two main learned societies devoted to the study of Man was one of on-going disagreement – so much so that it was felt necessary to find someone who could mediate between them. That responsibility fell to the explorer and naturalist Alfred Russel Wallace (1823-1913), who was recognised as an authority by both sides, and not committed in a partisan way to either the ESL or the ASL. This was thought to be the best solution, since it would maintain a cordial atmosphere among all those interested in the subject. The Nottingham meeting thus became an event in which the life sciences, with special emphasis on Man, played a leading role for the first time in the Association's history.

[6] Ellegård 1990: 78.

This chapter is divided into three sections. The first section will present in a general way the atmosphere that arose at the meeting, marked especially by the inaugural speech of President Grove, which, again, contained a strong statement of the importance of the 'doctrine of continuity' in understanding natural processes, especially in biology. An important part of the speech was an implicit backing of Darwin's ideas, a situation that was carefully planned behind the scenes, and which finally allowed evolution and Darwin's ideas to form an integral part of the meetings of the Association. The second section of the chapter is devoted to the renaming of Section D, now Biology, under the presidency of Thomas Huxley, in a clear attempt to unify under a single perspective the study of the various aspects of life. Here was also included a new Department named Anthropology; the topics and presenters who took part in this new venture will be examined in detail. Finally, the third section focuses on that unlikely unifier for the sciences of Man at the 1866 meeting, Wallace. Although his role as co-discoverer of the theory of natural selection with Darwin is well known, Wallace's anthropological interests have been under-studied, a situation that is no less ironic when one considers that his fundamental interest in natural history from the beginning of his career was, as we shall see, to explain the origin and evolution of Man.

The intention in what follows is thus to give an overview of the progress and consolidation of the sciences of Man during the BAAS meeting at Nottingham. The meeting marked the culmination of years of competing approaches and agreements among stakeholders on the subject of Man. The subject had finally acquired a recognized and common space, which formally

allowed range of interested parties to speak about the sciences of Man as a unified science.

3.2 How a BAAS Presidential Address Could Set the Tone: The Case of Grove at Nottingham

A. *William Robert Grove: Continuity, from the Laws of Physics to the Laws of Nature, and the Changing Nature of the President's Role*

The situation described in the *Daily News*, whereby the BAAS met annually "under a President elected for his scientific eminence alone," was actually rather a recent development. In the first few decades of the BAAS, although the presidents mattered, they did not matter as much as their title might suggest. The BAAS was traditionally organised around sections and departments. The Council consisted of those who had attended and presented at a meeting, as well as the presidents of various scientific societies. From 1836, daily business was handled by a secretary and later two general secretaries. The selection of a president was mostly a formality in which social rank and influence played a role. This trend reversed from 1860, however, when the selection of a president began to increasingly rest on "professional reasons".[7]

George Basalla and his collaborators have analysed the role of the Association in communicating science to the Victorian public, as well as the key elements that made up the Association over time. By their reckoning, the "presidential address soon became the highlight of these meetings".[8] The address's importance can be characterized by contemporary descriptions such as "the principal public scientific pronouncement of the year" or "the speech from

[7] MacLeod and Collins 1981: 24.
[8] Basalla *et al* 1970: 4. See also Knight 1996.

the throne of science".[9] The presentations within Sections and Departments were often too technical for people not versed in matters of science, while the presidential address was a forum for an eminent man of science to comprehensively explain the progress of science to laymen. Another sign of the importance of the speeches is the newspaper coverage, which included full transcriptions of what was said by the President each year.

If this meeting was clearly devoted to Darwinism, this was not the result of chance. It was due to a plan by established members including William Robert Grove (Figure 3.1), who had previously written to the botanist and Darwinian Joseph D. Hooker asking for some references and suggestions about topics and readings for his Presidential address.[10] Hooker responded with a list of papers: Wallace's 1864 paper on man and his work on Malay Archipelago butterflies,[11] Bates' works on the Amazon, especially concerning mimicry in butterflies,[12] Hooker's own works on Arctic and Australian Flora,[13] and Darwin's *Orchids* and "Dimorphic condition in Primula".[14]

[9] Cited in Basalla *et al* 1970: 4.
[10] Hooker sent a letter to Darwin on 29 May in order to ask him his opinion about the references he gave to Grove: Darwin Correspondence Database. http://www.darwinproject.ac.uk/entry-5104/, and Darwin responded on 31 May, Darwin Correspondence Database. http://www.darwinproject.ac.uk/entry-5106/. Ellegård 1990: 78-80, Desmond and Moore 2009: 536.
[11] Wallace 1864, Wallace 1865.
[12] Bates 1863.
[13] Hooker 1847, Hooker 1867.
[14] Darwin 1862a, Darwin 1862b.

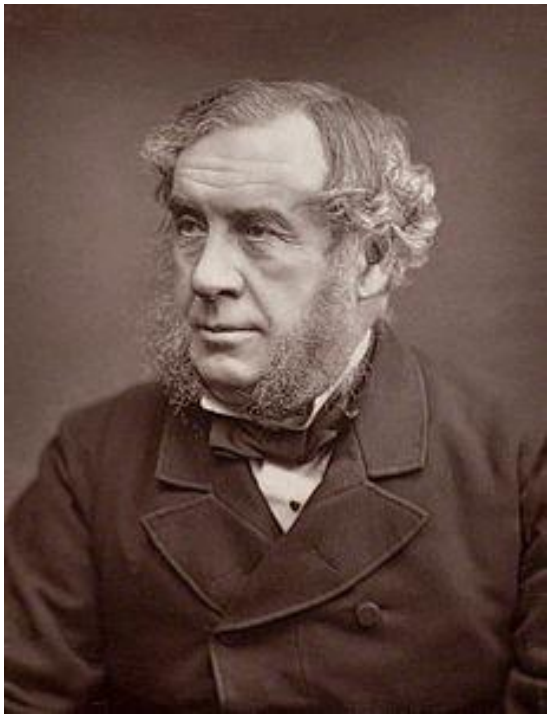

Figure 3.1 William R. Grove[15]

It is worth noting in passing, that when Hooker accepted the invitation to give Grove information, it was not a pleasant situation for him. For some years Hooker's relationship with Grove had been strained, as he explained to Darwin on 16 January, 1866: "Would you believe it, I have in cold blood, accepted an invitation to deliver an evening address on the Darwinian theory at Nottingham. I am utterly disgusted with my bravado. The fact is that Grove asked me, & I feel that I ought to make amends for hateing him so heartily as I did once".[16] Darwin's opinion about Grove was totally different, and had been for some time. Darwin said he had recently talked with Grove, after the meeting of the Royal Society on 26 January, to the point that "he harangued me to that extent I was half-dead, & he did not at all clearly see what he was talking about. I had thought

[15] Image taken from http://en.wikipedia.org/wiki/File:William_Robert_Grove_2.jpg.
[16] Darwin Correspondence Database. http://www.darwinproject.ac.uk/entry-4978/.

you rather unjust about Grove; I humbly axe your pardon".[17]

Grove's commitment to Darwinism seems startling, especially considering that he was initially working at a distance from the life sciences as a natural philosopher and judge.[18] He studied classics at Oxford (1829-1832) and subsequently prepared for a legal career in London. The origins of his interest in physics, especially electricity, are unclear, but his commitment to science was clear from his role as founder of the Swansea Literary and Philosophical Society in June 1835 and his acceptance as a member of the Royal Institution in the same year. His work on photovoltaic cells in 1839 won the attention of Michael Faraday, who invited him to present at the Royal Institution. With this and other works, Grove created a reputation as an experimentalist. One of his most famous works was *On the Correlation of Physical Forces*,[19] published first in 1846, and with six editions published by 1874.[20]

The 1866 meeting began with Grove's presidential address,[21] which opened by emphasising the role that the Association had played over the past

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[17] Darwin Correspondence Database. http://www.darwinproject.ac.uk/entry-2689/.

[18] When it was learned that the President would be Grove, the *Leisure Hour* devoted an article to the scientific importance of his work in electricity. His views were characterized as part of the emerging scientific naturalism, the article "In all phenomena, the more closely they are investigated, the more are we convinced that, humanly speaking, neither matter nor force can be created or annihilated, and that an essential cause is unattainable - Causation is the will, Creation the act of God." *Leisure Hour*, 18 August, 1866, 517–520.

[19] Cantor 1975.

[20] Despite the importance of the achievements of Grove, there is little material to deepen it. On the life of Grove, see Iwan Rhys Morus, 'Grove, Sir William Robert (1811–1896)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, May 2005 [http://0-www.oxforddnb.com.wam.leeds.ac.uk/view/article/11685, accessed 1 July 2014]; on his institutional work, Cooper and Hall 1982; on his contributions to physics, Cantor 1975 and Morus 1991.

[21] This address was printed in length in *The Times*, 23 August 1866: 4, *The Morning Post*, 24 August 1866: 2, *The Leeds Mercury*,23 August 1866, *The Dundee Courier & Argus*, 23 August 1866, *Daily News*, 23 August 1866. In others like *The Derby Mercury*, 29 August 1866, *Birmingham Daily Post*, 23 August 1866, *Nottinghamshire Guardian*, 24 August 1866: 5, *Aberdeen Journal*, 29 August 1866, there is just a brief mention of the address, with a special mention of the role of continuity.

years in the advance and support for science, especially with the development of universities as well as the fact that the Government increasingly recognized the importance of men of science in the search for solutions to problems of the country. Unlike in other years, however, Grove preferred to mention what in his view were the lessons of the year, and they were the "the probable prospects of improved natural knowledge".

These lessons could be summarized, for Grove, in one word: continuity. Far from being new, this word had, of course, had a greater number of applications than previously. In general, Grove explained, new observational, experimental or deductive knowledge "is either attained by steps so small as to form continuous ascent really extremely". And with the advancement of science, man could discover intermediate steps that unite the apparent scattered instances:

> One word will give you the key to what I am about to discourse on; that word is *continuity*, no new word, and used in no new sense, but perhaps applied more generally than it has hitherto been…Thus the more we investigate, the more we find that in existing phenomena graduation from the like to the seemingly unlike prevails, and in the changes which take place in time, gradual progress is, and apparently must be, the course of nature.[22]

Some days before the beginning of the meeting, Grove sent some letters to Darwin in order to gauge his opinion about the address to seek advice concerning what he should mention in relation to evolution. Grove sent a manuscript version of his address to Darwin, in which he discusses with Darwin his explanation of adaptation, initially considered from Lamarck's and Cuvier's point of view. Grove apologizes to Darwin for not saying much about adaptation, since for him: "the answer would have been that the argument cut both ways as whether an animal by circumstance Natural selection &c became suited to locality in

[22] *Report* 1867: liii-lxxxii.

conformation habits &c—or was specially created for p<arti>cu<lar> circumstances the adaptation would equally be a necessity— an animal or plant must within limits be adapted to circumstance or not be at all—".[23]

Grove's speech and his approach to continuity was mainly based on examples from astronomy, his own area. Grove gave a quick summary of how the Earth was considered plane or at the centre of the Universe until recently, which also suggested a consistency in the positions and movements of meteorites and other stellar bodies. He spoke also of chemistry, to clarify the relationship of continuity between the various elements that make up the matter in the Universe. When Grove was speaking of topics such as geology, for him palaeontology was the embodiment of the idea of the close relationship between changes of climate on the planet and their visible results in rocks or living beings. It was at this point in the address that Grove introduced Darwin's work.

The discourse around Darwin's work was a deep philosophical discussion, in which Grove asked himself questions such as how could the first elephant have emerged?[24] We can consider that a new race emerged from former parents, but, if they did not exist would the elephant had been created as well, and would this be a signal of the presence of the Almighty? For Grove, it was obvious, thanks to new scientific knowledge, and in particular to the notion of continuity, it was not necessary to accept God's existence, but instead one should, "be more reverent and more philosophical to inquire by observation and

[23] Grove to Darwin, 31 August 1866. The manuscript version of Grove's address has not been found. Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-5201.
[24] For example, one response can be found here: *Punch,* 1 September 1866: 90.

experiment, and to reason from induction and analogy"[25] to search for escape from the miraculous explanations.

Despite the sensitivity of the subject, and his confidence that the Association was an unprejudiced forum, Grove finally introduced his position on the role of species, how they had changed gradually to suit their environment, through the action of natural selection: all ideas which had been proposed by Darwin. It has to be noted that Grove did not comment specifically on the validity or the superiority of Darwin's theory of natural selection. He wanted, instead, to show, first and foremost, that thanks to the progress of science, the continuity of natural phenomena becomes much more apparent.

Among the claims that Grove presented in order to assert the relevance of Darwin's ideas were the impossibility of spontaneous generation (largely from the Pasteur-Pouchet confrontation on the topic)[26] and the need to clearly establish a species concept and to explore its origins, so that in conjunction with the discoveries of geological phenomena one could understand phenomena like extinction. He laid particular emphasis on the varieties that occupy the gaps between species as an argument with respect to transmutation as opposed to special creation.

Grove also underscored the importance of history and culture in the development of civilisation. On his view, "the superiority of man over other animals inhabiting this planet, of civilised over savage man, and of the more civilised over the less civilised, is proportioned to the extent which his thought

[25] *Report* 1867: lxx.
[26] For an in depth study on the subject, see Farley and Geison 1974.

can grasp of the past and of the future".[27]

As noted, presidential speeches initially functioned to recap the most relevant developments in different areas of science throughout the year. Each president sought to emphasize his specialty. Grove, however, was a unique case. As James Moore has pointed out, Grove belonged to a generation of dissident intellectuals who promoted the creed of scientific naturalism.[28] He sought to reaffirm that continuity in Nature was already known in relation to physical laws. More generally, Grove's attitude was defensive and careful and even through the point of his address was to showcase evolution, he was discreet and there was very little talk of natural selection.

B. Reactions to Grove's Presidential Address and its Continuationism

Nevertheless, the link between continuity and anthropology was an explicit point of discussion after the meeting. James Hunt, for example, published an article referring to this point, which in general terms reaffirmed Grove's view of the role of continuity in nature, and stressed that it was not a new subject for anthropology,[29] since Johann G. Herder (1744-1803), Samuel T. Soemmering (1755-1830) and Charles White (1728-1813) had already made similar proposals.[30] In other papers, Hunt rejected the ideas proposed by Darwin, and

[27] Again, it is clear that discussions and presentations at the BAAS showed an interest in man, to explain his origins, his anatomy, his culture, his state of civilization, all of these were viewed as aspects of the progress of humanity. *Report* 1866.
[28] Moore, 1990: 180.
[29] Hunt 1867a.
[30] Soemmering and Herder's proposals were influenced by the *Naturphilosophie* which stressed the unity of organisms. Charles White, on the other hand, a Manchester doctor with deep interests in anthropology, published in 1799 his main work on this subject, *Account of the Regular Gradation in Man, Animals and Vegetables*. This was a series of lectures in which from a strong view that there was a polygenetic proposed general gradation of a species to another, which even suggested relationships between species

not only his. Hunt also criticized some of Darwin's defenders such as Huxley and Wallace. Some of Hunt's harshest criticisms were brought against Wallace and his proposal on the origin of human races by natural selection.[31]

Grove's address drew a swift response, not least in the forms of various sermons that were delivered in parallel with the meeting. It is worth noting that these sermons were primarily focused on achieving reconciliation between Grove's discourse and the different views promoted by religion.[32]

One such sermon was by the Rev. Charles Pritchard (1808-1893), (Figure 3.2) Savilian Professor of Astronomy and Fellow of New College, Oxford who delivered sermons in parallel to the annual meetings of the Association on numerous occasions, all of which were published in 1889, shortly before his death. Born in Alberbury, Shropshire, at the age of sixteen he enlisted as sizar[33] in Cambridge. He was elected Fellow of St. John's College, and became a priest in 1831. From 1834 to 1862 he acted as headmaster of Clapham Grammar school. After this time, he retired and began to take an active interest in the Royal Astronomical Society. He started formally a career as an astronomer in 1870

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and races, but never came to accept the possibility that a species may give to another. This was the empirical basis for polygenism. See Stella Butler, 'White, Charles (1728–1813)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004 [http://0-www.oxforddnb.com.wam.leeds.ac.uk/view/article/29238, accessed 30 June 2014].

[31] Hunt 1866. For some doctors like William Gilbert Child, Grove's proposal remained on the same level with what had been said by both Darwin and Herbert Spencer. See Child 1869: 136-138.

[32] Recently, Toal has highlighted the importance the sermons had in BAAS meetings as part of the rhetoric of conflict within the science-religion relationship, to understand the dynamics of secularization of the nineteenth century. See Toal, 2012.

[33] In Trinity College, Dublin, and in the University of Cambridge, this term refers to an undergraduate student who receives some assistance from the school, such as meals or low tuition, or who was sometimes paid from performing a specific job. "sizar, n.". OED Online. June 2014. Oxford University Press. http://0-www.oed.com.wam.leeds.ac.uk/view/Entry/180585?redirectedFrom=sizar (accessed 30 June, 2014).

when he was elected as Savilian Professor at Oxford. With the support of Warren de la Rue (1815-1889), Pritchard succeeded in establishing a new observatory for the University. His work included the systematic study of stellar photometry and the application of photography to the determination of stellar parallax. He was also a member of the Royal Society from 1840, and received a royal medal for his work as astronomer in 1892.

Figure 3.2 Charles Pritchard[34]

At the Nottingham meeting Pritchard took the opportunity to give his opinion of Grove's address. Entitled "The Continuity of the Schemes of Nature and of Revelation", Pritchard's sermon addressed the question from two sides: the first

[34] Image taken from http://www.sciencephoto.com/media/227873/view.

part of the sermon was a discussion of consensus on the role of continuity in nature, the second part was a strong critique of the theory of natural selection.

Pritchard, in a similar manner to Grove, established the continuity of Nature by drawing on different facts and explanations of the physical world. He concluded that: "There is a *Continuity* between the Scheme of Nature and the Scheme of Revelation, as recorded in the Scriptures".[35] On the other hand, he criticized the acceptance of the Darwinian hypothesis as the explanation of the origin of continuity.[36] He took as a basis the familiar objections to the evolution of the optical structure of the human eye; in short, he made his criticisms over design. Another criticism brought forward by Pritchard, was the question of time, the millions of years alluded to by Darwin. While discussing the process of natural selection, Pritchard stated that: "It is difficult to assign any approximate limitation to the meaning of the term millions on millions of years",[37] showing in that way his disagreement with the theory, on the basis of current scientific knowledge.

Another sermon given in association with the meeting was "Science: Its Strength and Weakness", by Rev. Clement Clemance (1829-1895). Clemance was the minister of Chapel Castle Gate, Nottingham, from 1860 to 1875. He organized various committees for workers in the area, with the idea of conducting services to alleviate their needs. His work was very successful in adding to his congregation while the church was repaired in 1864. In 1875, with markedly deteriorating health, he resigned his position, in order to continue his ministry in London at the Congregational Union, where he finally died.

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[35] Pritchard 1889: 5.
[36] Pritchard 1889: 37.
[37] Pritchard 1889: 42.

His sermon in 1866 at, or alongside, the Nottingham meeting, sought to build bridges between science and religion. Science, Clemance believed, was the way to understand God's work:

> It will be well to state, however, out and out, that we never feel the least disturbed by the apparent conflict between the advance of science and the book of revelation; for these reasons: -Here are two books of God -the world and the word; here are two schemes of man- the interpretation of the world, or science, and the interpretation of the word, or theology. The two books of God are the same age after age, the two schemes of man vary age after age.[38]

Much of what was said by Clemance was based on making a clear distinction between science as a form of knowledge of nature and religion as a form of belief, and therefore "science and religion [could] be regarded as helpers of each other".[39]

Responses such as those given by Pritchard and Clemance show that events during the meetings of the Association often went beyond a strictly academic framework. The impact of what was discussed at each meeting reached many different areas, and religion did not escape from the Association's impact.

Grove's approach was risky. From the moment he knew he had been appointed as President, he devoted time and effort to preparing the address. He sought to have available all the information needed to create the best possible account of his view of science. Using the continuity of nature as a metaphorical way of referring to the transformation processes of organisms was a move of such rhetorical force that it proposed a new world view.[40]

One personal response to Grove's address came from Alfred Wallace, only weeks after the end of the meeting in Nottingham. In *The Scientific Aspect*

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[38] Clemance 1866: 9.
[39] Clemance 1866: 21.
[40] *Freeman's Journal*, 29 August 1866.

of the Supernatural, his first spiritualistic writing, Wallace drew on Grove's address to argue that the great law of continuity is found throughout Nature. In addition, however, he advocated a spiritual theory since it gave further support to the idea of progress towards more advanced states of existence.

The general perception was that Grove's speech focused more on a general perspective of the state of science over the past year, than on his own interests or field of knowledge[41] as was common practice among the Presidents of the Association. The point Grove emphasized most strongly was the doctrine of continuity, something which earned him excited applause from the audience. Several publications such as *The Reader,* [42] *Daily News*[43] and *Athenaeum*, [44] transcribed the speech without further review. The *Derby Mercury* chose not to transcribe it, since in the editor's opinion the address was too long and very technical. Instead the newspaper focused in on emphasizing a single point, continuity, based on the Darwinian theory as an explanation of nature.[45] The *Manchester Guardian* was a little more explicit, summarizing the whole meeting, with special emphasis on the contributions of astronomy, electricity, and discussing at length the issue of continuity. Grove's speech lasted over two hours but nonetheless was well received by the audience, with sustained and loud applause.[46]

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[41] *Birmingham Daily Post*, 23 August 1866.
[42] *Reader*, 25 August 1866.
[43] *Daily News*, 23 August 1866. In a note published the day before, August 22, it was highlighted the choice of Grove as an example of the success of science, in particular his work in electricity, especially by visible signs such as the Atlantic telegraph cable which joined together two continents. Speaking of modern science, physics was consolidated as an alternative to the "old metaphysical thought", in which only the observed phenomena and the facts were that "oblige us to believe". See *Daily News*, 22 August 1866.
[44] *Athenaeum*, 25 August 1866.
[45] *Derby Mercury*, 29 August 1866.
[46] *Manchester Guardian*, 23 August 1866.

One of the most attractive stories not only about Grove but about the meeting in general came out in *Punch*. Under the title, "The Philosophers of Nottingham"[47] (Figure 3.3), *Punch* presents a caricature accompanied by a poem, describing the great figures of science and the fundamental topics of their presentations. The image shows all recognized figures balancing on globes that followed a spiral path towards the sky. At the top was William R. Grove, associated with two concepts that marked his presence in the BAAS, "continuity" and "correlation"; further down, Sir Roderick I. Murchison, was labelled as the 'Traveller's Friend' along with Thomas H. Huxley who was balanced on an ape skull while playing with some bones. Completing the constellation were engineer Sir William Fairbairn, geographer Matthew F. Maury, geologist Sir Andrew C. Ramsay, chemist and journalist Sir William Crookes, chemist William Odling, astronomer and meteorologist James Glaisher, the natural philosophers John Tyndall and David Brewster, and astronomer William Huggins.

The verse that surrounds the figure begins with an apology for representing such austere and funny characters of science. It then refers to the remarkable points for each one during the meeting. First comes Grove and continuity in Darwinian terms, with the concrete example of biological development of an elephant from the 'trunk of life'. Murchison's relevance within the Association as key support for disciplines such as geography and exploration of the most secluded parts of the world, is highlighted, alongside Huxley's interest in chimpanzee bones.

[47] *Punch*, 8 September 1866: 99.

Figure 3.3 “The Philosophers of Nottingham”[48]

The general idea of the image conveys a good summary of what was said and done at the Association at this period, with the firm idea of bringing science to the people, like a circus visiting various locations to entertain the audience with various acts. The efforts of the President and the rest of the members of the Association was to present different competing views of nature and science in order to consolidate them.

[48] Image taken from *Punch*, 8 September 1866, 99.

3.3 How Name Changes at the BAAS in 1866 Reflected the Rise of Biology as a Unified View of Nature[49]

A. Wider Changes in the Life Sciences, 1831-1865

It was not only anthropology that found a place at the BAAS in 1866. Evolution also did, thanks to people like Huxley, Wallace and Galton, who pushed for a "reform of Nature"[50] which would be accepted by bigger audiences. Evolution was only part of a larger vision, a discipline that unified all studies of life. The appearance of Section D, renamed for this meeting as Biology, was a key moment in the consolidation of biology as a field of study formally recognized, especially in the Association. Although the word "biology" was coined some six decades earlier by Jean-Baptiste Lamarck and Gottfried Reinhold Treviranus, its use within the life sciences was limited, hence my need to only briefly highlight here the process of its institutionalisation. Joseph Caron has highlighted the difference between the proposal of the word and the creation of the discipline, based on different traditions of the study of life, especially in France, Germany and England.[51]

The aim of biology, according to Lamarck, was the study of everything related to living bodies, particularly their organization and development. In the same French context, August Comte later used the word to refer either to physiology or the goal of biological sciences in the formulation and development of laws of life. In the case of Germany, the definition given by Treviranus, in his work *Biologie; oder die Philosophie der lebenden Natur* (1802), was a

[49] For a good review about how biology reached maturity in the nineteenth century, see Wilson, 1959.
[50] Desmond 1998: 350.
[51] Caron 1988.

comprehensive proposal for a new synthetic science of life, but without supposing that this would seek to establish a new discipline as such. Using these two cases, Caron demonstrates that, in the nineteenth century, there was no unified concept of biology. At the same time, "when unification of the life sciences was considered an aim seriously, it was meant to be based on the furthering of existing avenues of specialized research, followed by development of the consequently greater capacity of generalization possible".[52]

The British case needs further clarification. The influence of Darwin's ideas in the history of biology is beyond dispute, but their role in the creation of the discipline is questionable. Authors such as Ernst Mayr have suggested that biology was founded on ideas associated with evolution, and in that sense he claimed that the discipline could not exist without evolution. However, the word biology was used very differently in this context. One of the earliest references is from the chemist and physician Thomas Beddoes, who wrote in 1799, "Physiology therefore – or more strictly biology by which I mean the doctrine of the living system in all its states, appears to be the foundation of ethics and pneumatology". In 1819, the surgeon William Lawrence referred to the concept proposed by Treviranus in Germany, as a more appropriate term than physiology to study the various forms of nature. Another example was the Cambridge philosopher William Whewell, who in the ninth book of *The Philosophy of the Inductive Sciences, Founded upon their History* (1840), preferred 'biology' rather than 'physiology' to describe all those sciences whose object of study was life, based on its etymology.

[52] Caron 1988: 239.

Figure 3.4 Sir William Lawrence[53]

One of the most striking works of this period is *The Principles of Biology* (1864), written by philosopher Herbert Spencer. From the beginning of the book Spencer made clear that "the aim of this work is to set forth the general truths of Biology, as illustrative of, and as interpreted by, the laws of Evolution", thereby clearly establishing the relationship between biology and evolution, and to do this, as explained by Spencer, he received the help of Huxley and Hooker, in the form of information and corrections for the book.[54] The first volume of the book is organised in order to provide first a description of the objective of study, then descriptions of different biological processes – such as growth, development, adaptation, heredity, variation, among others – to finally consider evolution as an

[53] Cunningham 1908.
[54] Spencer 1864, vol. I: v.

explanation of life. The second volume is devoted to expanding traditional topics such as morphology, physiology and the 'laws of multiplication'. With all this, Spencer was giving an inclusive definition for biology, which includes descriptive disciplines as much the new vision based on evolution.

The development of the life sciences at the beginning of the century occurred in a different manner from that intended by the Association. Speaking of the life sciences, it should be noted that we refer to a number of issues addressed from different perspectives all bearing on the study of living matter. The range can be divided mainly between medicine, which in turn covered anatomy and physiology, and natural history, covering topics such as botany and zoology. It should also be noted that in the early nineteenth century, the sciences of Man were not included in the life studies, as in Whewell's proposal.

The life sciences were part of the organizational structure of the BAAS from its inception in 1831. At the first meeting in York, six sub-committees were established, including one for matters of zoology and botany. In the following year, section names were settled, including Zoology, Botany, Anatomy and Physiology. After 1833 there were six sections, four years later this number expanded to seven, and their names were replaced with letters. Section D remained devoted to Zoology and Botany, while Anatomy and Physiology underwent several changes of location, until in 1847 they were completely absorbed by Section D. The case of the sciences of Man was special from the start. Their first appearance was in 1832 in the hands of James Cowles Prichard,[55] who gave a presentation on philology and the anatomy of man, which was not included in any particular section. In 1837, Thomas Hodgkin founded the

[55] *Report* 1833: 529-544.

Aborigines Protection Society, and sought unsuccessfully to bring the society's proposal to the Association. One of the reasons why anthropology did not find an immediate place in the organization was the intent of the founders to establish a scientific forum that was not involved with political, social or religious conflicts.[56]

In 1839, Prichard was again the protagonist. He managed to persuade the Association to organize a committee in order to prepare and circulate an ethnographic questionnaire, although, funds for this were considered unsuitable for Hodgkin. Prichard continued his efforts in 1843, and his insistence on establishing ethnology as the proper study of Man united his vision of the APS to that of the newly-formed Ethnological Society of London. This move meant much greater financial support for ethnological research, and in 1846 a subsection was opened in Section D called Ethnology. It was in 1851, at the insistence of Sir Roderick I. Murchison, that ethnology became part of Section E, along with geography, as Murchison thought that both disciplines complemented each other perfectly.[57]

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[56] This approach was the same as was applied in other cases, such as education, medicine, agriculture and phrenology. We must also see that the non-involvement of religion was relative. According to Morrell and Thackray, the foundation of the BAAS was intended to establish a group of people dedicated to science, alternative to Oxford, Cambridge and other learned societies, with an environment dominated by liberal Anglicans, but also Quakers, Unitarians and evangelicals. The environment of inclusion was incomplete, as there was no presence of Jews, Roman Catholics, Methodists, Congregationalists, Baptists, atheists or materialists. See Jack Morrell, 'Founders of the British Association for the Advancement of Science (*act.* 1830–1836)', *Oxford Dictionary of National Biography*, Oxford University Press. [http://0-www.oxforddnb.com.wam.leeds.ac.uk/view/theme/59216, accessed 1 July 2014], Morrell and Thackray 1981: 21-29. Moreover, as can be seen throughout the thesis, the religious theme was accepted in both the presentations and discussions, especially in relation to the sciences of Man.

[57] The study of geography as a discipline, beyond and within the Association has been widely developed in recent years. See Livingstone 2003; Withers 2010. See also Beaver 1982.

To summarize: just as the changes that occurred in the name of Section D reflected a complete change in the understanding of the life sciences, so, in the same vein, we cannot underestimate the significance of the explicit inclusion in that section of the sciences of Man, understood now as part of the newly unified study of life. From 1866 on, Man was, for BAAS audiences, a many-sided biological problem.

B. Why Huxley's Involvement in these Changes was No Accident

Thomas H. Huxley's interest in the life sciences stemmed from his medical training in which he had worked particularly on physiology. His first attempts to speak about those sciences as a unified science of "biology" were between 1855 and 1858 when he was responsible for the Fullerian Lectures of the Royal Institution. The Fullerian Lectures were intended to relate to physiology and anatomy. While the subject of his lectures focused on topics that were included within natural history, Huxley entitled his performances "Principles of Biology, Morphology and Physiology",[58]

The 1860s – when Huxley became "Darwin's bulldog" – were the most interesting period for Huxley's anthropological work. The outcome was for him the perfect foundation on which to base his position, especially against theology, and with his passion and his rhetorical abilities would enable him, in the words of Lyons, to "convince men they were monkeys".[59] It was Huxley who first

[58] The titles and topics of Huxley's presentations were: *On certain Zoological Arguments commonly adduced in favour of the hypothesis of the Progressive Development of Animal Life in Time* (1855); *On Natural History as Knowledge, Discipline, and Power* (1856); *On the present state of Knowledge as to the Structure and Functions of Nerve* (1857); *On the Phenomena of Gemmation* (1858). See Royal Institution of Great Britain, *Proceedings*, 1858.
[59] Lyons 2010: 452.

seriously raised the issue of human evolution in 1863 with *Man's Place in Nature*, which extensively emphasized anatomical similarities between apes and men. In this work his interest in the sciences of Man was not only on the strictly academic level but also began to focus on the institutional context and the idea of being able to influence the development of the sciences of Man, which can be seen as "the final shot at Owen's misshapen ape brain",[60] especially in the context of discussions in the BAAS. As noted by Bowler, at physical and mental level there was no significant difference in order to separate humans and primates, a materialist explanation that stated some of the basis of "scientific naturalism".[61] His interest in comparative anatomy, presented in his *Lectures of the Elements of Comparative Anatomy* included several examples comparing mammals with Man, establishing in that way a continuity between all animals:

> By the help of these landmarks, chiefly, it has been possible to identify the bones known as basi-occipital, ex- occipitals, supra-occipital; basi-sphenoid, alisphenoids, parietals; presphenoid, orbito-sphenoids, frontals; or, in other words, the constituents of the walls of the brain-case, throughout the whole series — from the Pike to Man. And it is found that these bones, when they all occur together, are so disposed as to form three, originally distinct, segments.[62]

An example of Huxley's interest in the sciences of Man is evident on his "On the Methods and Results of Ethnology" (1865),[63] a document in which Huxley gave his definition of the various branches of study in science. For him, ethnology was:

> …the science which determines the distinctive characters of the persistent modifications of mankind; which ascertains the distribution of those

[60] Desmond 1994: 307.
[61] Bowler 2009: 124.
[62] Huxley 1864: 299.
[63] Originally published in *Fortnightly Review* 1865: 257-277, was also published in his *Collected Essays*, volume seven, devoted to works published by Huxley on various anthropological and ethnological themes.

> modifications in present and past times, and seeks to discover the causes, or conditions of existence, both of the modifications and of their distribution.[64]

In that sense, it was a branch of anthropology:

> …the great science which unravels the complexities of human structure; traces out the relations of man to other animals; studies all that is especially human in the mode in which man's complex functions are performed; and searches after the conditions which have determined his presence in the world. And anthropology is a section of Zoology, which again is the animal half of Biology–the science of life and living things.[65]

Both definitions reveal Huxley's vision of man's place in nature, but also outlined his view of the organization of the life sciences, with biology as the junction of the various topics.

The differences between Huxley and his notorious enemy in London anatomy, Richard Owen, had a special place within the BAAS meetings, especially between 1860 and 1862. The dispute centred on the anatomical differences in the brain between gorillas and humans. It is a well-known story, about which much has been written, but while it was primarily focused on brain anatomy, we can also see in it the differences between two ways of looking at life, and in particular at man. In Oxford on June 28, 1860, after a presentation by Professor Charles Daubeny entitled "On the Final Causes of the Sexuality of Plants", the confrontation between Huxley and Owen began. This was the first of three occasions on which they would argue about the comparative anatomy of the brain at the Association's meetings.[66] It was a clash of two different views on the study of life, with Owen focused on the morphological and anatomical, while Huxley focused on the study of history and the transformation of organisms over

[64] Huxley 1894: 9.
[65] Huxley 1894: 10.
[66] Rupke 2009: 194.

time.[67]

This battle of visions can be seen as paradigmatic, and the Association became the battlefield. Traditionally in this section, presentations related to the life sciences. For convenience, the section was often organised in sub-sections that focused on specific topics such as anatomy and physiology. Owen and Huxley's plans for biology aimed to consolidate and unify all of these studies in one discipline, although clearly each subsection would retain something of its own particular vision.[68]

One way to define the differences between these two thinkers is through their metaphysical attitudes to the role of observer in the biology.[69] Anatomy was a dark science in many ways; largely because it did not offer any guide to defining time structures. Owen's strategy was to give detailed descriptions which contained all the information needed to take the place of the observer, even though this was inconvenient for those who did not have adequate preparation. For Huxley, the observer's role was not necessary, since an observer would only intervene in the process of discovering the facts. Christopher Cosans analyses Huxley and Owen's debates about the brain from this perspective. Owen was inspired by *Naturphilosphie*, and consequently "rejected the notion that [one] should divorce science itself from human values", since he considered the individual to be of vital importance. In this sense, his biology focused on "how organic structure emerges from developmental processes that come from within the individual organism". On the other hand, Huxley believed that Nature generates new species "by treating individual organisms as passive survival

[67] Cosans 1994.
[68] Cosans 1994.
[69] Cosans 1994: 154.

machines".

From Cosan's analysis, one can conclude that man was more continuous in Owen's vision than in that of Huxley. Huxley disagreed with the classification Owen proposed that man was assigned to a separate subclass, arguing that there were no significant differences between the brains of humans and apes. He used other factors to explain these differences, to the point that he "ripped apart the human soul with a war between conscious reason and man's animal nature".[70] His proposal was that science could not account for the reasons that human consciousness existed, and that men of science should restrict their attention only to the fact that consciousness exists and the relations between its different states.

By contrast, Huxley considered that consciousness was no mystery. He believed that the origin of human intelligence was an extraordinary event but not any more extraordinary than the appearance of any other organ. All the distinctive features of man such as social and moral capabilities, served to distinguish between man and beast, as a result of brain development.

Huxley and Owen's different positions paved the way for the development of biology in England. In the case of the BAAS, the outcome of the discussions in this forum were favourable to Huxley: he finally achieved the name change for Section D (to Biology), and, furthermore, his vision was consolidated within the section's presentations. This had considerable importance for Huxley in his pursuit of new position for the reconceived science of biology within the Association and the emerging scientific community.[71] Furthermore, the support of other important characters, like Galton, Hooker, and Darwin,

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[70] Cosans 1994: 163.

[71] The *Dundee Courier* emphasized Huxley and Tyndall as perfect examples of the new type of scientist. See *Dundee Courier,* 23 February 1867.

contributed to a better positioning of scientific naturalism.

3.4 Wallace and the New Department of Anthropology

A. Wallace for President

One issue remained to be solved once a space for anthropology had been won; the election of a president for the new Department, especially one who could mediate between the interests of the ASL and the ESL in their pursuit to dominate the sciences of Man. After it had been confirmed that section D would function as an identified division, the Council of the Association unsurprisingly named the section's first president as Huxley. Once Huxley was named President, he began the task of organizing the various sections. In conjunction with the Secretary of the Association, Francis Galton,[72] Huxley's first proposal was to nominate a President and Secretary of the new Anthropology Department. Huxley's first choices for the roles were Oxford's Professor of Anatomy and Physiology George Rolleston and ASL fellow J. Frederick Collingwood. This proposal was generally supported by the Committee, but there was a strong desire to avoid confrontations between members of the societies. Collingwood was very close to ASL, and especially to Hunt. Rolleston, on the other hand, was not an insider amongst those interested in the sciences of Man. One of Huxley's first tasks was to invite the German zoologist Ernst Haeckel to attend the meeting, a figure who

[72] Galton's influence within the Association, as Secretary, allowed him to influence many decisions on the organization of sections and departments, as in this case. Although initially attended the meeting, a disease, not identified in their biographies, forced him to leave the meeting. His presentation for this meeting dealt with meteorology and statistics, and was presented in Section A, Mathematics, by the secretary of the Section, the Scottish engineer Fleeming Jenkin (1833-1885). It is speculated that it was this illness that forced him to give the Secretary of the Association and passed the following year, 1867, traveling constantly. See Pearson 1924: 53, note 4.

certainly would give a huge boost to the event, and especially to the new Section of Biology. Unfortunately, the situation in Prussia was complicated because of the war with Austria. As a result, Prussians, including Haeckel, were not allowed to leave the country.[73]

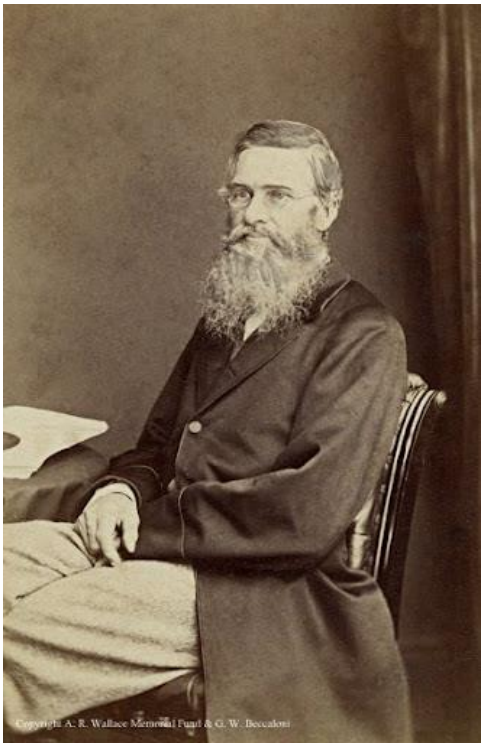

Figure 3.5 Alfred R. Wallace, c.1864-1865[74]

On the particular issue of who should preside over the Department of Anthropology, Wallace was suitable to all parties (Figure 1.4). He was well regarded by the two metropolitan societies, and did not have a specific commitment to either of them.[75] In addition, he was a widely-recognized figure

[73] Huxley 1900: 298.
[74] See https://picasaweb.google.com/WallaceMemorialFund/ImagesOfAlfredRusselWallace#5502394752051185538.
[75] He was elected member of ESL on 12 June 1866, but he was a frequent attendee of ASL meetings. See Royal Anthropological Institute, A1, ESL Minutes, 12 June 1866.

in the community, because of his role as co-founder of the theory of natural selection, and for his contributions to anthropology in recent years:

> The Council of the Association having named Professor Huxley, F.R.S., as President of the newly created section [Biology], that gentleman communicated through Mr. Alfred R. Wallace his wish that a department of the new section be devoted to anthropology, the other departments being devoted to biology and physiology, and that Mr. A.R. Wallace should preside over the department so constituted. To this arrangement your delegates acceded; and the department, anthropology, having been formed, sat in the People's College, Nottingham, the following gentlemen forming its Officers and Committee… [76]

The choice of Wallace was not a minor decision.[77] In recent years enormous ideological and practical differences had arisen between the two groups, so the decision was complicated.

The proposal met the necessary requirements. Wallace was familiar to those interested in natural history because of his role as co-discoverer of natural selection with Darwin. Since his return from the Malay Archipelago in 1862, he had become well known within the BAAS as a regular participant, thanks to presentations which focused primarily on issues related to natural history, mimicry, and butterflies and especially his presentations on the various groups of humans he met during his travels, which emphasised the variety of races and their state of civilization. His quiet personality also made him the perfect choice. Finally, he filled the implicit requirement of being involved in anthropological subjects.

Wallace's speech stood out because it was remarkably short. James Hunt noted, "that it had only one fault that of being too short".[78] Although not long,

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[76] Blake 1867: iv-viii.

[77] After much consideration, Lubbock and Huxley finally agreed that Wallace would be the best choice. See Lubbock to Huxley, 2 August 1866, WCP3761_L3673_1 to WCP3761_L3673_4, *Wallace Correspondence Project*. There is no reply from Wallace stating his acceptance of the position.

Wallace emphasised throughout his speech the breadth and diversity of those interested in the sciences of Man. As we saw in an earlier section, Wallace's personal perspective went much further than many of his contemporaries'. Especially notable was his desire to retain a focus on man's spirit as an object of study.

Despite the importance of the post, it should be noted that Wallace made no further mention of this fact in his *Autobiography*, or in his correspondence. This is possibly another example of the intellectual modesty that marked his life's work.

B. The Extent of Wallace's Development as Anthropologist up to 1866

Wallace's anthropological interest has not been fully appreciated, apart from a few mentions.[79] It is clear, however, that Wallace's interest in man was constant throughout his career as a naturalist. His interest developed when he was very young, during a stay in South Wales (1837 – 1839) while working as a surveyor with his brother William. There he learned the reality of farming communities, traditionally excluded from the political and cultural milieu. This experience provoked him to write one of his first essays, "The South-Wales Farmer", written in 1843 but not published until 1905 in his autobiography.[80] The work was an ethnographic study of Welsh farmers, with extensive descriptions on physical characteristics, including their culture and language.

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[78] [Anon.] 1866: 391.
[79] Kuklick 1991. Among the exceptions are Henderson 1958, Brotman 2001, Vetter 2009, Lowrey 2010, Ellen 2011, Rodriguez-Caso *et al* 2012.
[80] Wallace 1905, vol. I: 206-222.

Wallace's interest in human beings was very clear from his first efforts to become a naturalist which he described in a letter, to his friend Henry W. Bates dated December 28, 1845. In this letter he emphasised the importance of some of his recent readings, such as Lawrence's *Lectures on Man*, *Physical History of Man* by Pritchard [sic], and Chambers' *Vestiges*, as the key to understanding that "the varieties of the Human race have not proceeded from any external cause but have been produced by the development of certain distinctive peculiarities in some Individuals which have become propagated through an entire race".[81]

Thereafter, these kinds of writings about travels and experiences would become common, thanks largely to the various groups of people he met during his travels, both in the Amazon and in the Malay Archipelago. One of the characteristics of the trips made by Wallace was that most of the time he was alone, since he did not have sufficient resources to allow him to hire aides and translators. As a result, and guided by his curiosity about the evolution of man, he went and met the most diverse groups and tribes, including Quehianas, Cohidias, Omauas, Macunas, Tucanos, Buahunas and Arikenas in the Amazon and Papuans, Malays, Dyaks and Arru in the Malay Archipelago. He made precise descriptions of many of them, including both their physical and cultural aspects of the tribes. In fourteen years, he had the opportunity not just to study these groups, but also to look for an answer to the transmutation of species, especially of Man.

These experiences and observations resulted in numerous anthropological writings over the next few years. These works are a clear example of his capacity as an observer and most importantly of his distinct vision in comparison with

[81] Letter to Bates, 28 November 1845, cited on McKinney 1969.

other travellers of that time. Although he maintained a clearly imperialist language, judging from books like *The Malay Archipelago* (1869), his was a different view from other naturalists.[82] He spoke of indigenous groups without a sense of superiority; he acknowledged that as comparative "inferiors" to the British, "non-European peoples" still had potentially the same capabilities and characteristics that could serve them in the future to reach a comparable state of civilization.

These experiences proved to be of great importance for Wallace's future. Consider for instance the time he spent living with the Dyaks, a general term for around 200 different Malay groups. During the nineteenth century, Dyaks were enslaved by Malay traders. In Wallace's view they were easy prey because of their simplicity and honesty, allowing traders and chiefs to cheat and oppress them at every opportunity.[83] What most impressed Wallace was their social and moral sense, since there were equal rights for men and women and they always preferred to say nothing when asked a sensitive question rather than lie or reveal a damaging truth.[84] All these characteristics were for Wallace a clear example of a high moral capacity, evidence he subsequently used to support his particular view of human evolution.

In many of his descriptions of the people of the archipelago, it is common to find references to continuity between races (for example, on *The Malay Archipelago*, 1869), an idea he extended to orang-utans and the human races, based on their physical resemblances. An important point to emphasize is that it was Wallace's intention to visit this area in particular. He had been deeply

[82] Rodríguez-Caso *et al* 2012: 263-264.
[83] Wallace 1856.
[84] Desmond and Moore 2009: 341.

influenced by Robert Chambers' *Vestiges on the Natural History of Creation* (1844), in which we find the conclusion that humans originated in South-East Asia and from here migrated first to India and the Middle East and afterwards to Europe and Africa. Chambers' argument was based mainly on comparative studies of the language and physiognomy of every known human race.

One interesting example of how Wallace related his fieldwork on topics such as biogeography with that of human beings is the argument he made for a dividing line between two biogeographic regions, Oriental and Australian (this line would be called later the "Wallace line").[85] He considered the evidence for this division to be two clearly differentiated distributions of plants and animals. The same logic was also used by Wallace to construct a similar division in the Malay Archipelago between two different indigenous groups, Malays on the north and Papuans on the South.[86]

These kinds of experiences in the field also helped him in dealing with diverse problems related to human beings from a naturalistic perspective, such as the problem of the origin of human races. This was, as we have seen, a controversial issue at the time in Britain, especially among two particular London scientific societies, the ESL and the ASL. On 1 March, 1864, Wallace presented a paper to a meeting of the ASL, entitled "The Origin of Human Races and the Antiquity of Man Deduced from the Theory of 'Natural Selection'" in which he gave a mixed response to the discussion between monogenists and polygenists. He first proposed a unique origin for the human races with a subsequent diversification in different zones of the world into different races. This proposal

[85] Mayr 1944.
[86] Vetter 2006.

was based on his experiences with non-European people. Making a utilitarian argument, his view of the relation between different kinds of humans was that in the end all were basically the same, physically and mentally speaking, and because of that he advocated a common origin with subsequent diversification and influence from environmental factors.[87]

Considering this background, three features of Wallace's account of the evolution of the human mind and morality stand out. First, to quote Robert J. Richards, Wallace "conceived the selective environment to be other proto-human groups — which would have an accelerating effect on the evolutionary process since social environments would rapidly change through responsive competition".[88] Next, the idea that selection worked at the level of the group, instead of at the individual, was a better way of explaining the appearance of altruistic behaviour. In his 1858 essay, Wallace conceived the struggle for existence between varieties instead of individuals, and this thinking continued at least when speaking about the group and the evolution of morality. Finally, in a note added to the published version of his talk to the Anthropological Society, he mentioned the influence of Herbert Spencer's *Social Statics* (1851). Spencer's own early brand of socialism had attracted Wallace.[89] In *Social Statics*, Spencer gave an account of a gradual and continual adjustment of human beings to the requirements of civil society, with every individual accommodating themselves to the necessities of their fellows, allowing with this, eventually, a classless society in which would emerge the greatest happiness for the greatest number. Spencer supposed that the inheritance of useful habits would be how evolution

[87] Wallace 1864, Vetter 2009: 5-6, Rodriguez-Caso *et al* 2012: 263.
[88] Richards in Hodge and Radick 2009: 106.
[89] Richards in Hodge and Radick 2009: 107.

can progress, an idea that Wallace conceived happens through the action of natural selection.

Since his return to Britain in 1862, Wallace's interest in the subject had been focused on such theoretical aspects as the issue of the origin and diversification of the human races. The 1860s were undoubtedly the most important decade for the intellectual development of Wallace's thinking on the subject of humans. Once he had proposed with Darwin the theory of natural selection, his interest in applying it to the case of man was the next step. However, in his first proposals of the theory there is no mention of the case of man; and this remained the case until 1864 and his presentation to the meeting of the ASL, which first openly exposed his views about the evolution of man. At the same time Wallace's intellectual development changed permanently, due to his involvement with spiritualism, which began in 1865. Much has been said about this aspect of Wallace's work and its subsequent influence on Wallace's conception of the evolution of man, especially his explanations of the intellectual and moral aspects of human evolution.

In the following years Wallace continued writing upon topics related to humans, in which human nature – in every sense – was the focus.[90] His various and diverse interests played a significant role in his search for answers about what is human: Man's origins, the antiquity of humankind, the diversity of races and so on. In his work Wallace always sought a unifying answer for the nature of human beings, or in his own words, to contemplate "man under all his varied aspects (as an animal, and as a moral and intellectual being) in his relations to

[90] Rodriguez-Caso and Noguera-Solano 2011: 17-21.

lower organisms, to his fellow men, and to the universe".[91] He was interested not only in the physical or biological aspects of humankind, but also in explaining features such as the mind, a point that in the end would distance him from Darwin and many other scientists.

C. Anthropology as the Study of Every Aspect of Man

The decision to appoint Wallace as president was welcomed,[92] and allowed for relaxed moments at the meeting. Evidence for the relaxed atmosphere is apparent in the reaction to his inaugural address. It was unusually short, compared with that in other sections or departments, but was highly specific. Wallace focused on giving a definition of anthropology which in line with what was said years ago by Broca and Hunt was wide enough to include any form of study that had as its object man or even studies in which man was an incidental feature.

One point that continues to draw attention to Wallace's presidency is his well-known involvement with spiritualism.[93] Only a few weeks after the meeting of the Association, Wallace sent Huxley several copies of his recent presentation, "a new branch of Anthropology", *The Scientific Aspect of the Supernatural*.[94] Wallace was afraid that he might be subject to harsh criticism, in addition to causing disquiet among his acquaintances. Huxley replied simply that he was not

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[91] *Report*, 1867, p. 93.
[92] In Hooker's words, "Wallace was no doubt the best in our line". Hooker to Darwin, 4 September 1866, Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-5206.
[93] On the influence of spiritualism in Wallace, see Kottler 1974, Malinchak 1997, Oppenheim 1985: 296-325, Pels 1995.
[94] Wallace 1866.

interested in the subject, but neither was he interested in putting together a Commission of Lunacy against Wallace, as he feared.[95]

This essay on spiritualism and science is a good example of the scope of Wallace's definition of anthropology and also the manner in which it was understood in the BAAS. This definition was broad enough for studies related to topics such as spiritualism to be considered part of anthropological study.

Now this broad spectrum proposed by Wallace was not reflected in full in the presentations of the new Department. Carter Blake in his report on the sciences of Man in Nottingham, published in the Journal of ASL, raised four areas in which these should be divided, based on the proposal of Hunt: Archaic, Historical, Descriptive, and Comparative Anthropology. These categories include works on the remains of ancient cultures (Archaic), descriptions of the history and culture of non-European contemporary societies (Historical and Descriptive), and physical descriptions (Comparative).[96] This classification focused on what happened in the new Department of Anthropology, but did not include what happened in Section E, where ethnological presentations were included such as those of Crawfurd.

Contents	1866	1867	1868, BAAS	1868, Int. Cong.	1869	1870
Anthropology	11	3	8	6	6	2
Archaeology	7	1	0	26	10	17
Ethnology	19	13	7	0	8	6
Philology	0	0	0	0	0	1
Phrenology	0	1	0	0	2	3
Racial theories	4	1	0	1	4	3
Others	0	0	0	0	0	0
Total:	41	19	15	33	30	32

Table 2. Presentations on the sciences of Man in BAAS meetings, 1866-1870

[95] Huxley to Wallace, November 1866, in Marchant 1916: 187.
[96] Blake, 1867, p. v-vi.

As pointed out by Charles Withers in his work on the BAAS and geography, the demarcation criteria on the content of the presentations requires caution when interpreting them. In this case, the original proposal of Hunt and Blake can be summarized with respect to three major areas: archaeology, ethnology (as proposed by Prichard) and anthropology (with the understanding Hunt). From an analysis of the presentations, we can consider a broader classification that reflects the diversity of topics related to the sciences of Man. (Table 2)

The emphasis in the presentations, however, was on two main themes: precision in physical descriptions; and Darwinism in explanations. On physical descriptions, John Beddoe took the example of height between the Irish, through statistical proportions to conclude that there was degradation in size which in turn was related to certain surnames, which led him to think of the original differences between races.[97] Another example linked to the anatomical study of the races came from Huxley, who, presenting two skulls, wanted to highlight the need for care when comparing certain cranial sections, like the super-position of the baso-cranial axes.[98] In following the argument of his *Man's Place in Nature*, Huxley wanted to stress again that human races were the result of a gradual evolutionary process. Both proposals posed different methodologies from those held by members of ASL. Hunt, through the example of the comparison between Swedish and Norwegian, wanted to establish the effectiveness of his own methods in order to differentiate them.[99] On the other hand, Carter Blake focused on strengthening what was said by Hunt, through the same methods and interpretations and using current and fossil examples, which mainly sought to confirm the polygenist

[97] *Report*, 1867, p. 94.
[98] *Report*, 1867, p. 96.
[99] *Report*, 1867, p. 96.

proposal.[100] As noted by Sera-Shriar, "for Hunt, the scientific study of races had to base its deductions on directly observable evidence",[101] since for example he considered there was not enough evidence as to explain the origin of humans; this position was entirely based on anatomical and physiological data on his own works, primarily based on the Baconian method of induction.[102] On the contrary, Huxley's methodology also stressed the importance of observation in the sciences of Man, especially in order "to conduct more focused studies on human variation",[103] although Huxley emphasized the separation of ideology from the practice of science, as when he wanted to remove any religious presence from ethnology, as the terminology for example.[104]

On the other hand, the discussion of Darwinism had again Hunt as a protagonist. Given the different attempts to bring together the proposal of Darwin with the sciences of Man throughout the 1860s, Hunt believed that the evidence showed the existence of different origins, contrary to what Huxley or Wallace proposed, a single origin.[105] This discussion continued not in the Department, but strikingly in Section E, with the presentation given by James M. Reddie, 'On the Various Theories of Man's Past and Present'. Reddie's paper was read in the Geography section, despite containing a clearly anthropological theme, made clear, that in spite of the creation of an exclusive department in which to discuss subjects related to man, there were parallel discussions and interests in other sections. His main point was also to criticize Darwinism as a possible explanation for the origin of Man, but unlike Hunt, Reddie considered that neither

[100] *Report*, 1867, p. 94-95.
[101] Sera-Shriar 2013a: 480.
[102] Sera-Shriar 2013a: 481-483.
[103] Sera-Shriar 2013a: 485.
[104] Sera-Shriar 2013a: 486.
[105] Hunt, 1866.

monogenism nor polygenism were appropriate options. His proposal was a 'religious theory', a vision opposed to Darwinism (which itself he defined as the theory that explained the origin of man from apes) supported on a literal interpretation of Scripture.[106]

As we can see, despite the initial thematic diversity posed for the new department, issues such as the origin of man and the implications of Darwin's ideas in relation to man were the dominant themes. In this regard, the Department became an extension of discussions and meetings happening in ESL and ASL, but now there was a chance to bring them before the public.

3.5 Conclusions

At Nottingham, in general terms, the BAAS became the battlefield between ESL and ASL, since from the foundation of these societies, the search for recognition for their respective disciplines was continuous and determined. According to reports like those of the *Anthropological Review*,[107] the success of the meeting for the ASL can be judged by the number of congratulatory remarks received by its president, James Hunt, afterwards. Such reports even suggested that authentic anthropological work would be, henceforth, solely the preserve of the new department.

The final numbers of the Nottingham meeting, a total attendance of 2303 people, working in twenty-four research committees, with an overall budget of £1751.00[108] suggest a generally successful meeting in which anthropology finally found its own place and made one more step on its path to consolidation as a

[106] Reddie was one of the founders of the Victoria Institute. On Reddie, see Numbers 1993: 141.
[107] [Anon.] 1866: 386-408.
[108] MacLeod and Collins 1981: 280.

discipline. Indeed, the impact of anthropological discussions in Nottingham was so great, that just a few weeks later in Dundee, the city where the next BAAS meeting would take place, local periodicals, summarized Dundee's reaction to anthropology:

> Sir,-I have been so puzzled lately with what I have heard and read about anthropology, adaptation, continuity, and so forth, that perhaps you will permit me to suggest to some of your learned readers to tell us, briefly and plainly, what all the rumpus is about. It is not for lack of contributions from correspondents, special and otherwise, that we are in the dark on the subject; but, unfortunately, these effusions have hitherto been more voluminous than luminous –they have left us utterly bewildered as to what the Nottingham savans have been discussing. Indeed, in reference to some of these same special correspondents, an ingenious friend of mine is of opinion that, judging from their antics and extravagance, they offer a fair field for speculation as to whether they are not the "missing link" between the two races; certainly, he says, they partake quite as much of the old monkey as of the new man. He is also of belief that the matter will receive a more direct investigation when the Association meets in Dundee next year.[109]

Another letter, from Professor William McDonald, explained that he had listened with much pleasure to the presentations at the Anthropological Section at the last meeting of the BAAS, some of which were very strident, but all of them showed the different and divergent opinions that an association like the BAAS must contain. It was noted especially by the "anthropologicals" that the section made the greatest noise, at least so far as reported by the press. Many people fancied that it was the high point of the meeting. The meeting of the Anthropological Section seemed "to have caused the greatest alarm" among all the sections and departments. The main topic of discussion in the study of mankind was man, the noisy part of the anthropologists at the meeting was very much discordant to most other people involved in the study of man in places like Dundee; but in the

[109] *Dundee Courier*, 19 September 1866.

end it was declared that the Anthropological Section was one of the most important of its sections.[110]

According to the *Dundee Courier*, the biggest worries were about "a very little childish fear for coarse expressions against their religious views, and to meet and grapple with them in order to bring out the truth", and the assertion that "the Bible was to be burned by men who rose from a germ and passed through monkeys before they became men was a thing there was no ground for".[111] These anthropological discussions concluded with the confession that, beyond the general opinion it was "not unfrequently met with men acting very like monkeys".[112]

As we will see in the next chapter, from one year after the Dundee meeting, the people in the city were already opposing anthropology. The environment was so complicated for the sciences of Man until the point that, as the *British Quarterly Review* explained, "the sub-section devoted to Anthropology was, in deference to local prejudices, it is alleged, suppressed".[113]

[110] *Dundee Courier*, 1 November 1866.
[111] *Dundee Courier*, 1 November 1866.
[112] *Dundee Courier*, 1 November 1866.
[113] *British Quarterly Review*, 46, October 1867.

4.0 Dundee 1867: Schisms and Exclusions in the Pursuit of Understanding Man

4.1 Introduction

In his autobiography published in 1905, Wallace briefly mentioned his impression of the meeting of the Association in Dundee in 1867:

> The most deplorable event in my experience of the association was the choice of the late Duke of Buccleuch as President for 1867, at Dundee; proposed, as I understood, by Sir Roderick Murchison and weakly agreed to by his colleagues. The President's Address has, in every other case, been considered a very serious affair, requiring the labour of some months to compose, in order to render it worthy of an audience consisting practically of the best scientific intellect of our country. But the president on this occasion evidently considered it a condescension on his part to be there at all.
>
> He began by telling us that he had never written a speech in his life, and never intended to; that he knew very little about science, though no doubt it was very useful in its way. Of course it helped us to find coal, "and that kind of thing" to support our manufactures; chemistry, too, very useful, dyeing, manure, and many other things — and thus he went on, with a lot of commonplaces hardly up to the level of an audience of tenant-farmers, for, I suppose, nearly an hour; and then there were complimentary speeches! The address — or rather an address — was, of course, printed, but I never read it, as I felt sure it would be so altered and almost wholly remodelled that it would not at all resemble the poor stuff we had been compelled to hear.[1]

Wallace did not usually make such outbursts, and this quote is even more striking because it is one of the few times he mentions the meetings of the Association in his autobiography. It is clear that the meeting at Dundee was a far cry from the meeting in Nottingham, where Grove's presidency was warmly received by most of the scientists.

[1] Wallace 1905, vol. II: 48-49.

For the meeting at Dundee, it was decided that the presidency should fall to a local aristocrat, the Duke of Buccleuch. This selection reflected the importance for the Association of the participation of local characters and also the weight of the politics within the Association.[2] The decision, although possibly politically suitable, from a strictly scientific point of view did little for the advancement of science advocated by the Association. The Duke's intervention had a clearly conservative hue, an ad hoc environment that ended up being definitive for the presence of the sciences of Man. The rejection by the city's population of the subject of the origin of man, coupled with administrative disorganization, prevented the Department of Anthropology from reopening: a situation which allowed Crawfurd to relocate ethnology as the main subject in relation to the sciences of Man.

Although the Nottingham meeting was considered a success, at least for the "anthropologicals",[3] we must note that it was a pyrrhic victory. Despite the new 'exclusive' department, differences between members of ESL and ASL continued, and ethnology as a subject was still linked to geography in Section E, courtesy of the interests of Crawfurd and Murchison.[4] As one of the key figures in ethnology it is surprising to find that there is no record on Crawfurd's opinion on the 'victory' of the "anthropologicals". Neither did he show great interest in what was said by Wallace in his speech, which did not explicitly include

[2] See Morrell and Thackray 1981: 245-256.
[3] [Anon.] 1866: 386-408, Blake 1867: iv-viii.
[4] About the excellent relationship between them, when Murchison was appointed as President of Section E in 1864 for Bath meeting, he stated that: "Glancing northward, from Australia to our Asiatic possessions, we have before us that great Indian Archipelago, the chief characters and details of which were first made known to us by my gifted friend and associate at this Meeting, Mr. John Crawfurd.", *Report* 1865: 131.

ethnology, maybe because the acrimony between them in the two previous meetings of the Association on ethnological topics.[5]

But given the recent history between the two groups, one would expect a rematch with the "ethnologicals". The dispute over the recognition of appropriate practices for the sciences of Man continued at all levels, including over the appropriateness of the name. Ethnology, from Prichard's time, had corresponded to the study of race, culture and history. These studies focused mainly on physical descriptions, of the language and customs of various groups, who were encountered as a result of various explorative investigations around the world. Crawfurd, after Prichard, became one of this vision's greatest exponents, thanks especially to the institutional impetus he gave to ESL, and the continued public presence of ethnology as a result of its strategic alliance with geography in the BAAS.[6]

This chapter analyses in detail the exclusion of anthropology at the Dundee meeting, the social environment in the city and political differences over the sciences of Man. Furthermore, their exclusion did not prevent the "anthropologicals" from organizing a side event, by way of apology. Despite not having a specific space in the meeting, we will see how the sciences of Man remained present, especially in Section E, under the name of Ethnology, and even in other sections, such as Biology, where there were presentations from John Lubbock on the origin of man. This sub-departmental involvement in the meeting

[5] Wallace was a harsh critic of colonial policies, of which Crawfurd was one of the best exponents. See Vetter 2009. The differences between them were clearly raised during the 1864 Association meeting in Bath, when the discussion coloured Section E, in a clash about contrasting views on slavery and race. See Vetter 2009: 7, Withers 2010: 92. For the comments of Crawfurd, see *Anthropological Review* 1865. For a summary of Wallace's presentation, see *Report* 1865: 149-150.
[6] Withers 2010: 171.

invites us to reconsider the weight of politics in these cases. Unlike the previous meeting, the Dundee meeting was a victory for the "ethnologicals".

This meeting also serves to highlight specific issues outlined in the Introduction such as the professionalization of science, and the ever-difficult relationship between science and religion. The effort to establish ethnology or anthropology as the appropriate way to study man centred on a fight over both name and institutional development, but the practices of the stakeholders in this fight reveal a much more complex situation. The disparate professional backgrounds of those working in the sciences of Man makes it clear that much remains to be done in terms of cataloguing the career structures of individuals who devoted themselves full time to the subject, and those who received a salary for their work. Professionalism was in its infancy. On the other hand, we should not lose sight of the role of religion in the context of the BAAS. The presence of clergymen, though diminished, remained strong, and their contributions into sections such as Biology and Ethnology was remarkable, and ran counter to the views of Huxley and Tyndall on religion.[7] Both men had played a fundamental role, up to this point, in scientific professionalization and exclusion of religion from scientific practice. Moreover, the choice of the Duke as president, as much as the presence of several clergyman delivering presentations in Section D, provides an insight into how the progress of science was sometimes subject to

[7] Turner 1978. This classic work emphasizes the Victorian period in general, but part of its considerations focus on the role played by clergy within the Association, especially in the early years. The decline in the influence of the clergy not only in the Association, but in science in general was parallel to the emergence and consolidation of new science professionals, as the X-Club. An example of this decline, we pick up from the numbers Turner managed by Anglican clergy who presided over the sections, between 1831 and 1865 were 41 (8 in the case of Zoology and Botany), while from 1866 to 1900 were only 3 (one in Biology). For the influence of the X-Club in Victorian science, see MacLeod 1970, Barton 1990.

special interests, either political or directed towards social good. The advance of science was not only related to scientific practice, or an incipient process of professionalization, and as we shall see, sometimes advances involved setbacks.

4.2 A city and its Aristocrat

A. Dundee before 1867

Dundee was a city that was distinguished mostly in its industry, especially whaling and textiles, as well as the production of orange marmalade, which is still famous to this day. The city was not, however, well recognised as a seat of excellence for academic subjects, so an occasion such as the visit of the Association was an important boost for the image of the city.

From the beginning of the nineteenth century, the city had, politically, swung toward conservatism, especially because of the influence of the local government, which increasingly was held by the conservative party. This conservative environment can be related to the religious activity in the city, having many different Christian denominations, which had great power from the hectic participation of local clergy in the ecclesiastical controversy which agitated Scotland during the conflict that preceded the Disruption of the National Church in 1843.[8] Thereafter, the importance of religion in the city multiplied in the same manner in which there began to appear many places for prayer,[9] places visited by the majority of the population, which give an idea of the importance of religion in the city.[10]

[8] Thomson 1874: 146-150.
[9] Thomson 1874: 150-156.
[10] On the relationship between church and state in Victorian Scotland, see: Parsons *et al*, II, 1997: 107-123.

An important part of the city's growth at this time was a clearer dissemination of the achievements and scope of what was happening in the city, thanks especially to newspapers. *Dundee Advertiser* was of great importance and was noted for its liberal stance and as a primary means to ventilate relevant social issues. However, the newspaper that achieved a leading role in the city, from its creation on 20 September 1816 was the *Dundee Courier.*[11] A weekly, its first owner was the local businessman Thomas Colville, who had also printed many books as well as newspapers and other periodicals. As a result, he is considered the main driver of dissemination of the written word to the population of Dundee.[12] After the death of Colville in 1819, his son Alexander, supported by local personalities, sold the paper to David Hill, known in the region for fostering various publications in Montrose. Hill would be in charge of the *Dundee Courier* for several years, where the approach was clearly conservative.

In terms of the coverage given in local newspapers to the activities of the Association, the *Courier* was distinguished by the large amount of space it devoted to the meeting, which began from the end of the Nottingham event once it was determined that the next meeting would take place in Dundee. Part of its coverage focused on the subject of anthropology.

During the meeting in Nottingham, reports from the *Courier*'s correspondent focused mostly on the presentations and discussions related to the origin of man. It seems that Hunt and the "anthropologicals" did not please the Dundonian correspondent from the outset. As part of the report on Hunt's

[11] Scottish Printing Archival Trust 1996.
[12] Scottish Printing Archival Trust 1996: 2.

presentation on the application of natural selection to anthropology,[13] the correspondent emphasized that in the discussion that arose amongst those present some began to quote verses from the Bible, only to be stopped by other members, referring to their lack of scientific authority, "a statement which seemed to give satisfaction to a considerable number of pseudo-shallow-pated philosophers, who looked upon it as an additional triumph of science over the Bible".[14] The animosity against the "anthropologicals" was notorious. Hunt's presentation highlights the way in which he sought to offend anyone who spoke against him, in addition to not responding to any points that might have arisen. Hunt's conclusions about the origin of man from various types of apes were shared by Carter Blake,

> …whose appearance would easily lead one to suppose that the derivation theory might be correct in his case, who seems to be more distinguished for smartness and an assumption of superiority, with, perhaps, a little tact, than for real intellectual ability, and who thinks it clever to take every opportunity of showing his contempt for the Bible, makes it his forte to shine in such discussions.[15]

Another noteworthy example of this animosity was the presentation "On the Various Theories of Man's Past and Present Condition",[16] given by James Reddie, Secretary of the Victoria Institute, in Section E. According to the correspondent, the Institute was an example of the advancement of science, "not that falsely so called in which the Biological Section of the British Association, and especially the Anthropological department of it, seems to delight, but in spirit of profound reverence for revelation, and a desire to harmonise Science with

[13] Hunt 1866. The presentation was made on 24 August 1866, and was published in the October issue of *Anthropological Review.*
[14] *Dundee Courier*, 27 August 1866.
[15] *Dundee Courier*, 27 August 1866.
[16] Reddie 1867.

Scripture".[17] Reddie's account, which supported the belief that Genesis matched current knowledge on the origin of man, was not well received by some: "A statement which was received with great derision by the apes of the Anthropological, prominent among whom are Hunt – a rude, untutored fellow – and Carter Blake, the impersonation of feeble, searing scepticism".[18] This strong by-led opinion nevertheless made clear that the discussions of anthropology at Dundee included heated debates regarding the subject of religion. On 4 September, 1866, a letter entitled "The Darwin Theory", signed simply by "W", was published in the *Courier'* Correspondence' section. The letter was a critique of Darwin, especially over what the author considered a lack of evidence for the transformation of species, supported by work such as Lyell or Agassiz's which, "W" believed, rested on the principle of fixity in Nature. In the best of cases, "it is at this moment at the best merely a hypothesis, and must, I suspect, remain so for many years, if not for ever".[19] On the other hand, "W" was also critical of supporters of special creation because they assumed the creation of agencies, something that was difficult to track in the absence of ancestors, although it was known thanks to geological history of the emergence of new species or the disappearance of old species. The whole speech was focused on the importance to naturalists of questions such as species and their place in nature, and it was through the collaboration of both the naturalists and clergymen that a satisfactory conclusion would be reached.[20]

[17] *Dundee Courier*, 30 August 1866.
[18] *Dundee Courier*, 30 August 1866.
[19] *Dundee Courier*, 4 September 1866.
[20] *Dundee Courier*, 3 September 1866.

On 18 September, 1866, another letter to the editor appeared entitled "Anthropology". The author was identified only as "M. N". He [sic] began by highlighting the number of presentations in Nottingham on anthropology, continuity and adaptation that were not really distinguished by their quality. In the opinion of the author, what the savants had achieved in Nottingham was to "offer a fair field for speculation as to whether they are not the 'missing link' between the two races", clearly referring to the discussions on "the old monkey as of the new man". The author also criticized the statement by "W" a few weeks earlier on the same subject by pointing out that the comments in his letter were rather "frivolous attempts at the explosion of silly jokes by individuals who are incapable of appreciating the diligence and precision of modern scientific investigation". In this sense, "M. N." highlights the need for dialogue between scientists and clergymen; these latest examples of calmness and equanimity were admirable, in his view, given the hostility and speculations which might easily arise. The letter concluded "I don't think Mr Grove, or any of his brother philosophers, means to interfere with our cherished notions regarding revealed religion".[21]

These are just some examples of ways in which anthropology at Dundee was perceived, drawn from what happened in the meeting of the Association. And it was now the turn of the city to welcome the men of science, for which they had chosen their best representatives, even if they had nothing to do with science.

[21] *Dundee Courier*, 18 September 1866.

B. A Scottish Aristocrat: The Duke of Buccleuch

First, a note about the Association organization, in order to understand the importance of local issues. As Ellegård has suggested, the Association in this decade distinguished itself by alternating the presidency between characters close to Darwin's ideas and the new scientific naturalism with others totally opposed to these new trends.[22] For this occasion, thanks largely to local influence, the current president was Walter Montagu Douglas Scott, 5th Duke of Buccleuch and 7th Duke of Queensberry.[23]

Figure 4.1 Walter Montagu Douglas Scott, 5th Duke of Buccleuch[24]

[22] Ellegård 1990: 78-88.
[23] The Duke was a magnate and politician, born in 1806 at Dalkeith House, Midlothian, and was the second son of the previous Duke. He succeeded to the Dukedom at the age of thirteen, and he was educated at Eton College and at St John's College in Cambridge, where he graduated in 1827. He distinguished himself by his deep conservatism throughout his political career, combined with his financial interests, which led him to be the owner of the largest and wealthiest estates in Britain. As an indication of his personality, Buccleuch exercised an almost feudal control over his tenants, "with a reputation for evicting those who did not vote in accordance with his wishes". See K. D. Reynolds, 'Scott, Walter Francis Montagu-Douglas-, fifth duke of Buccleuch and seventh duke of Queensberry (1806–1884)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, May 2006 [http://0-www.oxforddnb.com.wam.leeds.ac.uk/view/article/24929, accessed 1 July 2014].
[24] See http://en.wikipedia.org/wiki/File:5th_Duke_of_Buccleuch.jpg.

The presence of the Duke in the Association is one example of the on-going relationship with the aristocracy. Since the founding of the BAAS, a key priority had been to maintain cordial and close relations with key stakeholders. "Aristocratic approval proved central to the success of the British Association. Creating a powerful agency meant identifying with power; power meant land; land meant aristocracy".[25] Morrell and Thackray note, the founders of the Association made it clear from the beginning that if they wanted to get on, the support of the aristocracy was key. The presence of aristocrats ensured that society in general, and especially the media, devoted more attention to what happened at each meeting.[26] When they were assigned a post as president, the inclusion of aristocracy brought with it a guarantee of financial support and greater involvement in activities during the meeting, in the form of dinners or other events to entertain the guests.[27] To a large extent, "aristocracy began and maintained a characteristic British Association style of festive feasting".[28]

The choice of the Duke was welcomed by Dundee's local society, as recognition of the contributions of the region. The scientists had a different view. In addition to the reference we saw at the beginning of this chapter to Wallace's opinion, early in the year 1867, Hooker and Darwin exchanged correspondence, with the BAAS a central theme. On 4 February, Hooker mentioned to Darwin that he was offered the presidency of the Association for the meeting of 1868 in

[25] Morrell and Thackray 1981: 109.
[26] As noted in Morrell and Thackray, approval of the aristocracy was vital to the success of the partnership. Within the overall organization, its presence did not decline as rapidly as with the clergy, and for each meeting the organizers sought their inclusion. The list of aristocrats who served as president of the Association since its founding hit ten until this time, including the Duke of Argyll in Aberdeen 1855 and the Prince Albert in Glasgow 1859. See Morrell and Thackray 1981: 109-118.
[27] This generally means that aristocrats allowed with their presence the Association could generate more money from diverse kinds of contributions.
[28] Morrell and Thackray 1981: 113.

Norwich, but preferred to decline the offer, partly to devote more time to his work on plant geography, but especially because of his "insuperable aversion to high places". In Hooker's own words, "the acceptance would have meant bad dreams in anticipation for 18 months, & a downright surgical operation at the end of it!"[29] In his reply on February 8, Darwin approved Hooker's decision, while stressing the important role of the president, even while acknowledging that "I fancy myself in such a position it actually makes my blood run cold".[30]

Hooker's decision led to a confrontation with members of the X-Club, who saw the urgent need for a well-known man of science to guide the Association. As Hooker said in a letter to Darwin on 9 February: "I think the D. of Buccleuch a disgraceful appointment",[31] especially considering that the presidency of the BAAS "is a post for the most scientific men of the day to aspire to; still less should it be dependent on their support".[32] We must not forget here that Hooker's refusal is only part of the story, as we shall see in the next chapter when he finally did serve as President of the Association.

On the subject of science, The Duke of Buccleuch was not fully committed. It is easy to see here the direct consequences of the lack of propaganda for the presidential address, because unlike other meetings, the address was not published in full in the annual report nor in the major print media, except those labelled conservative, such as the *Morning Post*, [33] or the local paper, the *Dundee Courier*.[34]

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[29] Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-5390.
[30] Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-5395.
[31] Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-5399.
[32] Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-5399.
[33] *Morning Post*, 5 September 1867: 2.
[34] *Dundee Courier*, 5 September 1867.

An unexpected situation before the address explains the reactions of people such as Darwin and Wallace. The former president, Grove, could not attend the meeting to follow tradition and leave his post to the incoming President, so that honour went to one of the leading figures of the Association, Sir Roderick Murchison. The introduction by Murchison recounted the previous thirty-six years of the Association's history, with specific emphasis on the role that had been played by various Scots, such as the illustrious founders, David Brewster, John Phillips, the Marquis of Breadalbane and the Duke of Argyll among others. Murchison pointed out that "on the present occasion, visiting again a Scottish town, a most important and most flourishing town, and keeping in view their former practice of alternating men of high Rank taking a deep interest in their pursuits with men of science, they had asked the Duke of Buccleuch to accept the chair".[35] The reasons for their choice were also made clear: Murchison talked about someone "whose life had been spent in advancing all the material interests of his country; who had given great attention to the condition of the people; who had evinced a deep love of science, and who set a high value on its application to the improvement of the industrial occupations and education of the people".[36]

[35] *Dundee Courier*, 5 September 1867.
[36] *Dundee Courier*, 5 September 1867.

Figure 4.2 Sir Roderick I. Murchison[37]

The address was very different from those that preceded it. The Duke himself said that it was suggested to him to read the addresses of past presidents to properly prepare his own words, but he replied that "I never in my life have attempted to pen an address or to prepare a written speech to be delivered".[38] As a result the discourse did not include any mention of the current state of science, as was usual, along which a more or less detailed summary of what had happened throughout the year in different areas of knowledge.

The main point of his speech was to emphasize the importance of science in society, and especially the role of the Association in its progress, all a result of the enormous intellectual power, which was "one of the greatest gifts which

[37] See http://en.wikipedia.org/wiki/File:Murchison_Roderick.jpg.
[38] *Dundee Courier*, 5 September 1867.

Providence has bestowed on man".[39] It was made clear that the Duke was referring not to the power of ordinary reasoning, common to all beings, but rather to those who, in addition to intellectual power, have the will and the power to put their intellect to direct use. The best place to find such attributes was in those who are engaged in various branches of science. He lamented the recent loss of Sir Michael Faraday,[40] an eminent man of science, who "by having great intellectual power and great personal will, was determined to rise above that position in life in which he happened to be born".[41] In the end the best science was science that seeks to interpret the great objects of life, "to make all understand and reverence and revere the good Creator".[42] Science was necessary and can explain the world around us and help make daily life better, but it need not necessarily eliminate the possibility that faith plays an important role in daily life.

What Buccleuch delivered to his audience in Dundee was not an account of what had happened in science throughout the year, but a call for unity between scientific views and religious beliefs. Although it is well known that the Association had as a fundamental objective the advancement and promotion of science, in meetings like this we can see how important the local context could be. By giving the presidency to Buccleuch, an important and influential local aristocrat, the Association sought to match the support received by numerous local associations, returning the courtesy to bring the meeting back to Scotland. The scientific interest of the incumbent president was not necessarily relevant,

[39] *Dundee Courier*, 5 September 1867.
[40] He died on 25 August 1867 at his home, The Green, Hampton Court.
[41] *Dundee Courier*, 5 September 1867.
[42] *Dundee Courier*, 5 September 1867.

although with time to carefully consider the content of the speech, one can raise the question of the importance of the progress of science when politics comes into play.

If viewed in broad terms, the environment in itself was opposed to the theme of Man's origin and such opposition was underpinned by a discourse which promoted unity between science and religion, but with some degree of submission of science. It was also a boost to local support, but as we shall see, this support was not uniformly reflected amongst the delegates to meeting.

4.3 The Sciences of Man in Dundee

A. A Parallel Meeting

After the celebrated victory in Nottingham with the opening of the new Department of Anthropology, it seemed that finally Hunt, Huxley, Galton and their closest collaborators had succeeded in establishing a solid basis for the new discipline. The opening of an exclusive space for the sciences of Man, to the detriment of the traditional and successful discipline of ethnology, produced results.

The impact of this success was not shared by many people, especially when we look at reactions arising in Dundee during the meeting in Nottingham. Such reactions indicate how complicated discussion about evolution and man were for the public. Positive statements about the progress of the sciences of Man were clearly part of the repertoire of supporters for the proposed renaming of section D, now Biology, including of course the new Department of Anthropology; contrary statements came in many cases from the general public, always interested in these heated and striking discussions, and whose

presentations always prompted high levels of attendance at the BAAS. Scottish newspapers were already suggesting that the victory of the "anthropologicals" could be short-lived, due to the immediate rejection of discussions about man that appeared in the local press, which were considered contrary to traditional views on the origin of humanity through biblical accounts.

The *Dundee Courier* reported the activities and presentations at the annual meeting of the "gentlemen of science", and highlighted the specific subject of anthropology. Both its editorial and correspondence from the general public reflected disapproval of the various approaches emerging from discussions of the sciences of Man. And we should not fail to notice that this environment appeared a year in advance of the Dundee meeting.

On 7 September 1867, a day after the start of Dundee meeting, an article entitled "An unscientific Science" appeared in the *Courier* harshly criticizing Hunt. He was accused of being not really scientific, speaking of the study of Man without a theory to support his work and, therefore of being ill-fitted for admittance into the Association meetings. The author wondered how anthropology may be good for Nottingham and not for Dundee. "The answer, we presume, is, that there is a general opinion that religious feeling is not so strong in England as in Scotland, and the rulers of the Association had to arrange its sections with reference to its geographical position".[43] Overall, the position of the article was against Hunt and anthropology, given the impact of certain interpretations, especially those related to the origin of man.

Other media repeated comments made in the *Courier*. In the *Edinburgh Daily Review*, referring to the fact that the meeting lasted only one day, one

[43] *Dundee Courier*, 7 September 1867.

correspondent made it clear that it was a "political" decision of the Council members not to open the Department of Anthropology. In addition, the *Review* repeated comments made in the *Dundee Courier* just after the meeting of Nottingham, about whether it would be inappropriate to take anthropology to Scotland. One example of conservatism was the President of Section E, Samuel Baker, with regard to this meeting:

> I have been so puzzled lately with what I have Heard and read about anthropology, adaptation, continuity, and so forth, that perhaps you will permit me to suggest to some of your learned readers to tell us, briefly and plainly, what all the rumpus is about.[44]

In the same way, a response to Grove's address showed the concerns in Dundee, since it was considered neither Grove nor other men of science wanted "to interfere with our cherished notions regarding revealed religion".[45]

This immediate response made it clear that the 1867 meeting would be particularly difficult for those interested in the sciences of Man. And it was. The local intellectual made it clear that on this occasion a Department either of anthropology or anything similar would not be allowed. Instead the plan was laid to schema that had operated in the past with ethnological topics presented in Section E, Geography. The decision to not reopen the Department of Anthropology allowed ethnological subjects to return to the section, despite having been "left out in the cold", in the previous year.[46]

Given this situation, Hunt and the "anthropologicals" decided to organize a meeting in parallel. This included the support of a local committee that was responsible for the logistics, so that eventually a meeting was held which was

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[44] *Dundee Courier*, 19 September 1866.
[45] *Dundee Courier*, 19 September 1866.
[46] [Anon.] 1868b: 88.

attended by between 400 and 500 people,[47] many of them associates and members of the BAAS. It should be clear, however, that not all of Dundee's population rejected anthropology. A group led by Robert Bruce, took up the task of organizing the parallel event, to the delight of Hunt, and in order to arrange everything a Committee was organized for the Reception of Anthropologists.[48] Hunt recommended that they should attempt to confine their efforts to bringing together men who really sympathized with anthropology, and that they should try not to interfere with the actions of the authorities of the Association. Although in Hunt's view their efforts were not likely to cause difficulties, they would have in his own words to be "ready if necessary to do battle under our banner".[49]

The situation in Scotland was not unknown to Hunt. Even before the meeting, he knew that the reception in Scotland of anthropology was likely to be complex and he knew of many public and private debates about it.[50] The ultimate decision not to have a department of Anthropology in Section D was made by Hunt.[51] In addition to considering the environment contrary to the sciences of Man and knowing it had been for some time, in his opinion there were not enough adequate presentations to supply the department with the material needed for a week-long meeting. Nevertheless, Hunt did not miss the opportunity to highlight how absurd it was to continue maintaining Ethnology and reject Anthropology as a permanent feature within the Association.

If Hunt wanted to lend dramatic effect to the place of the sciences of Man in the Association by organising a parallel meeting, he clearly did not succeed.

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[47] [Anon.] 1868a: 72.
[48] Hunt 1867b.
[49] Hunt 1867b: 368.
[50] [Anon.] 1868b: 72-79.
[51] [Anon.] 1868b: 73.

From the beginning of the meeting, paper presentation times were arranged so as not to overlap with those of the Association; for example, the BAAS meetings began at 10 in the morning while, on this occasion, it was agreed that the "anthropologicals" should come together at 3 in the afternoon. This logic was imposed in order to allow the same people to attend both events. In fact, it seems more likely that Hunt's intention was to create an environment that would generate curiosity among the people of Dundee, in order to gain for the discipline the greatest possible financial assistance. And to some extent this succeeded. Although this BAAS meeting did not have a specific space for the sciences of Man, Hunt succeeded in getting the General Committee to agree that for the next few years such space would be made available.

In a speech marked by a stubborn defence of his vision of anthropology, Hunt sought to make clear that anthropology as a subject was as legitimate as geology, zoology and botany and, furthermore, that it had a clear objective, the scientific study of man. Hunt emphasized the scientific character of anthropology as separate from politics and religion, and, therefore, that the subject should be considered part of the Association. This speech was appropriate for the "anthropologicals", but that same idea was, perhaps, the reason that anthropology did not find a place at the Dundee meeting. It is worth remembering here ASL involvement in discussions on the subject of slavery,[52] to justify it from science. It was a deeply politicized issue, which may well have affected the public image of Hunt.

After two days of debate, the General Committee of the Association sent a letter to Hunt and his followers, explaining the non-opening of the Department

[52] Desmond and Moore 2009: 332-338.

of Anthropology, and referring specifically to the differing environment in Dundee as compared to Nottingham. It should be noted however that much of what was said in relation to Hunt and other members of ASL related more to their political views than to scientific discourse as such. Many of the complaints made about the presentations bitterly criticized the extrapolation of anthropological ideas into politics and ideology, especially as they condemned slavery. In the reports of the meeting, there is no mention of this point, but from the perspective of the Association, in line with the views of management (who had in the past been difficult on such issues, especially ones with political implications) it was preferable not to have anthropology as part of the formal presentations.

The situation was eventually resolved, at least in the sense that the meeting of "anthropologicals" had no major consequences for the meeting of the Association. The talks between Hunt, the local committee for the reception of anthropologists and the General Committee of the Association, resulted in a more friendly agreement for all parties. The official note explaining the non-opening of the Department was published in the *Dundee Courier*,[53] in an article titled "Termination of the Anthropological Conference", by John Plant and C.W. Devis, ASL members who acted as honorary secretaries of the conference. After the tense situation that had arisen in the run-up to the anthropological's meeting, this decision provided clarity and direction. Although *a priori* it kept the sciences of Man outside the formal organization, the decision also granted an unprecedented international character to the meeting's development.

There are two reasons for the decision not to open the Department of Anthropology: local rejection and the organization of the Association. From

[53] *Dundee Courier*, 9 September, 1867.

evidence in local newspapers, we can see that there was opposition to discussions on the origin of man, since it could hurt the sensibilities of religious and conservative groups. Moreover, and perhaps much more simply, there was a lack of communication and organization prior to the meeting, which explains the formal absence of the Department of Anthropology. Yet, as we shall see, the sciences of Man maintained their presence, as part of ethnology in Section E.

B. Geography and Ethnology Together Again

Having overcome the tense situation derived from the non-opening of the Department of Anthropology, the Association's meeting, along with all the other allied activities started. On Thursday, 5 September, presentations began in the different sections. There were two presentations that day, one by Lynn Linton, on the ethnography presented in Paris during the French Exhibition, and the first of many by John Crawfurd, on the food of the Australian aborigines. Crawfurd was always active in the Section, both with organization and with papers, but it is clear that his role increased significantly this year, since he gave seven different presentations. This was Crawfurd's bid to establish himself as the representative of the sciences of Man within the Association.

Linton's presentation was read by Crawfurd, as she was not present during the meeting. The presentation had little impact, and received little comment.[54] In the press covering the "anthropologicals", her presentation was labelled as not a proper presentation on the sciences of Man. And certainly it was not. Linton only provided a personal account of her experience of having visited

[54] [Anon.] 1868b: 91.

the French Exhibition, but at no point did she elaborate on some ethnological or anthropological aspect of the diverse human groups presented there. According to what was said by Crawfurd, there were no comments of any kind. It should be noted that many of the criticisms at the meeting came from Hunt, who, after he had settled the matter of the department, remained a regular participant at the meeting. The transcripts of the meeting can give us an idea of how much Hunt participated. Sometimes Crawfurd explicitly requested the opinion of the president of ASL before that of any other.

Figure 4.3 Eliza Lynn Linton[55]

Friday was devoted to presentations related to travel and archaeological discoveries in the area of Israel and Palestine, such as the one given by Captain

[55] See http://en.wikipedia.org/wiki/File:Eliza_Lynn_Linton_by_Downey.png.

C.G. Wilson. The presentation of the day was given by Murchison, who gave an account of Livingstone's principal expedition to central Africa, which was happening at that time, and which gathered great interest from the audience. For several years, Livingstone and his travels in Central Africa was the subject of lively discussions within the Association and for several years ago had attracted crowds to Section E.[56]

On Saturday (the 7th), the only Section in operation was E. Crawfurd had a starring role again, with three presentations, ranging from the antiquity of man, to general ethnological descriptions on the physical complexion of man, to cases such as the aborigines of India. The rest of the presentations were on geographical topics, like H.H. Howorth, with a particular interpretation of the relationship between changes in geography and ethnography. In the usual manner, the rest of the weekend was devoted to various expeditions and social activities around Dundee.

On Monday, 9 September, one of the most-talked-about presentations of the meeting took place. This presentation had such an impact that it deserved as we shall see a second part, which would follow two years later, with further discussion in the print media. The presentation was given by Sir John Lubbock, "On the Origin of Civilization and the Early Condition of Man". The issue was controversial, and here we can even though there was no specific space for the sciences of Man, subjects related were still openly discussed in Scotland. In addition, Lubbock's approach focused on highlighting the role of progressionism in human history,[57] especially in the development of civilization, in clear contrast

[56] On Livingstone's expeditions, see Withers 2010: 51-55, 91-92; Dritsas 2010: 144.
[57] Murphree 1961.

to the degenerationist idea, supported especially by the Rev. Richard Whately. Lubbock's argument, reported in full in the *Report,* was based on both historical and actual data about the "savages", since he wanted to show that societies in general had progressed over time, also he accepted the possibility that some of them can suffer deterioration, but above all he emphasized the "blessings of civilization", as the goal for any society.[58]

This was one of the few presentations which discussed the antiquity of Man, by applying Darwin's ideas, a situation that was not as controversial as the "anthropologicals" being present in the meeting.

For the rest of the day, presentations were given by Crawfurd, John Davy, H.H. Howorth and C. Criswick. Except for Lubbock and Crawfurd's presentations, the press paid no attention to these papers: in some cases not even an abstract was published.

On Tuesday, activity related to the sciences of Man occurred in Section D, Department of Anatomy and Physiology. Two presentations were highlighted by their striking titles, "On the Phenomena of Life and Mind", by R. Dunn, and "Life: its Nature, Origin, etc.", by P. Melville. Melville merited only brief mentions in BMJ and JASL, on his view on the Scottish school of "vital form or soul", as opposed to the materialism of Spencer, and harshly critical of Huxley's anatomical explanations on language acquisition. Criticism of the paper came especially from Hunt, who noted the author's profound ignorance on the work of Huxley. Dunn's proposal was subsequently published, although the comments of the press highlighted in particular the lack of novelty in the proposal, which focused on a rather traditional relationship between physical and psychic forces

[58] *Report* 1868: 118-125.

in man. The next day Murchison made the official announcement of the agreement that the next International Congress of Prehistoric Archaeology would be held the following year, in parallel with the meeting of the Association. Crawfurd continued with his presentations, two on this day, one attacking polygenism, and another on the migration of domesticated plants with reference to ethnology. The session was supplemented by the presence of two foreign guests, the Canadian William Perkins who spoke about his experiences in Argentina, and the Italian Antonio Raimondi based in Peru, who broadly outlined his experiences with aborigines in the area of Huanta, and emphasised the importance of craniological studies.

The last day of work of Section E established a new important trend, especially for the future of the sciences of Man. The meeting was opened by Sir R. I. Murchison, who read a letter from Mr Dartet [sic],[59] then President of the International Congress of Prehistoric Anthropology and Archaeology, which had meet recently in Paris.[60] The letter noted that at the meeting on 29 August, it had been agreed that the next meeting of the Congress would take place in England. Firstly, it was agreed that the presidency would be offered to Murchison, along with a committee formed by Lyell, Lubbock, Evans, Franks, Prestwich, Busk and Carter Blake, who would be responsible for the organization and seating arrangements. Murchison rejected the post of president, as he did not consider himself the most adequate candidate for the position. Instead, he gave the honour to Lubbock, who gladly accepted, as recognition of his importance in the advance of archaeology.

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[59] This is Edouard Lartet (1801–1871), the French palaeontologist.
[60] *Dundee Courier*, 11 September 1867.

This final day of activities in Section E was also the last for the sciences of Man in this meeting. It is clear that the non-participation of the "anthropologicals" allowed the "ethnologicals" to have a greater prominence in the section. In the end there was no counterweight to decisions such as which presentations be should accepted for reading, or the extraordinary prominence of some characters, such as Crawfurd, who basically monopolized the Section.

C. Crawfurd: From Politics to the Study of Man

The meeting at Dundee leads us to reconsider the issue of amateurism and the professionalization of science. We have already seen that part of the work of the Association focused on promoting science and so reinforced the need to professionalize the discipline. However, men of science, or, in other words, those who were doing or promoting science in this era, had immediate professional backgrounds that did not necessarily qualify them as proper scientists.

It is useful in this respect to return here to an important figure, not only for the Association, but for the sciences of Man in particular, John Crawfurd. Crawfurd is a good example of the type of participant in the Association whose work on the sciences of Man drew from a number of different professional backgrounds, often very distant from the formal practice of science. In the next section, we delve into the professionalization of science within the Association, working from a few specific examples.

He was born on August 13, 1783 on the island of Islay, in the Inner Hebrides. Crawfurd acquired at an early age the curiosity and a passion for learning, especially since he attended school in Bowmore. In 1799, largely influenced by his father, he went to Edinburgh to study medicine, but was never really passionate about the profession. He was sent in 1808 to the peaceful island

of Penang, his first contact with Southeast Asia. There he learned the Malay language, became involved with the local culture, and met the statesman Sir Thomas Stamford Bingley Raffles, founder of the city of Singapore. In 1811, with the then Governor of India, George Elliot, 1st Earl of Minto, Crawfurd took part in the expedition against the Dutch in Java. While Raffles was appointed Lieutenant-Governor, Crawfurd was appointed Resident of Yogyakarta, what is now Jakarta. With this position, he had the opportunity to deepen knowledge of local languages like Javanese, as well as to establish closer relations with the local aristocracy. He travelled through the region on diplomatic missions to places like Bali and the Celebes, and also had the opportunity to travel and learn first-hand about unknown places and exotic cultures. It is clear that his travels provided him with enough information to develop a broad and deep knowledge of human groups through ethnographic studies.

Figure 4.4 John Crawfurd[61]

[61] See http://en.wikipedia.org/wiki/File:John_Crawfurd.jpg.

Crawfurd is often described as a politician, or at best as an orientalist: this is at least partly because defining an ethnologist or anthropologist in this period was very complicated. It is a fact that at that moment, those interested in the sciences of Man came from very diverse backgrounds. One can argue about whether an 'anthropologist' or an 'ethnologist' needed to have something more than an interest, to make presentations, to publish in journals or be part of a learned society. This makes consideration of who may or may not be considered an 'anthropologist' or 'ethnologist' hard to address. Crawfurd fully complied with all the features mentioned above, like virtually all those who participated in the BAAS meetings, whether or not this has been recognized historiographically.

When we talk about the task as ethnologist of Crawfurd, we revisit the issue of his stay in Southeast Asia. Crawfurd's ethnological interests were reflected in the numerous writings he published on his return to England, especially in his publications for the Ethnological Society of London, of which he was president in 1861, and which had a fundamental role in his career. Many of these publications were based on work presented at the BAAS's meetings.

Ethnological interests were useful for Crawfurd in that they allowed him to become closer to one of the leading members of the Association, Murchison. Both shared a strong interest of unifying ethnology and geography, from a clear vision of imperialism, in which the geographical study of territory and resources had in ethnology the perfect complement, the knowledge of human groups, cultures and languages. This union of interests found a perfect niche in Section E, which had brought together both disciplines from 1851, largely thanks to the

influence of Murchison.[62] In addition to the social and political power which he had in London, Murchison had a strong influence on decision making within the Association.

Crawfurd had little influence in the General Committee, where Murchison held sway, but within Section E Crawfurd had a great deal of power, including control over which presentations would be given at the meetings. During the Dundee meeting, for example, in the absence of the "anthropologicals" Crawfurd took advantage of the situation and gave himself several opportunities to present. Crawfurd's ethnological work had great influence on the subsequent political and social development of the Malay Archipelago. For the British scholars interested in studying human beings, one example was to categorize people into races, and to describe them based on assumptions influenced by assumptions related to the idea of civilization. In the case the Malay Archipelago, it was assumed at first that all its inhabitants were Malay, and the rest were Papuans. This conclusion arose primarily because, arguably, that the Malay was the main language in the peninsula. The origin of the Malays arose between Sumatra and the Malay Peninsula, according to Crawfurd's proposal.

The Malays are usually considered a race. Margaretta Morris, an American scientist, wrote in 1906 that the framework of race was "the typical thought of the second quarter of the nineteenth century" for many Western scholars. Even in her article written in the early twentieth century, she primarily used 'race' to refer to peoples in the Malay Archipelago.[63] These groups were

[62] On this point, the work of Withers is particularly interesting, highlighting the role of Murchison in the consolidation of geography within the Association. See Withers 2010: 68.
[63] Morris 1906.

called nations' only when she relied on sources such as Raffles and Crawfurd who specifically used that term.

As a result of his time in the Archipelago, Crawfurd wrote *History of the Indian Archipelago,* which was decisive in shaping the popular image of the Malays. In this work Crawfurd gives a series of varied images of Malays and Papuans, in a sense of superior-inferior. The descriptions of the Papuans are terse, describing them as "dwarf negroes who had never 'risen above the most abject state of barbarism'", and on the Malays, he represented them as "perfidious portray them as Orientals and medieval model whose progress halted by bad was colonial Dutch police". Crawfurd described the Malays as similar to whites having supposedly natural abilities as Westerners industry, intelligence and accuracy, a very different view from those held in the continent. When compared with other groups in the East, Crawfurd described the Indian islanders as "honourably distinguished from all the civilised nations of Asia by a regard for truth".[64]

Crawfurd's influence in anthropology can be seen in his two parallel career paths, one as President of the Ethnological Society of London, and another as notable and active member of Section E. As a result the publications of ESL were directly influenced by the particular interests of Crawfurd, who was primarily a philologist.

In the discussions that followed Crawfurd's presentations, Wallace played a leading role. Years after Crawfurd's view, Wallace laid out his *The Malay Archipelago,* in which he employed the idea of natural selection to set out clearly

[64] Crawfurd I, 1820: 50. On Crawfurd and his views on language and race, see Livingstone 2008: 112-114.

the difference between the two races, Malays and Papuans. This difference was evident in regional distinctions separated by an imaginary line between both groups, today the 'Wallace Line', which also served to demarcate two biogeographical regions.[65] To some extent, this analysis demonstrated Crawfurd's hypothesis that the civilized Malays were pushing the savage Papuans back from their natural border.

Crawfurd was a fundamental character in the history of ethnology. Arthur Keith, in his presidential address of 1917 for the Royal Anthropological Institute, described Crawfurd as, "a tall, vigorous, overpowering figure, a highlander from Islay",[66] who started his work on ethnology at age 64 in 1847. He was, to Keith, "a man of infinite knowledge gleaned from books and from intercourse with many races, always voluble, a man of decided and heterodox opinions, to which lie gave an air of finality".[67]

Crawfurd's work in the ESL marked out much of the future disciplinary territory of ethnology. In 1859 Crawfurd became President, succeeding the veteran Sir James Clark, at the same time as a young and impetuous James Hunt took office as Secretary. At the time the Society was made up of a host of stars, including Lubbock (who was President in 1862), Thomas Henry Huxley, George Busk, Francis Galton, John Evans, George Rolleston as well as Sir Roderick Murchison. Others who often attended meetings of the Society included Richard Owen, Edward Tylor, Colonel Lane-Fox (the latter two prominent "anthropologicals"), Henry Howorth, Boyd Dawkins, Alfred R. Wallace and Herbert Spencer. This amount of talent gives the impression of a prosperous and

[65] Mayr 1944, Camerini 1993, Vetter 2006.
[66] Keith 1917: 17.
[67] Keith 1917: 17.

stable society, but the Achilles heel of the ESL was always the finances.[68] Crawfurd returned to the presidency in 1865, where he remained until his death in 1868.

His view of ethnology can be summarized in a rejection of monogenism, based on a polygenic posture with deep roots in the history of Creation, an idea that took him away from the monogenist proposal of Prichard, and later influenced his rejection of the Darwinian monogenism. One of the main differences on the monogenic origin of man was language as Crawfurd proposed that having several races had to have a different origin for languages.[69] As noted by Livingstone, this proposal was based on the idea of a direct relationship between climate and race.[70]

Much of what happened in the ESL was eventually moved to Section E. Crawfurd made presentations at meetings of the Association which were basically the same as those he gave at the meetings of the ESL. In most cases presentations at either meeting were already known by many of the guests. Section E was always one of the most successful within the Association. Furthermore, its policies bore similarities to the policies established by the ESL, especially in respect of attendance by women, a policy which earned the scorn of the "anthropologicals" who renamed Section E, the "Ladies Section".[71]

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[68] Stockford 1974: 80-118.
[69] This was one of the main differences on monogenic origin of language, which even showed signs of a deep antipathy to Max Müller and his theory of Aryan origin of language, since this separated the ethnology of philology. See Crawfurd 1861a: 268-286, Crawfurd 1865: 1-9, Livingstone 2008: 112-113.
[70] On Crawfurd and his views about the origin of man and language, see Livingstone 2008: 112-114. On the classification of races, see Crawfurd 1861b: 354-378, on the relation between races, see Crawfurd 1863b: 201-213, on the origin of species, see Crawfurd 1869: 27-38, on the relation between climate and races, see Livingstone 2002.
[71] [Anon.] 1865: 365.

The quest to establish anthropology as a true science of Man began when Hunt became president of the ASL. In 1865, in his inaugural address to the Society, Hunt gave an historical account, which made very clear his position on the relationship between ethnology and anthropology in the BAAS. Prichard, by contrast, thought that ethnology was part of the natural sciences, having as its object the study the man, who was part of nature. This line of thinking lay behind the initial location of ethnology in the field of zoology. With the death of Prichard in 1847, ethnology lost much of the support enjoyed by the discipline within the BAAS. The decision by Murchison to place ethnology in geography made Murchison, in the words of Hunt, "the destroying angel who annihilated the Ethnological sub-section".[72] The decision rested on the idea that ethnology could be complemented with geography, which in turn was located in Section C, along with geology, which not entirely pleased with Murchison. This decision created a unified section of geography and ethnology, Section E, closer in line with the ideas of Murchison. This concern was shared by Crawfurd, who was split between the two disciplines, even after their 1851 union and consolidation in the section. Murchison's had proposed the union in 1849, suggesting "Geography and Ethnology" as the name of the section, and not Anthropology. This proposal was consistent with Murchison's work in the RGS, where he supported physical geography, and sponsored ethnologists (with certain political and intellectual views) to conduct geographical studies of humans as cultural and imperial beings.[73]

[72] Hunt 1865: lxxxix.
[73] Stafford 1989: 21, Withers 2010: 171-173.

Murchison's proposal was strongly supported by Crawfurd, in several presentations, as, for example, in "On the Connexion between Ethnology and Physical Geography". Here Crawfurd stressed that:

> Man will be found savage, barbarous, or civilized, in proportion to the quality of the race to which he belongs, and to the physical character of the country in which his lot has been east. Beginning with the conditions least favourable to his progress, and rising to those which are most auspicious, I proceed at once to illustrate this principle by a few examples: such a sketch may perhaps be useful in showing the scope of our science. Mere intemperance of climate, independent of any other obstacle, is sufficient to prevent man from making any advance towards civilization, and to hold him permanently in the savage state.[74]

Crawfurd can be considered as an example of how varied practice in the sciences of Man could be. His interests, based on his residence in Southeast Asia, gave him many experiences to talk about. He described human groups both physically and culturally, and such descriptions drew attention to the origin of the human races, although this last subject was only raised by Crawfurd as a means of criticizing the views of his opponents.

Crawfurd's friendship with Murchison was the key to sustaining Ethnology in Section E, and this stemmed from their common interest in the subject. Crawfurd's interests, although sometimes extreme, allowed him to play a protagonist's role, both in the organization of the section and in criticising others' papers.

D. Amateurism in the Association

During the 1860s, the professionalization of science was at its height, due to the influence of key figures, such as Huxley, Tyndall and Hooker. Learned societies were a symptom of the specialization process undergone by different disciplines,

[74] Crawfurd 1863a: 4.

and thanks to its vocation to give impetus to science, the Association was presumed as a forum to promote more strongly the process of professionalization.

Here it is worth noting the elements that distinguish an amateur from a professional. Morrell describes what can be seen as several stages in the process of professionalization: full-time paid positions directly related to the possession of scientific knowledge; specialized skills that functioned as a public certification of scientific competence; procedures of training given and received at universities; specialized publications, with a particular language; a growing solidarity amongst the group and self-consciousness, expressed both linguistically and institutionally; and award systems to recognize the best practice.[75] Here is important to note also Steven Shapin's view, "the canonical account", in the sense for example that the relation of science with its public had changed over time, thanks to a professionalization process, although not as something 'inevitable' or 'natural', but as "the display of the enormous labour expended by individuals […] constructing the very categories of 'science'".[76]

With this in mind, we can now turn to the situation within the sciences of Man. To take each of the six steps proposed by Morrell: by this time there was no one with a position in an institution or university, much less receiving a salary for the full time study and dissemination of the sciences of Man.[77] Nor was there anything like system of training, which could be granted to those engaged in certain subjects, such as craniometry had skills that enabled them to develop their work. There were, however, specialized publications, and groups that gathered

[75] Morrell in Olby *et al* 1990: 980-989.
[76] Shapin in Olby *et al* 1990: 992.
[77] The first position of this type did not occur until 1884, at the University of Oxford, where E. B. Tylor was awarded the title of Reader in Anthropology.

those who shared common interests. With this in mind, one could say that anyone who published or that was part of a society dedicated to the sciences of Man, was a professional. Similarly, everyone who presented their work for the acceptance of men of science in a meeting of the Association could also be considered a professional. This may sound simplistic, but it is part of the difficulty of properly differentiating "amateur" from "professional" and it any attempt to define the process of professionalization could be criticised. Applying Morrell's criteria to those persons presenting in Dundee, nevertheless discloses interesting variation.

For example, there is, as noted, the case of Eliza Lynn Linton, the first woman to present a paper in Section E, and the first to do so in relation to the sciences of Man. Her presentation went somewhat unnoticed in the press. Her presentation, "On the Ethnography of the French Exhibition, as represented by National Arts"[78] was a report of the ethnological material presented at the Paris Exhibition, wherein she opined on the value of such studies to understanding the intellectual status and habits of thought of the various human races.[79] Can we consider Mrs. Linton as a professional woman of science? Linton was widely known as a novelist, essayist and journalist, fiercely opposed to women's right to vote. This was possibly her only writing about ethnological subjects, published in the *Transactions of the Ethnological Society of London*. As we have seen, publication was one of the conditions of being considered professional, but then again, this alone could be seen as simplistic extreme. Linton devoted her life to other activities, so the fact of her having written an article on ethnological topics may not necessarily serve to characterize her as a professional scientist.

[78] Linton 1868: 216-226.
[79] *Gentleman's Magazine* 4, 1867: 659.

But neither should we diminish the fact that she was the first woman to present a paper related to the sciences of Man. It is true that her presentation may not have drawn much interest, especially from the "anthropologicals", but looking again at the presentations can give us a different idea of its importance. The Paris meeting was a great event for France, a way to show the world its progress, and Napoleon III did everything necessary to make it a success and to exceed the London meeting in 1862. Linton, avoiding nationalistic pride that denigrated the Paris meeting, focused her attention on describing ethnological material carefully, which in her view was "singularly rich both in amount and suggestiveness". Linton's main achievement hitherto was writing sensational articles for the conservative and prestigious *Saturday Review*, an experience that probably developed her fine writing style. Her description of the ethnological collections in Paris avoided any hint of controversial nationalism, and made comparisons between Western and Eastern cultures, which focused on details. Clearly, then, the presentation had few controversial elements that would spark further discussion. But it is also clear that in Linton's presentation we can see the interest generated in the public by the sciences of Man, and that the sciences of Man were shaped by the most diverse interests.

At each meeting we can find examples of this interaction between amateur and emerging science professionals. There were several presentations in Dundee by doctors, all within Section D, in the Department of Physiology and Anthropology, those given by John Davy, Robert Dunn and Sir George Duncan Gibb, who continued the tradition of focusing on strictly anatomical issues. The rest of the presentations in Section E had a more descriptive approach, mostly relaying the travel experiences of their protagonists. Among the presenters were

writers such as Creswick, historians such as Howorth, politicians such as Lubbock, geologists such as Murchison (who read a paper on the experiences of Livingstone), military men such as R. Stuart, and characters such as Raimondi and Perkins, both among the few foreigners who attended the meeting.

In all cases presented here, as we have seen as with Crawfurd, the sciences of Man and its practice were not an example of professionalism yet, at least in a broad sense. In the early 1860s the professional backgrounds of those practising the sciences of Man were diverse, and the only consensus was to study and learn more about Man, in every one of his varied aspects. Of course, that consensus did not mean that discussions of man were one-sided, since there were also highly critical voices, as we shall see, especially amongst the religious members of the field.

4.4 Clergymen in the Association

A. Critics of the Antiquity of Man

Although at this time clerics were not present in a wide range of different sections, their share of the total membership remained constant. There were also cases of those with a religious background who wanted to participate and were not accepted, even though at first glance they could have, since their works were limited to the sciences of Man.

An example of such exclusion concerns the Rev. James Brodie. He was a member of the Free Church of Scotland and was widely recognized in ecclesiastical circles for his criticism of theories about the antiquity of man, most notably in his *Remarks on the antiquity and nature of man: in reply to the recent*

work of Charles Lyell (1864).[80] For Brodie, Lyell's remarks, made at the meeting of the Association at Bath in 1864, were merely an attack on all those who believed in God, despite the general feeling that Lyell's claims accounted for a history of humankind on Earth. Brodie based his criticism on Lyell's remarks about the antiquity of Man, to support his view of a possible divine origin of Man. These criticisms were extended to the application of Darwin's ideas on Man.[81]

For the meeting in Dundee, Brodie sent a series of essays to the organizers for consideration. In the introduction, addressed to the Duke, Brodie noted his concerns expressed at recent meetings of the Association on the antiquity of Man, and concluded that "[I]n these circumstances, those who continue to entertain the opinions that formerly prevailed, may be pardoned if they think that they are entitled to be heard before the Association in support of their views".[82]

Brodie's criticism of the General Committee of the Association's selection process revealed that there was discontent among conservatives about the increasing inclusion of presentations on the origin and transformation of man. The Association did not accept any of the papers proposed by Brodie, a situation that caused anger among certain groups. For example, in the *Original Secession Magazine*, a Presbyterian imprint, the work of Brodie was lauded as one of the true defenders of the Bible against the continuous attacks of science. They wondered, if Brodie's work had been read, whether instead of criticizing, some

[80] Brodie 1864.
[81] Brodie 1864: 1-4.
[82] Brodie 1867: vi.

might have realised it supported the position of the "anthropologicals". Given the refusal to accept Brodie's work, the *Magazine* concluded:

> All the infidels rejoice at what has transpired at the Dundee meeting; and all the practical infidels that abound in our cities, whose manner of life cannot abide the light of Scripture, welcome what tends to soothe their consciences, while living in habitual disregard of the requirements of the eternal law as held forth in the statute-book of the supreme Lawgiver and Judge, at whose bar all must soon stand.[83]

The papers proposed by Brodie contained several themes in criticism, of the works of Lyell, on the origin and growth of peat,[84] rising of the coasts in Scotland,[85] the influence of ocean currents in climate,[86] and the action of glaciations.[87] These four studies did not focus precisely on the sciences of Man as such, but on issues related to the environment, and that was the main reason given for their rejection from Section E. But a fifth paper was different as it was a direct criticism of the ideas in recent years of Darwin, Huxley and Grove, the paper being entitled "On the Nature and Position of Man". Although Darwin had not publicly expressed his position on the application of natural selection to man or made any mention of man's place in nature, Brodie assumed he held the same view as Huxley and Grove.

The paper focused on refuting anatomical similarities between animals and man. The main problem with the argument of descent from animals, as Brodie saw it, was with the acquisition of mental abilities such as intelligence. He could find no explanation for this except that, "a higher intelligence than that of man must guide our steps, and point out to our admiring eye the wonders and the

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[83] *Original Secession Magazine* 1868: 378.
[84] Brodie 1867: 1-28.
[85] Brodie 1867: 29-59.
[86] Brodie 1867: 60-77.
[87] Brodie 1867: 78-94.

glories of the sanctuary within".[88] This was an idea that would find support in the years following in people such as Wallace and St George Jackson Mivart, but at this time it was considered inappropriate for the Association.

In the end, the rejection of Brodie's work from the annual meeting was due to an aspect related to the meeting's organisation, of which the author was not aware: the works were printed and distributed before the meeting, and this was not allowed by the Association.

B. Preaching for Science

The presence and participation of clerics in the meeting was wide and varied. One of the activities at the meetings of the Association that has not been analysed were the sermons. As already mentioned in the previous chapter, the sermons were a chance for, mostly local, clerics to give their opinion on the meeting.[89]

The Rev. Charles Pritchard was commissioned to preach at St. Paul's Episcopal Church, his second sermon in relation to meetings of the Association.[90] The sermon, entitled "The Analogy of Intellectual Progress of Religious Growth" did not touch on the sciences of Man specifically, but raised in general terms the similarities between nature and divine grace, and by extension, natural law and divine law. Pritchard also raised the possibility of a continuous dialogue between men of science and men of faith. Pritchard's attitude was conciliatory; he sought to build bridges between two ways of understanding the world. But there were other clergymen who saw things differently.

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[88] Brodie 1867: 110.
[89] Toal 2012.
[90] In the previous meeting in Nottingham, as mentioned in the third chapter, Pritchard devoted his sermon to Grove and the subject of continuity.

Another sermon was given by the Bishop of Brechin, Alexander Penrose Forbes. His sermon, "Our Lord: the manifestation of the natural sufficing Father in nature and in grace" was dedicated specifically to the Duke. The sermon focused on highlighting the truth that the Christians can access through the manifestation of God in his work. There was no further mention of science in the paper. However, throughout, the role of Christ as the saviour of mankind was stressed by Forbes. Science, at its best, gets its inspiration from God Himself, and man is His instrument in nature, in the world, on the planet. God is integral to us as a group and as individuals, He is the solution of the mystery of each individual life, and His will is to guide us. There is a difference in the way the world is observed, with or without God, but God no doubt sees the world as it really is. For Forbes, the adequacy of its manifestation is the satisfaction of each power of intellect, will and heart, his appropriation of every faculty of memory, imagination and understanding.[91]

An interesting sermon was delivered by the Rev. John Hannah, a member of the Church of England.[92] In his sermon "A Plea for Theology as the Completion of Science"[93] given in Dundee's St. Paul's Church, he stated the important role played by clergymen in science, especially in the establishment of institutions such as the Association itself. He based his beliefs on this statement: "the need of some religious counterpart to science is thus proved by the confession of scientific students that their labours are everywhere surrounded by

[91] Forbes 1867.
[92] Not to be confused with his father, with the same name (1792-1867), a Wesleyan Methodist minister.
[93] Hannah 1867.

a cloud of mystery through which they cannot penetrate",[94] which was made in response to a statement made by Tyndall: "The phenomena of matter and force lie within our intellectual range, and as far as they reach, we will at all hazards push our inquiries. But behind and above and around all, the real mystery of this universe remains unsolved".[95] It is clear that the intent of people like Huxley and Tyndall to promote a secular type science was still rejected by the religious, some of whom, like Hannah, insisted on a vision of unity for science and religion.

This meeting at first seemed to be a regression with respect to the advancement of science, and especially of the sciences of Man. We have already seen that the atmosphere at the meeting was heavily influenced by conservatism, which was largely a reflection of the political and religious context in Dundee. The involvement of clergymen in this case was minimal, since in the two sections that interest us, D and E, there was only one presentation by a clergyman, the Rev. Henry Baker Tristram, on biblical archaeology. Tristram was the only clergyman to take part in the organization of the meeting, as one of the secretaries to Section D.[96]

Issues that generated so much apprehension among conservative sectors of the population, in other words, the presence of anthropology, seems not to have been a problem, although the presentation by Lubbock and some of those by Crawfurd touched on sensitive points such as the antiquity of man. There were four presentations on biblical archaeology, each of which was well received and covered by the press. We can see that the selection of presentations was not really

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[94] Hannah 1867: 8.
[95] Cited in Hannah 1867: 8-9. This phrase was uttered by Tyndall as part of his lecture delivered to the Operative Classes, entitled 'Matter and Force'. Later, in 1871, the essay was published with the same title and included in his *Fragments of Science.*
[96] *Report*, 1868: xxxvii.

so strict, and, as we will see at the following meetings, sometimes accepted papers that were harshly criticized for their scientific or methodological deficiencies during or after the meeting were accepted.

The case of the Dundee meeting makes it clear that the presence of clergy could interfere with what was said about the sciences of Man and that, more generally, men of faith played an important role within the Association, at least as critical voices against the advance of secularism in science.

4.5 Conclusions

Dundee's meeting was a meeting with a conservative tone. The choice of the Duke of Buccleuch responded to a specific interest of the Association, or some of its members, such as Murchison, to give centre-stage to local characters. Yet, Buccleuch evinced nothing more than passing interest in science. In any case, the choice was liked by the community and, in that way, the Association had definite support in its clerics who were invested in the success of the meeting.

The dispute over space for the sciences of Man took an unexpected turn during this meeting. On the one hand the explicit rejection of anthropology was a result of this immediate local context, but as we have seen, there were several causes that led to the failure to open a specific department for the sciences of Man. Indeed, once he learned of the subject's rejection, Hunt decided not to proceed with the idea. It is noteworthy that Hunt decided to give a dramatic tone to the issue and with the "anthropologicals" decided to raise a parallel event, by way of apology. That meeting had only one session, and finally agreements were reached within the Association for it not to go ahead, and all interest in the sciences of Man was concentrated in the Association itself. In the press related to

the ASL, these events represented a decline, but interest in such topics as the origin of man was strong enough that, despite organizational changes, the sciences of Man took place in Section E.

Because the BAAS was a forum that publicly allowed public discussions related to science, as in the case of the sciences of Man, the permanent desire of the "anthropologicals" for a specific place for 'its' discipline was understandable, although that means a clear detriment of the "ethnologicals", who for years had a place in Section E. Considering what happened during the 1860s in this section, it is easy to see that in the eyes of its supporters, ethnology was the study of primitive cultures now enabled to survive thanks to contacts with explorers and others in various parts of the world. At the same time, the interest of the sub-section also focused on other aspects of man, such as his history and antiquity. Other aspects of the study of man, such as anatomy and physiology, were also discussed, but in Section D, Biology. Many presentations focused on other issues resulted in lively discussions about man, its origin, its relation to other beings.[97]

This decision helped Crawfurd win unusual prominence and dominate Section E. Among the highlights of the events was the presentation by Lubbock on the progress of civilization, which would cause such a commotion that the discussion lasted for several years and even continued outside the specific scope of the Association. Crawfurd's presentations give an idea of the heterogeneity of the practice of the sciences of Man.

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[97] For example, what happened during the Oxford meeting in 1860: in two different presentations, one related to Darwin's proposal and botany, and another one on the implementation of Darwin's ideas in sociology, derived in the first case in a strong discussion between Owen and Huxley about the hypothalamus (*Athenaeum*, 7 July 1860; Rupke 1994: 270-274), and the latter in the famous confrontation between the same Huxley against Wilberforce [*Athenaeum*, July 14 1860*; Jackson's Oxford Journal*, July 14 1860; Lucas 1979; Altholtz 1980; Jensen 1988).

This chapter also has allowed us to view the state of professionalization in the sciences of Man. Characters like Crawfurd and Linton came from backgrounds away from the practice of science, but they were still interested in issues related to the study of man. If we refer to Morrell's ideas on professionalization, possibly none of these characters or the majority attending the Association would meet such requirements. At this time, amateurs were very present in the work of science. But as mentioned by Shapin, professionalization was not an inevitable process, but the result of the labour of people who share interests, in this case the sciences of Man. Despite the decline in participation by the clergy, their presence was strong throughout the presentations, and also in sermons. These sermons mainly proposed dialogue between science and religion, as opposed to the advance of secular positions within the Association, which at this time were being propagated especially by Tyndall.

Events in this year made it clear that the sciences of Man in general terms were a controversial topic in the public domain. Many people still felt uncomfortable, especially if viewing it from the perspective of religion. While the BAAS sought to establish a clear distinction between scientific progress and its various disciplines, it should not be forgotten that the Association's founding was encouraged by the most liberal sectors of Anglicanism, who were looking for alternatives to the traditional views of natural theology at the beginning of nineteenth century. Nevertheless, the influence of these sectors was not the same in the Association during the 1860s, the subject of religion and its impact on various subjects, like those related to the Man, were of importance for the public and those naturalists interested in the topic, who could help determine what could be discussed in a scientific meeting.

5.0 Norwich 1868: International Interventions into National and Local Agendas

5.1 Introduction

Times were hard for the sciences of Man, especially for ethnology. One of its most important figures over the previous decade, John Crawfurd, died on 11 May, 1868 at his home in South Kensington, London. The British press highlighted his career as a politician in South Asia, and the various writings he had published on diverse aspects of the life of the people of the region.[1] Crawfurd was highly regarded by the Geographical and Ethnological Societies, and had devoted much of his time to them on his return to England. Above all, it was emphasized that he was a conciliatory figure with diverse interests, which enabled him to establish himself as an authoritative voice in a field where authority was often contested.

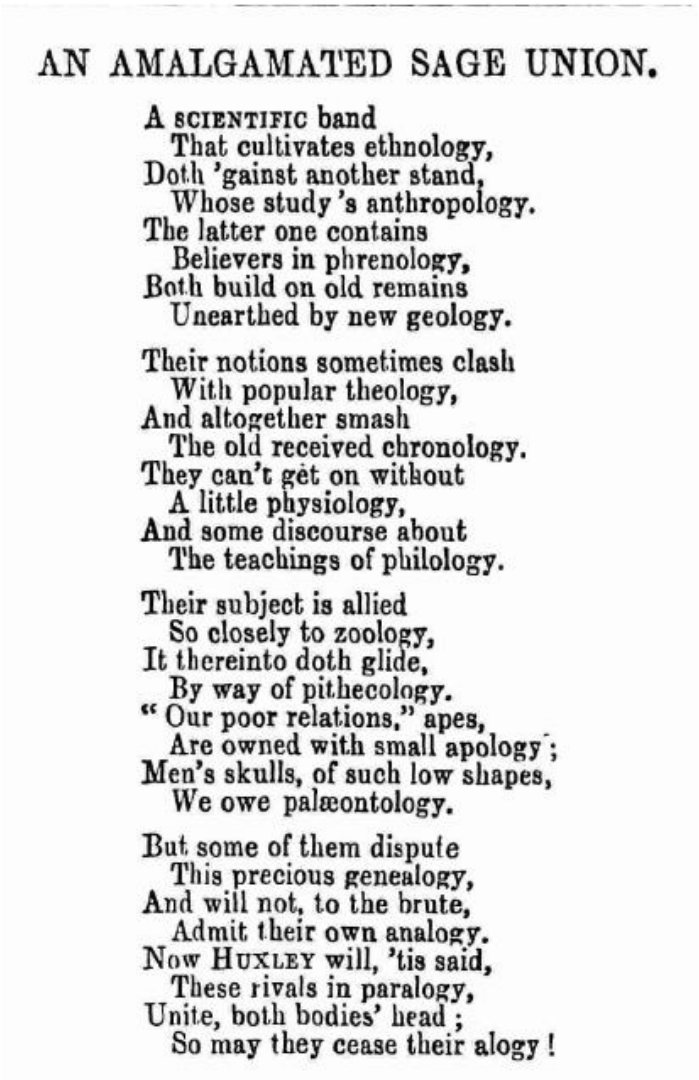
Crawfurd also left his mark on the BAAS, especially upon Section E. Crawfurd was crucial, as we have seen, to maintaining ethnology's place within the Association. His absence, alas, proved equally crucial. After the difficult situation experienced in Dundee, Norwich had promised, if not a fresh start, at least new possibilities for the sciences of Man. Although a tougher response from the "anthropologicals" had been expected after the decision not to open the Department of Anthropology, as we saw briefly in the previous chapter, the committee in charge of Section E, led by Crawfurd and supported by Murchison, achieved an unprecedented agreement – a level of consensus that, despite the

[1] *Times*, 13 May 1868: 5; *Preston Guardian*, 16 May 1868; *Gentleman's Magazine*, June 1868; *Glasgow Herald*, 14 May 1868.

intentions to the contrary of Hunt and even Huxley, gave a boost to the sciences of Man.[2]

Another boost came with the news that the Third International Congress of Prehistoric Archaeology would be hosted in Norwich in parallel with the meeting of the Association. Nevertheless, the Dundee meeting had made it clear that acceptance of the science of man in the BAAS was going to be a complicated matter. As the situation between the ESL and the ASL continued without a solution, the same disagreements were more and more noticeable in plans to consolidate the sciences of Man as part of the spectrum of sciences supported by the BAAS. The press echoed these disagreements which appeared to have no possible resolution. What is certain is that, in part because of these disagreements, issues to do with the origin of Man were the object of a great deal of public fascination and discussion.[3] Consider, for example, the coverage of the ESL and ASL in *Punch* in June 1868, in the form a poem, "An Amalgamated Sage Union,"[4] where attention was given to the possible union of the metropolitan societies,[5] their numerous ramifications toward more diverse '-ologies',[6] and the appearance of a conflict between anthropological interpretations and the teachings of Natural Theology as to, in Huxley's phrase, Man's place in Nature:

[2] Withers 2010: 172-174.
[3] See, e.g. Desmond and Moore, 2009: 144-145, 199-200, 338 Radick in Ruse 2013: 173-175, on public discussions on slavery and the origin of Man.
[4] *Punch* 20 June 1868: 272.
[5] For a more detailed discussion about the conflict between ESL and ASL, see Rainger 1978, Stocking 1987: Ch. 7, Lorimer 1988, Kenny 2007.
[6] This ending is used to refer to different disciplines such as ethnology, anthropology, phrenology, geology, theology, among others.



AN AMALGAMATED SAGE UNION.

A SCIENTIFIC band
That cultivates ethnology,
Doth 'gainst another stand,
Whose study 's anthropology.
The latter one contains
Believers in phrenology,
Both build on old remains
Unearthed by new geology.

Their notions sometimes clash
With popular theology,
And altogether smash
The old received chronology.
They can't get on without
A little physiology,
And some discourse about
The teachings of philology.

Their subject is allied
So closely to zoology,
It thereinto doth glide,
By way of pithecology.
" Our poor relations," apes,
Are owned with small apology;
Men's skulls, of such low shapes,
We owe palæontology.

But some of them dispute
This precious genealogy,
And will not, to the brute,
Admit their own analogy.
Now HUXLEY will, 'tis said,
These rivals in paralogy,
Unite, both bodies' head;
So may they cease their alogy!

Figure 5.1 "An Amalgamated Sage Union"

The Norwich meeting as a whole conformed to a trend that was evident throughout this decade: the year-to-year alternation of presidents within the Association, from more conservative ones to more progressive ones and back again.[7] While in Dundee the president had been a conservative aristocrat, for Norwich it was decided that the responsibility should fall to on a renowned

[7] Ellegård 1990: 81.

scientist who was also born in the region,[8] the Darwinian botanist and Kew grandee Joseph Dalton Hooker. Almost from the start, as had happened a year before in Dundee with the Duke of Buccleuch, the Norwich meeting was marked by the words of the BAAS President – who, in this case, had been advised and strongly influenced by Charles Darwin.

Without a dedicated department for the sciences of Man, the Norwich meeting was not host to a great many presentations on the subject per se, nor to discussions that dealt directly with the questions for the consolidation of those sciences into a new discipline. Even so, presentations such as those in Section D on the subject of language, and the extraordinary case of Lydia Becker in Section F, met the expectations of many in the audience looking for the ever-popular annual presentations on man. Meanwhile, the International Congress of Archaeology, although not directly organized by the Association, was supported by the Association's members, both in organization and with presentations. With all of that activity, to some extent, the Norwich Congress was a perfect extension of what would normally happen within the BAAS anthropologically. What is more, the unusually international character of this meeting undoubtedly allowed discussions on the sciences of Man to develop in rich new directions. At the same time, the importance of the local context in Norwich can be seen clearly, notably, as we shall see, in the case of the physician Frederic Bateman, who, while not an integral part of the organization of the meeting,[9] played a crucial role in making sure one of the great figures of continental science could attend the event, the French anthropologist Paul Broca.

[8] There was no written rule that determined this aspect; it was a concession that was made to give greater impetus to local participation.
[9] Radick 2007: 56-57.

As with the previous chapters, this chapter turns first to the president and his address. In his role as president, Hooker was responsible for emphasising Darwin's ideas and giving them fundamental place within the Association, along with the sciences of Man. At the same time, Hooker was careful not to appear irreligious, and so his Darwinian message went out connected with a message about science's compatibility with religion not very different from that heard in Dundee. From Hooker and the Darwinians, the chapter turns to consider the International Congress of Archaeology. Although this event was not strictly part of the usual activities of the Association, the organization of the Congress involved many BAAS regulars, including Lubbock in his role as president, along with Busk, Crawfurd, Evans, Dawkins, Hooker, Hunt , Lyell and Tylor, amongst others. This chapter will cover, in detail, which presentations took place and, more generally, the impact of the meeting on the sciences of Man within the Association. Finally, towards the end of the chapter, I examine what happened to the sciences of Man within the Association as such. As in previous years, Section E accepted several presentations on anthropological subjects. In Section D, there were a number of presentations of anthropological relevance, including a notable confrontation between Broca and the English neurologist John Hughlings Jackson. And in Section F, Lydia Becker gave perhaps the most remarkable presentation of the whole meeting.

5.2 A Darwinian Presidential Address: Hooker in Norwich

A. Joseph D. Hooker: Return of the Native as Darwinian

Norwich was one of the most populated cities in Britain at the time. Recognized especially for wool and silk weaving as well as shoe and boot making, the city

was also known for its contributions to science, particularly thanks to the works of several botanists.[10] Names including Sir James Edward Smith, Sir Thomas Browne, the Rev. Henry Bryant and Sir William Jackson Hooker stand out as scientific sons of the city. In this tradition, we find a man who had an important place in Victorian science, Joseph Dalton Hooker.

Figure 5.2 Joseph Dalton Hooker[11]

After what happened in Dundee, with the election of the Duke of Buccleuch, and the resulting atmosphere that was generated during the meeting, the Association needed a radical change of image, one that would help in channelling the future

[10] *Leisure Hour* devoted an article to highlight the contributions of local botanists. See *Leisure Hour*, 22 August 1868: 535-539.
[11] See http://en.wikipedia.org/wiki/File:Joseph_Dalton_Hooker_NLM1.jpg.

of the Association toward the professionalization of science. The election of the new President was not easy; the main candidate turned down the position as soon as he found out about the proposal. Hooker had received an invitation a year earlier, but, as he commented to Darwin on 4 February, 1867, he did not feel like the right person to act as a representative for science. He also, at that time, considered the role a distraction from his true interests, botany and travel. He believed he had inherited from his father an aversion to spacious places, and thought that even if he had enough material to prepare an appropriate address, the occasion might involve an excessive dose of egotism.[12]

Only a week later, on 12 February, Hooker was pleased by the support Darwin gave him on his decision to reject the position. This was not an easy decision, especially since the X-Club, including Huxley, Frankland,[13] Spottiswood,[14] Spencer and Hirst,[15] had insisted on his acceptance and stressed the benefits in his taking up the presidency. They insisted that what happened with the Duke had been a mistake, and that it was necessary to return the tone of the BAAS Presidential address to the scientific.[16]

In the end, the pressure on Hooker to accept the post was decisive, and as he told Darwin in a letter of 14 March 1867, he was finally persuaded by all the botanists to accept it.[17] In addition, Tyndall reminded him that the position was "a duty that the gods have laid upon you", and Norwich must "have been as

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[12] Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-5390, Huxley 1918: 108.
[13] Sir Edward Frankland (1825-1899), chemist.
[14] William Spottiswoode (1825-1883), mathematician and physicist.
[15] Thomas Archer Hirst (1830-1892), mathematician.
[16] Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-5399.
[17] Hooker does not specify to whom he refers. Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-5441.

wicked as Gomorrah".[18] It is clear that the intention of Huxley and Tyndall was not only to consolidate the position of science generally, but also clearly to delineate the boundary of the secular sciences of Man against other, more religious perspectives still present within the Association.[19] Despite accepting the invitation to serve as presidents, Hooker did not feel entirely sure about what he should say in his address. In the end, his misgivings proved well placed. The address became a terrible headache for him; and despite all his best efforts and good intentions, it was still to end up in controversy.

To appreciate some of the difficulties Hooker faced, it is important to take into account the operation of the General Committee of the Association and especially its role in electing representatives and managers for each meeting that were linked with the locality. There was not just the issue of choosing a president who met the conditions of being important in the locality and representing the scientific community to consider. After what happened in Dundee, the Association needed to appoint someone whose achievements were more closely related to scientific practice.[20] For some of those involved in the Association, it was imperative that the President should be well recognised in science, in keeping with their continuing efforts to have science recognized as a profession. Among those interested in the selection of the president along these lines were not just Huxley and Tyndall, but the X-Club as a whole.[21]

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[18] Desmond 1997: 365.
[19] To deepen Tyndall's position on materialism and his influence on science, see Kim 1996. On the particular position of Huxley, see Desmond 1997: 232, 285, 318-320.
[20] Huxley 1918: 108. Although Hooker thought that the presidency would be a distraction from botanical interests, the position was accepted without question as the most important office in science to which any man could aspire.
[21] Desmond 1997: 365.

The Norwich meeting was so much the X-Club's meeting that it is worth exploring a little further the meeting's value to the X-Club, and in particular the significance of Hooker's presidency. Huxley, Tyndall and Hooker were becoming increasingly important in the context of Victorian science, and they knew that institutional positions, such as the presidency of the BAAS, were crucial to their efforts to strengthen the professional standing of science. Desmond's description of these three men as an "evangelical triad", fighting for science-based careers as part of a New Reformation, is exactly right.[22] So it was no accident that it was during a meeting of the X-Club that Hooker was pressured to reconsider his position and accept the post of president of the Association.[23] Pressure exerted by Huxley and Tyndall in particular was crucial to his acceptance of the post. Nor was it an accident that once he decided to accept the position, he got back in touch with Darwin to help him prepare his presentation. Hooker wanted to focus on topics related to botany and in particular to emphasize Darwin's ideas on evolution and natural selection.

Here we should briefly recall Hooker and his relationship with Darwin. Since the early 1840s they had established a close relationship,[24] and great confidence arose between them, to the point of being Hooker the first scientific friend to whom Darwin mentioned the idea of natural selection, in a letter written on 11 January 1844: "I am almost convinced (quite contrary to opinion I started with) that species are not (it is like confessing a murder) immutable".[25] In the following years, Hooker would play a crucial role in the defence and

[22] Desmond 1997: 165-167.
[23] Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-5399.
[24] Desmond and Moore 1992: 313-314.
[25] Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-729.

dissemination of Darwin's ideas, as in the joint presentation of the essays of Darwin and Wallace to the Linnaean Society of London on 1 July 1858, an event organized both by Hooker as Lyell, another close friend of Darwin.[26] Another moment of confidentiality between the two was when Darwin confided in 29 March 1863 ambiguity had arisen due the use of biblical terms in his works: "But I have long regretted that I truckled to public opinion & used Pentateuchal term of creation, by which I really meant "appeared" by some wholly unknown process".[27] Although as we shall see, Hooker also had doubts about Darwin's proposals, as was the case with pangenesis.[28] Nevertheless, Hooker was one of the most recognized Darwinians of the period, a situation that was endorsed on several occasions.

As happened two years before in the inaugural address by Grove, Darwin turned out to be a significant presence at the meeting. As Ellegård has suggested, this was the first meeting of the Association with a president who could be called "Darwinian".[29]

B. The President's Speech as a Means of Response: New Momentum against Conservatism

Hooker's Presidential speech in Norwich – prepared in close consultation with Darwin, starting in April 1868 – contained many scientific facts, though, in contrast to previous models, it did not offer the usual recapitulation of the

[26] Desmond and Moore 1992: 470, Darwin and Wallace 2009: 11-12.
[27] Brooke in Hodge and Radick 2009: 206, Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-4065.
[28] Endersby in Hodge and Radick 2009: 85.
[29] Ellegård, 1990: 81.

scientific achievements over the last year.[30] Hooker initially thought he could give only a general overview of recent botany, without anything more of substance. The first suggestion that Darwin gave him was: "Could you make anything out of a History of the great steps in the progress of Botany, as representing the whole of Natural History. Heaven protect you. I suppose there are men, to whom such a job would not be so awful as it appears to me".[31] To which Hooker said: "Thanks for your note, I get more & more unhappy about the address as the time draws on. Nothing on earth would induce me to do a thing so damned indelicate as to force such a position on an unwilling soul. — Science might go to the Devil before I would do so, by an enemy even. You see I am working up myself to the starting point".[32] Hooker continued to be concerned that the speech should defend a scientific thesis, while Darwin continued to reassure him, suggesting that he should not worry so much because his work [Hooker's] was truly scientific.[33]

By July, Hooker had already outlined the main issues that would talk about. As he wrote to Darwin on 12 July:

> I have sketched out a sort of see-saw discourse on several subjects that are Germane to the Association & the Norwich meeting par excellence:— some of them are practical (as Museums) others theoretical as the influence of your labour on Botany—& Pangenesis (God help it)— others touch "Tom Tidler's ground" as the early history of mankind apropos of religious teaching & the International Prehistoric congress, which part I feel convinced you will advise me to burn if I read it to you, which is hence doubtful, as I sha'nt burn it, but will read it, if I burn for it.[34]

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[30] Huxley and Hooker 1918: 83, 109, 119.
[31] Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-6086.
[32] Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-6099.
[33] Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-6196.
[34] Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-6272.
Although as previously mentioned, Endersby notes that Hooker was not persuaded by Darwin's hypothesis on pangenesis. See Endersby in Hodge and Radick 2009: 85.

"Tom Tidler's ground" was a popular children's game of the era; Hooker was here indicating to Darwin that, when it came to "the early history of mankind a propos of religious teaching," the stakes were high, and there was everything to play for.[35] Hooker's concerns about the paper grew to such an extent that, as he continued: "I do not intend to show any part of the address to my wife, from the conviction that she would burn it all nor shall I worry myself by telling anybody else anything at all about it".[36] Be that it may, by the end of that month, the speech was ready, focused on three themes, all meeting with Darwin's approval and products of his guidance: the advances in Botany during the last years, the impact of Darwin's ideas, and the "early history of mankind".

Hooker began conventionally enough, welcoming the International Congress to Norwich and paying homage to the earlier presidency of another renowned Darwinist, Sir John Lubbock, "a master of this branch of knowledge",[37] in reference to his interest and work on prehistoric archaeology.[38] Hooker also stated that the presentations and research of this Congress were "the most fascinating that ever engage the faculties of man: and pursued as they are now in a scientific spirit, and in due subjection to scientific methods, they will command all the sympathy [of the members of the BAAS]".[39] With this gesture, Hooker served to highlight at the start of the meeting the importance of the sciences of Man for the Association. Although the International Congress was an independent event, there was, as Hooker underscored, a strong relationship between the presentations at the two events. And indeed, as Hooker would have

[35] See footnote 8 in Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-6272.
[36] Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-6272.
[37] *Report* 1869: lix.
[38] For an account of the history of prehistoric archaeology, see Schlanger 2008: 59-71.
[39] *Report* 1869: lix.

seen as he looked at his audience, many of the guests of the Congress were also attending the BAAS meeting.

Figure 5.3 John Lubbock[40]

Hooker went on to discuss the most recent of Darwin's publications, *The Variation of Animals and Plants under Domestication*. This book Hooker introduced in favourable terms. In contrast to what we have seen of his private views, Hooker was especially enthusiastic about Darwin's new theory contained within *Domestication*; pangenesis. As he put it to the meeting: "Whatever be the scientific value of these gemmules, there is no question but that to Mr. Darwin's

[40] See http://en.wikipedia.org/wiki/File:John_Lubbock72.jpg.

enunciation of the doctrine of Pangenesis we owe it that we have the clearest and most systematic *résumé* of the many wonderful phenomena of reproduction and inheritance that has yet appeared".[41]

After heaping praise on the idea of evolution by natural selection,[42] this being the first time that Darwin's ideas were really present in an Association's presidential address, Hooker concluded by outlining what he called, "prehistoric archaeology", a new science, one that would be responsible for analysing the early history of mankind. Hooker proceeded to marshal evidence in favour of evolution and natural selection, including what he considered to be the special example of the case of man. Prehistoric archaeology would, in the future, Hooker believed, be the chief means of learning more about man, his history and his origin, based on the evidence provided by geology, in the sense to establish that man has inhabited the planet many thousands of years ago, an idea fully consistent with Darwin's proposal, a point emphasised by Hooker when dealing with some objections to Darwin's theory:

> The most formidable argument urged by the reviewer is, that "the age of the inhabited world as calculated by solar physics, is proved to have been limited to a period wholly inconsistent with Darwin's views." This would be a valid objection if these views depended on those of one school of geologists; and if the 500,000,000 years, which the reviewer adopts as the age of the world, were, as an approximate estimate, accepted by either astronomers or physicists. But, in the first place, the reviewer assumes that the rate of change in the condition of the earth's surface was vastly more rapid at the beginning than now, and has gradually slackened since; but overlooks the consequence, that according to all Mr. Darwin's principles the operations of natural selection must in such cases have been formerly correspondingly more rapid; and in the second, are these

[41] *Report* 1869: lxix-lxx. Endersby, notes however, that after the publication of *Variation*, Hooker and many other naturalists, were not entirely convinced by the hypothesis of pangenesis. See Endersby 2009: 85.

[42] *Report* 1869: lxxi. The comments in favour of natural selection also reached his co-author, Wallace, whom Hooker says he cannot speak without enthusiasm, to put aside his own merits, with a modesty rare and often unconscious, and yet recognize their work to defend the theory.

> speculations as to the solidity of the earth's crust dating back only 500,000,000 years, to be depended upon? In his great work, the author quoted for these numbers, gives as possible limits 20,000,000, or 400,000,000 years, whilst other philosophers assign to the habitable globe an age far exceeding the longest of these periods.[43]

Speaking of this new science, Hooker included in his discussion topics such as the origin of language and art. For Hooker these subjects were but the latest in a "series of luminaries":[44] scientific truths that were slowly but surely replacing tradition. Among these luminaries astronomy had appeared first, followed by geology and, most recently, the search for knowledge about man. One of the founding stones of this new science, Hooker told his audience, was the assertion that the Earth was much older than the Scriptures had led previous scholars to believe. On this point, Hooker was clearly and directly responding to what had been said by the Duke in Dundee about the relationship between religion and science. But, in the end, Hooker's position was, for the most part, a more moderately phrased version of what the Duke said about the relation of science and religion: "how much depends on the progress of knowledge being mutually on this attitude considerate and friendly".[45] As an example of harmony between science and religion, Hooker made use of some work by the Rev. John Hannah, who produced a long list of clergy of various denominations who had dedicated their lives equally to science.[46] Even so, Hooker distanced himself somewhat from Hannah's view, because in his opinion many of those mentioned in

[43] *Report* 1869: lxxii.
[44] *Report* 1869: lxxiii.
[45] *Report* 1869: lxxiii.
[46] *Contemporary Review* 6, 1867.

Hannah's list were not what he called "religious teachers in the ordinary sense of the term".[47]

Hannah is not much remembered now, even by historians concerned with Victorian science and religion. He was an Anglican clergyman, the son of John Hannah, a Wesleyan Methodist minister. A graduate of Classics at Oxford, in 1840 he was attracted by the Tractarian movement, but never adhered strictly to the proposal of Cardinal John Henry Newman. In 1854, Hannah was responsible for the wardenship of Trinity College, Glenalmond, Perthshire, and had a close connection with the Scottish Episcopal Church.[48] He was a prolific writer of, and commentator on, poetry, but also wrote on the possibilities of a harmonious relationship between science and religion in books such as *The Relation between the Divine and Human Elements in Holy Scripture*, published in 1863. In 1867 he published *The Attitude of the Clergy towards Science,*[49] which was included in the list that Hooker referred to during his speech. In the following year Hannah, in another article, reaffirmed his position that science and religion could maintain a harmonious relationship, using the same examples used by Hooker, including the Bridgewater Treatises.[50] As Hannah considered the Treatises to be an attack on science, this work ended with a statement which made clear that the subject was complex:

> It will be very unfortunate if men of science learn to make an idol of their grievances and refuse to credit us when we way that we look on their intellectual conquests with the utmost respect, and on their rich development of thought with gratitude. We only ask in return for the same consideration;

[47] *Report* 1869: lxxiv.
[48] J. H. Overton, 'Hannah, John (1818–1888)', rev. M. C. Curthoys, *Oxford Dictionary of National Biography*, Oxford University Press, 2004 [http://0-www.oxforddnb.com.wam.leeds.ac.uk/view/article/12210, accessed 4 July 2014].
[49] *Contemporary Review* 6, 1867: 1-17.
[50] *Contemporary Review*, 9, 1868: 395-404; on the production of the Bridgewater Treatises, see Topham, 1998; on its impact on science and education, see Topham, 1992.

> and for liberty to pursue our proper work in peace without being told on every hand that our functions are superseded and our most deeply-cherished principles exploded.[51]

Attention to Hannah as made use of in Hooker's address highlights an important aspect of this discourse, and one continuously on display: its attempt both to insist on the importance of science, in a way that seemed to be a rebuke to the Duke's comments in the previous year, and yet to insist that, for all the severe criticism of natural theology, science was no threat to religion.

C. Responses to Hooker in the Press

In the end, the speech was a milestone, especially for supporters of Darwin. Although two years previously, Grove had made reference to the idea of continuity, and to some extent to Darwin, this was the first time the Association's presidential address was explicitly devoted to Darwin and natural selection. Hooker also used the opportunity to highlight the theme of man, under the pretext of promoting the meeting on prehistoric archaeology.

Ellegård has suggested that, given the themes raised in the address, a critical response was only to be expected from the more conservative press – which is exactly what Hooker got. *John Bull*, for instance, reported that "this melancholy exhibition of verbose mediocrity in excelsis" exceeded by far what had been heard on previous occasions. Hooker was especially guilty, its writer went on, of using the opportunity for "puffing Mr. Darwin's latest hallucinations in transcendental anatomy".[52] As for Hooker's remarks on the science of Man, attention was paid to Hooker's comment about the "new" science of prehistoric

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[51] *Contemporary Review*, 1868: 404.
[52] *John Bull*, 22 August 1868: 571, Ellegård 1990: 82.

archaeology, which according to *John Bull* a special society was founded, a reference to the International Congresses of Prehistoric Archaeology, now under the chairmanship of John Lubbock, "an expounder of the views in ethnology inaugurated by the genius of Robert Knox".[53] The *John Bull* writer was critical not just of what was considered the lack of novelty of prehistoric archaeology, but of "both the taste and judgement which raises questions of religion and theology at a professedly scientific meeting".[54] Even harsher criticism was extended to Huxley and Tyndall, over the organization of sections, all to highlight the lack of direction of science – a view summarized in one sentence: "of all shams, none is more dangerous than the scientific sham".[55]

The *English Churchman* too stressed that signs of infidelity had been present at the meeting in Hooker's address.[56] But lots of periodicals were non-committal on such matters and non-judgmental about the address over all. On the day after the address, for example, the *Athenaeum*[57] and the *Morning Post*[58] withheld opinion and published nothing more than verbatim transcriptions of the speech. One week later, after the close of the meeting, the *Athenaeum* did present a more extensive review, noting especially the links Hooker made with Darwin's work, but again without critical comment.[59] The *Daily News* likewise presented a summary, including the main points made by Hooker in his speech, spread over three columns.[60] But the next day, on the 21, it went further, with a commentary focused on Hooker's assertion that recent geological discoveries disproved

[53] *John Bull*, 22 August 1868: 571.
[54] *John Bull*, 22 August 1868: 571.
[55] *John Bull*, 22 August 1868: 571.
[56] *English Churchman*, 27 August 1868: 525, cited in Ellegård 1990: 82.
[57] *Athenaeum*, 22 August 1868.
[58] *Morning Post*, 20 August 1868.
[59] Those reviews were: *Athenaeum*, 15 February 1868, *Athenaeum* 4 April 1868.
[60] *Daily News*, 20 August 1868.

scriptural accounts of the existence of Man on earth. This claim, it reported, was applauded loudly by more than 2000 attendees along with an idea that had already been advanced by the Duke in the previous year: "that science and religion are strictly connected and ought to be so, and that science has done a great deal in elucidating what had been supposed to be hidden mysteries, and made those things plain which were before not understood".[61] So, in the view of the *Daily News*, Hooker was helping religion by bringing it into closer harmony with the scientific facts.

Other papers were more ambivalent in their attitudes. The *Manchester Guardian* summed up Hooker's speech in one paragraph. The paper stressed the importance of obtaining more detailed reports on the inhabitants of India. It also stressed the need for teaching zoology and physiology in schools and the improvement of provincial museums. On the subject of science and religion, the paper's view was that "[Hooker] argued that the religious teacher should deal with spiritual truth, and the teacher of science with physical truth. He deprecated a vague shifty system of national theology".[62] And the *Observer*, in a short, although wider-ranging report,[63] briefly described Hooker's contributions to botany, but made little mention of Darwin's ideas and the early history of mankind. On Darwin's theory, the paper reported that Hooker had emphasized the claim that evolution was a doctrine accepted by any philosophical naturalist, and that he was in favour of its inclusion in schools. Noting once again the value of science to establish new facts and expose old mistakes, the paper emphasized the good-natured reception of the speech. And the *Leeds Mercury*, spoke of "a

[61] *Daily News*, 21 August 1868.
[62] *Manchester Guardian*, 20 August 1868.
[63] *The Observer*, 23 August 1868.

brilliant inaugural address", but without giving further details. Indeed, the paper basically re-printed the same paragraph as published in the *Manchester Guardian*.

The Times, which usually gave considerable space to the meetings of the Association, presented verbatim transcriptions of most of the discussions and presentations. In this case, it is noteworthy that the transcript of Hooker's speech was riddled with typographical errors: Hooker pointed this out to Darwin, complaining that he had to work late into the night with his wife Fanny making corrections to the speech. However, *The Times* devoted just a few paragraphs to comments and opinions, presenting no transcript or summary, and making no reference to the issues presented, only the comments after the speech, by Huxley and Tyndall. Both, in addition to thanking Hooker, took care to emphasize the wondrousness of what they had just heard, based both on the merits of the presenter and the facts contained in the speech. In short it was "an admirable discourse".[64]

Hooker's view of his own speech was not so positive. In a letter to Darwin, sent the day after the speech, 20 August, he expressed his relief that he was finally finished, but also his regrets that he had failed in the least expected area: his voice cracked and he had found it difficult to read at times: furthermore, he had exceeded his allocated time. Above all, it was also stressed the comments of Huxley and Tyndall, who always emphasized the importance for the science of both Hooker and Darwin.[65]

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[64] *Times*, 20 August 1868: 6.
[65] Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-6326.

One of the harshest attacks came from the *Pall Mall Gazette*, published on 22 August, and entitled "Dr. Hooker on religion and science".[66] "Religion and science", the paper claimed, "are two ladies who have a good deal to do with men and with each other", but on what had been said by Hooker, science took precedence over religion. The paper considered Hooker's "sermon" to have been an attempt to put science on the same level as religion. But the general opinion, at least according to the paper, was that really the two subjects were "two separate sorts of truth and two distinct methods of investigation". Hooker resented this criticism, especially as he considered it to be a weakness, indeed, an absurdity to treat science and religion as merely opinions about the world. In addition, *Pall Mall* claimed that, presidential speeches invariably ended up addressing the issue of science and religion. Darwin, meanwhile, did not agree at all with *Pall Mall*, and thought that religion was not attacking science. It was Darwin's view, contrary to *Pall Mall's* claims, that, "I am not sure whether it wd [sic.] not be wisest for scientific men quite to ignore the whole subject of religion". In order to comfort Hooker, Darwin made it clear that there were many who considered his speech to have been admirable.

The response in the press in some cases was more visceral than expected, especially considering that the environment of Norwich, viewed in prospect, did not seem as complex as Dundee. Most of the criticism, in one way or another, directly and indirectly, focused on Darwin, and to a lesser extent the subject of Darwinism and man, especially as it impinged upon the nature of the relationship between science and religion.

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[66] *Pall Mall Gazette*, 22 August 1868.

5.3 The sciences of Man in the Association

A. Institutional Organization in the Absence of a Dedicated Section for the Science of Man

Hooker's speech made clear the importance of the sciences dealing with the early history of humans for the Association, even though many of the activities related to these sciences would be moved to the International Congress event. But there is nevertheless much to say about what happened at the Association's meeting.

Following the decision taken in the previous year about the Congress, Section E continued to include ethnology. However, there was a major difference with the previous year's event: the absence of the major promoter of this union, Crawfurd. As noted, he had passed away unexpectedly at his home in London on 11 May, and his absence was crucial for the future of the section.[67]

From the first day of the meeting, there was discussion about the need to keep ethnology within Section E. During the General Committee meeting on 19 August, it was recommended that the word 'ethnology' should be omitted from the name of Section D. The secretary, T. Archer Hirst, in turn, passed the motion to the Committee for its attention. At this point an unnamed member of the audience asked if such a move meant that ethnology would be ignored. Hirst simply answered with a negative, and only made it clear that issues of ethnology would be treated in the same way as on other occasions.[68]

With the absence of Crawfurd, and given that the influence he had had on ethnology's remaining an essential part of the organization of each meeting, one might think this would have facilitated the work of the "anthropologicals" in their

[67] See notes 2-5.
[68] *Daily News*, 20 August 1868.

search for an exclusive space for anthropology. It is worth remembering, however, that the relationship between ESL and ASL seemed to have improved in the last year, with a new approach that seemed to have finally achieved the long-awaited amalgamation. However, this *rapprochement* did not last and, in 1869, there was still a separation, among other reasons because of a lack of agreement on the appropriate name for the new society, the thorny issue of finance, and a series of intrigues carried out by Hyde Clarke, a spokesman for the ESL, and Hunt, president of ASL.[69] Clarke established his opposition to continuing with the publication of the *Anthropological Review*, on the grounds that it represented an expensive cost if one considered the great debt that the ASL already had, and since he had not had a response from the Council, he decided to give publicity to the subject.[70] On this basis, the Council with Hunt as a protagonist, were confronted with Clarke, to the point where they reached the decision to expel him from ASL, because of the publicity he gave to the Society's financial troubles.[71] This was the reason why Clarke still presented at the BAAS, but in Section F.

Despite this apparent instability, in a report published by the "anthropologicals", they made clear their dissatisfaction with the absence of a department of anthropology in Section D. They thought that anthropology "was almost wholly unrepresented".[72] But they also made clear that the situation was not due to lack of interest in the sciences of Man, especially judging by events in the previous year in Dundee. There were two reasons, why in their point of view,

[69] Stocking 1987: 255.
[70] *Athenaeum*, 15 August 1868.
[71] [Anon.] 1868a: clxxxii.
[72] Gibb 1869: xxiii.

that there was no Department of Anthropology: the parallel organization of the Congress of Prehistoric Archaeology, and the many presentations that were prepared but, they believed, not sent for reading by the authors, who preferred to look for more appropriate forums.

As discussed in the following sections, presentations on the sciences of Man were predominantly hosted at the International Congress. Despite this, there were a number of presentations on this subject given in Section E, as they had been the previous year, and there was also significant activity in Section D (Biology) and the Department of Anatomy and Physiology, and in Section F (Economic Science and Statistics).

Despite institutional efforts in recent years, the sciences of Man could not find a specific space in which to house the different views and approaches that had arisen on the study of man. The diversity was still wide, and no longer restricted only to the traditional Section E, or Section D, as had been evident two years ago. To some extent, as Stocking has suggested, the institutional status of the sciences of Man was a reflection of the situation that existed between ESL and ASL.[73] Since the founding of ASL in 1863, there were several efforts to reassemble the two societies, but the differences already mentioned prevented it from happening.

Sometimes presentations dealing with the sciences of Man did not pass the sectional committee, either because their authors preferred to withdraw them or the committee asked for them to be withdrawn. Sometimes, as we have seen in other meetings, the diversity of views on the subjects corresponding to the

[73] Stocking 1987: 254-257.

sciences of Man was still very wide, and institutional disagreement could also be seen at the theoretical level.[74]

The situation of the sciences of Man began to see some change by the end of the meeting. The proposal for a unified Department that Hirst had passed to the Committee on Thursday 19 reached a conclusion. On the 26, it was decided, unanimously, that the word "ethnology" should be deleted from Section E's name and that from the next meeting the section would be designated only as "Geography".[75] It should be remembered that the proposal to omit 'ethnology' had originally been made at the meeting in Birmingham in 1865, as part of the arrangements to rename the section as Biology. But it not until Norwich in 1868 that the status of the sciences of Man was finally brought for discussion to the General Committee to push for this conclusion.[76]

After several years' effort, especially by Hunt the anthropological science of man seemed to be moving toward an institutional unification, at least within the Association. But there was much work to do around a unified discipline. As is clear from study of the presentations in the meeting, there was still much work ahead.

B: Presentations in Section E: Geography and Ethnology again in the Same Space

For the purposes of this thesis, which is concerned with what the BAAS meetings can teach us about how the sciences of Man were changing in the later 1860s, we turn now to see what happened during the meeting with regard to Section E,

[74] See for example the case of James Reddie in the previous chapter.
[75] *Report* 1869: xlix.
[76] See Section 2.4, subsection C in this thesis.

which usually contained the most activity on this subject. In this sense, there are two lessons in particular to emphasize: first, geography and ethnology were once again in the same space after the initial success of Nottingham in 1866; and second, it provides a concrete example of what remained to be considered the ethnological practice.

As already explained, the tensions between the metropolitan societies had in BAAS its particular battleground. After the failure for amalgamation – among other things, there was no agreement on the name for the new society, since Huxley's proposal "Society for the Promotion of the Science of Man" was rejected by ASL Council by fifteen votes to four –[77] the lack of consensus was also present in the Association. Due this situation, and despite Crawfurd's loss, the possibility of reuniting geography and ethnology as in the past was more likely than had been in the past two years.

Since in the end the "anthropologicals" decided that under the current circumstances there were not good conditions for the advancement of 'its' discipline, the total amount of presentations in Section E was small, just 20, only 8 being on ethnological subjects. The main focus of the Section was geography, as emphasized in the presidential speech by Capt. George Henry Richards. In keeping with tradition, the speech focused on a recap of recent geographical work and especially that which had been conducted during the recent voyages of exploration conducted by European figures. Richards especially emphasized the importance of Crawfurd's role within the Association, and his starring role in the Section, although Richards never mentioned Crawfurd's relationship with

[77] [Anon.] 1868b: cxcvi.

ethnology. Richards alluded to two other important characters for the development and consolidation of the Section, Murchison and Francis Galton.[78]

For Richards, Murchison was perhaps "the great geographical authority of this country".[79] Within the Association, Section E had been born thanks to Murchison's efforts, and, as we have seen, Murchison's particular view of the role of geography and ethnology remained in place until the Nottingham meeting.[80] Galton, in his role as secretary of the Association, was also responsible for promoting geography. It should also be noted that neither Murchison nor Galton could participate in this meeting because of health problems. In Galton's case, he even left his post as general secretary of the Association.[81] In the end, Richards did not mention at any point ethnology or the sciences of Man, giving even more space to Crawfurd's obituary, or to Murchison's indisposition.

This speech shows the instability still present in the sciences of Man, since the limits between disciplines, or fields of knowledge can be ambiguous, especially when they share interests, as the case of geography and ethnology, when speaking about the relations between physical conditions and human populations, in following the imperialistic interests established by Murchison.

This instability allows us to focus on the next point. Given the situation that led to a reduced participation in the Section, the very few presentations given revolved around the traditionally ethnological themes, that is, "the non-physical

[78] *Report* 1869: 125, 127, 129.
[79] *Report* 1869: 127.
[80] Stafford, 1989: 22; Withers, 2010: 85, 172.
[81] Pearson 1930, vol. III b: 458.

study of human variation",[82] as stated by Prichard as the way to explain the link between human races to a single origin on the basis of the study of language. In this regard, the importance of observational practices is of great importance when describing the work of ethnology, since as mentioned by Thomas Hodgkin and Richard Cull: "We are seeking facts, and not inferences; what is observed, and not what is thought".[83] This meeting was focused on descriptions of different human groups, as a result of direct observations made by the presenters, during travels around the globe. For example, the physician Henry J. Blanc presented "On the Native Races of Abyssinia", in which presented the history and origins of the Abyssinian races, describing them as a mixed race, as the result of numerous invasions in that area of Africa, but noting that according its history, it can be described the "Abyssinian race as powerful, enterprising, and possessing a civilization superior to that of other African peoples".[84] But that impression changed for Blanc when dissecting the different tribes he knew on his travels: "there is nothing to praise in the character of the Abyssinians… [they] are adepts at low treachery, lazy, pretentious, and pompous".[85]

It is important to note that there were a variety of characters with more diverse backgrounds presenting, such as physicians, former politicians, or army officers. The case of Commander Lindesay Brine, provides an example of the relationship between ethnology and geographical studies as a key part of the discipline promoted by Murchison. The paper, read in Brine's absence, was the result of his service in North Africa, and was entitled "On the Past and Present

[82] Sera-Shriar 2013b: 20.
[83] [Anon.] 1854: 194.
[84] *Report* 1869: 130.
[85] *Report* 1869: 131.

Inhabitants of the Cyrenaica". It was similar in content to the paper given by Blanc. It was an ethnographic study, which described the current status of the tribes of the area and gave an historical summary of the development of civilization in the area, based on analysis of archaeological remains, but as a military man he stressed "the Nomad tribes are dangerous and aggressive. The men are never without their guns, and if superior in numbers are menacing to strangers".[86] Presentations such as those by Blanc and Brine reinforced the Eurocentric view which were part of these ethnographic studies, but as noted by Urry, "ethnography does not attempt to 'record' the totality of everyday life in a particular context, but is the result of a process of selection […] according to the needs of interpretation, explanation, and generalization".[87] In this sense, the European (and mostly British) observers were linked to their context, in which the idea of progress in civilization established how different cultures and customs of different human groups were conceived, most of the times in detriment of the non-Europeans.[88]

Another view on the relation between Europeans and non-Europeans was provided by the writer and journalist William Hepworth Dixon, who presented "The Great Prairies and the Prairie Indians". Dixon worked for several newspapers, including the *Athenaeum*, but his journalistic interests went hand in hand with travel stories from around the world, which he penned especially for European and American audiences. As a result of one of those trips, he met various communities of Indians, from whom he learned, in his words, that the life of man goes through three stages: "He was a hunter of wild game; next he was a

[86] *Report* 1869: 132.
[87] Urry 1993: 2.
[88] See Gall and Irvine 1995.

herder of goats and kine, and afterwards he becomes a grower of corn and herds".[89] The Prairie Indians were in the first stage. This was a conclusion that was well received by the audience, as it looked like a plausible series of steps for other races. But as noted in the other side of the Atlantic, Dixon's presentation "contained a large amount of the author's usual sentimentalism", since it was concluded that "he did not think much of the Red Man, and thought it would take ten generations of hard culture to make him equal to a Norfolk farmer",[90] which gives an idea of how rooted was the idea of the superiority at a civilization level of Europeans (and also Americans) in comparison with non-Europeans.

The rest of the presentations in the Section followed a similar tone, descriptions of non-Europeans cultures, emphasizing different aspects such as language or funerary customs. But in comparison with other years, the press coverage focused on transcripts of a selection of those presentations considered of interest to the public, though they were reproduced without much comment or criticism. This was the case for coverage in the *Athenaeum*, *Daily News*, *Morning Post*, *Leeds Mercury* and *The Times*. The *Observer* and *Manchester Guardian* gave just brief summaries of what happened in the Section. In contrast, the lack of agreement between the ESL and ASL received widespread coverage particularly in the *Athenaeum*, and this coverage of this very public dispute over amalgamation conditioned the participation of the "anthropologicals" at the meeting.

[89] *Daily News* 22 August 1868.
[90] *Sacramento Daily Union*, 19 September 1868. Just as a curiosity, the correspondent stated that Dixon presented at the 'Etymological Section'.

In the end, Section E recovered its essence, reuniting geography and ethnology, being this last one an integral practice of the reaches of the imperialistic interests of the gentlemen of science.

C. Presentations in other Sections: The Fight over Broca's Speech Centre in Section D

At the Norwich meeting, presentations on anthropological issues returned to Section D and were especially numerous in the Department of Anatomy and Physiology. One of the most notorious discussions at the meeting took place on Monday 23 and Tuesday 24. The French physician and anthropologist Paul Broca and the physician John Hughlings Jackson clashed over these two days on the subject of aphasia in what can be seen as a debate between two great specialists of the brain and language. The presentations of each man took place in different sessions, Jackson gave his paper on the 23rd, and Broca spoke the next day. The eminent Broca was invited to the meeting by Frederic Bateman. John Hughlings Jackson, a London-based physician, was well known for his studies of the nervous system and its disorders.[91]

The President of Section D was Reverend Miles Joseph Berkeley, member of the Church of England,[92] who gave a long address on Darwin's work. In contrast to what Hooker said in his presidential address, Berkeley was very critical of Darwin's pangenesis. Berkeley was a recognised botanist and mycologist, and also Fellow of the Royal Society, but his discussion did not

[91] Radick 2000: 60, Radick 2007: 56-57.
[92] James H. Price, 'Berkeley, Miles Joseph (1803–1889)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004 [http://0-www.oxforddnb.com.wam.leeds.ac.uk/view/article/2220, accessed 4 July 2014].

focus on the botanical implications of the Darwinian theory – which in his own words included "atavism, reversion, and inheritance, and embraces mental peculiarities as well as physical" –[93] but on "how open such a theory is to the charge of materialism".[94] On the last remarks of the speech, Berkeley stated that a theory such as Darwin's can be dangerous, but a solution is that "man is represented in Scripture as differing from the other members of the animal world, by possessing a spirit as well as a reasoning mind",[95] stating that Man is different from the rest of the Creation. He also mentioned some noteworthy biological experiments by Herbert Spencer, which should have pleased Jackson if he were in the audience. While many of the papers were reported *in extenso* in the transactions, only the titles of Broca and Jackson's papers were listed, and there were no details of the discussion in the formal BAAS report. Broca later published his talk and Jackson's formed the basis for many of his later papers.[96]

The press, however, gave a full account of what happened, with broad transcriptions of what was said by both, giving the idea of a contest that Broca won, although Jackson, on a closer reading, was certainly not the clear loser. Broca's fame was great, possibly influencing the support he received from some sectors more than his arguments. This discussion came within the scope of Section D, Biology, but it is clear that the brain, the distinctive organ of man, raised the deepest passions. The specialized press, such as the *Lancet*, had before the meeting had even begun envisaged the confrontation between the two characters as an attraction not to be missed. These were the best speakers on

[93] *Report* 1869: 86.
[94] *Report* 1869: 87.
[95] *Report* 1869: 87.
[96] Joynt 1982: 101.

aphasia in France and England respectively.[97] The cerebral localization of language was not just another topic, if we consider this was a question that can force the students of Man to take a position on the biggest questions that many times confronted science and religion, such as the body and the soul, or the Man's place in nature, a situation emphasized by Robert M. Young.[98]

Broca's paper at the meeting was published in 1869, but this publication represented nothing more than a summary of previously expressed views. His work over the preceding few years was devoted to his primary interests of surgery and anthropology. Jackson, by contrast, was much more interested in the mechanisms underlying speech and its loss, although he had already extended Broca's notions about cerebral dominance by suggesting that the right hemisphere had functions peculiar to itself.[99]

Broca was a well-known Paris physician, whose interests ranged from anatomy to anthropology, and was particularly famous as the discoverer of cerebral localization, thanks to descriptions he made of two patients with loss of speech in 1861, and in 1863 he reported on eight more patients, noting that all had lesions in the left third frontal convolution. Broca noted this as a peculiar fact and set about collecting more proof, and in 1865 he found that speech was localized in the left hemisphere.[100] On the other hand, there was Jackson, a London neurologist, who was "well known for his studies on the nervous system and its disorders, including aphasia",[101] had been considered an important

[97] *Lancet*, 25 July 1868.
[98] Young 1970: 16.
[99] Joynt 1982: 99.
[100] Lorch 2008: 1660.
[101] Radick 2007: 56.

contributor in Britain to the discussions on cerebral physiology, especially thanks his clinical observation and deductive logic.[102]

The principal points on which Jackson came to differ with Broca arose from Broca's suggested classification for speech loss and Broca's speculation on the reasons for cerebral dominance. Classification of speech loss and speculation on cerebral dominance formed the basis for Broca's presentation for the Norwich meeting. Broca used a term he had coined himself, "aphemia", to designate a condition where one lost the faculty to coordinate the movements for articulation. But, he pointed out, the "memory" for words was still intact. In verbal amnesia, "amnesic verbale" the patient lost the association between the idea and the word, so that they could no longer express their ideas by speaking or writing. In regard to the question of the reason for left hemispherical localization of language function, Broca believed that this hemisphere was more advanced in its development than the right hemisphere. He cited the anatomical work of the French Louis Pierre Gratiolet, and he pointed out that with this lead time in anatomical development, the left hemisphere was better able to direct the complicated motor acts of the right hand, as well as the complicated act of speaking. Broca suggested that it is the left hemisphere that is educated for language. He excluded from this analysis the simple act of articulation, which depends on both hemispheres to equal degrees.[103]

Jackson's paper, "The Physiology of Language" made the following points: there are two kinds of healthy language, intellectual and emotional; in

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[102] James Taylor, 'Jackson, John Hughlings (1835–1911)', rev. Walton of Detchant, Oxford Dictionary of National Biography, Oxford University Press, 2004 [http://0-www.oxforddnb.com.wam.leeds.ac.uk/view/article/34137, accessed 6 July 2014].
[103] Joynt 1982: 100.

disease it is usually the latter which is affected. Both halves of the brain are educated and the left half leads, but automatic speech may arise from the undamaged right half. Although there are some exceptional cases, such as when hemiplegia occurs with loss of speech, the problem is located almost always on the right half; the language function cannot be localized to any one spot, but the nearness of a lesion to the left corpus striatum determined the degree of intellectual defect in expression.[104]

During his presentation, Broca used a diagram and plaster cast to illustrate his ideas on localization. He reiterated his view that the left third frontal convolution was the centre for articulate language, and suggested that the corpus striatum was merely the "medium of expression". He demonstrated how circumscribed lesions of the left third frontal convolution correlated with loss of articulate speech. Finally, Broca suggested that there was an original organic force that directed speech and other results of education which were confined to the left hemisphere.[105]

This discussion marked a step-change in the development of neurosciences. It is also a good example of one of the many disciplines involved in the sciences of Man, not least because it dealt with the most important organ of man, the brain. Among the characters involved were Hooker, Wallace, Huxley, Tyndall, Vogt and Bateman, all of them arguing about evolution and its implications on this case. Vogt supported Broca's view, on the basis that in apes the third frontal convolution is in the left hemisphere, explaining primate incapacity for language. This discussion was followed by Vogt and Bateman,

[104] Radick 2007: 79.
[105] Joynt 1982: 101.

through correspondence, the former being one of the main disseminators of Vogt's ideas in Britain on language and comparative anatomy.[106]

Another response came from Hunt, a speech therapist, who after the meeting defended his views about the functions of the brain and the localisation of the language. Hunt states that that the German physiologist Franz Joseph Gall revived "the old doctrine of localisation", proposing a system based on two propositions: "the assumption of a number of distinct cerebral organs for the different mental phenomena – organology; secondly, in the determination of the respective cerebral organs by the inspection and palpation of the cranium, which may be termed cephalonomy, or organoscopy",[107] and on this basis, Hunt defended Broca's proposal on the localisation of language in the brain.

The discussion between Broca and Jackson provides an example of the reaches of the sciences of Man, and how the same participants shared diverse interests and perspectives about Man and his characteristics, as the case of language.

D. Presentations in Other Sections: The Fight for Female Equality in Section F

Another case that dramatically called attention to the various interests that were generated around the sciences of Man was presented in Section F, a section that was not recognised by ASL and ESL members as a place that would accommodate such issues. The title of the presentation, "On Some supposed differences in the minds of man and Women with Regard to Educational Necessities" and it was given by Mrs. Lydia E. Becker (Figure 5.4). Becker was

[106] Radick 2007: 57.
[107] Hunt 1869: 203.

the second woman to present at the BAAS. Although the figure of Becker has been recognized by historians of science for her participation in the meetings of BAAS, in Dundee, Lynn Linton had presented a paper in Section E. By this time Becker was widely known in particular because of her strong support of the movement for women's suffrage, although it should be noted that her political interests were still paralleled by her interests in astronomy, literature and botany. She attended BAAS meetings.[108] For the Norwich meeting she started for the first time making presentations in the program, something she continued to do in the coming years and could share her work with men. Becker's own experience of being treated as an equal shines through in her Norwich presentation, on the equality between men and women.

Figure 5.4 Lydia Ernestine Becker[109]

[108] On her role as part of the women's movement, see Parker 1991. On her contributions to science, especially to BAAS, see Parker 2001. On the correspondence on botany between Becker and Darwin, see Gianquitto 2013.
[109] See http://en.wikipedia.org/wiki/File:Lydia_becker.jpg.

Overall, Becker's presentation was based on an explicit recognition of equality between men and women both on a physical and mental level. She assumed that many of the differences between men and women were created by a type of conservative education. She claimed that the differences are not great enough to justify the exclusion of women from education. One way to understand this, is that the physical differences should not be extended to the mind thereby assuming an equal capacity in both men and women. In fact, Becker concluded, gender differences were not greater than the differences between members of the same sex, especially if one compared mental characteristics.

The presentation was controversial, considering that the audience was made up of men. In media such as *The English Woman's Review*, the presentation was seen as a real light in the darkness, covering perspectives such as politics, literature and science on a topic of increasing interest regarding the place of women within Victorian society.[110] In *The Times*, the proposal was not well received probably because Becker's proposal necessarily implied the establishment of mixed schools.[111]

Some months after the meeting, Becker sent a letter to Darwin, on 13th January 1869. Becker says to Darwin, that after reading *Variation of Plants and Animals under Domestication*, pangenesis "seems like a revelation", emphasizing how important and powerful will became the hypothesis, since in her opinion "the key fits the puzzle so beautifully that I cannot help supposing it to be the right one – and nothing but the presentation to my mind of a more probable theory could detach it from the firm hold it has taken of yours". Most

[110] *Englishwoman's Review*, 1 October 1868.
[111] *The Times*, 27 August 1868: 6.

interestingly, Becker did not mention her paper at the Norwich meeting, but rather concentrated on her experiences with domesticated animals. Becker mentions her impressions about parrots as throwing light on his remarks on parrots in the book, since Darwin cited this example.[112] Becker's correspondence with Darwin lasted for many years, especially during the 1860s, mostly on their common interest of botany, in which Becker presented to Darwin her observations and works on different plant genera. There is just one response from Darwin, a very short letter in 1863 thanking her for some seeds that Becker had sent to him for the garden.[113]

Becker and Darwin's relation represents an outstanding example of how Victorian women were interested in science, and could share their work with men, in what can see as a good example of Becker's goal with her Norwich presentation, the equality of men and women, physically and mentally.

5.4 The Third International Congress of Prehistoric Archaeology

A. A Brief History of the International Congresses of Archaeology

As we have seen in the previous chapter, participants in the last day of activities of the Association discussed the possibility of another event happening in parallel with the annual meeting in Norwich. The motion was passed by unanimous decision that the Third International Congress of Prehistoric Archaeology would take place in Britain for the first time.

The First Congress of Prehistoric Archaeology took place 1865 as a result of a meeting of the Société Italienne des Sciences Naturelles, held in La Spezzia,

[112] Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-6551.
[113] Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-4260A.

at which it was proposed to establish an international conference focused on palaeontology and prehistoric themes. The first formal conference was held in Switzerland in 1866 in Neuchâtel, in parallel with a meeting of the Swiss Society for Natural Sciences. In 1867 the congress was held in Paris during the Exposition Universelle under the title "Congrès international d'Anthropologie et d'Archéologie préhistoriques". In keeping with the organization in these years, it was agreed that the 1868 meeting should take place in England in the city of Norwich in parallel with the BAAS meeting that year.[114]

The various scholars close to the metropolitan societies in the Congress found a new space in which to express their diverse interests. The organizing committee was basically the same group that was also present at the meetings of BAAS. Sir John Lubbock acted as president and other members included Hooker, Huxley, Lyell, Crawfurd, Taylor, Dawkins and Evans, all regular participants in discussions on various topics related to man, both at BAAS and the other metropolitan societies. Likewise, within the corresponding committee, members included illustrious figures such as the Frenchmen Paul Broca and Armand de Quatrefages, the Swiss Carl Vogt and the American Louis Agassiz. The diverse international make-up of members made this conference a unique opportunity for those interested in the sciences of Man both on the continent and in Britain, to exchange points of view and enrich their positions.

Broca was one of the great figures of continental anthropology, especially well known for his work on language, which was the subject that, as we have seen, brought him to the Association's Norwich meeting. The impetus given by him to anthropology allowed the creation of the Société d'Anthropologie de Paris

[114] *Transactions* 1869: xiii.

in 1859, which would serve as a model for other societies, including the ASL.[115] Quatrefages was another great figure of French anthropology. He was a professor of natural history from 1850, member of the French Academy of Sciences from 1852, and in 1855 was appointed to the chair of anthropology and ethnography at the Museum National d'Histoire Naturelle. Vogt, meanwhile, was one of the most illustrious proponents of polygenism in continental Europe. His influence could be seen in the dissemination of thinking on the subject similar to that of Hunt and the members of the ASL. Moreover, Vogt's contributions to the life sciences were often applied to zoology. Agassiz was a Swiss palaeontologist and geologist, whose work on ice ages marked a new way of understanding the geological processes of the planet, especially in relation to the discovery of fossils. He taught for several years in his native Switzerland, but from the late 1840s took a position at Harvard University. These are only four examples of the many scientists who gave a great reputation to this meeting, bringing together the best examples of the new discipline of prehistoric archaeology. The dimension of a meeting with an international character allowed them to openly exchange ideas to a much wider audience, although it is true that many of the participants were not physically present at Norwich, as many of the presentations were read by one of the members present.

The primary intent of the Congress was to present various communications according to a list of topics that sought to represent the interests of the delegates. Topics included the origin of man, physical evidence of the existence of man and historical descriptions of the progress of civilization, among others. It is worth noting what was said by Lubbock in his inaugural

[115] Tort 1996: 423-425.

address on 20th August, the day after Hooker had given his presidential address to the BAAS. In addition to recapitulating what was said by Hooker in connection with the Congress, its origins and goals, Lubbock reaffirmed the importance of such events for those interested in the sciences of Man. Lubbock also used his position as president to resume his argument with the Duke of Argyll. It is worth remembering that Lubbock, in the previous year at the meeting in Dundee, had made one of the few presentations on the subject of the origin of man, and that the Duke had replied in several articles in *Good Words*, with a strong critique of the progressive stance of Lubbock. Part of the Duke's criticism of Lubbock focused on the antiquity of man, and the usefulness of the system of Ages to understand it, as an alternative to the arguments posed by the existence of the "Christian era". In the end Lubbock used most of his speech to underscore the importance of scientific study of the antiquity of man. By scientific study, Lubbock meant prehistoric archaeology.

If we compare what happened at the Congress and what was already happening in the BAAS meetings in recent years, it is clear that there was a particular group of scholars who had common interests, but whose efforts had not yet found a common path. The appearance of prehistoric archaeology can be understood as another attempt to bring together these diverse interests, including ethnology and anthropology, under one all-encompassing term.

B. Presentations at the Congress: Origin and History of Man from Overseas

Now, in relation with the contents of the Congress and what they can teach us about how the sciences of Man and particularly the archaeology were seen, there

are two points to emphasize: the current status or archaeology as the historical study of Man, and the international character of the meeting.

As we had seen, the ambiguity of terms such as like "sciences of Man" describes a great variety of interests and practices, with one common denominator. In parallel with other efforts to establish a disciplinary identity, archaeology took its initial steps in mid-nineteenth century Britain. Among the main characters involved in the beginnings of prehistoric archaeology were Lubbock, Boyd Dawkins, Pitt-Rivers and Evans, all of them beginning their careers around 1859, after Darwin's *Origin*.[116] The discipline was conceived as the study of past times before the appearance of historical records. As stated by Lubbock in his presidential address for the Congress, in referring to the practice of those interested in the antiquity of Man:

> There were two principal heads into which the subject of their investigation was divided – one concerning savages in ancient times, and the other relating to savages in modern times, and in their inquiries they endeavoured to trace up the development and growth of the human race to the present time.[117]

The Congress served to formally present publicly in Britain the development of the discipline. Tylor's presentation is a perfect example of what Lubbock defined. Tylor made a series of inferences about prehistoric races based on observations of modern tribes, in which he presented different characteristics of groups of people around the world such as Mexicans, Peruvians, Chinese and Hottentots, among others, with emphasis on cultural development, religion, and architecture. Much of this work was based on the approach suggested by Lubbock on the ages of civilization – Iron Age, Bronze Age, Neolithic and

[116] Van Riper 1993: 192.
[117] *Transactions* 1869: 2.

Palaeolithic – and sought to establish similarities between ancient and modern man. In Tylor's words,

> As to the general result of comparing modern tribes with relics of those prehistoric races which have so great an interest as bearing on the antiquity of man, it seems fair to say that they furnish little proof at present of the existence of human tribes in a condition very far below that of modern savagery.[118]

This point also served to establish the importance of the progress of civilization as a distinctive quality of Europe: "...Europe was no doubt inhabited in very ancient times by very low tribes; but it is hardly proved that their culture was low enough to separate them by any very broad line of demarcation from tribes which survived up to our times".[119]

Lubbock and Tylor's efforts established the basis for a discipline, in which its viability was linked to the development in natural sciences, especially with Darwin's evolution, as presented in books such as Lubbock's *Pre-historic Times,* or the explanation of the origins of human culture without the need to invoke a religious explanation, such as Tylor's *Primitive Culture.*[120]

These developments were particularly British, but as noted by Van Riper, "the new archaeology followed both geology and palaeontology in adopting an international outlook".[121] The International Congress was the opportunity to bring to Britain people who were currently doing archaeology in different parts of Europe, since both British and Europeans had a common objective: "how to

[118] *Transactions* 1869: 24.
[119] *Transactions* 1869: 25.
[120] Van Riper 1993: 201.
[121] Van Riper 1993: 198.

construct a generalized picture of prehistory from its artifacts",[122] since all over Europe there were sites in which new information had been arising.

A good example of the relation between British and European archaeologists was a solid correspondence, as much that in the published work, the authors used British and continental material as support. The correspondence also served to establish a network, which helped to organize meetings such as the International Congresses.

For the Norwich meeting, the participants came from Scotland, Ireland, France, Portugal, Spain, Switzerland, among others, but the main protagonists as expected were the British. Characters such as Huxley, Hooker, Busk, Wallace, or the aforementioned Lubbock and Tylor were the most active as presenters and in discussions. A point to note, Hunt was a member of the Committee of Organisation,[123] but there is no evidence of his participation.

Thanks to international agreements, it can be noted that archaeology in general terms had a better organisation, having a particular meeting with participants from Britain and Europe, rather than other subjects related to the study of Man, and with a more refined methodology, which included geology, palaeontology and natural sciences. If following Cahan's view, archaeology showed much more consistency that other sciences of Man, because the Congresses provided a forum in which a defined practice could be shared between the participants.

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[122] Van Riper 1993: 198.
[123] *Transactions* 1869: xvii.

C. Press Reactions to the Meeting and the Congress

But, what did the press have to say about the Congress? We have seen that the BAAS meeting monopolized entire columns of newspapers, with coverage extending to include a complete transcript of the speeches, presentations and discussions that happened during the week of the meeting. But this Congress was something new.

In the *Morning Post*, the Congress was discussed with only a short note announcing the event. [124] This pointed to the presence of such prominent names in science as Lyell, Hooker, Huxley, Lubbock, among others, and referred briefly to the conference themes, but it also observed that Lubbock would answer the Duke of Argyll's publications in *Good Words*. In some provincial newspapers, including such as the *Manchester Times,*[125] the *Sheffield & Rotherham Independent,*[126] the *Leicester Chronicle,*[127] the *Essex Standard*[128] and the *Lancaster Gazette*[129] it was briefly mentioned that there would be a parallel event held during the meeting of the Association in Norwich. A similar situation happened with the *Standard*[130] and *Athenaeum*[131]. Furthermore, such information was included in the newspapers' reports, which made part of the respective notes on the meeting of the Association.

After the meeting, the *Examiner* carried only one paragraph reporting the event had taken place in Norwich the previous week, with Lubbock as president.

[124] *Morning Post*, 12 August 1868: 3.
[125] *Manchester Times*, 18 August 1868.
[126] *Sheffield & Rotherham Independent*, 18 August 1868: 3.
[127] *Leicester Chronicle and the Leicestershire Mercury*, 8 August 1868: 2.
[128] *Essex Standard, and General Advertiser for the Eastern Counties*, 19 August 1868.
[129] *Lancaster Gazette, and General Advertiser for Lancashire*, 8 August 1868: 3.
[130] *Standard*, 17 August 1868.
[131] *Athenaeum*, 1 August 1868: 148.

There was no mention of the discussions.[132] Something similar appeared in the *Nottighamshire Guardian*, which just give a short chronicle of the events of the Association, and concluded: "Want of space prevents from more than alluding to the International Congress of Prehistoric Archaeology which held its annual meeting at Norwich, and was attended by many eminent foreign *savans*".[133]

The chronicle presented in the *Athenaeum* is an example of the limited coverage eventually given to the Congress. It was only through the transcription of Hooker's presidential address that the event was mentioned in more detail and no more extensive chronicle ever appeared.[134] It is remarkable, given the interest generated each year at the meeting of the Association, that the Congress was not given more coverage. It is also noteworthy that specialized media on archaeological subjects such as the *Journal of the Historical and Archaeological Association of Ireland*, whose first issue was published in the same year, 1868, did not give any space to news of an event as seemingly relevant to archaeology.

Ultimately, the best available information on the Congress was its own publication, the *Transactions*, which included detailed event information, in a similar way to the BAAS *Report*. Despite the presence of the great figures also present at BAAS meeting, the impact on the press was not as important as expected, perhaps because in the end both meetings were seen as an extension of each other, but since BAAS was the main focus for the press, the chronicles focused on the usual event.

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[132] *Examiner*, 29 August 1868: 555.
[133] *Nottinghamshire Guardian*, 4 September 1868: 3.
[134] *Athenaeum*, 22 August 1868: 242.

5.5 Conclusions

The Norwich meeting was unquestionably good for Darwinism. For the first time, an Association's President was a Darwinian in every sense, one who defended Darwin's proposal in public despite having doubts about some of them, such as pangenesis. But Hooker managed not just to defend Darwinism but also to relate it to the study of the origin of Man. Thanks to Darwin's guidance, Hooker defended the application of Darwin's ideas in his own field, botany, but he noted the possibilities to provide new directions for the study of the origins of Man. On the public sphere, Darwin was more present than ever and, thanks to Hooker and the X-Club efforts, finally found a place in the BAAS.

Even so, the meeting was not bad for religion. Its role was also much more significant at the BAAS than in the specialist societies, and that situation was evident in each meeting with varying frequency. Men such as the Duke of Argyll and John Hannah defended the role of religion that was deeply rooted in Victorian society. The BAAS undoubtedly became the battleground between two ways of understanding the work of science, among those who marked a difference between science and other cultural aspects, and those supporting a harmonious dialogue in response. The role of the Duke of Argyll in the discussions about the origin of Man had an unusual force, responding to Lubbock's comments of the previous year. This is an excellent example of how the meetings of the Association transcended the week that the gentlemen of science met for every year.

Hooker's election gave a sense of balance after what had happened in Dundee, at least in the eyes of those who advocated strongly for the professionalization of science. However, this also accentuated disputes with the

most conservative members of the press. It is also clear that the struggle between groups interested in the sciences of Man within the Association were between ESL and ASL members

But the outstanding winner – and in a lot of ways the surprising one – was the science of Man as a coherent disciplinary force. The future of the sciences of Man was disputed by two groups, and the situation remained very tense. A lack of agreement on various issues was the main obstacle to the consolidation of a specific space for the sciences of Man in the Association. For the second year running, there was not a Department of Anthropology, but the sciences of Man were not absent from the meeting agenda.

Crawfurd's absence resulted in a diminished presence for the "ethnologicals", but for this year the two groups did not reach agreement, neither in the Association nor outside of it. One could expect that with the loss of its biggest supporter, ethnology would lose power within the Association, and eventually Hunt and the "anthropologicals" would take up the opportunity they had sought in Nottingham, to finally consolidate the sciences of Man under the banner of anthropology.

During the meeting, on an organizational level, there was still no solution to the sciences of Man. This situation did not prevent isolated presentations continuing throughout the meeting. This year, notable cases such as Broca and Jackson, or the controversial case of Becker, left their mark. The parallel organization of the Third International Congress of Prehistoric Archaeology gave a golden opportunity not only to publicly disseminate work in the sciences of Man, but also to give international character to the discussions. Despite the importance of the Congress, and of the figures in attendance, the interest of the

press focused entirely on the meeting of the Association. The media highlighted Hooker and his presentation with its strong Darwinian touches and with the tone of scientific naturalism increasingly present, a fact which did not please the conservative media.

The meeting in Norwich, in the end, managed to finally reach an agreement on the future of the sciences of Man within the Association. Following the agreement to eliminate ethnology from Section E, there finally opened up the option for a unified approach in a single department, as will be seen in the following chapter.

6.0 Exeter 1869: Clerical Attacks and the "Mystery of Life"

6.1 Introduction

What did the BAAS's arrival in Exeter mean for the locals? An example that showed the importance of the meeting for those interested in science was the volume *Exeter Change, for the British Lions,* published by "Snug the Joiner" a few days before the meeting[1] in an attempt to publicise the meeting in a jocular tone by listing the various activities that would take place. One of the most striking and prophetic references was to "The Development Hypothesis", which referred to Darwin's theory. It was clear "of Mr. Darwin's own works it is difficult to speak without exciting a curiosity that would only widen their pernicious influence".[2] As we shall see, this meeting was to be strongly influenced by Darwin's ideas.

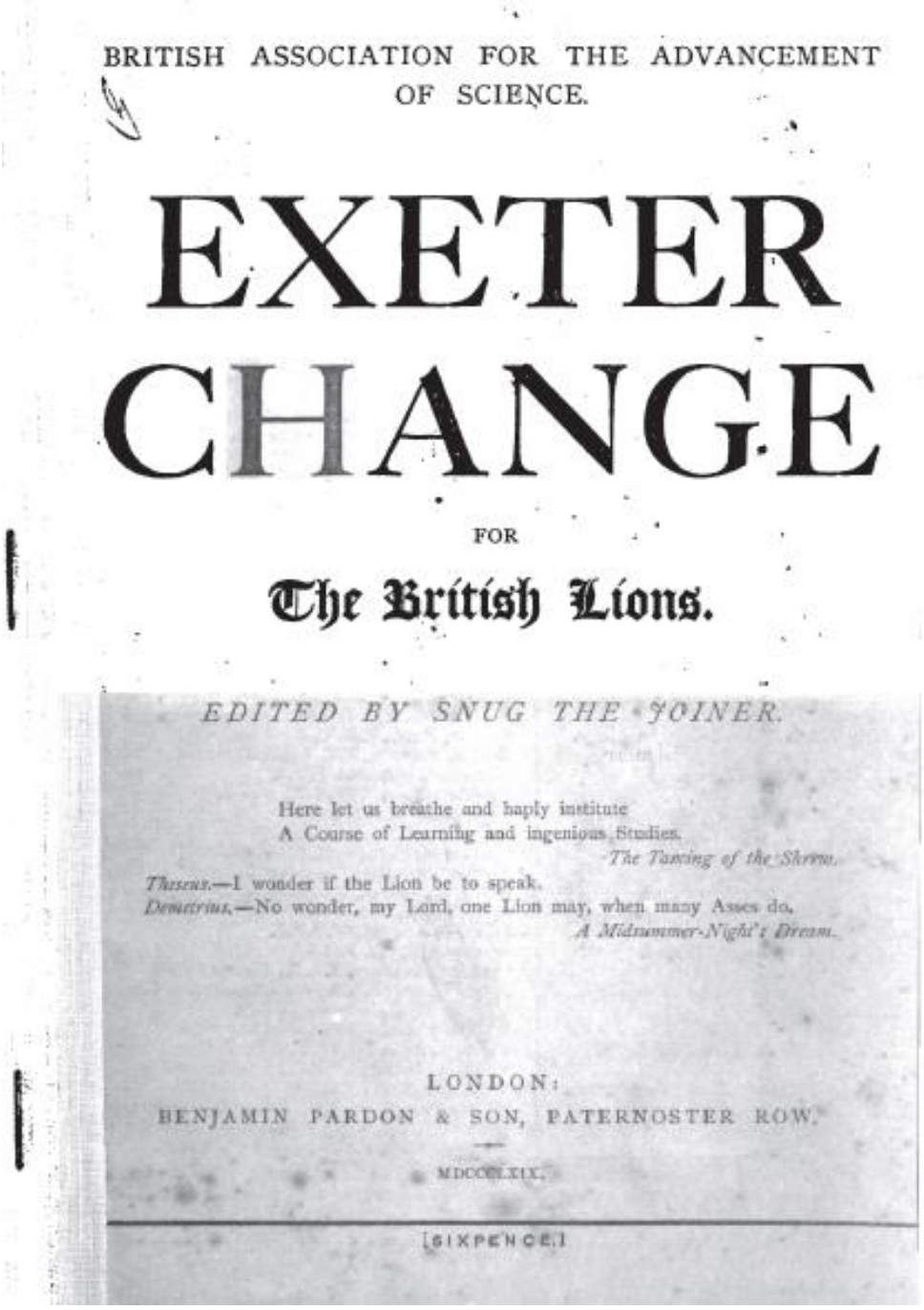
Also of importance was that series of essays published in 1868 covering the most important discussions on the sciences of Man in Dundee, *Primeval Man.* The series' author was the well-known aristocrat George Douglas Campbell, the Eighth Duke of Argyll. The publication was a compilation, with a few corrections, of a series of essays published during 1868 in *Good Words*[3] in

[1] The Exeter meeting lasted 18-25 August. The original author was John Cargill Brough, a science journalist who also was part of the Chemical Society. He was the principal poetaster of a group of convivial chemists, the B Club. Exeter Change was a pun, and he was not referring to the city itself, but used the reference of the building of the same name in London, famous for its menagerie. For a description on Exeter Exchange, see Topham 2004.

[2] *The Exeter Change* 1869: 11.

[3] They were four, published monthly from March to June 1868. According to Ellegård, was one of the most successful publications of the period, during the 1860s, is described as a decidedly religious magazine, with some intellectual pretensions, and addressed mainly to the lower and middle classes. See Ellegård 1957: 37.

response to the presentation by Lubbock on the origin and progress of human civilization at Dundee in 1867.



BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

EXETER CHANGE

FOR

The British Lions.

EDITED BY SNUG THE JOINER.

Here let us breathe and haply institute
A Course of Learning and ingenious Studies.
The Taming of the Shrew.

Theseus.—I wonder if the Lion be to speak.
Demetrius.—No wonder, my Lord, one Lion may, when many Asses do.
A Midsummer-Night's Dream.

LONDON:
BENJAMIN PARDON & SON, PATERNOSTER ROW.

MDCCCLXIX.

[SIXPENCE.]

Figure 6.1 *Exeter Change for the British Lions*

In these publications the Duke replied to Lubbock's arguments. Below, I will return to this subject as part of what happened in Exeter. The discussion had an unexpected ending, with participation in the discussion by Alfred Wallace,

something that few people thought possible, especially in defence of the position of the Duke of Argyll. Exeter was presented as a new opportunity in the search for a common interpretative space for the sciences of Man in the Association.

After the death of Crawfurd in the previous year, it seemed that the polarization between the ASL and ESL had been overcome, at least on the side of ESL. What "anthropologicals" were not counting on was the leader who would take charge of the "ethnologicals" – none other than Thomas Henry Huxley. His relationship with Hunt was not entirely good.[4] While there still existed tensions between both metropolitan societies, it seemed difficult to reach an agreement about how to re-open a specific space for the sciences of Man. Another point to consider is the influence of Murchison, but this time due to the precarious state of health of his wife,[5] he could not attend the meeting. Undoubtedly, ethnology, on this occasion missed its two most important pillars within the Association.

The meeting at Exeter had a similar atmosphere to that of Dundee two years previously. In this period, Exeter was a city of the past, in the sense that it was thought to share a vision of the old humanist society of the county. Increased interest in local development of science was evident from the Mayor Henry Samuel Ellis, who on the occasion of the visit of the Association inaugurated the Royal Albert Museum.[6] Again, local issues were crucial for the future of the meeting, and especially for the sciences of Man. The presidency of the physicist Stokes satisfied those members who thought that a man of science should chair the meeting, but he was also deeply committed to his evangelical beliefs, in

[4] Desmond 1997: 320, 325-326.
[5] David B. Wilson, 'Stokes, Sir George Gabriel, first baronet (1819–1903)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, Jan 2011 [http://0-www.oxforddnb.com.wam.leeds.ac.uk/view/article/36313, accessed 27 March 2013, Geikie 1875.
[6] Newton 1968: 186.

contrast to Hooker.[7] In Section D, as we shall see, the situation was particularly complicated, and especially in relation to the sciences of Man. The inclusion of the Department of Ethnology seemed, at first, to some extent, to resolve the demands of the "anthropologicals" and "ethnologicals".

In an effort to promote science and to encourage maximum participation by people in the town, the Association was open even for example to those who openly criticized the ideas of Darwin, to the displeasure of Huxley and the other members of the X-Club.[8] In addition, many of the criticisms poured on the meeting concerned issues relating to the sciences of Man, including his origin and his progress.

Disagreements between Hunt and Huxley about the ASL and the ESL became more apparent, largely due to the increasing influence of Huxley within the Association,[9] and especially thanks to the support he gave to the "ethnologicals" and to ethnology, an issue that had turned in his best interest during the 1860s.[10]

The professionalization that was promoted within the Association did not end with concrete results in many fields – the active participation of men with the most diverse academic backgrounds remained common – and the complicated issue of the separation of science from other cultural issues, such as religion, continued unresolved.

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[7] David B. Wilson, 'Stokes, Sir George Gabriel, first baronet (1819–1903)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, Jan 2011 [http://0-www.oxforddnb.com.wam.leeds.ac.uk/view/article/36313, accessed 27 March 2013.

[8] Huxley to Darwin, 28 September 1869: Correspondence 17, 412.

[9] Desmond 1997: 375-376.

[10] Stocking 1987: 248-249.

This chapter develops as follows: first, I examine the speech by President Stokes, which reaffirmed the place of the physical sciences as the most important in science and an uncompromising defence of vitalism, a situation that gave the meeting a conservative character, which was confirmed with the active presence of several clergymen in Section D fiercely criticizing Darwin. These criticisms were developed in a new space opened for the sciences of Man: a unified department of anthropology and ethnology, within the scope of Section D, Biology. The chapter will recover the reasoning which finally led to that decision, considering especially the involvement by Hunt and Huxley, and the appointment of Tylor as president of the Department. Finally, I turn to an overview of the presentations in Section D, and the continuation of the struggle between Lubbock and the Duke of Argyll with an unexpected result in this on-going discussion.

6.2 Looking for an Answer to the Mystery of Life

A. G.G. Stokes: A Conservative Physicist as President

Alvar Ellegård has suggested the mid-1860s was a period of constant change within the Association, especially as far as the presidency was concerned in relation to different views on science.[11] For this meeting the physicist and Lucasian professor at Cambridge, George Gabriel Stokes, was elected as President of the Association.[12] After what happened in Dundee, where the overall atmosphere was marked by an explicit rejection of the sciences of Man by a portion of the local population, the experience in Norwich with the parallel

[11] Ellegård 1990: 78-85.
[12] *Scientific Opinion*, 26 May 1869, 563; Stokes and Larmor 1907: 197.

organization of the International Congress of Prehistoric Archaeology seemed to move the dispute outside the scope of the Association.

The choice of Stokes makes sense if we follow Ellegård's proposal about the balance between Darwinians and anti-Darwinians. Stokes was a renowned physicist, who had conducted important work on the motion of fluids and optics, and had worked closely with William Thomson on experimental–mathematical dynamical physics.[13] His scientific reputation was undoubtedly well founded. But Stokes had also openly expressed religious ideas that might be considered controversial by many in the Association. Three points have a particular importance in this regard: Stokes' full support for the design argument for the existence of God proposed by Paley; his agreement with William Whewell that the moral sense, just like geometric shapes, is innate (a position that contrasted sharply with utilitarianism); and his evangelical conviction that the Bible is true.[14] With this in mind, we can see Stokes' was not a scientific model such as the one advocated by people like Huxley and Tyndall within the Association, but that he retained a vision that was becoming less accepted within the scientific domain.[15]

[13] David B. Wilson, 'Stokes, Sir George Gabriel, first baronet (1819–1903)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, Jan 2011 [http://0-www.oxforddnb.com.wam.leeds.ac.uk/view/article/36313, accessed 27 March 2013.

[14] David B. Wilson, 'Stokes, Sir George Gabriel, first baronet (1819–1903)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, Jan 2011 [http://0-www.oxforddnb.com.wam.leeds.ac.uk/view/article/36313, accessed 27 March 2013.

[15] See Morrell and Thackray 1981: 21-29.

Figure 6.2 George Gabriel Stokes[16]

It is worthwhile here going back to what was said by Stokes in his speech.[17] The speech focused on the importance of the Association as a promoter of scientific knowledge among scientists and other individuals. To do this, Stokes mainly used examples drawn from physics and astronomy which for him defined the scope of scientific development. However, if there was a point that should be emphasized over others from Stokes' speech, it was his personal view on the phenomena of life. Although he conceded that his predecessor, Hooker, was much more able to speak on this matter, Stokes felt that his position as a physicist at least allowed him to express his ideas about the relationship between physics and biology. According to Stokes, mechanics in physics was one of the biggest

[16] See http://en.wikipedia.org/wiki/File:Ggstokes.jpg.
[17] *Report* 1870: lxxxix-cv.

improvements of natural law, partly because of its application to both organic and inorganic bodies, that is, the living and dead.[18] The next level of the study of organisms would be the study of chemistry that allowed organic and inorganic substances to form all beings. For Stokes, the ability to create artificial substances gave an idea of the scope of chemistry, and the promises of its application to the organic and inorganic. In his discussion of the limits of the living and non-living, Stokes revealed his personal stance on the subject and his belief in the need for a life force that governs matter. Stokes was one of the main opponents of evolutionary ideas throughout this decade. A clear example of this can be found in his time as president of the Victoria Institute and his continued efforts in promoting missionary activities both at home and abroad.

After considering how both physics and chemistry had helped to explain various aspects of organic beings, one of the most important questions for Stokes was the possible presence of a "mysterious something" that basically allowed organic beings such as animals and plants to exist and live. What is this "something", asked Stokes; it is life, but also "something" that, above all, is shrouded in mystery. This mystery is a chain of secondary causes that may or may not be known but that at no time should leave any doubt about the action of the Almighty Creator.[19] It is inevitable to see here an answer to what Hooker said in the previous year which opened the door to a limited search for knowledge. As mentioned, Stokes was a conservative who believed, above all, that the Bible was true and that Paley's design argument was the way to understand the existence of God. From these positions, Stokes sought to unify scientific theories with

[18] *Report* 1870: cii.
[19] *Report* 1870: civ.

Christian doctrine. In short, Stokes was perhaps the best known religious conservative scientist in Victorian times.[20]

Stokes' presidential speech revealed a particular animosity that existed among physicists about the emerging science of biology. In his opinion, biology provided only one type of inferior evidence compared with the great advances of a science like physics. Also, according to this view, the marriage between biology and evolutionary theory resulted in the continuing promotion of materialism.[21] To some extent, the way in which Stokes conceived physical theories as involving non-material forces, located physics, by analogy, on a par with religion.

Stokes' speech reiterated several ideas similar to those presented two years before by the Duke of Buccleuch. Considering this aspect of Stokes' speech, it is not surprising that the meeting was again marked by controversy and criticism from the pulpit. For the third time this decade, Charles Pritchard presented a sermon as part of the activities of the Association[22] (see Figure 3.2). It was given on Sunday evening, in the Church of St. Mary Major, and reflected the desire of the local inhabitants to listen to Pritchard on such an interesting topic. Pritchard was expressly invited by the astronomer William Huggins, to present a speech in relation to recent discoveries of Spectrum Analysis.[23] The title was not clear, "The Testimony of Science to the Continuity of Divine Thought for the Man", but one of the key points discussed was the case of Man,

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[20] David B. Wilson, 'Stokes, Sir George Gabriel, first baronet (1819–1903)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, Jan 2011 [http://0-www.oxforddnb.com.wam.leeds.ac.uk/view/article/36313, accessed 27 March 2013. For a study about the religious thought of Stokes, see Wilson 1984.
[21] Desmond and Moore 1992: 38-39, 559-560, 568; Desmond 1997: 366-368.
[22] Pritchard 1889: 81-118.
[23] Pritchard 1889: 83.

drawing from that simple question, "what is Man?" A simple question, which Pritchard answered with a long sermon, using numerous biblical references and theological support for the idea of Man as a divine being as evidenced by virtue of his close relationship with God. This was more a theological than a scientific oration, although it is true that the basis of Pritchard's argument drew from his experience as an astronomer, which he used as a way to illustrate the grandeur of Creation, and of course, of man.

Another sermon was given in Broadclyst Church, by the Vicar Rev. Peter Leopold Dyke Acland, Prebendary of Exeter.[24] According to Acland, meetings of the Association allowed men with different backgrounds to have the opportunity to learn the laws that God stamped on material things in order, furthermore, to teach these laws in action for the benefit of all. The search and retrieval of truth nourishes both materially and spiritually, an idea summed up as: "We can *believe*, as well as *know*".[25]

These two sermons focused specifically on reinforcing the role of laws created by God in nature, and upon Man's role in the quest to understand these laws in order to understand the divine work. This was a view that was less and less represented within the Association.[26] Criticism by the clergy of what was happening in the Association came not only from the pulpit, but also from the sessions.

[24] Acland 1869.
[25] Acland 1869: 14.
[26] For a broader discussion of natural theology, see Brooke and Cantor 2000: Ch. 5 and 6, Topham in Harrison 2010: 59-79.

B. Three Clergymen against Darwin (and Huxley)

The city at that time was involved in a profound change, motivated by the arrival of Frederick Temple as the new Anglican bishop, a situation that had arisen due to pressure from the government and from Prime Minister William E. Gladstone.[27] It was an unexpected decision, since Temple had rejected the deanery of Durham earlier in the year because he wanted to remain as headmaster at Rugby, where he had worked for several years and had established a great academic reputation. The election was highly controversial because of Temple's contributions to *Essays and Reviews,*[28] including his essay 'The education of the world' which was not even the most controversial part of the work. Finally, after his consecration, Temple decided to withdraw his essays from future editions of *Essays and Reviews.*[29]

As for the effect this might have generated on the panoramic position in the meeting, the presence of several priests cannot go unnoticed. Turner has emphasized the professionalization of science and how the clergy lost ground within Victorian scientific institutions,[30] but as we can see through these meetings, the participation of clergy was still entrenched, thanks to local participation. This could have been due to the intention of the Association to seek greater involvement of local characters,[31] and in that sense, if we return to the idea that cities such as Exeter did not have greatly developed scientific

[27] Newton 1968: 176-177.
[28] On the role and importance of *Essays and Reviews* in Victorian science and religion, see Brock and MacLeod 1976, Altholz 1982, Altholz 1994.
[29] H. M. Spooner, 'Temple, Frederick (1821–1902)', rev. Mark D. Chapman, *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, Jan 2008 [http://0-www.oxforddnb.com.wam.leeds.ac.uk/view/article/36451, accessed 27 March 2014].
[30] Turner 1978: 367.
[31] On the forms of participation in the meetings, see Morrell and Thackray 1981: 128-139.

communities, we can explain why these local figures in many cases were the clergy. As seen throughout this decade, although their presence significantly decreased in both the organization and in the presentations, there were still situations in which clergy, especially local clergy, had a high level of often controversial participation. Let me turn first to those clergymen who participated in the meeting's presentations, and especially in Section D, the one designated that year to issues related to the sciences of Man.

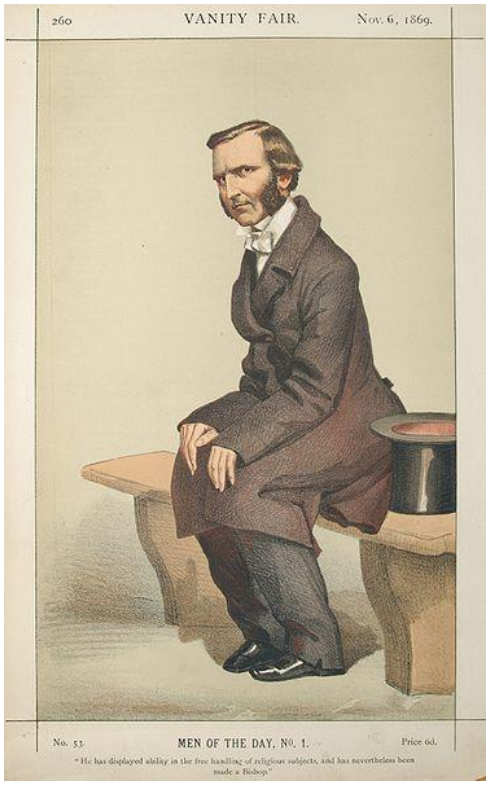

Figure 6.3 Rev. Frederick Temple[32]

The clerics involved in Section D were: Archdeacon Philip Freeman, Rev. James McCann, and ornithologist Rev. Francis Orpen Morris. All presented in the same

[32] See http://en.wikipedia.org/wiki/File:Frederick_Temple,_Vanity_Fair,_1869-11-06.jpg.

session, on Friday 20 August as part of the activities of the Department of Ethnology. Of the three, Morris was not present, so his presentation was read by the secretary of the Section, the entomologist Henry Tibbats Stainton. Freeman and McCann were present and defended their papers.[33]

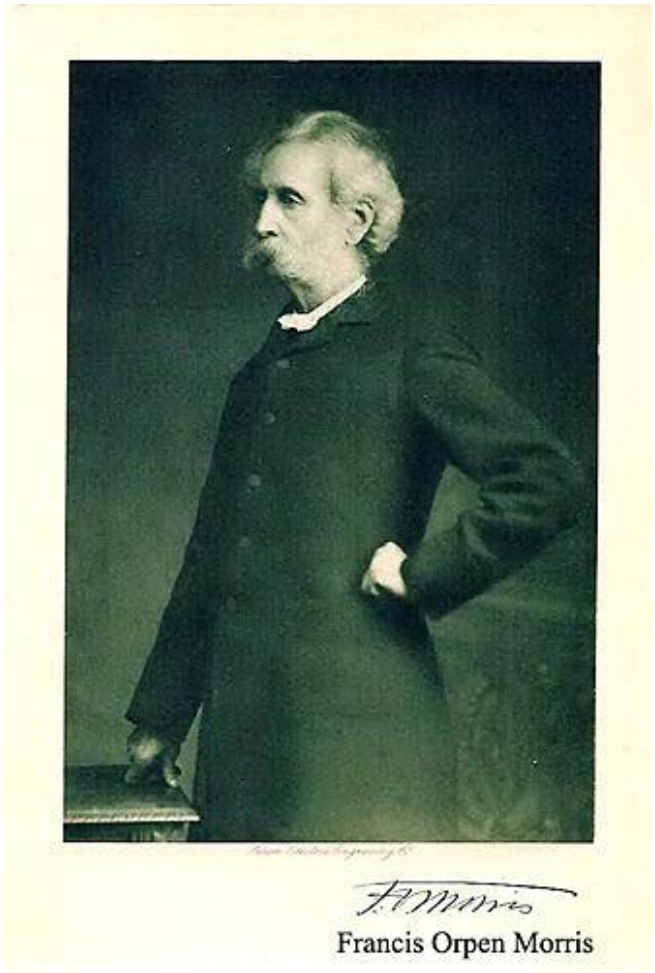

Figure 6.4 Rev. Francis Orpen Morris[34]

The Section met in the halls of the Episcopal School. The order of the presentations, following that of the previous organization, gave primacy to issues of Zoology and Botany, then to presentations in Ethnology, Physiology and Anatomy.

[33] *Athenaeum*, 4 September 1869.
[34] See http://en.wikipedia.org/wiki/File:Francis_Orpen_Morris.jpg.

The room where the presentations would take place was full due the large number of people interested in the session. The first was given by Freeman, on "Man and the Animals, being a Counter Theory to Mr. Darwin's as to the Origin of Species". A letter from Morris was read, "Difficulties of Darwinism"[35] and McCann ended with "Philosophical Objections to Darwinism or Evolution".[36] The common denominator in the three papers was a strong criticism of Darwin's ideas, and especially their application to man.

A striking point, which gives an idea of some of the interests of the Association, was that none of the three presentations were included in the official report, except for a listing of their respective titles.[37] This failure of inclusion stands in contrast to the literal transcription of both the presentation and discussions that resulted from Lubbock's presentation. But given the interest they had generated, the newspapers did report what was said by the three clergymen.[38]

Freeman, a cleric of the Anglican Church and Archdeacon of Exeter, pointed out that Darwin's theory was best answered by a counter-theory. In response to claims about the similarity between man and animals caused by common descent, the Archdeacon simply replied, why not search for a foundation to that similarity in the Biblical account of creation? One could accept that there was a relation between man and apes, but not a relationship. Freeman believed, that since no species could become another, species could not touch each other. The conclusion for Freeman was that Darwin's theory was entirely unsatisfactory. Each point made by the Archdeacon, was celebrated by the crowd

[35] [Morris] 1869.
[36] 'Anti-Darwinism', *London Quarterly Review* 1870: 509-512.
[37] *Report* 1870: 132, 151; Moore 1991: 390.
[38] Ellegård 1990: 94.

with a passion. To highlight the position that Freeman maintained with respect to Darwinism the description he gave of the theory in an 1871 letter, considered it "the most easily refuted sophism of the day".[39]

For Morris, Darwin's theory was based on a simple assumption: given the similarities between different animals, one should therefore expect continuity. In addition to the fact that man could make the species vary there should be a tendency to variation. From his experience with birds, Morris claimed that the development of certain species to higher forms was simply due to the effect of favourable conditions. Speaking about man, and drawing from historical research, Morris argued that the wild man was a progenitor of civilized man, created by a process of degradation. Morris was a vigorous opponent of Darwin on evolution. An example of his bitter opinion on the subject can be found in his correspondence with Huxley, after the meeting in Exeter. On 16 September, Morris, writing to him, asked about Huxley's statement that "all my objections to Mr. Darwin's theories had been already answered. I shall feel much obliged if you will tell me where I can find these answers".[40] Huxley replied on September 30th.[41] It was a condescending response, in which Huxley urged Morris to seek those answers in serious study and the practice of physical and biological sciences as well as a good practice of inductive logic and a return to the *Origin*, which he recommended Morris study in the same detail that he would the Bible. Morris responded sarcastically thanking Huxley for the suggestion, and

[39] Chadwick 1970: 27.
[40] Lightman 2007: 45.
[41] *Darwin, Huxley and the Natural Sciences* 1990.

recommended him, to seek a place in one of the old colleges of Oxford, which would give Huxley a good philosophical training.[42]

Finally, McCann stressed that belief in evolution meant opening the doors to materialism, and thus denying the soul and immortality. In short, the Darwinist must embrace atheism. McCann's criticism focused on Huxley, a situation that led the Section President, George Busk, to ask what all this had to do with Darwinism. Indeed, McCann mentioned Huxley so often, Huxley was given the opportunity to respond first.[43]

With thunderous applause from the audience, Huxley proceeded to answer. In his view, "he appeared to have been engaged in a perpetual battle since he had been in Exeter".[44] The general opinion of Huxley on the three presentations was that they contained a profound misunderstanding of Darwin's theory. On Morris, he declined to comment at all on the presentation. On McCann's paper, he "would not attempt to deal with it in that state of brotherly love which in the hands of a doctor of divinity so often took the shape of a very different emotion, and left one to doubt whether the first doctor of divinity was not Cain and the first man of science Abel".[45] He complained not of being caricatured himself, but about the misinterpretation that was made of science and especially of Darwinism.

Freeman's case was different. Huxley praised the presentation, especially for his candour, even though its conclusions reflected a misinterpretation of

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[42] Lightman 2007: 43-48.
[43] *Athenaeum*, 4 September 1869: 309.
[44] *Journal of Botany*, 7, 1869: 290. This publication, edited by the German botanist and traveller Berthold Carl Seemann (1825-1871) focused upon botany, so called attention greatly this was one of the few periodicals which broadly reported the presentations of the three clerics.
[45] *Athenaeum*, 4 September 1869: 309, *Journal of Botany*, 7, 1869: 289-290.

Darwin's work. In a way, the Archdeacon related his ideas to those philosophical and biological ideas proposed by Owen and Agassiz, although Huxley considered it a mistake to believe that the uniformity of type and plan could be observed only in the higher animals, as this uniformity was also observed in the lower orders of life.[46]

Huxley's role in the discussion was decisive. For Hooker, his response was the "punctum saliens" of the entire meeting.[47] Hooker, in a much more measured response, only managed to say he needed to read sources referred to by McCann, in order to respond appropriately.

Wallace and Busk were blunt. In their opinion none of the three documents should have been read in the Section, demonstrating, as they did, a lack of understanding of the implications of Darwinism. Wallace's final comment gives an idea of the reception which given to the papers by supporters of Darwinism: "If the opponents of Darwinism wished to come forward, let them bring either new facts or new arguments".[48]

These were not the only clergymen involved in the meeting, and especially in Section D. As discussed below, in the Department there were other clergymen present, such as the Rev. Edgar N. Dumbleton and the Rev. Abraham Hume, whose presentations on archaeology did not generate the same interest as the three mentioned above.

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[46] *Athenaeum*, 4 September 1869: 309, *Journal of Botany*, 7, 1869: 288-289.
[47] Hooker to Darwin, 7 September 1869: *Correspondence*, 17, 375.
[48] *Journal of Botany* 7, 1869: 291.

C. Reception in the Press

Media coverage of the meeting was extensive. Stokes' speech was transcribed in its entirety in the major newspapers, including *The Times,*[49] *Athenaeum*[50] and *Morning Post,*[51] in addition to its publication in the traditional *Report*.

As noted by Ellegård, the speech had a devout tone, with references to the Psalms, which made for a striking contrast with Hooker's speech.[52] The *Athenaeum* was commissioned to highlight the virtues of Exeter, as a city, full of antiques and attractive buildings.[53] With regard to Stokes and his address, the paper did not express much of an opinion. Provincial newspapers, such as the *Glasgow Herald*, stressed the importance of the figure of Stokes, as the most distinguished physicist and as Lucasian Professor of Mathematics at Cambridge.[54] But its interest was not focused on his previous work or upon transcript of his speech, but in the choice of location for the meeting of 1870, which included Edinburgh, which was fighting the place especially with Liverpool.

The *Manchester Guardian* focused on summarizing the presentation, but with emphasis on the importance of the application of science for military and naval work, which were of productive value to the Empire. There was only one brief mention of the subject of biological life, but it was heavily criticized: "This was argued out with great minuteness and ingenuity, and culminated in a dictum that, admitting the applicability to living beings of the laws which have been

[49] *Times*, 19 August 1869.
[50] *Athenaeum*, 21 August 1869.
[51] *Morning Post*, 19 August 1869: 2.
[52] Ellegård 1990: 83-84.
[53] *Athenaeum*, 21 August 1869.
[54] *Glasgow Herald*, 21 August 1869.

ascertained with reference to dead matter, there must be admitted the existence of a mysterious something lying beyond – a something *sui generis*".[55]

The Times was extremely complimentary about Stokes, describing his address as an admirable description of the different areas of knowledge, with astronomy as the queen. One point that the paper emphasized was the fact that Stokes did not devote the entire speech solely to the scientific facts of the past year, but were "revealing aspects of new and unexpected truths he had been among the earliest to unfold".[56] Drawing from those fields of knowledge based on new work in astronomy and physics, he had a better knowledge of matter, and, consequently, of the mystery of the mind.

Exeter newspapers such as *Trewman's Exeter Flying Post* stressed the magnificence of the stage erected for the occasion, the Victoria Hall. The speech was received with loud applause. The reading was clear, with different tones of voice used throughout the presentation. But it was the ending of the speech, focused on the mystery of life, which received the biggest, unanimous and most enthusiastic applause from the audience. The important point for much of the press was to highlight the place of science and its increasing importance in society.[57]

In previous years, the presidential address had taken up whole sections of newspapers. This time, the three clerics and their criticism of Darwin resulted in many columns being devoted to this notorious case. The *Pall Mall Gazette* presented the argument briefly in the notes section, declared that "an archdeacon and a clergyman or two of lesser note to attack Darwinism have ventured before

[55] *Manchester Guardian*, 21 August 1869: 4.
[56] *The Times*, 19 August 1869: 6.
[57] *Trewman's Exeter Flying Post*, 18 August 1869.

the members of the British Association at Exeter".[58] And as might be expected, "they got the worst of it in argument".[59] Huxley pointed to his defence and use of Abel and Cain as protagonists, taking the discussion that had been published in *Civittá Cattolica*, the organ of diffusion of the Pope.[60] A similar discussion was presented in the *Manchester Guardian*, in a section devoted entirely to these three presentations, under the title "The Darwinian Theory".[61]

The *Athenaeum* gave more coverage to Freeman's speech, than to the other two clerics. Its coverage reported each of Huxley's words, making clear that what was said by the clergy had no place in the scope of Section D. Other periodicals such as *The Times* preferred to present summaries of the most interesting topics in each section and department. Despite other media showing such interest in the controversy around the three clerics and their criticism of Darwin, there was no further mention of the episode in *The Times*. With regard to the sciences of Man, Lubbock was given the largest space in *The Times*, in the same way he did in other newspapers.[62]

After the meeting, presentations were given more space and further commentary. McCann's presentation, for example, was reviewed in the *Quarterly Review*.[63] The *Review* emphasized the speaker's clarity and reasoning ability, concluding that McCann deserved a different response, in form and substance, from Huxley. In fact, the paper stated that the criticisms raised by McCann were directed towards the views of some of the followers of Darwin, rather than against Darwin and his ideas directly. Particularly striking is the

[58] *Pall Mall Gazette*, 24 August 1869: 739, Ellegård 1990: 84.
[59] Ellegård 1990: 84.
[60] *Athenaeum*, 4 September 1869: 309.
[61] *Manchester Guardian*, 23 August 1869: 3.
[62] *Athenaeum*, 4 September 1869: 309-310.
[63] 'Anti-Darwinism', *London Quarterly Review* 1870: 509-512.

definition of evolution the paper drew from the presentation: "Evolution is the development of man, who is nothing but matter, from a nucleus which is nothing but matter". Finally, the review presented a stubborn defence of McCann's position. The *Evangelical Repository* dedicated a small paragraph to defend McCann's view, by virtue of his being a true defender in the service of Christ against materialism. The *Repository* also gave the impression that the presentation was better than had been reflected in the general media, and that McCann deserved better treatment from Huxley.[64]

One can see from this that there was a strong perception in certain religious sectors of the close relationship between evolution and materialism. In this regard, the main target of criticism was no doubt Huxley, who, along with other members of the X-Club, strongly promoted that relationship.

Beyond the specific issue of Darwin, coverage was sometimes very detailed. In most cases, the liberal press highlighted the role played by Huxley in the meeting, without further reference to the presentations. The religious press, on the other hand, as expected, strongly defended the criticism of Darwin, trying to establish a compelling reason for these types of presentations to be given in the context of the Association. But as we shall see there were other themes and subjects that occupied the media's interest, and the study of man was chief amongst them.

[64] *Evangelical Repository* 1870: 157.

6.3 A Unified Department

A. Huxley and Hunt, and Two Ways to Establish Anthropology

After the death of Crawfurd, the power vacuum in the ESL was filled by Huxley, a situation that inevitably led to a clash with Hunt. Hunt and Huxley's relationship was not on the best terms, especially since Hunt had decided to create the ASL. Furthermore, the differences between the two men on subjects like slavery led Huxley to consolidate his position in the ESL.[65]

The 1860s was the decade in which Huxley focused squarely on the human sciences. After the publication of *Man's Place in Nature,*[66] the position of the sciences of Man was consolidated in parallel with a strong defence of Darwin's ideas.[67] As we saw in chapter three, Huxley's position on the inclusion of biology and anthropology as a substantial part of the discipline resulted in the appearance of the first Department of Anthropology. He had an interest in consolidating the life sciences that drove him to seek out institutional strengthening, which occurred in parallel with its growing role as the leading force behind a new way of doing science, one that would be more professional and garner greater public recognition.

Hunt, meanwhile, after the opening of the Department in 1866 – a milestone for the discipline in his opinion – had suffered serious setbacks in his quest for recognition of anthropology. The General Committee's decision to omit Ethnology in Section E and to include it in Section D for the Exeter meeting was

[65] Desmond 1997: 320-321.
[66] Huxley 1863.
[67] On Huxley and his views about Man in the 1860s, see Lyons in Barr 1997, Sera-Shriar 2013a.

a triumph for the consolidation of a specific space for the discipline, considering the current efforts to reunite the metropolitan societies.

An agreement therefore needed to come from the two leaders, Huxley as a representative of the ESL and Hunt from the ASL. Any agreement was, in turn, connected with attempts to amalgamate the two societies. Communications between Huxley and Hunt aimed at finding that union were resumed after two years of silence.

The first contact between Huxley and Hunt took place just days after the death of Crawfurd. Once Huxley was elected as President of the ESL on 24 May 1868, Hunt decided to write to him. On 28 May he wrote to Huxley to propose a meeting to try to reach an agreement, one which might even allow a joint presentation to the BAAS meeting in Norwich. The letter did not include a specific proposal, but indicated Hunt's desire to unite the different areas, for the sake of discipline. Huxley said in brief that he supported the idea, and urged a meeting. Hunt responded with a series of proposals and reasons why it would be desirable to achieve a marriage, stressing the participation of members of both societies in the organization, and seeking agreement on the appropriate name for the new society and the thorny financial position of the ASL which was becoming a serious problem.

After both men held meetings with the respective Councils of their societies, the issue of an appropriate name for the new society appeared to be the most pressing. The correspondence over these days makes clear that the agreements reached by Huxley and Hunt were not respected at all by the ASL's members, a situation that resulted once again in a breakdown of negotiations. The representatives of the ASL, Hyde Clarke among them, attended the ESL meeting

on 16 June to discuss the final agreement for amalgamation. The problem arose when representatives of the ASL asked for a change to the previously agreed resolution on the name of the new, joint, society, "The Society for the Promotion of the Science of Man".[68] ASL members now insisted on the inclusion of "anthropology" as a fundamental part of the title.[69]

Huxley, along with the other ESL Council members, decided that this change was unacceptable, and refused to continue negotiations, thereby cancelling the amalgamation of the two societies. This situation did not change until the following year. A change in attitude occurred when there was a change of direction in the ASL, as John Beddoe took office as president. This, in Huxley's eyes, opened up a new opportunity for amalgamation, as he considered Beddoe much more open to negotiations than Hunt. Huxley wrote to Beddoe in May 1869, in his position as President of the ESL, recapitulating the thinking which had finally led to the attempted amalgamation a year earlier, and inviting Beddoe to resume negotiations.[70] Beddoe's answer was short and polite, but did not make any commitment to re-opening negotiations at that time.[71]

It is clear that negotiations between Hunt and Huxley were extremely complicated.[72] Special interests outweighed institutional desire to unify the sciences of Man. This lack of agreement reflected what was happening in the Association. During this year's meeting, the chances of a united discipline did not look good, and despite the agreement to include Ethnology in Biology, and

[68] Royal Anthropological Institute. A 3:1, Minutes of ASL, 16 June 1868.
[69] For another narrative about this story, see Stocking 1987: 248-252.
[70] Huxley to Beddoe, 28 and 29 May 1869; *Darwin, Huxley and the Natural Sciences*: 1990.
[71] Stocking 1987: 254-257.
[72] [Anon.] 1868b.

thereby obtain a common area, there were no solutions along the lines of those obtained three years ago in Nottingham.

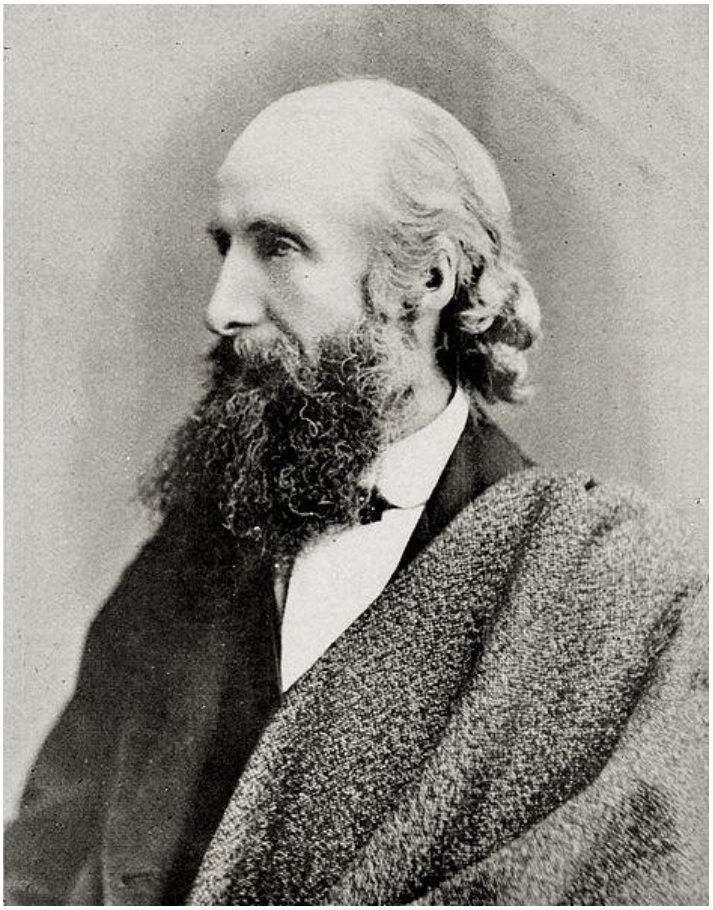

Figure 6.5 John Beddoe[73]

This situation meant that almost all presentations on the sciences of Man were included in one section. Hunt's participation was not as active as at other times, when he gave several presentations and had a starring role in the discussions. Apparently, his disagreement with Huxley was great, or, at least, that was the impression given by some media reports. Unfortunately, a few days after returning to his home in Ore House, Hunt died, on 29 August. There were many

[73] See http://en.wikipedia.org/wiki/File:John_Beddoe.jpg.

rumours about how he had died because of the dissatisfaction he felt with the treatment that the sciences of Man had received in Exeter. His friend and secretary of the ASL, J. Frederick Collingwood, had to publish a correction in the *British Medical Journal* to clarify that he had died due to brain inflammation, induced by a heat wave then stifling the British south coast.[74]

In just two years, the sciences of Man had lost its two greatest figures. Crawfurd and Hunt were both important in the spread and consolidation of issues related to man, even if they had each worked from their own particular perspective. In these circumstances, Huxley emerged as a leader in his own right, to take up the reins of the campaign to make a success of the study of Man.

B. Unified Department, Unified Name?[75]

After two years in which there was no institutional stability, an agreement was finally reached to unify the sciences of Man in a single space. After eighteen years in which ethnology and geography were brought together in one section, finally the Biology section consolidated an exclusive area for the proper study of man. It is worth noting the different circumstances that led to this decision.

There were several causes that led to the decision to amalgamate. Crawfurd's death in the previous year left a huge void in both the ESL and the Association, particularly in Section E. Along with Murchison, Crawfurd had been crucial in keeping ethnology related to geography. With his absence, negotiations became more fluid. The X-Club's members, especially Huxley, saw in the ESL an institutional opportunity to consolidate their interests in the sciences of Man.

[74] Collingwood 1869: 355.
[75] On the perennial issue of the proper name for the sciences of Man, see Stocking 1971.

The active participation of members of the X-Club was crucial in 1869. Section D was led by George Busk, who, going against tradition, did not prepare or present opening remarks. The rationale for this was that initially the presidency of the section had fallen to George Rolleston who for various reasons could not attend, leaving the responsibility with Busk. Having made these clarifications Busk discussed the organization of the Section, which initially had sought to cover all possible topics related to the natural sciences. It was decided that a Department called Ethnology should be opened for the occasion, to act as a space that would accommodate all those interested in the sciences of Man. This decision was taken by the General Committee of the Association at the previous meeting held in Norwich, continuing along the lines of agreements that were originally made at the meeting in Birmingham in 1865, which had given rise to the first department of Anthropology in 1866. The actual decision was to eliminate Ethnology from Section E, so that it might be included in a more concrete way in Section D.[76]

On this occasion, Busk stressed the important need for members of Section D to include the subject of man. The main reason for this interest was the importance given to the study of man, a subject that according to many members was the most important issue at the time. Responsibility for the department went to the renowned anthropologist Edward B. Tylor. Although, as in previous years, this organization was not entirely satisfactory to all, especially at an institutional level. The "anthropologicals" were not satisfied that only topics related to physical aspects of Man would be treated in this unique space, and throughout the meeting, they expressed their rejection of the inclusion of studies of the non-

[76] *Report* 1868: xxxviii.

physical aspects of man. On the other hand, the "ethnologicals", now led by Huxley, saw in this organization a moral victory. Indeed, beyond an institutional level, the practice and understanding of sciences of Man showed no such consensus over the appropriate study of man. As we have seen over the years, the diversity of subjects that appeared in the department or section also demonstrated the diversity that still existed amongst members interested in the study of man.

The decision did not, however, necessarily imply a real and exclusive space for the sciences of Man. The official report published by the Association, divided Section D into three departments: Zoology and Botany; Anatomy and Physiology; and Ethnology. But the practice was somewhat different. Presentations were made in a confined space, which prevented the attendance of large numbers of people, so each day the Section occupied two rooms, one for Anatomy and Physiology, and one for Zoology, Botany, and Ethnology.

In his initial remarks, Busk pointed out the benefits of uniting studies of biology and of man, regardless of the word with which they were described, whether it was Ethnology or Anthropology.[77] The naming of the discipline was, in his opinion, of less importance, especially given the relevance of the subject itself. This was a moderate attitude, if we remember that much of the conflict between the ASL and ESL in recent years, especially in the search for a possible amalgamation, had arisen over the name which was to be applied to the new discipline.[78]

To some extent, the proposed organization of the department was not accomplished as in 1866. Given that the arrangements for this section had to be

[77] [Anon.] 1869: 414.
[78] Stocking, 1971.

carried out mostly by members of the ESL and ASL, and given the circumstances of the controversy the year before, there was a certain level of improvisation. We will now turn to the two protagonists of that controversy, Huxley and Hunt, both of whom were instrumental in the evolution of the sciences of Man within the Association.

C. Tylor's Election as President

Tylor's election as President of the Department of Ethnology is worthy of some analysis. His choice is mentioned only in the official *Report*.[79] The traditional report published in *Anthropological Review*, also reported Tylor's election as president.[80]

What is striking is that there is no other mention of the role or involvement of Tylor as President in any official report or by the press. By this time Tylor had made a name for himself within the sciences of Man, thanks to the trips he had made to America, especially Mexico. On one such trip, he met the ethnologist Henry Christy, who would be a definite influence for Tylor sparking his interest in the sciences of Man.[81]

[79] *Report* 1870: xxx.
[80] [Anon.] 1869: 414.
[81] Chris Holdsworth, 'Tylor, Sir Edward Burnett (1832–1917)', *Oxford Dictionary of National Biography*, Oxford University Press, Sept 2004; online edn, Oct 2006 [http://0-www.oxforddnb.com.wam.leeds.ac.uk/view/article/36602, accessed 1 April 2014].

Figure 6.6 Edward B. Tylor[82]

Following that trip, Tylor wrote his first book in 1861, *Anahuac, or, Mexico and the Mexicans, Ancient and Modern*. Tylor's analysis of the literature in the various areas of the study of man resulted in a second book, published in 1865, which focused on later studies of man and the development of civilization, *Researches into the Early History of Mankind and the Development of Civilization*.

Tylor was deeply devoted to anthropological work during this time, although not noted for his institutional involvement, as were Huxley and Hunt. Tylor briefly served as secretary to the ASL.[83] Tylor's ideological differences

[82] See http://en.wikipedia.org/wiki/File:Edward_Burnett_Tylor.jpg.
[83] Tylor resigned from the ASL just before the beginning of the BAAS meeting. Royal Anthropological Institute. A 3:1, Minutes of ASL, 18 August 1868.

with Huxley and Hunt were many, and they were exacerbated because Tylor had Quaker roots.[84]

It was customary to appoint a chairperson in each section or department to take charge of the formalities of the presentations and discussions. Tylor satisfied the implied condition of being involved in the study of man, and though it may seem obvious, he was a man close to the characters who made choices in Section D, such as Huxley and Busk. However, his choice and the lack of information about his work in the role may have come down to a simple explanation: As mentioned earlier, Busk became president unexpectedly, since the Committee had initially chosen Rolleston. For that reason Busk did not prepare an appropriate speech.[85] Possibly, the allocation of a President for each department was made in a similar manner, meaning Tylor had no opportunity to prepare a speech either.

A speedy election may also explain the anger of Hunt and the "anthropologicals". Tylor was much closer in outlook to the ethnological position, and his choice, and the name chosen for the Department, would likely have led ASL members to think that the Association was favouring ethnology, to the detriment of anthropology. Indeed, the press concluded that Hunt had not been happy with the way in which anthropology had been treated during the meeting, and this had greatly affected his health.

From his recent contributions to anthropology, it would have been interesting to have a discourse from Tylor which would make clear his view on the state of the sciences of Man. There were from the first Department of

[84] Stocking 1987: 159.
[85] [Anon.] 1869: 414.

Anthropology in 1866, what we might call institutional statements about the sciences of Man, which were reduced to a little discourse by Wallace, and some specific references from those such as Grove and Hooker, though the latter as we saw mostly emphasized the International Congress of Prehistoric Archaeology and not necessarily the situation that existed within the Association.

Perhaps the lack of a presidential speech at the Department of Ethnology was a missed opportunity. As we have already seen, the subject was of great importance to the public and the press and this would have been an ideal opportunity to lay out a grand vision for the discipline. The unity of practice was becoming increasingly necessary in the search for institutional stability. As discussed in the next section, this path was complicated, especially when old ghosts came to light.

6.4 Further Ethnological-Anthropological Debates at Exeter

A. Lubbock, Argyll and… an Unexpected Participant

One particular presentation, and the discussion which followed, highlights the lack of formal organisation in the department. It was not the first time that a subject which went beyond the domain of the meetings themselves was raised, or that the discussion transcended several meetings.

The clash between Lubbock and the Duke of Argyll revealed one of the bitterest controversies within the meetings of the Association, focused squarely on the ever controversial topic of man and the development of civilization. To some extent, given the scope and importance of the subject, this occasion is reminiscent of one of the most famous of the BAAS discussions, the one that occurred in 1860 between Huxley and Samuel Wilberforce.

Following the presentation in Dundee, Lubbock gained strength from the support of the Darwinists. The Duke gave a timely response through a series of essays published in *Good Words*, under the title 'Recent Speculations on Primeval Man'. Ellegård characterized *Good Words* as follows: "A decidedly religious magazine, of some intellectual pretensions, and not relying chiefly on fiction for its vogue, it appealed to the lower to upper middle classes of fair educational standard".[86]

The publication, with its religious focus, enjoyed great success from its inception in 1860, and its circulation was 70,000 copies a week. *Good Words* spoke to a wide audience, much more diverse than that present at the BAAS's meeting. It is clear that the Duke presented his position in a publication with a much wider scope than the meetings of the BAAS. Four essays were published monthly between March and June 1868. These essays were compiled and published early in the following year, in one volume and without many corrections, with the short title of *Primeval Man*.

Ironically, it was never Lubbock's intention to start a controversy: he was seeking, to end one. The progressionist position held by Lubbock began to attract followers, especially those who saw Darwin's ideas as a plausible explanation for the progress of civilization, in contrast to that established by Whatley years earlier. But Argyll's response must be understood not as fully supportive of Whatley's position, or as an attack only on Lubbock's views. Argyll's intention was to criticize the general context of evolution and anthropology, showing that the facts were inconsistent with the idea of primitive man as lacking superior capabilities of the mind and characterized as a savage brute. He also emphasized

[86] Ellegård 1957: 37.

that the comparative distinction between modern and primitive humans was arbitrary and lacked sufficient evidence to support it. This last point led to the involvement of a totally unexpected character in the discussion.[87]

Argyll's criticism in *Primeval Man* began by denying the possibility of evolution (including of humans) as well as the possibility of progressionism, from a biological basis. He clarified that he had no problem admitting the possibility of the existence of man on the planet for a long period of time, and that he did not consider man's longevity to be in conflict with the biblical account of genesis.

On the development of early humans, both morally and physically, Argyll's views matched Lubbock's: both considered savages to be incapable of self-improvement. Argyll focused on two claims made by Lubbock: the assumption that a low level of technology in early times was equivalent to a low degree of moral and intellectual development, an idea drawn from comparison to modern savages using similar technology. The second assumption was that the more coarse and vicious a custom, the older it was.

The argument presented by the Duke rested on recent discoveries of human fossils, although the Duke failed to mention any in particular, he was probably thinking of the skulls found in Engis in 1833, and at Neanderthal in 1857. Both discoveries were viewed as evidence that the races had not varied much over time. At this point the Duke deployed a degenerationist position to explain the origin of these fossils.[88]

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[87] *Athenaeum*, 4 September 1869, 309-310.
[88] Gillespie 1977: 45.

On 23 August, Lubbock used his presentation to Section D to defend the position he had established two years ago. His presentation was directed mainly toward Whatley. He was sure however to make his audience aware that the Duke's position might have certain failings, that implied strongly that Argyll was an isolated and eccentric critic whose main concern was with the protection of orthodox religion.[89] Lubbock was evasive throughout the entire presentation, and did not answer Argyll's criticisms directly. Instead, Lubbock returned to the arguments he had raised in Dundee: asserting that a society without knowledge would be barbarous, and railing against the inappropriateness of measuring the morality of savages.[90] The rest of his presentation also reaffirmed what he had said in Dundee, and he accused the Duke of not fully understanding proposals such as the use of the Stone-Bronze-Iron Age System. In the end, Lubbock really did not face down any of the points made by Argyll in *Primeval Man.*[91]

The most important moment of this debate probably occurred in the discussion. An unexpected protagonist, who had not been present at either of the two prior presentations by Lubbock, emerged among those present, to defend the position of the Duke. Alfred Russel Wallace, co-discoverer of natural selection and former representative of anthropology in the Association, lamented the absence of the Duke, expressed his admiration for Lubbock, and prepared to give arguments on the Duke's behalf.

From his travel experiences and knowledge of various groups, Wallace raised the possibility that in some cases it could be assumed that a degradation

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[89] Gillespie 1977: 47.
[90] This point contrasts with the position established by Lubbock in *Pre-Historic Times* (1865), where he mentioned that low mental and moral qualities were also evident in modern savages. Gillespie puts it as an ad hoc redefinition of morality.
[91] Gillespie 1977: 44.

process had occurred. He stated, furthermore, that "the people who were advanced in intellect and arts, but low in morality, could hardly be considered civilized".[92]

From these differences of opinion, Wallace concluded that when comparing the development of morality and intelligence there was evidence for possible echoes of both in the wild, but that do not permit the conclusion "that because man had advanced in the arts of life therefore he had advanced in morals".[93] This was the public expression of an idea that had been developing for several years in Wallace's mind: that natural selection was inadequate to explain the origin of man. Lubbock's presentation and the discussion that followed was, with the exception of Stokes' presidential address, the most heavily reported-upon aspect of the meeting in the press.

Wallace's views at this time were not surprising. In April 1869 he had published an essay on the works of Lyell in *Quarterly Review*.[94] Not only did Wallace place doubt on the scope of natural selection (despite admitting that the same organic laws had given rise to the human race and all organized beings), but he also stated, "there yet seems to be evidence of a Power which has guided the action of those laws in definite directions and for special ends. And so far from this view being out of harmony with the teachings of science, it has a striking analogy with what is now taking place in the world, and is thus strictly uniformitarian in character".[95] This view was widely held in the conservative

[92] [Anon.] 1869: 421.
[93] [Anon.] 1869: 421.
[94] Wallace 1869.
[95] Wallace 1869: 393.

media to the dismay of Darwinists.[96] Although this was the first public expression of such a view by Wallace, Darwin had been familiar with it for a long time. A few days before the publication of the review Wallace let Darwin know that for the first time he had ventured to consider some limitations of the power of natural selection even though people like Huxley or Darwin himself considered him weak and un-philosophical. In a clear and sincere way, Wallace made Darwin see that what was said in the article was simply an expression of a deep conviction.[97] Darwin's answer can be summed up in one sentence: "I hope you have not murdered too completely your own & my child".[98]

As Darwin said to Lyell after reading the article it is clear that it was just wonderful in his opinion. The reason for this admiration was focused on the extraordinary statement contained within the article, that in his opinion was the summary of Cuvier's ideas and the description of natural selection, though, he did not agree with the stress upon the point of man.[99] Lyell's position, on the other hand, was different from Darwin's. He was also very impressed with Wallace's discussion of Cuvier and natural selection, and in the case of Man's origin, Lyell showed no major opposition to the idea that a supreme intelligence could have led the change in a manner analogous to a horticulturist selecting his plants. In short Lyell agreed with Wallace on the limitations of the action of natural selection in the case of Man. It is worth remembering here that the vision of Wallace on the origin of Man had a clear precedent in the field of the BAAS, as three years previously, as we have seen, he had been elected chairman of the

[96] Ellegård 1990: 84.
[97] Wallace to Darwin, March 24 1869: *Correspondence* 17, 153-155.
[98] Darwin to Wallace, March 27 1869: *Correspondence* 17, 156-157.
[99] Darwin to Lyell, May 4 1869: *Correspondence* 17, 205-206.

Anthropology Department, using his presidential address to state that that the study of Man covered the various disciplines including many considered inappropriate by many to science.[100]

While thinking about the particular position held by Wallace on the limits of natural selection, especially with regard to man, we should not lose sight of one of the most famous conflicts he had with Darwin. Over the years, Wallace had developed the idea that the action of natural selection was strongly influenced by the "principle of utility".[101] From the application of this principle Wallace eventually came to the conclusion that the differences between human races were not explicable by natural means and that it was necessary to consider other options to explain these differences.[102]

The press response to the discussion between Lubbock and Argyll was mixed. One common position advocated the Duke as the true defender of the doctrine of creation, and deployed a summary of different types of evidence in order to show the clarity and certainty of the Duke's words. It is noteworthy to mention that although there were many protagonists within the debate, such as Huxley or Darwin, there is no reference, in the media to what was said by Wallace in support of the Duke.[103]

The *Examiner* devoted a single paragraph to the issue, in which it broadly recapitulated what had been said by both Lubbock and Argyll in the build-up to this discussion. On this analysis the Duke had defended positions established years earlier by the Archbishop Whatley while Lubbock insisted on defending the

[100] Lyell to Darwin, May 5 1869: Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-6728.
[101] Fichman 2004: 198, Flores-Villela and Rodriguez-Caso 2009: 32-35, Rodriguez-Caso *et al* 2012: 267.
[102] Wallace 1869, Wallace 1870.
[103] *Dublin University Magazine*, November 1869: 584-600.

progress of civilization. It is noteworthy that beyond reporting the discussion, the author mentioned Lubbock's concern for Hunt, who given his poor health, had to leave the meeting early.[104]

One of the best summaries of this discussion was published in *Punch*, 'The Genealogy of the Gorilla; or, Can a Race Degenerate?':

> Hear a Gorilla, sprite possessed,
> A Medium-Ape, with tongue controlled
> So that he shall, in speech expressed,
> His ancient pedigree unfold;
> It From Humanity began:
> His line descends from Ancient Man.[105]

These two reports are in very different styles, but certainly, this was the presentation that caused most interest to the press: both the subject of the origin of man and the fame of the debate's protagonists helped to generate such interest.

B. Ghosts from the past

At the Episcopal School on Thursday 19 September, the Biological section opened for business. Among the activities on this first day in the Department of Anatomy and Physiology was a paper given by a surgeon originally from Manchester, George Wilson, "The Moral imbecility of Habitual Criminals exemplified by Cranial Measurements".[106] The paper was not included in the official report, but the press showed great interest. The medical press commented especially extensively in the paper, and showed the discrepancies among the medical community about the validity of phrenology.[107] Wilson stated that the majority of criminals were considered fools, believing strongly that they did not

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[104] *Examiner*, 28 August 1869: 553-554.
[105] *Punch*, 11 September 1869: 102.
[106] *Athenaeum*, 28 August 1869: 278. See Jayewardene 1963.
[107] *Medical Times and Gazette*, 2, 1869: 260.

have an adequate discriminatory capacity, and lacked moral sense and principle. These findings emerged from craniological works performed on more than 460 skulls, which allowed him to conclude that criminals had a number of shortcomings in the anterior lobes of different portions of the brain. The ensuing discussion was long and interesting. The first attack against Wilson came from Busk, who criticised everything about the presentation: the methodology was not satisfactory; were the convolutions of the posterior brain considered the great seat and centre of mental power? In addition, Busk thought the relationship between level of intelligence and criminality was false. To prove his point, Busk gave a demonstration of the appropriate methods for measuring a skull, highlighting the methodological errors made by Wilson. Busk's position was supported by other physicians, and Cleland agreed with Busk especially on the posterior convolutions. But the commentator who stole the spotlight was the Rev. William Caine, at that time Chaplain of the County Gaol in Manchester. Caine had dedicated himself to the promotion of the social sciences since the late 1850s. In his opinion, the presentation was impressive. From his work with more than 700 criminals, he believed that education helped social reintegration to some extent, but that the real problem of crime, even for those with education, was alcohol. It was therefore not only education that was crucial to preventing crime, but also the suppression of trafficking in intoxicating beverages.[108]

Dr. John Charles Bucknill, who was devoted to psychiatric studies, believed, in contrast to Wilson, that the posterior convolutions were not the centre of mental power. For him, the answer was in phrenology, though not in what he called an "extreme" school. After careful consideration of the major

[108] *Medical Times and Gazette*, 2, 1869: 260.

regions of the skull, Bucknill believed he could make an estimate of the mental characteristics of the individual. In fact, Bucknill's comments consolidated much of what Wilson had said and even went further, asking which criminal tendencies were a result of heredity, caused by impressions received from the mother during pregnancy.[109] The statement in favour of phrenology caused a stir, as another phrenologist, Thomas Symes Prideaux, condemned the statement made by Cleland and praised the role of phrenology.

The status of phrenology within the Association had long been a complex one. As mentioned by Morrell and Thackray in their classic work, phrenology was one of the central topics for Victorian men of science but it was also one that had been excluded from the BAAS,[110] mainly because of its political and religious implications. It is surprising, none the less, that it took thirty-five years for this important subject to be included in the presentations of Section D.

Wilson's paper was not the only one at that year's meeting related to phrenology. On the last day of the Section, 24 August, the same character who celebrated Wilson's presentation held the floor. Prideaux was a surgeon, dentist and phrenologist born in Southampton, who had vast experience on the subject, and had produced several publications. At Exeter, he prepared a paper entitled, "On the Occasional Definition of the Convolutions of the Brain on the Exterior of the Head". Working with a bust, Prideaux proclaimed that a prominently defined convolution could be an indication of progress toward perfection. Such definition was more frequent among civilized races compared to wild races. In short, there was a direct relationship between the convolution and the state of civilization in

[109] *Medical Times and Gazette*, 2, 1869: 260.
[110] Morrell and Thackray 1981: 276-281.

the individual. The best example of the relation of convolution to state of civilization was that of musical ability, an example analysed in detail by the founder of phrenology, Franz Gall. This statement generated a great discussion, but the press did not give further details.[111] Only the *Anthropological Review* gave details of what had happened at the end of the paper. Busk, as had been the day before, was critical of the conclusions and methodology, and from these perceived weaknesses, he derived serious doubts about the claims made by Prideaux on the relationship between brain structure and the development of musical ability. At the moment when the discussion between the two seemed to have reached a high point of complexity, Wallace appeared to try to mediate. In his opinion, the only way to reach a real conclusion would be from a much larger study, with two or three hundred musicians. On the day, they only had before them a single example, so it was a waste of time to continue with discussion. Prideaux attempted to defend his paper, but the discussion ended quickly, and thus closed the activity of the Section.[112]

Another fan of phrenology, the eccentric Dr. Walter Cooper Dendy[113] gave a paper "On the Primitive Status of Man". The central idea of the paper was that man had a simian origin but that language ability had a higher origin.[114] Again, Dendy criticized and caricatured Darwinism, which assumed to be a hypothesis which explained the relationship of chimpanzees and men, but that he believed there was no paleontological evidence to support it. The discussion in

[111] *Standard*, 27 August 1869: 6.
[112] [Anon.] 1869: 428-429.
[113] On his life, see Clarke 1874: 441-449.
[114] *Daily News*, 25 August 1869.

the end turned to consider if anthropology had an intimate relation with religion, a position not agreed upon by many of those present.

C. The Rest of the Presentations: The Flourishing of Diversity Away from Centre Stage

Submissions in Section D were varied in terms of topics and approaches, as we have seen throughout this decade. One strange situation that resulted from the agreement to accommodate all submissions into a single section was the inclusion of an engineer, Hyde Clarke. He had been an ASL member for several years, even working as Secretary, but in the previous year had been expelled from the Society because of profound differences with the General Committee, and especially with President Hunt.[115] As a result of the breakdown of relationships with ASL and Hunt, Clarke made several presentations on Saturday 22nd in Section F, Economic Science and Statistics, putting him in a similar situation to that experienced by Lydia Becker the previous year. He argued for the application of statistics to issues related to the sciences of Man: he explicitly raised the need for statistics to determine the vitality of different races, a situation which in his words would be useful for British and American Congresses. His second presentation sought to extend the range of statistical research methods, through one example, to compare alertness in terms of numbers of healthy and sick individuals.[116]

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[115] The discussion covered exchanges of correspondence with Hunt, publication and responses in the *Athenaeum* and the *Journal of ASL*, the situation reached its peak with the presentation of many of the problems of the Society at the BAAS meeting in Norwich, a situation that bothered enormously. Clarke was expelled on September 2, 1868, by a vote of 26-16. [Anon.] 1868a: clxxxii-clxxxix.

[116] *Report* 1870: 181-182.

Section activities were resumed on Monday, with the much publicized presentation by Lubbock, which was followed by a session focused on archaeology. There were four presentations, led by geologist Peter Martin Duncan, the anthropologist and archaeologist Augustus Henry Lane Fox, the Rev. Edgar N. Dumbleton and antiquarian Rev. Abraham Hume. Duncan briefly referred to the recent discoveries of human fossils in south-western France during the construction of railway lines in the area. The discoveries seemed to suggest the possible coexistence of mammoth and men, something about which Duncan was not convinced.[117]

Fox presented some of the discoveries he had made around Middlesex and the Thames Valley, where he had found numerous tools, which allowed him to assess the occupation of the area at a time when the area showed higher water levels. Similarly, Dumbleton and Hume focused on archaeological discoveries which, combined with abundant drawings and original samples, generated considerable interest among those present.

On Tuesday, the Section was divided into two rooms, one devoted to Anatomy and Physiology, and the other to Zoology, Botany, and Ethnology. A curious detail of the proceedings on this day was the presence of Lydia Becker. Becker avoided the controversy that arose in the previous year from her presentation in Section F on the differences between men and women and this year presented a paper devoted to botany, an area of science in which she continued her quest for recognition.[118]

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[117] *Report* 1870: 130.
[118] *Report* 1870: 106.

Once again, the presentations related to the sciences of Man focused largely on archaeological topics, and some ethnographic studies. The surveyor and explorer Admiral Sir Edward Belcher, based in India, provided an overview of some stone implements found in the region of Rangoon, calling for further investigation. There was not much discussion afterwards.[119] Sir George Duncan Gibb presented his experiences in Canada, giving detailed descriptions of various aboriginal monuments found around the country, and even making interesting comparisons with marks found in other places, like Central America and Asia.[120]

This paper was followed by three more presentations: one from the archaeologist Alfred Lionel Lewis about the construction of megalithic monuments around the world and one from the historian Henry Hoyle Howorth, including an account of the nomadic migrations of Circassians in Europe between the 5th and 19th centuries. The day ended with the educator and historian James Bonwick, a resident of Australia, who proposed a hypothesis to explain the origin of the Tasmanians. Bonwick was concerned to do more than simply describe the group's history and focused more broadly on their habits and customs.[121]

On the last day, Wednesday 25th, the Section was again held in two rooms. Charles Staniland Wake returned after three years absence from the meetings of the Association, with two presentations. The first was simply entitled "Initial Life". Wake aimed to show, through various experiments with tissues, seeds and pollen, that germs of Infusoria were present in these substances before any type of infusion had occurred. His conclusions were that infusorial germs were essential for the development of all plants, and that the end product of these

[119] [Anon.] 1869: 426.
[120] [Anon.] 1869: 423.
[121] [Anon.] 1869: 425-426.

germs depended on the conditions under which they had reached maturity. In the end, a presentation not necessarily directly related with the sciences of Man, despite the fact to be presented in the Department of Ethnology. His second paper was a description of the physical characteristics, language and customs of the Madecasses of South Africa, which was too voluminous to be read.[122] These were two presentations that differed vastly in their approach to the subject of the sciences of Man, at least when considering the Section in which were presented, and serve as an example of the diversity of approaches to the subject of man, even in the works of a single individual.

The day was complemented by presentations on archaeology, ethnology, craniology, physiology and anthropology. The architect Edwin Francis Drake presented his findings of human remains in Leicestershire, with a rather geological description that did not generate much interest or discussion. The Irish geologist Ralph Tate made a well-illustrated presentation of notes recorded about rocks, which according to President Busk, was more than enough, and there was no time for further comment. In the same vein a presentation was given by the geologist M. Townshend Hall, on the use of flint flakes by the first inhabitants of Devon.

On ethnological topics, the traveller Richard King presented his experiences with the natives of Canada; fellow traveller W. S. Hall made a similar presentation about the Eskimos, in order to build a hypothesis about their antiquity; Howorth presented his vision of the boundary between geology and ethnology; the Irish geologist George Henry Kinahan spoke of the distinctive

[122] [Anon.] 1869: 425.

elements of the Irish race and Dr. John Stirling spoke in descriptive terms of the races inhabiting the territory of Morocco.[123]

From a physiological perspective, the physician George Duncan Gibb spoke of the longevity of different races, and surgeon Robert Garner gave an anatomical description of the brain of a black man. The final presentation of the session focused on the traditional theme of language, with a description of vocabularies of Central American groups in a joint presentation by archaeologist Richard Charnock Spencer and palaeontologist and librarian Charles Carter Blake.[124]

Again, we can see a variety of topics, which in most cases went unnoticed by the press. It is clear that for the press and public the importance depended not on the subject itself, but in the presenter, as in the case of Lubbock. In others, the development of themes was not flamboyant enough to say anything more than the mere mention of the title.

6.5 Conclusions

The Exeter meeting can be viewed as a return to balance, at least in terms of the Presidency. The constant attacks on Darwin's ideas were as widespread as they had been before, being this year fostered once again by a strongly conservative environment. The conservative atmosphere in Exeter was a strong influence on the meeting, obvious in the presence of clerics openly critical of the theories of Darwin, or in the President with recognised scientific credentials but also a strong link with the Victoria Institute. This context was important despite the fact that

[123] [Anon.] 1869: 425, 428.
[124] [Anon.] 1869: 425.

within the organization of the Association the influence of X-Club members in key positions was getting stronger. This leads us to consider on the one hand the importance of locality, especially in relation with politics and religion, as the case of the three clerics. On the other hand, it allows us to value the diversity that existed among the members of the Association, both ideologically and professionally.

The sciences of Man seemed to find a place at the meeting, although disputes between metropolitan societies still remained harsh and difficult. If the year before the death of Crawfurd had contributed significantly to a change in position for the "ethnologicals", this year it was the "anthropologicals" turn. However, the "anthropologicals" suffered their own loss of a charismatic leader, when Hunt died. With the loss of two leaders, the situation between the two societies took on a new perspective. On the side of the "ethnologicals", Huxley was taking control of society, while among the "anthropologicals" no one in particular was willing to engage with Huxley. These disputes had an effect on the presence of the sciences of Man within the Association. Over the next few years would achieve recognition for a unique space within Section D, Biology, but the road to recognition in an independent manner for anthropology was still long.

There was, of course, much more to the sciences of Man with the Association than just the disputes between the metropolitan societies. Throughout the meetings, but particularly in Exeter, discussions that arose about the origin of Man were often motivated by purely religious issues. In the inclusion of the clergy in Section D, despite the refusal of papers from some of the representatives of the life sciences shows that there was a great deal of diversity at the meetings. In some sense, what happened within the BAAS can be seen as a

direct reflection of what was happening between the two societies, but it is also true that there were more people involved in the BAAS than just those who belonged to societies. Moreover, the objectives of the Association supported a view of science, which in general terms strengthened different ideas and unified subjects under a single concept called science.[125] In that sense since its inception, the Association sought to promote science as a vocation,[126] in an environment away from politics and ideologies. Many times this was not the view of science held by leading characters such as Hunt or Huxley.

Tylor, as president of the Department of Ethnology, was in an unexpected situation due to the lack of arrangements between "ethnologicals" and "anthropologicals", and finally he met the position set in honorary terms. However, in pursuit of institutional stability for the sciences of Man, Tylor could not offer further influence, as the decision to include everyone in Section D had already been made. As in the case of Wallace in 1866, the characters who finally functioned as chairman of the Department were those who were not the most representative in the discussions about Man in the press as they could be (Huxley, Crawfurd and Hunt), but that position was delegated to neutral people, with a consideration for their contributions to the sciences of Man. For this year also, given the conditions in which Tylor was elected, there was no opening statement or further reference to his opinion on the state of the sciences of Man. After the deaths of Crawfurd and Hunt, Huxley began to take an increasingly important role in decisions regarding the fate of the sciences of Man at the institutional level, in the Association and out of it. Huxley's role in the

[125] Morrell and Thackray 1981: 452.
[126] Morrell and Thackray 1981: 33.

Association also became increasingly important, as it was at the next meeting at which he was elected President of the BAAS, a position that gave him a new standing among men of science, and of course the chance to have a bigger influence in crucial decisions, and thereby to promote his idea of science.

The situation regarding the practice and theory of the sciences of Man was still a very different one from the institutional struggles. The importance of local characters at each meeting made possible the presence of people with diverse backgrounds and interests, and the presentations were a reflection of that inclusiveness. The inclusion of topics such as phrenology, or those very similar, points to two conclusions: that enormous thematic diversity was accepted into the Association, or on the other hand, that there was a continuing lack of consensus about the proper study of man.

Despite this diversity, the origin of man remained the central interest in presentations related to the sciences of Man. The confrontation between Lubbock and the Duke of Argyll continued at this meeting, with the unexpected participation of Wallace as an advocate for the ideas of the Duke. The press paid more attention to this issue, in which both the subject and the character of those involved were clearly decisive. Although this thematic diversity was somehow an extension of what could be seen within the meetings and publications of ESL and ASL, the Association was more open towards clearly controversial issues. We must not forget that one of the Association's goals was to show the public the

work of the men of science, and in ways that caught the public's interest. Science and entertainment went hand in hand at the meetings of the Association.[127]

After the events of the Exeter meeting, and the loss of the great leaders of the sciences of Man, the Liverpool meeting, at which Huxley was to be president of the Association, was an ideal opportunity to consolidate the sciences of Man within the Association for both Huxley and the Darwinians.

[127] It is worth emphasizing that the activities of the annual meeting included not only the presentations but also conversaziones, physics demonstrations, concerts, and other activities that reinforced the social character of the meetings of the Association.

7.0 Liverpool 1870: A President of the People and the Final Amalgamation of the Sciences of Man

7.1 Introduction

Almost from the moment that Thomas Huxley was chosen as the new President near the end of the Exeter meeting, it was made clear in the press that "the opinions of the President elect may not correspond exactly with those held by the majority of scientific men".[1] This was an understatement. Even so, the outspoken, independently minded Huxley had in recent years become more active as a kind of statesman of science, especially, as we have seen, with his active participation in the ESL after Crawfurd's death. What was more, Huxley's activism within the ESL was beginning to bear fruit within the Association itself, thanks not least to the support of the other members of the X-Club, who also began to play a bigger role, because of their scientific positions but also, in the cases of Lubbock and Hooker, for their relevance in politics.

Given the interest Huxley had shown in recent years in the sciences of Man and, more recently still, in the possible amalgamation of the two metropolitan societies, one might have expected him to be overtly active in the Association in connection with those sciences. But this was not the case: Huxley's interest focused, instead, on the life sciences, a subject which from 1866 he promoted as part of the consolidation of Section D as Biology. It was without heavy steering from Huxley, then, that the sciences of Man within the Association seemed to achieve a kind of peaceable consensus. Since the space

[1] *Wrexham Advertiser*, 4 September 1869: 4.

opened in the previous year did not fulfil many of the members' expectations, this peace was achieved partly by improvisation: for the Liverpool meeting a department known as Anthropology was included, once again, in Section D, Biology; and the man who took the reins of the new department was the archaeologist John Evans – a sign of the importance that archaeology had taken in the overall context of the sciences of Man.

In retrospect, we can see that changes in the direction of how the metropolitan societies were managed, caused by the deaths of Crawfurd and Hunt, had opened the way finally for a possible union not just outside but within the Association. Finally after several years of failed attempts, the ESL and ASL had made it to a series of agreements providing for their future union.[2] The precarious economic situation of the ASL had been at least partly responsible for forcing the society to seek alternatives, beyond the usual disagreements.[3] In addition, for all that he kept his distance at the Liverpool meeting, Huxley's long-running interest was key to facilitating a union. Even so, the amalgamation of the sciences of Man within the British Association had its peculiarities, not least in that the diversity of topics presented in the Department of Anthropology was much broader than at the meetings of any of the metropolitan societies, especially in the case of religion. And for the first time in many years Section E, Geography, presented papers related to what was traditionally known as ethnology, by the Scottish orientalist, Colonel Henry Yule. Meanwhile, more general subjects related to the human sciences were confined to the realm of section D. Both the president of that section, the physiologist George Rolleston,

[2] Stocking 1987: 255-256.
[3] Stocking 1987: 257.

and the chairman of the department, Evans, were close to Huxley: an arrangement of practical importance in that Rolleston and Evans were thus in crucial positions to support a particular set of ideas – what has become known as "scientific naturalism"[4] – and the pursuit of scientific professionalization for the men of science. The individuals who sought the professionalization of science earned spaces for their new disciplines.

In different ways, each of the three sections that follow explores the theme of Victorian scientific naturalism in relation to the consolidating Victorian sciences of Man. The first section in this chapter will be devoted to Huxley and how his presidential address on the origin of life came to be linked to naturalism and evolutionism, not least about the origins of humankind, as part of his efforts to consolidate a unified view on Nature. At this meeting, Huxley, as President, was in a unique position to promote his vision of science and to have a major impact on the public. Huxley's power was undoubtedly facilitated by the leading role he took in the forum of the Association, and by media that keenly reported each of his steps. Next, the chapter turns to the consolidation of the Department of Anthropology. Huxley had been one of the driving forces behind the emergence of the Section of Biology and a Department of Anthropology in 1866, and this meeting would finally consolidate the idea of the need for a separate department. The creation of a new department was a complex process within the Association and a reflection of what had happened between the ASL and ESL. In examining some of the individuals involved in brokering the deal at the BAAS, we shall have a chance to consider in more detail how heterogeneous were the range of backgrounds, interests and commitments of some of the people who

[4] In this regard, see Lightman and Dawson 2014.

banded together to advance the Victorian sciences of Man institutionally. Even so, when the first president of the new Department, the archaeologist John Evans, gave his inaugural address, he grounded his vision of its scientific future in the larger naturalist vision, repudiating the Scriptures as a guide for modern science, in parallel with the current discourse maintained by the scientific naturalists. Finally, in the last section, I will attempt to show first how that diversity persisted outside as well as inside the new department, and second how these activities at Liverpool held huge interest for the public, a fact reflected in the level of participation that occurred this year, in contrast to the Exeter meeting. Also, in parallel with the approach between the metropolitan societies, we will consider the amalgamation in a unique space was finally achieved. It was in Liverpool that Huxley and others worried out loud about "the increasing savagery of the lower classes" – a trend that the professionalizing sciences of Man were, BAAS audiences learned, poised to help reverse.

7.2 Huxley in the Unaccustomed Role as Peacekeeper

A. "A Darwinian President, with a Vengeance"?[5]

Ellegård repeatedly points out something that is worth repeating here. The presidency of the Association had spent the last five years alternating between presidents who were for or against Darwin's ideas, but who were also between individuals with very different visions of science.[6] Huxley's election raised controversy from the start; and in truth, up to the Liverpool meeting, Huxley had been controversy incarnate, in and out of the sciences of Man, and in and out of

[5] Ellegård 1990: 84.
[6] Ellegård 1990: 78-88.

the BAAS, from his skirmishes with Richard Owen over the hippocampus minor onwards.

From the moment it became known that the new president of the Association would be Huxley after the General Committee in Exeter, the press highlighted the political game that must have occurred for this to happen.[7] Much of the political game was motivated by the particular position of Huxley in science, in addition to his personal position.[8] *The Times* picked up the story in late August 1869, when the General Committee meeting in Exeter decided to choose Liverpool as the venue for the following year, and Huxley President. Sir Stafford Henry Northcote nominated Huxley to the Committee, and was seconded by Lubbock, after the first option, the economist from Liverpool, William Stanley Jevons, rejected the honour, on the grounds that "he considered the association one formed for the promotion of science, and that its members should elect their own president and officers, without references to localities, but solely with the view of furthering and promoting scientific research".[9] In fact, Jevons felt that the president should be "the mouthpiece of English science", or, indeed, Huxley. The proposal was received with some suspicion. It was not an easy decision to make, while no one doubted the scientific merits of Huxley, his views on sensitive issues were a concern. Although, as mentioned by Desmond, Jevons' intentions were not really so gallant. Actually, he did not want to lose the good opinion of Huxley.[10] Once Huxley was accepted by the Committee, *The Times* commented: "About the great scientific claims of Professor Huxley there

[7] Ellegård 1990: 84.
[8] Desmond and Moore 1991: 576.
[9] *The Times*, 25 August 1869: 6.
[10] Desmond 1997: 375.

can be no dispute; and, while we cannot look forward to his presidency quite without misgivings, we none the less cordially hope it may fulfil all the expectations of his supporters".[11] In the end, the general belief was that "there seems to be a general feeling that Professor Huxley in the chair of the British Association will be in as difficult position as Mr. Bright in the Ministry",[12] in a clear reference to the difficult situation of John Bright.[13] *Spectator* delivered the news more calmly, though not without some irony: "If only we had an 'indiscret' Archbishop! – but that being impossible, let us be thankful that we shall next year have an indiscreet President of the British Association".[14]

The Times was not calling Huxley indiscreet and flattering, but to some extent a provocateur.[15] The *Daily Telegraph* made it clear that there was a great division within the council over the presidency of Huxley.[16] The board had suggested Jevons as president but he had turned down the job when he realized he would have strong opposition in favour of Huxley. As a result Huxley found no opposition although it is noted that the current president of the council, sidestepped the issue Sir Stafford Northcote by not voting for him. The *Spectator* and *Star* welcomed the election.[17] Prior to the meeting *Leisure Hour* devoted a lengthy article to Huxley, and a new biography that covered all his work as a scientific man, from his formative years until his most recent achievements. The biography emphasized his commitment as an evolutionist, his recent interest in

[11] *The Times*, 25 August 1869: 6.
[12] *The Times*, 25 August 1869: 6.
[13] See Evans, 2011: 131-132. John Bright (1811-1889), was a liberal statesman, who participated in the Anti-Corn Law League in 1838. He was a member of the House of Commons from 1843 to 1889, and was characterized as a tough critic of British foreign policy. See Carter *et al*: 32, 66, 131-132.
[14] *Spectator*, 28 August 1869, in Ellegård 1990: 85; Desmond 1997: 375.
[15] *The Times*, 15 September 1870.
[16] Ellegård 1990: 85.
[17] Ellegård 1990: 85.

the subject of Man, and his commitment to materialism, a belief which had placed him at numerous times in difficult positions with the Christian community.[18]

However, Huxley did not seem to have problems with these differences of opinion over his presidency. Since his election at the end of the meeting in Exeter, Huxley seemed satisfied with the situation, and he commented in a somewhat sarcastic way to Tyndall in 7 June 1869:

> After a sharp fight for Edinburgh, Liverpool was adopted as the place of meeting for the Association of 1870, and I am to be President; although the *Times* says that my best friends tremble for me. (I hope you are not among that particular lot of my best friends.)
>
> I think we shall have a good meeting, and you know you are pledged to give a lecture even if you come with your leg in a sling.[19]

Figure 7.1 Thomas Henry Huxley[20]

[18] *Leisure Hour*, 3 September 1870: 570-574.
[19] Huxley 1900, vol. I: 336. At the time Huxley sent this letter, Tyndall was in Switzerland recovering from an accident.

It is well known that Huxley was considered one of the best representatives of the new breed of professionalizing men of science. His election as president of the Association should be taken into account as having played a leading role in the Association's dissemination and promotion of science. For several years, Huxley had used his influence within the Association to deliver the "Operative Lectures", which focused particularly on workers and the general public, and sought to reinforce the public nature of science.[21] On Huxley's being appointed President, one might have expected a much greater impetus in this direction, and to some extent the lectures were expanded. Huxley also boosted attempts to bring science to the public, in 1869, with publications in *Nature*,[22] and the publication of his *Lay Sermons* in early 1870. One of the most striking anecdotes from the Liverpool meeting – which reflects the importance Huxley gave to the public nature of science – is what happened overnight after the end of the sessions. Huxley accompanied by Lubbock decided to visit some of the slums of Liverpool, with the idea of learning at first-hand about the situation of people who lived there, and with the aim of seeking an improvement in the situation. Despite their goodwill, the situation required them to be escorted by the police during this visit, although there were no serious consequences.[23]

The progress made by the Association as a result of Huxley's work was noticeable. He had already been president of a Section, in 1866, Biology, but the

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[20] *Illustrated London News*, 17 September 1870: 296.
[21] Since the establishment of the Operative Lectures in 1867, three of the four presentations were given by members of the X-Club: Tyndall in 1867, Huxley in 1868, and Lubbock in 1870. In 1869, the honour fell to chemist and astronomer William Allen Miller (1817-1870). See *Report* 1871: xxxvii.
[22] Huxley published two articles, "Aphorism by Goethe" and "Triassic Dinosauria".
[23] Howarth 1922: 105.

Association presidency was the culmination of many years of effort and of political manoeuvres.[24] Huxley, together with the other members of the X-Club, occupied several of the leadership positions of importance, not only within the BAAS, but also in the other scientific societies. Desmond suggests that the presidency was the acme of Huxley's young career. Basically, this event capped a decade of profuse intellectual activity. Huxley was the official spokesman of Darwin, so this was also the perfect moment to give a definite boost to evolution.

What did Darwin have to say about the meeting and Huxley's presidency? Hooker was responsible for bringing the subject up, with a long and detailed letter sent to Darwin on 24 September. For Hooker, it was a very good meeting, and Huxley's address – to be examined in more detail below – was admirable, but too complex for most of those present. Also, it was a speech full of scientific discourse, but not the controversy that many expected.[25] As mentioned before, this year Huxley had also published his *Lay Sermons*, which were not just an attempt to present science to the public, but also to promote a sceptical view of the world. The work gave him much more popularity, although he was not viewed favourably by the religious authorities. Three days later, in a reply to Hooker, Darwin commented that in his opinion the speech was "clean as water", in contrast to the general impression, Hooker's included.[26] It is clear that Darwin did not often openly express positions that fitted with materialistic views, although it is true that Huxley's speech, as we shall see, was quite moderate and

[24] *The Times*, 25 August 1869: 6, Ellegård 1990: 84-85, Desmond 1997: 375.
[25] At the end of the letter, Hooker was sad, since Darwin has decided to change the title of his next book, which was initially called 'Origin of Man'. Few months later it was published under the title of *The Descent of Man, and Selection in Relation to Sex*.
[26] Darwin to Hooker, 27 September 1870; *Correspondence*, 18: 253-255.

perhaps too technical for the general public, but as a presentation it pleased the men of science.

It is hard to avoid the conclusion that Huxley at Liverpool did what he could to avoid controversy. He was formally involved with the sciences of Man, as part of the "ethnologicals" in the quest for amalgamation of the two societies, yet his recent work became deeply involved in discussions related with other topics.[27] In Liverpool, he made a presentation in Biology on the results of two years of research not on the relationship of humans and non-human animals, but on the relationship between 'Penicillium, Torula, and Bacterium'.[28] More positively, we can see, in the subjects Huxley did address, a continuity with his interest in strengthening the life sciences, and biology as a unifying discipline, in which, of course, would be included the different sciences of Man.

B. Huxley's Presidential Address: Implicit Lessons for the Sciences of Man from the Origin-of-Life Debate

As we have seen in other chapters, the presidential address was a letter from science to the public. The newspapers transcribed the address in full along with the ensuing comments. In fact it was the perfect time to openly raise the state of science, but it could also serve as a means to raise controversy. Huxley might well have praised Darwin, evolution, the sciences of Man, but he chose a different debate, the origin of life. The choice of the topic for his speech was part of a controversy over the origin of life between Huxley and the physiologist Henry Charlton Bastian, Professor of Pathological Anatomy then at University

[27] On Huxley's rethorical capacities, see Block 1986.
[28] The paper was published the same year in the *Quarterly Journal of Microscopical Science*, and later in his *Scientific Memoirs*.

College, London.[29] In preparation for the address Huxley made contact with Bastian and the German naturalist and promoter of Darwinism, Anton Dohrn.

Huxley's speech did not follow the customary lines of past years in recounting what had happened throughout the year in the various sciences. Instead, Huxley preferred to focus on one issue, "the history of the rise and progress of a single biological doctrine"[30] the origin of life.

As Hooker had noted to Darwin, the speech was full of details and scientific terminology. Huxley began with a long historical account of the first studies of life, from Greek and Roman times. Among the famous figures he mentioned, was the Italian physician Francesco Redi, who in the seventeenth century had made several experiments to disprove spontaneous generation. He also made reference to the work of another Italian physician, the Italian Catholic priest Lazzaro Spallanzani, and to the French chemist Louis Pasteur.

The theme of the speech was the question of whether or not agencies could be produced from dead matter. Huxley found support for his paper in Pasteur's experiments on the impossibility of abiogenesis, positioned against what he considered a general rule, biogenesis. Huxley drew three lessons from Pasteur's experiments: that microscopic particles in the samples of cotton-wool used were clearly recognizable as germs; that these germs could develop new ways of living in a suitable environment; that air strained through cotton-wool could not give rise to new forms of life.[31] Huxley believed biogenesis could occur, and used this as an opportunity to make clear his position on the scope of scientific naturalism on a subject as controversial as the origin of life.

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[29] For an extensive discussion of the work of Bastian, see Strick 2000.
[30] *Report* 1871: lxxiii.
[31] *Report* 1871: lxxxi.

It was a very long and detailed speech, but Huxley had a particular goal: to educate, showing along the way, albeit slowly, how science is built, and also, how the results of science knowledge could alleviate misery and promote the welfare of society. For someone who was looking to consolidate their place in the institutions and politics of science, this was a clear statement of intent.

Huxley's intention with this speech was to give more power to biology, which traditionally was still underestimated, especially by physicists. It is worth remembering Stokes' speech in the previous year, in which the physical sciences were shown as the science par excellence. The strategy involved Huxley in controversial issues – the origin of life and spontaneous generation – but also, allowed him to avoid explicit reference to more controversial issues, such as Darwinism. This strategy may also have been influenced by the fact that the meeting had many Darwinists and presentations related to evolution.

It is noteworthy that Huxley focused entirely on this subject, and did not give space to any other topics, like the recent success in including the sciences of Man in a unified department, even now that he was the President-elect of the ESL.[32] Huxley had many different interests, and although the sciences of Man had become important to him throughout the decade, his interest in biology, and especially evolution, had priority. Huxley's speech can be seen as a confirmation of biology as a discipline and a unified view of the life sciences within the Association, and by extension, the rest of science that came under its shelter.

[32] Desmond 1997: 371.

Huxley had presided over the first Section of Biology five years before, and had sought to consolidate the concrete study of nature, built on Darwin's ideas.[33]

In giving his historical account of spontaneous generation, Huxley raised with it his opinion that "the great tragedy of Science – the slaying of a beautiful hypothesis by an ugly fact – which is so constantly being enacted under the eyes of philosophers".[34] This was a new call to pay attention to the place of science. Or at least the place that Huxley considered science to deserve.

Bastian promptly answered the criticisms on his work on the last day of sessions in Section D, on Wednesday 21st September. Briefly, he presented again the methodology he had followed in the experiments and that had been heavily criticized by Huxley, so that the public could be aware of the real possibility of spontaneous generation in order to explain the origin of life. Bastian's explanations, concluding that things that appear at the end of the experiments were alive and had arisen de novo, did not satisfy the sceptic Tyndall, who despite all the explanations offered, felt that rigor was lacking in the experiments, and especially in elimination of possible errors.[35] Criticism of Bastian's experiments also occurred in another presentation by the editor of the *Quarterly Journal of Science*, James Samuelson,[36] who from different experiments and observations concluded that despite theological opinions, which were overvalued, he believed that "those who prefer to adopt the theory of the creation of living

[33] On the support gave by Huxley to biology's development as discipline, see Reid 1997: 182-214.
[34] Huxley 1900, vol. I: 356.
[35] *Report* 1871: 129-130.
[36] Strick 2000: 56.

forms only from germs already in existence would eventually find their view to be correct".[37]

As we shall see, the reception of the address by the press, and Huxley's presidency, was pleasant, but the general impression was that Huxley's move towards materialism was clear,[38] although in Huxley's case was not a distinctive label, since he usually had been called 'Atheist', 'Materialist', 'Nihilist', or 'Positivist', this last being the "hardest to peel off".[39]

C. Newspaper Coverage of the Meeting

In considering the current impact of Huxley for the public, it was not strange to note the impact of Huxley as President of the Association was enormous in the press. For example, in *The Period* we find they dedicated its portrait to the new president lecturing at the meeting, which was based on a previous portrait published in *Illustrated London News* on 17 September (see Figure 7.1). The image illustrates nicely how Huxley as President was associated with the sciences of Man, however much he now tried to keep his distance, by putting him with an ape, as a symbol of the relation between primates and humans:

[37] *Report* 1871: 133.
[38] As noted by Desmond and Moore, "'Materialism' itself was a pejorative label. Technically it meant nothing but matter existing (and certainly no spirits), or though being a function of the brain, but it was indiscriminately used to damn anyone looking for the laws of mind or the mutability of species". Desmond and Moore 1992: 250.
[39] Desmond 1997: 372.

Figure 7.2 Huxley's portrait in *The Period*[40]

But not just his association with the sciences of Man was presented on the press. His well-known animosity against religion was presented in a cartoon published by *The Gauntlet*, with the proper title "The Battlefield of Science and the Churches", which concerned how Huxley conceived of the relation between science and religion.

The cartoon literally shows a battlefield in which two groups face each other, with diverse characters and symbols representing each one. On the left, the science presented with institutions such as London University, the Social Science Association, the Mechanics Institute, and even BAAS, along with characters such

[40] *The Period*, 26 November 1870. Available in: http://aleph0.clarku.edu/huxley/CE8/B-Ab.html.

as Tyndall, Darwin and Huxley himself (Figure 7.4), showing in every case a particularity recently associated with each one: Tyndall with his experiment recently presented at the Royal Society that demonstrated how to guide a light beam through a falling stream of water; Huxley holding a sign with the main topic of his Presidential address, biogenesis and abiogenesis; and Darwin, sitting and sustaining a monkey on his right hand. On the opposite side of the cartoon, there are drawings of serpents, boats – representing Noah's Ark – and donkeys, satirizing diverse

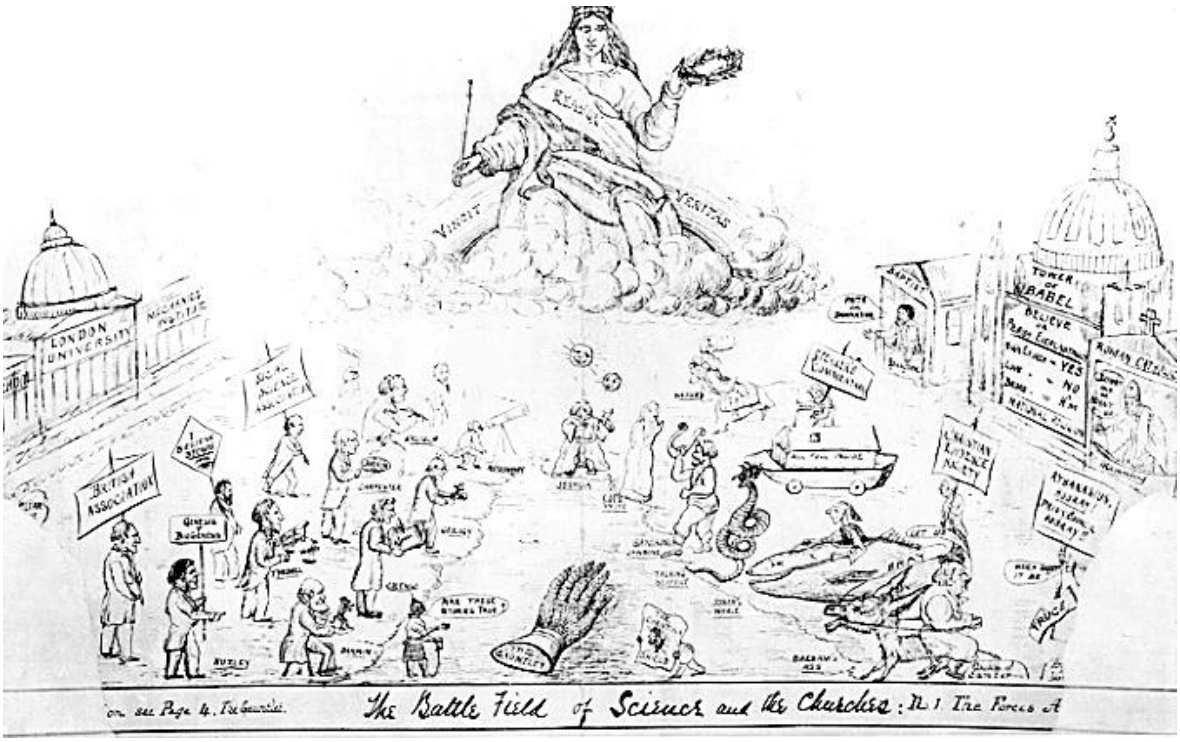

Figure 7.3 "The Battlefield of Science and the Churches", *The Gauntlet*, c. 1870[41]

[41] *The Gauntlet*, c. 1870. Available in: http://aleph0.clarku.edu/huxley/CE8/B-Ab.html#battlefield.

religious stories, also images of the Pope and the Catholic Church, next to the Tower of Babel and a Baptist temple, in front of the recently founded 'Christian Evidence Society'.

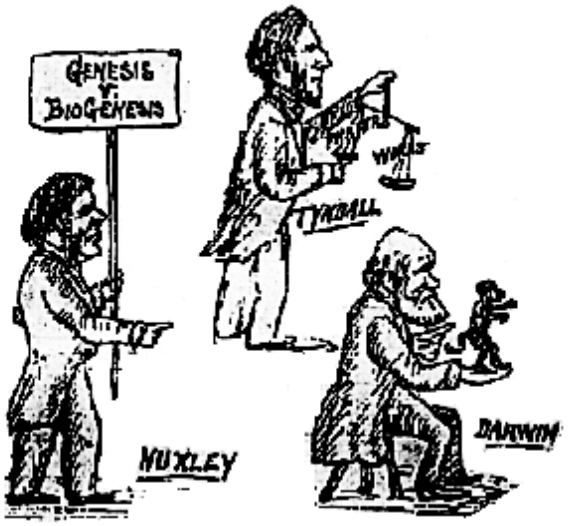

Figure 7.4 Close-up of "The Battlefield of Science and the Churches", representing Tyndall, Huxley and Darwin[42]

This cartoon brings together the wider perceptions of Huxley at the BAAS, though in his own terms staying out of controversy, was nevertheless perceived as striking a blow against religion. Also, it epitomizes the view of Man by the picture of Darwin, as explicitly relating his evolutionary proposal with the origin of Man. In general terms, this picture also represents the advancement of the scientific naturalism – and especially the sciences of Man – as viewed by Huxley and Tyndall as an option against religion.

[42] *The Gauntlet*, c. 1870. Available in: http://aleph0.clarku.edu/huxley/CE8/B-Ab.html#battlefield.

Once the meeting opened, the *Manchester Guardian* stressed the good reception given to the President-elect. The paper highlighted the words of the Earl of Derby at the end of Huxley's speech, which emphasized open discourse and sounded a note far from dogmatism despite the contentiousness of the issues.[43] The *Athenaeum* also spoke of the good taste with which Huxley had composed his inaugural speech. Unlike Hooker, Huxley had used language that was perfectly intelligible to all.[44]

The *Saturday Review* emphasized that the interest and suspense generated by the meeting had reached a new pitch in comparison to previous years. The presidential address was seen, by the paper, "to form one of the most striking characteristics of the Society proceedings".[45] Thanks to his merits as a biologist and as a physiologist, Huxley was seen as one of the most important scientists of the time even though his name was not related to any particular discovery. On the other hand, the *Review* lamented the almost dogmatic proposal of science, which was limited to the physical basis of life, and in that sense, very close to materialism.

This was possibly a speech that did not satisfy many of Huxley's supporters. The audience at St George's Hall on Wednesday 14 September expected more controversy. But Huxley preferred another option, an unusual one for him, considering the closed and perverted treatment that showed in *Lay Sermons* at the beginning of the year "with its exultant vision of the new scientific cosmos".[46]

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[43] *Manchester Guardian*, 15 September 1870: 6.
[44] *Athenaeum*, 17 September 1870: 371.
[45] *Saturday Review*, 17 September 1870: 357.
[46] Desmond 1997: 368.

According to Ellegård, the general impression in the religious press was of relief, as Huxley was seen to be advocating a doctrine incompatible with Darwinian perspectives.[47]

The situation in this year was not as complicated as had been anticipated. Huxley's hostility over religious issues seemed to be muted. His compromise as a staunch defender of evolution had generated controversy in the past, and his views about Man's place in Nature, earned him several battles with clerics, as last year during Exeter meeting.[48]

It is remarkable, none the less, that Huxley did not make any mention of the unification of the sciences of Man, since he had a major role in the ESL's negotiations over the previous year, and the meeting of Liverpool was a consolidation of these efforts.[49] Maybe it was a moment of modesty, but the Department of Ethnology and Anthropology owed a lot to the current President of the Association.

7.3 A Renewed Unified Department of Anthropology as a Reflection of Renewal and Unification beyond the BAAS

A. The Decision to Create a Unified Department under an Inclusive Name

The previous year's meeting saw a first attempt to unify the two opposing views between ESL and ASL, but without success. But since the death of the two main leaders, Crawfurd and Hunt, however, the relationship between the metropolitan societies had changed dramatically. The "ethnologicals", now under the leadership of Huxley, had finally achieved institutional stability. The "anthropologicals" situation, by comparison, had grown more precarious,

[47] Ellegård 1990: 87.
[48] See Ch. 6.0.
[49] Stocking, 1971: 382-383; Stocking, 1987: 256.

especially given the financial situation they faced.[50] This crisis proved sufficient to finally get the two societies to merge. Furthermore, a similar situation occurred in the BAAS, resulting in a unified department.[51] The role played by Huxley in this consolidation cannot be overlooked, especially considering his continuous attempts within the Association to set the agenda for the sciences of Man at both disciplinary and practical levels.

An important part of this consolidation was due to the support of other members of the X-Club. As noted, the chair of the Biology section went to Rolleston, a former student of Huxley's, and the Department of Ethnology and Anthropology was entrusted to Evans. This institution-building was largely due to the continued support of members of the X-Club, or people directly related to them. For Evans, that closeness was especially with Lubbock, in what has been called "Lubbock-Evans network" as the perfect union between archaeology and Darwinism.[52] There were common interests between those interested in archaeology and ethnography, and since the ESL had become the main centre for Darwinists interested in the study of Man, the influence of people such as Lubbock and Evans to promote an integrative discipline like archaeology through this informal network had been ever more successful.[53] An expanded version of this network was the 'dynamic Lubbock-Evans network' composed of Evans, Pitt Rivers, A.W. Franks and Lubbock, who worked on promoting the development

[50] Stocking, 1987: 255.
[51] Stocking 1987: 254-257.
[52] MacGregor 2008: 218.
[53] Chapman 1989: 28-32.

of new scientific values in the ESL,[54] the Antiquarian Society and the Archaeological Institute.[55]

The final decision to open a specific space for the sciences of Man was made on 14 September 1870 after the General Committee meeting in Liverpool. Among those present were representatives of the ASL including Richard King, Joseph Kaines, Alfred Lionel Lewis and the President of the Society, Charles Staniland Wake.[56] As in previous years, ASL members pushed for the opening of an exclusive section and not a department, arguing that the discipline was in a state of maturity that justified a whole section. However, the rest of the committee, including members of the ESL, agreed to the opening of a department of Ethnology and Anthropology in Section D. John Beddoe was appointed vice president. After this decision, pressure from the ASL and especially Richard King, declined markedly.[57] In this lacuna it was considered advisable by ESL members to press for the choice of Beddoe. He was a physician who began his career as an ethnologist during his travels in Europe scanning bodies, a situation that turned him in an authority on the physical characteristics of living European races.[58]

At the Liverpool meeting one of the most controversial decisions made by the General Committee was related to the admission of new members. Within the general council there were two classes of membership, permanent and temporary.

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[54] The transformation of ESL was due to the X-Club and "Lubbock-Evans network", which established as a focus the debate on the antiquity of Man where disciplines such as ethnography and archaeology were integrated within a broader interdisciplinary scientific paradigm. See MacGregor 2008: 220.
[55] Chapman 1989, MacGregor 2008: 220.
[56] Wake *et al* 1870: iii.
[57] Wake *et al* 1870: vi.
[58] Angelique Richardson, 'Beddoe, John (1826–1911)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004 [http://0-www.oxforddnb.com.wam.leeds.ac.uk/view/article/30666, accessed 7 July 2014].

The permanent members were those who had served as presidents of the association and all those who made presentations and were therefore included in the reports. Permanent membership was also extended to those who had published articles on related topics and had been considered by the section meetings. The temporary members were those who acted as presidents of scientific societies, up to three representatives of each society, foreign members and individuals who required assistance (nominated by the President and secretaries in turn, and vice-presidents and secretaries of sections). In this regard, the main change proposed by the Council that directly affected the participation for future meetings was the necessity of confirmation of the potential participants in advance not only of authorship but also of any relevant publication that could be of interest of a specific section. This decision was not well received particularly by the "anthropologicals". From this year and already thinking about next year's meeting in Edinburgh, the consensus within the ASL was to seek for the establishment of a separate Section of Biology to Anthropology and Ethnology.[59]

After Hunt's death, the job of representing the ASL fell to other members. It is worth describing the composition of the membership in order to reaffirm the enormous diversity present amongst the students of the sciences of Man even as consolidation of the societies proceeded. A brief look at the profiles of the some of the ASL figures who ratified the new BAAS arrangements will help to make that diversity vivid. To start with, consider Joseph Kaines, who was a noted positivist, one of the most active writers on the subject in the Victorian era.[60]

[59] Wake *et al* 1870: iii-vi.
[60] *The Positivist Review* 1900: 61.

Much of his work was developed in London, especially in Newton Hall through talks and lectures to the public. He was one of the main supporters of the expansion of libraries in order to access the work of Comte. Another of his major interests was mathematics, and he undertook the translation of important works in arithmetic and geometry such as those by Condorcet.[61] In addition to his interest in philosophy of science, he devoted much of his life, from 1857, to serving as secretary of the Commercial Traveller's Benevolent Institution. This role kept him living in Worthing, just outside Brighton. He died on 13 February, 1900 at the age of 62, and true to positivist beliefs expressly asked that there was no theological service at his funeral, but "that he should [be] buried with simple Positivist rites and service by one of the leaders of Positivism". That leader was Frederic Harrison, one of the most well respected figures of British positivism.[62]

Another of the ASL representatives, Richard King, though not well remembered today, was by no means a minor character in the sciences of Man and their organization during this time. Born around 1811 in London, from 1824 he began an apprenticeship as an apothecary, receiving his license as a pharmacist in 1832. His medical degree is believed to have been awarded by the University of St Andrews but unfortunately records are poor and this cannot be proven.[63] He was appointed surgeon and naturalist for the George Back's Arctic expedition in search of John Ross at the mouth of Great Fish River between 1833 and 1835. A former associate of Thomas Hodgkin, King participated in the activities of the Society for the Protection of Aborigines (SPA), of which he

[61] It refers to Marie Jean Antoine Nicolas de Caritat, marquis de Condorcet (1743-1794), best known as Nicolas de Condorcet, a French philosopher, mathematician and political scientist.
[62] *The Positivist Review* 1900: 61-62.
[63] *Dictionary of Canadian Biography*, http://www.biographi.ca/EN/EN/009004-119.01-e.php?id_nbr=5078.

became secretary. In July 1842, after the meeting in Paris, King had the idea of founding an ethnological society. It should be noted that much of the motivation that led King to make this proposal may well have arisen from his travels. Although at first the response was poor, the new society took shape on the following year with the support of Hodgkin. One of the intentions of the new society was to distinguish the philanthropic work of the SPA from ethnological research, "whose sole object should be the promotion and diffusion of the most important and interesting branch of knowledge, that of man—ETHNOLOGY." Accordingly, the formal minutes of the Society's council are singularly lacking in discussion of issues of a specifically humanitarian character.[64]

Within the BAAS, King was in favour of the idea of a section or department focused exclusively on ethnology. King's continuing belief in an exclusive ethnology section could be seen in subsequent meetings, as, for example, in 1871, when he sought to restore a section with that name (an idea that was rejected by the council).[65]

Alfred Lionel Lewis, a chartered accountant, was born in 1823. He joined the ASL in 1866, was on council from 1869, then continued his institutional affiliation within the Anthropological Institute and served on the board from 1876, in parallel with duties as treasurer from 1886. He was also president of the Institute between 1905 and 1907. Lewis's interests in the human sciences were focused on archaeology, and especially on megalithic monuments, for which he had been recognized as an authority for many years; in France he was considered one of the most important authorities on the issue. His work was distinguished by

[64] Stocking 1987: 244-245.
[65] *Report* 1871: lxix.

its accuracy in terms of plans and drawings, which he presented and published not only at BAAS meetings but also at other events such as the International Congresses of Prehistoric Archaeology, prehistory congresses in France, or at international conferences on religion.

Figure 7.5 Alfred Lionel Lewis[66]

As noted by Stocking, Charles Staniland Wake was an obscure but important figure in the sciences of Man, thanks to his works on marriage and the antiquity of man, from a non-Darwinian framework. Wake was born in Kingston-on-Hull in 1835 and died in Chicago in 1910. As a young man he was involved in the ASL, and, when amalgamation with the ESL resulted in the foundation of an Anthropological Institute of Great Britain and Ireland in 1871, he became the

[66] See http://www.cantab.net/users/michael.behrend/repubs/lewis/pages/obituary.html.

first director. The reasons for this sudden move are not clear, but its effect greatly reduced the impact of Wake's work on his British colleagues, who had paid some notice to his writings, including Charles Darwin, who in his *Descent* referred to Wake's 1868 book *Chapters on Man* in the discussion of the origin of language.[67] Wake soon made his way to Chicago, where he became acquainted with the anthropologists working on the exhibits for the World Columbian Exposition of 1893. He edited the Memoirs of the International Congress of Anthropology held in connection with the Exposition and joined the staff of the Field Columbian Museum, where he held a minor position.

The articles Wake began to write on American Indian subjects were very different to his previous works. His publications became so varied – ranging from the study of language to totemism to marriage – that it is likely he was consciously beginning a new scientific life. If he had been younger he might have gone out to study Indians first-hand, but he contented himself with summarizing published psychical research and philosophy.[68]

Beyond the work of these four figures from the ASL the presence of Beddoe was a key part of the committee's thinking. Beddoe's presidency was enhanced by his position as president-elect of ASL, since his inaugural address can be seen as expressing his willingness to engage in dialogue with all parties. In his opinion, what had happened during the Exeter meeting had not been welcomed by members of ASL as well as of the ESL, and he was the more

[67] Radick 2008: 361-362.
[68] Evans-Pritchard 1975.

determined to make an effort to ensure that the situation in Liverpool was different.[69]

Another factor of crucial importance for the consolidation was the election of a president that who would be representative of all concerned, and who was an adequate representative of the sciences of Man.

B. An Archaeologist as President: A Closer Look at John Evans as Unifier

As part of the activities that normally occurred in the department, the current president, archaeologist John Evans, was responsible for opening the session with a short address. Evans was very young when he developed an interest in fossils and numismatics. In 1839, after spending a year in Germany to learn the language, he returned to work with his uncle, the paper manufacturer John Dickinson, with the idea of securing a career in business. He was a successful businessman, but his interests went beyond business. In 1852, as part of investigations into the rights to his company's water supply, a vital element in the production of paper, Evans took charge of geological and meteorological research. In 1859 with Joseph Prestwich, he made a trip to France to verify the authenticity of a collection of chipped flints, discovered in 1847 by Boucher de Perthes, and believed to be evidence of the existence of prehistoric man in the Somme valley. Evans and Prestwich's research led them to substantiate Perthes's claims, and thus laid the first foundations for the acceptance of the antiquity of man in Europe. Evans had a meticulous attention to detail and great power of observation which were vital to his success as a collector. After his work with

[69] Beddoe 1870: lxxviii.

Prestwich, Evans's scientific interest focused on looking for evidence of prehistoric man, both in England and mainland Europe.

Evans's success as an archaeologist – and also the flexibility of that term to extend into palaeontology – can be seen in major publications such as "On portions of a cranium and of a jaw, in the slab Containing the Remains of the Archaeopteryx fossil" in the *Natural History Review* in 1865.[70] He also had extensive collections of coins, tools and weapons from different eras and civilizations, as well as fossils. His work within the various scientific societies was also notable: he was elected a Fellow of the Royal Society in 1864, fellow of the Geological Society in 1857, a member of the Society of Antiquaries, and would go on to be president of the Anthropological Institute between 1877 and 1879 as well as a trustee of the British Museum. He was a member of the BAAS from 1861, and frequently attended the meetings.[71] From 1870 he held important posts in both the Geology and Anthropology sections; in 1897 he would become President of the Association, when his inaugural address would focus entirely on the subject of the antiquity of man.

As for 1870: there is no clear evidence of the reasons that led to the choice of Evans. Undoubtedly his archaeological work in recent years gave him a recognized position within the community of archaeologists and antiquarians, but his position at an institutional level was not outstanding.[72] After the unification of the metropolitan societies, Huxley was able to take advantage of the peace and propose a member of the ESL, Evans, thereby indirectly strengthening his own position on the sciences of Man within the Association. As had been the case four

[70] Evans 1865.
[71] MacGregor 2008: 24.
[72] Van Riper 1993: 104-105, 219-220.

years previously with Wallace, Evans was a comparatively low-profile figure, a fact which ensured transition without incident. His election can also be seen as an acknowledgment for archaeology in particular, that among the various topics covered by the sciences of Man during these years archaeology was noted for its contributions to the Association,[73] such as the financial support it had given, over the previous decade, to exploring Kent's Cavern in Torquay.[74]

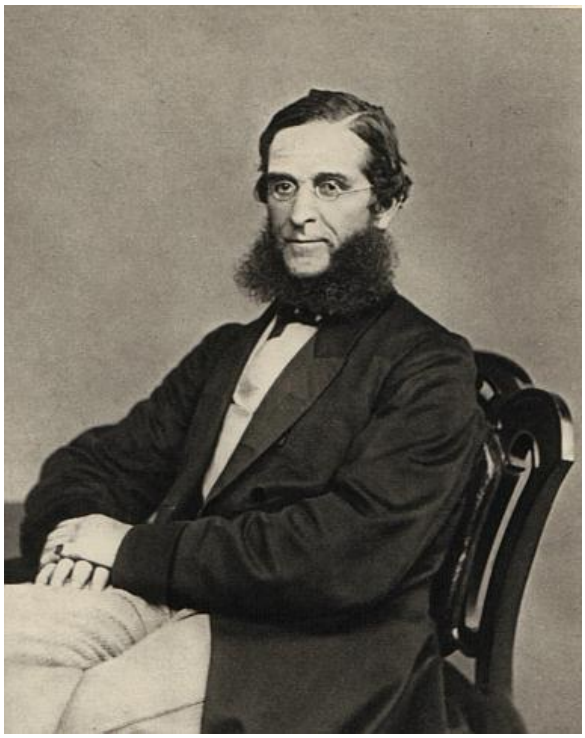

Figure 7.6 John Evans[75]

Evans's address on 15 September as President of the new Department reflected the new situation. His address was not included in earlier editions of the official

[73] MacGregor 2008: 10.
[74] From 1865, the Association had created a committee dedicated to speleology exploration of caves. This was led by archaeologist William Pengelly, and counted among its members C. Lyell, J. Lubbock, G. Busk, W.B. Dawkins, as well as Evans. The Committee's work continued until 1880.
[75] See http://en.wikipedia.org/wiki/File:Sir_John_Evans.jpg.

reports, but was added later. It was the first explicit discourse on the sciences of Man, at the Association, since 1866.

He began by noting the common interests shared by these two great branches of science, ethnology and anthropology, along with other sciences such as biology, geography and geology. These boundaries were not well defined. In his view, the central issue to be addressed within the newly-unified department should be "the history of the origin and progress of the human race". Evans also mentioned various issues that should be accepted into the new Department in order to differentiate themselves from other departments such as Anatomy and Physiology, or Geography:

> 1. All that relates to the antiquity of man, or the origin of the various races of mankind.
> 2. All that illustrates the progress and development of human civilization; and,
> 3. All that concerns the condition of the less civilized portions of the human race, even if not immediately connected with any general question of its origin or progress.[76]

Evans gave an historical account of the manner in which anthropological knowledge so construed had been acquired, emphasizing, in scientific-naturalist fashion, the rejection of knowledge developed through literal readings of Scripture – a rejection motivated by the advance of science. Disciplines such as ethnology and anthropology were, he stressed, essential to understanding the processes by which Man has developed, has created a civilization, and above all has progressed throughout history.

Evans sought to clarify what had been happening for many years within the Association, where, despite seeking to cover topics related to the sciences of Man, the result had in practice been papers located in different sections and

[76] *Report* 1871, Appendix: 2.

departments, so resulting in an image of disunity being projected to the public. In a long speech, Evans stated the importance of uniting the different disciplines in the sciences of Man, and did not see any difficulty in their reaching a single truth or a single vision. His speech made no reference the ASL and the ESL, or to any institutional aspect of the discipline. The only mention of these subjects came, somewhat cryptically, in the last paragraph:

> I trust that we may find more of novelty and importance in some of the Papers which will be brought before us. In discussing them, I am confident that nothing will be said calculated to injure the feelings on any who, like ourselves, are in pursuit of truth, and that all will bear in mind how difficult it is to take in the whole of any single truth at one view, and how of its many sides two contending parties may each be seeing one only, and that possibly not the most important.[77]

The press, in general, made few references either to Evans or to his speech. The *Journal of the ASL*, in its annual report of the BAAS meeting, by contrast, highlighted the view that, the creation of the department had been achieved thanks to Evans as president. The emphasis of the report was on the new state of the sciences of Man within the Association, and the need for ASL members to prepare for coming meetings, and maintain the future presence of anthropology within the Association.[78]

In other newspapers, including the *Athenaeum* and the *Birmingham Daily*, just a single paragraph mentioned the presence of Evans as president, and gave a brief description of the importance of the sciences of Man, stating the main subjects of interest, as much the present knowledge of those subjects, with particular emphasis to the origin and progress of the human race.[79] The

[77] *Report* 1871, Appendix: 8.
[78] Beddoe 1870: vi.
[79] *Athenaeum*, 24 September 1870: 404; *Birmingham Daily Post*, 16 September 1870.

significance of the moment was not generally appreciated by the press – a response similar to that which greeted events within the department, as will be discussed below.

7.4 Diverse Anthropological Practices, from the Sections of the BAAS to the Slums of Liverpool

A. Presentations outside the Department

After consolidating the new space, one of the intentions of those interested in the sciences of Man was to consolidate a common concrete practice. Furthermore, there was no consensus on the specific topics to be discussed within the department. This diversity persisted, in large part, thanks to the very diversity of those interested in the subject. In 1870 most of the presentations occurred within the consolidated department. There were nevertheless some fascinating "outliers," to which we turn now, beginning with Colonel Henry Yule's overview before Section E of the similarities in the manners of the races of Indochina and the Malay Archipelago. Yule was a prominent member of the Royal Geographical Society, with a deep interest in geography. A brief examination of his life and career up to that point will serve to flag from another direction the heterogeneous nature of "anthropology" and so, on that basis alone, the immense challenge that the unifiers faced.

Born on 1 May 1820 in Inveresk, near Edinburgh, Yule was the youngest son of a farming family. Educated in Edinburgh, he spent some time at University College, and later decided to pursue a military career instead of law as his father wished. From an early age he showed great intellectual promise, especially for languages. In 1837 he joined the East India Company's Military College. In 1840 he enrolled in the Bengal engineers and his first mission was to

India, a trip which sparked Yule's fascination with India and its people. Before 1849 he actively participated in various wars over Indian territory as well as organizing various engineering works. His work as a soldier ran in parallel with a growing interest in geography, especially the effects of trips made by Europeans throughout the world. Yule translated the travels of Marco Polo, publishing an edition in 1871 for which he was awarded the gold medal of the Italian Geographical Society. Yule was also, as mentioned, a fellow of the Royal Geographical Society. As a geographer, he came to be considered one of the leading authorities on the history and geography of Central Asia, and the history of medieval travel there in particular. His fame reached the point where many came to compare his experiences in Central Asia with those of Livingstone in Central Africa.[80] The presentation he made in Liverpool in 1870 was not, however, about experience gained during these trips. Instead he took up a problem in human racial history more broadly. He believed that the Malay race was connected with the Indo-Chinese, despite their language differences; and in Liverpool he marshalled the evidence for his case. A concrete example of commonalities across the two peoples, according to Yule, was a shared aversion to the use of milk. Another was the discoloration of teeth, something that had already been observed in the region by Marco Polo.

Another "outlier" presentation made outside the Department was given in Section D, in the Department of Anatomy and Physiology. There Dr John Cleland gave his account of the physical relationship of consciousness and the seat of sensation, a proposal which was more physiological than psychological,

[80] Felix Driver, 'Yule, Sir Henry (1820–1889)', Oxford Dictionary of National Biography, Oxford University Press, 2004 [http://0-www.oxforddnb.com.wam.leeds.ac.uk/view/article/30291, accessed 22 April 2014]

suggesting that from the study of neural structures and functions one could come to understand the laws under which consciousness worked.[81] Cleland proposed that phenomena resulted from the action of nerves in the brain "by continuity of the impressed condition from the brain to the distribution of the motor nerves we are conscious from the brain to the parts to which the distribution extends, and of the exercise of the will within them".[82] Later in the same section the physician William Hitchman gave a suggestive presentation "Remark on the Anatomy of the Intellect", which followed the same methodology established by Cleland for physiological study.

Another curious moment in the proceedings was the "return" of Hyde Clarke, excluded the previous year from presented in Section D, as a result of the problems suffered by the ASL during amalgamation, and his personal issues with Hunt. Clarke's presentation was on the names given to different types of weapons in prehistoric times, from which he drew a comparison with the weapons used in various parts of the world, including India, China and East Africa.[83] His paper received no mention in the press, nor did it generate any discussion.

Activities focused on the study of Man did not occur only in the Sections. The interest shown by Huxley in those sciences, for instance, became clear when he participated on Saturday 17 September in the discussion of the lecture to the Operative Classes made by his friend Sir John Lubbock, entitled "Social and

[81] The presentation was not published in the official *Report*, but in the *Journal of Anatomy and Physiology*, November 1870: 102-113.
[82] *Journal of Anatomy and Physiology*, November 1870: 112.
[83] *Report* 1871: 145.

Religious Condition of the Lower Races of Mankind", to which he contributed at length describing his experiences with Australian savages.[84]

That conversation led to a curious anecdote, mentioned above, but worth elaborating in more detail. Huxley, Lubbock, and Bastian, among other savants, decided to make a visit to the slums of Liverpool, escorted by the police chief. The scientific men were shocked: "In thieves' dens, doss houses, dancing saloons, enough of suffering and criminality was seen to leave a very deep and painful impression".[85] Huxley suffered in particular through a small incident, when a drunken man with a huge cut on his face asked if he was a doctor, Huxley replied that he was. The man asked him to help, but was in a state of such agitation, that the police had to intervene to pacify the situation and prevent Huxley from being hurt. After the incident, Huxley asked the police chief if he was not afraid to go alone to such places, to which the response was "Lord bless you, sir, drink and disease take all the strength out of them".[86] This is an answer that without a doubt lets us see the distressing situation of poor people living in Victorian cities.

Lubbock's speech was not included in the official report, but in *The Times* we can find a good account of what was said at the conference.[87] His speech was devoted to illustrating the mental condition of the savage races, without reference to their fitness or habits. Lubbock drew on detailed accounts of customs relating to marriage, relationships, prevention or punishment of crime, forms of worship and religious observances. All this showed that in order to rise gradually from

[84] In the official *Report*, it was just mentioned as 'Savages'. See *Report* 1871: xxxvii.
[85] Huxley 1900, vol. 1: 359.
[86] Huxley 1900, vol. 1: 359.
[87] *The Times*, 19 September 1870: 12.

believing in ghosts, Man had to acknowledge his soul. That message did not, perhaps, seem wholly consonant with the sort of religion-baiting scientific naturalism that Huxley was becoming associated with. But scientific naturalism was itself, so to speak, a broad church, even among X-Club members; and in any case, an important part of Lubbock's speech was devoted to highlighting his views on the relationship that should exist between science and religion. He made clear that a relationship should not necessarily imply a submission of one to another, but should instead advance understanding of nature and the laws that govern it. Nor should the importance of Lubbock giving this talk to Operational Classes should not be minimized. Lubbock played a leading role in discussions within the Association had been prominent in his discussions with the Duke of Argyll, and we must not forget that Lubbock was also a well-known politician. Indeed, earlier in 1870 Lubbock gained a seat in the House of Commons. After a close election against the conservative candidate W. Foster White, Lubbock won by only 102 votes. On 8 March he took office. What is striking is not that an MP sounded a conciliatory note in discussing science and religion at the BAAS meeting, but that, while doing so, he took responsibility for promoting a potentially controversial issue such as the progress of the human races, his views confirming the renewed interest in promoting the sciences publicly – in this case, the sciences of Man.[88]

Experiences like those of Huxley and Lubbock in the slums led to talk of "the increasing savagery of the lower classes in great towns such as Liverpool",[89] a worrying situation which called for political solutions, but above all to improve

[88] Patton 2007: 91-92.
[89] Huxley 1900: 359.

education. Also, this showed the importance of BAAS meetings in the provinces, in promoting science among the public.

B. The Study of Mind and Language as a Focus in the new Department

Apart from these few exceptions described above, in the end the Department of Ethnology and Anthropology was able to bring together almost all of the presentations related to man. The meeting was very well attended that year. The topics on which presenters spoke were as usual diverse: archaeology, phrenology, language, physiology and ethnology, among others. Despite the large number of presentations, none generated the same level of interest as did the speech from Lubbock on the origin of man, or the clash between Broca and Jackson at the 1868 meeting.

For the second consecutive year, phrenology was present. One possible reason for this was the close relationship that existed at a methodological level between phrenological and craniological studies, with the essential difference lying in the resulting interpretations. Phrenological and craniological proposals made during the meetings in the 1860s focused on the measurement of skulls and comparison between different races, but did not result in attempted explanations of metaphysical or political types, which, according to the principles of the Association, would not have been acceptable.[90]

Two phrenologists were present in Liverpool, both with backgrounds in medicine: the surgeon Walter Cooper Dendy and the practical phrenologist Frederick Bridges. This was the second consecutive meeting Dendy had attended.

[90] On the discussions about the role of politics in BAAS, see Morrell and Thackray, 1981: 245-256.

The presentation from Dendy in Liverpool, "On the Shadows of Genius", did not seem to arouse great interest despite the title. According to Dendy, craniometry was one of the basic elements of anthropology, since studying and comparing a wide variety of skulls was essential to understanding a major problem such as the phenomenon of intellect. In his words, "the science of the brain is, indeed, the most important study in anthropology".[91]

Figure 7.7 Frederick Bridges[92]

From the outset Dendy made it clear he would not make reference to the philosophy of Johann Spurzheim, whom he considered dogmatic. Instead Dendy presented himself as arguing inductively, using the principles of physiology as a

[91] Dendy 1871: 278.
[92] Davies 2005.

basis for reasoning from particular observations to a general understanding of the phenomenon of intellectual nature.[93] For Dendy, although the intellect was a mystery, the physiological study of the brain might provide plausible explanations for its origin and functions. His presentation was based on an historical account of several individuals considered geniuses and their surrounding circumstances. One of his conclusions was on the importance of intellectual environment. From his experience and interests, Dendy proposed that education was a fundamental means to instil genius-levels of ability from childhood. But what the subject needed, Dendy insisted, was to be placed within a comprehensive study of man, what he called "the study of the whole nature of man".[94]

The presentation given by Bridges did not receive much coverage, and was only published in summary. The *Athenaeum* mentioned that the intention was to present general deductions that Bridges had made about how the tendency to commit crimes could be traced from the discovery of mental defects, which, in some cases, could even excuse criminals from personal responsibility.[95] Bridges' work had focused on phrenology, and he had established the School of Practical Phrenology and Physiology at Liverpool, which he combined with lectures in northern England. One of his main interests, on which he published a book, was the work *Criminals, Crimes and Their Governing Laws as Demonstrated by the Sciences of Physiology and Mental Geometry*, in 1860. The volume includes a

[93] Dendy 1871: 278.
[94] Dendy 1871: 278-285.
[95] *Athenaeum*, 15 October 1870: 499.

letter from Lord Palmerston, in which he states his position in favour of phrenology.[96]

There were some other striking presentations. Joseph Kaines, in addition to acting as one of the representatives of the ASL to the Association, also made a special presentation to the Department on the racial aspects of music. In his paper, Kaines posed questions about the relationship between music and cultural and behavioural aspects of different groups. Despite the universality of music, there was, he maintained, a special link connecting frame of minds with the type of music produced by a composer. His key examples drew from music based on religious beliefs: the elegance of the masses of the modern Roman Catholics, the lack of unity of Anglican music and noise and obtrusion in the Dissenting Church.[97]

As usual, there were also notorious guests from overseas. One was the philologist and Africanist Wilhelm Heinrich Immanuel Bleek. Early in his career, Bleek had studied theology at the University of Bonn, but later moved to Berlin to continue his studies in Hebrew. During his stay he met the Egyptologist K. R. Lepsius, who introduced him to the handling of phonetic script, which would be extremely useful for his future work. Bleek received his PhD in 1851 with a thesis on the grammatical gender of African languages. His work in Africa was strengthened by having the opportunity to accompany various expeditions in the region, thanks largely to Sir George Grey, governor of the Cape from 1852. Work on the development of various lexicons and dictionaries did not stop Bleek being in constant contact with his family and so remaining aware of the progress

[96] Cooter 1989: 33.
[97] Kaines 1872: xxxv.

of science. Bleek was a cousin of the German zoologist Ernst Haeckel. One can see the influence of Haeckel's work on Bleek, especially in the application of the theory of the evolution to the origin and development of language.[98]

At the meeting in Liverpool, Bleek presented "On the Position of the Australian Languages". It was an ethnological and philological study which compared the languages spoken in Australia with Southeast Asian, especially Chinese, Tibetan and Dravidian languages. On the issue of the Australian aborigines, meanwhile, C. S. Wake made two different presentations, one on aspects of their physical form, the other on their mental lives, including language. It is noteworthy that despite covering the same subject, there was no discussion of a possible connection between papers of Bleek and Wake. Both men had interests in the origin of language, but held very different positions. Bleek was a proponent of Darwinism which Wake rejected because of its close relationship with materialism.[99]

Despite the diversity showed in the presentations, there was a single topic in which the attention of the Department of Anthropology focused: the light thrown by archaeology on the origin of Man.

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[98] Bleek 1869; Di Gregorio, 2002; John D. Haigh, 'Bleek, Wilhelm Heinrich Immanuel (1827–1875)', Oxford Dictionary of National Biography, Oxford University Press, 2004; online edn, May 2011 [http://0-www.oxforddnb.com.wam.leeds.ac.uk/view/article/2631, accessed 24 April 2014].

[99] Stocking 1987: 180. The transcript of the presentations of the meeting are not available, but were subsequently published by Wake. The second article reveals this change in vision especially as a result of reading the work of Darwin, *The Descent of Man*, supporting the application of their ideas to the case of man, as opposed to his vision in 1870. See Wake 1871 and 1872. For Darwin's response to Wake's work, see Radick 2008.

C. Archaeology as the Centre of the Department

Papers on archaeology gained a special importance in the meeting of the Department. The Irish educator Eugene Alfred Conwell, for example made a very long and detailed presentation on ancient tombs and artefacts discovered in the Irish cairns.[100] But the presentation that received by far the greatest media coverage was that on the discovery of animal and human bones in burial caves in northwest Wales – specifically, of the remains of Platycnemic men in Denbighshire by William Boyd Dawkins and George Busk. Dawkins began his career as a geologist, and being very young became interested in prehistory.[101]

Figure 7.8 George Busk[102]

This interest led him to be the first curator of natural history at the Manchester Museum in late 1860s, a situation that helped him to develop a reputation for his

[100] Cairn is a term used to describe man-made piles of stones.
[101] Van Riper 1993: 192.
[102] See http://en.wikipedia.org/wiki/File:George_Busk_by_TH_Maguire.jpg.

works on fossil mammals and early man.[103] Busk was a naval surgeon with interests in natural history, with a dedicated career in London, that he left in 1855 in order to focus on his interests in natural history and especially in palaeontology.[104]

The descriptions made by Busk of the human bones, corresponded to the warm side of flattening described as platycnemic, which also presented a carination of the femur, which later was associated with the concept of platymeria.[105] Those remains from Denbighshire would later be linked to other discoveries in the rest of Europe, which were identified as belonging to the Cro-Magnon. This discovery was important for the consolidation of bio-archaeology in Victorian times.[106]

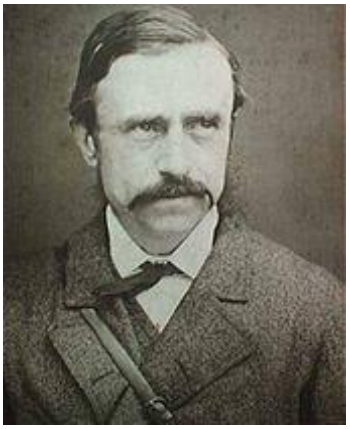

Figure 7.9 William Boyd Dawkins[107]

[103] Geoffrey Tweedale, 'Dawkins, Sir William Boyd (1837–1929)', Oxford Dictionary of National Biography, Oxford University Press, 2004 [http://0-www.oxforddnb.com.wam.leeds.ac.uk/view/article/32750, accessed 7 July 2014].
[104] B. B. Woodward, 'Busk, George (1807–1886)', rev. Yolanda Foote, *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, Jan 2014 [http://0-www.oxforddnb.com.wam.leeds.ac.uk/view/article/4168, accessed 7 July 2014].
[105] Lucas 2007: 319. Platymeria refers to the condition of a femur in which the anteroposterior diameter of its shaft is unusually small relative to the corresponding transverse diameter. "platymeria, n." *OED Online*. Oxford University Press, March 2014. Web. 25 April 2014.
[106] Lucas 2007: 339.
[107] See http://en.wikipedia.org/wiki/File:William_Boyd_Dawkins.jpg.

The presence of archaeological issues in the Association had, in fact, been growing more evident since the meeting at Norwich. By the time of the Liverpool meeting, archaeology occupied a large part of the schedule of activities in the Department.[108] So who were the archaeologists? Two were members of the clergy. The Rev. Christian David Ginsburg related the discovery in 1868 of a carved rock of Moabite origin, and proposed a new interpretation of the fate that had been suffered by the Moabites and the surrounding villages, between seventh and eighth centuries BC. The Moabites, Ginsburg explained, were mentioned in Genesis, a people who lived in a mountainous area of the Dead Sea coast. Ginsburg's presentation emphasized their relationship of conflict with Israel, and cultural and linguistic proximity to the Jewish people. The paper was received favourably in the religious press which devoted whole pages to the discovery.[109] The other clerical presentation was given by Rev. C. Sewell, who reported on the discovery of Roman ruins in Lincolnshire, with no further discussion nor coverage in the press. Then there was the physician Thomas Boyle Grierson, speaking on engraved stones in Scotland; the geologist Robert Harkness who gave a description of the remains of a prehistoric kitchen in the Cork region; the accountant Alfred Lionel Lewis who spoke about the megalithic monuments in Britain; the Irish physician and antiquarian John Sinclair Holden, who held forth on forms of ancient interment; the antiquarian John Samuel Phené, who presented on the various tumuli (an ancient sepulchral mound) and monuments on the west coast of Scotland; the naturalist and librarian John Plant, who spoke

[108] From Prichard times, archaeology was considered part of the sciences of Man, since "contributed to the cultivation of ethnology". See Stocking, 1987: 52.
[109] *United Presbyterian Magazine* 1870: 479, *Nature* 3, 1871: 19, *Glasgow Herald* 22 September 1870.

briefly on the flint-flakes in the valleys around Manchester; the physician and geologist Charles Ricketts, who considered wooden implements in Birkenhead; and the geologist Henry Woodward who gave a description of implements made out of quartz.

What all these presentations had in common was their being carried out by characters who could be described as amateurs – a common situation in Victorian archaeology, with the possible exception of Dawkins, if one considers his active role as curator in the Manchester Museum. The search and collection of archaeological pieces resulted from hobbies and not necessarily of a systematic search purporting to give a deeper explanation of the history. But in any case, the presentations gave an idea of the work done in the provinces, as an example of progress in the sciences of Man.

The remaining presentations were a motley; Beddoe on ethnological descriptions of Lancashire and the Ottoman Turks; the colonial administrator in India, George Campbell, on the system on which Hindu villas are organized; geologist Peter Martin Duncan on geological changes that had occurred in the territory of Europe from the earliest evidence of the appearance of man; Henry Howorth, presenting three different papers, all describing different populations of West and central Asia; and Richard King on Manx, the language spoken by the inhabitants of the Isle of Man. John Lubbock too gave brief descriptions of stone tools in West Africa. Finally, the physician George Thin gave a special presentation on the use of opium in Chinese culture.

In the end, the new Department made room for all the venerable themes pertinent to the science of Man, whether keyed to the origin-and-progress questions that Evan had laid out or not. Even so, the diversity was contained,

more or less, within a single space: a great achievement considering all that had happened in previous years.

7.5 Conclusions

As we have seen, the Liverpool meeting was controversial even before it began with the election of Huxley as president. The press stoked that controversy, but the meeting ended up with an atmosphere of tranquillity. For Huxley, being President of the Association was the culmination of years of work as a naturalist, and was also the perfect opportunity to consolidate his strong support for the life sciences. His presidential address, different from those presented in previous years, focused on highlighting the subject of biogenesis, and managed to thereby establish his position as a materialist, in what can be seen as a further step in strengthening the foundations of his idea of science, supported by his fellows at the X-Club.

This was the perfect opportunity for Huxley to promote the life sciences in a forum that had privileged the physical sciences for years: his role in the reappointment of Section D as Biology, and the inclusion of the study of the sciences of Man within the same section, was a proposal that went beyond a name change, but contained a new vision of the science of life, in which man became a fundamental part of that study.

After years of disagreements between stakeholders in the sciences of Man, it was agreed that there would be a common area at this meeting. The negotiations that ultimately resulted in the unification and consolidation of the Department of Ethnology and Anthropology were clearly influenced by the absence of the two most notable leaders of both disciplines, Crawfurd and Hunt.

This, together with Huxley's influence and the presence of Beddoe and Evans in key positions, meant agreements were achieved not only for this meeting, but also that stability could be provided for the future.

John Evans was the representative of the sciences of Man, in recognition not only of his particular work but of the significance of archaeology, which, within the Association, was the only science of Man which had found financial support in recent years, through the exploration of Kent's Cavern.[110] Unfortunately, there is no evidence that allow us to know what the specific reasons for his choice were. Given the situation between metropolitan societies we may assume that Evans was elected more on his merit as an archaeologist than in any attempt to satisfy political or ideological positions. As was the case with presidential speeches, Evans's speech can be taken as a good indication of the state of the sciences of Man at the time. He gave a broad-ranging speech, which primarily sought to clarify the position of the sciences of Man in the Association, and also the recent history between ethnology and anthropology.

Much of what happened in the department was related to archaeology, a discipline that found in the Association an excellent forum for which to present to wider audiences the various discoveries being made not only in England but in the rest of Europe. It can be seen as an example of stability among the rest of the sciences of Man, with a wide range of practitioners who included most of the clerics still involved within the Department. Archaeological subjects were not the kind of presentations that generated enormous interest in the public or the press, but in practice showed greater continuity over the years in the Association.

[110] Van Riper 1993: 213-214.

The cleric's presence notwithstanding, the process of professionalization continued although it was not yet fully reflected in the practices in the Department. The sciences of Man might have taken a step closer to achieving institutional unification, but the reality is that this unity was composed of a wide variety of themes on which many disciplines converged, even rejected de facto years ago, such as phrenology. Strictly speaking, the measurement of skulls was a practice that had continued amongst physical anthropologists, particularly members of ASL, but the men of science who gave presentations at the Association were trained as doctors in the phrenological tradition, as Bridges or Dendy had been. It is true that the elements that once alienated phrenology from the Association, as the political and religious context, did not reappear as such – a possible reason such presentations could be accepted. The rest of the Department's activities included talks from some high-calibre and influential but, today, understudied figures, such as Bleek and Wake, presenting their latest researches on race and language.

As in previous meetings, there were also activities outside the department. People such as Yule and Cleland presented issues related to the sciences of Man in Section E, which officially no longer included ethnology. In many cases, the absence of a unified approach to the specific practice of the sciences of Man, created situations like those described above. Also, we can see that the professional background influenced the acceptance of possible topics related in other sections or departments, even though beforehand the Department of Anthropology could be considered the most appropriate.

Another achievement of Huxley was the inclusion in the official activities of the Association of the Operative Lecture classes, which this year was

undertaken by Lubbock. His presentation, a description of the social and religious characteristics of the lower races, led to an unexpected trip through the neighbourhoods of Liverpool with Huxley, which was used to compare the state of life of those inferior races with the population of Liverpool. The links thus forged between the savage races of the Empire, the impoverished classes in Britain's industrial cities, the role of the newly unified sciences of Man in working out the laws of human progress, and the role of the BAAS in bringing that new anthropological knowledge to the people who needed it, would serve the sciences of Man – and the BAAS – well in the coming decades.

8.0 Conclusions

Darwin in *The Descent of Man* pointed out in the Introduction, when speaking about the recent developments in relation to the sciences of Man: "The conclusion that man is the co-descendant with other species of some ancient, lower, and extinct form, is not in any degree new. Lamarck long ago came to this conclusion, which has lately been maintained by several eminent naturalists and philosophers; for instance by Wallace, Huxley, Lyell, Vogt, Lubbock, Büchner, Rolle, &c., and especially by Häckel".[1] From the above, one could never guess that anthropological discussions at the annual BAAS meeting during the 1860s were of much consequence. On the one hand, Darwin indicates that the most important thesis debated in this period – the evolutionary thesis as applied to humankind – was hardly new, as it was at least as old as Lamarck. For another, the distinguished British men that Darwin listed, though heavily involved in BAAS meetings, were also involved everywhere in British biological and geological science in the period, and were above all creatures of the great metropolis, London. Then too, British names shared the list with the names of Continental, and above all German, figures, whose participation in BAAS meetings was marginal at best.

What, looking back, are the major lessons of this thesis? In articulating them, and also the opportunities that the thesis has opened up for further research, I will group my remarks under five headings, in line with the ambitions I announced in Chapter One. First, I will consider the revisionist elements in the historical reconstruction here and how they might alter our understanding of the

[1] Darwin 1871, vol. I: 3-4.

Victorian sciences of Man at this crucial, complex period. Second, I will reflect on the significance of that altered understanding for the more general question of professionalization as a feature of Victorian science. Third, I will explore the position of religion in and out of the BAAS meetings discussed and consider how far they support some well-known generalizations about Victorian science and religion. Fourth, I will examine the role that print culture has played in the thesis and how the findings might form wider analyses of the interactions between print culture and public science in the Victorian period. Fifth and finally, I shall sketch some new research possibilities in the light of the thesis and these concluding reflections.

8.1 The Sciences of Man in Britain from 1866 to 1870: A Revisionist History in Retrospect

Throughout this thesis I have used the phrase "sciences of Man" in order to describe the different practices and studies about Man in Victorian times. The phrase goes back to David Hume and his *Treatise of Human Nature* (1739).[2] But is it the most appropriate way to describe ethnology, anthropology and associated activities in the Victorian period?

The classic work of Stocking shows how Victorian anthropology was developed from different perspectives, including the relevance of metropolitan discussions between ASL and ESL and the impact of Darwin's evolutionary ideas. His discussion about what happened during the 1860s in relation with the sciences of Man in the BAAS is brief and concrete, as part of his analysis of

[2] This term was originally proposed by David Hume, *A Treatise of Human Nature* (1739), to include the study of the diverse facets of Man. See Hume 1739: xix, 273.

Victorian anthropological institutions. But as it is shown in this thesis, the sciences of Man in BAAS were much more relevant for their development than previously acknowledged. The first part of the decade focused on anthropological discussions caused by that separation from ESL sought legitimation for his vision of the sciences of Man in BAAS, since ethnology was already present in the Association in Section E along with geography since the 1850s.

After a brief introduction to the main points of the discussion between these societies during the first half of the 1860s, this thesis has encompassed five acts, showing the continuity in events that led to the opening of the Department of Anthropology in 1866, the various circumstances that led to its closure and subsequent reopening, until a time of institutional stability within BAAS, which occurred in parallel with the emergence of a unique institution for the study and dissemination of the sciences of Man, the RAI. Ethnology had simultaneously been consolidated within Section E, along with Geography, from 1851, thanks to the help of Murchison and Crawfurd. The opening of the Department of Anthropology at the Nottingham meeting was the result of several years of work and persistence, especially by Hunt and the ASL, in their quest for the recognition of anthropology. Despite inhabiting a unique space, the way in which presentations were organized made it clear that practitioners of the discipline were still far from agreed concerning the proper practice for the sciences of Man. One point that must be noted in this regard is the great diversity of subject matter that the sciences of Man embraced. Presentations with similar themes continued to appear in different sections, especially D and E. Man might have been the focus of anthropological study but questions about *how* to study man remained unanswered in any coherent way.

The decision to elect Wallace as president of the first Department in a move that would satisfy all parties is noteworthy. Wallace defined anthropology as the study of man in every sense. This inclusive proposal did not forestall controversy, as it also included subjects such as phrenology and spiritualism, which went beyond the generally accepted practice.

The content within the ASL was short lived. The Dundee meeting was a setback for the "anthropological" interests in their search for legitimacy and resulted in the closure of the Department of Anthropology. However, the sciences of Man were present in Dundee, especially in the hands of Crawfurd. Hunt's attempt to organize a parallel event to the Association had little impact and was aborted before the start of the annual meeting. In the end, the "anthropologicals" attended the meeting, but they did not actively participate.

The climax of this meeting was the presentation by Lubbock on the origin and progress of civilization. This case deserves more attention from historians of science, especially within the scope of the BAAS, as an example of the impact and significance of what was happening both inside and outside the meetings. The presentation by Lubbock, and the subsequent response by the Duke of Argyll serves to illustrate the environment that existed within science in general, the progress of ideas such as naturalism, and the persistent rejection of advances by the conservative membership of the Association.

Although a Department for the sciences of Man was not apparent at the Norwich meeting, the situation was anticipated in advance, the parallel organization of an international event focused on what was seen as a new discipline, prehistoric archaeology. The Congress allowed workers on the continent to present their findings on the sciences of Man to an international

audience, as well as consolidating the reputations of figures such as Lubbock, Huxley and Evans as the next generation of scientists. Within the Association there were moments of tension, such as that between Broca and Jackson on the mind. The death of Crawfurd and the situation of Murchison undoubtedly meant that the institutional development of ethnology lost momentum, although this was somewhat helpful for the discipline's final consolidation with anthropology.

Given this background, the situation at the Exeter meeting was complicated for the sciences of Man, considering the possibility of amalgamation between the metropolitan societies was at an impasse. The new prominence of Huxley in the ESL, and the renewed disagreements with Hunt, who even before the proposed amalgamation was at odds with him, were very much felt at the time of proposing the Department for the year 1869. It was agreed by the members of the Section D, Biology, to re-open the Department of Anthropology and to include Ethnology in the name,[3] but there was not enough consensus and organization, thereby achieving only limited involvement with the representation of Tylor, and without the participation of ASL. This situation perhaps did not account for the death of Hunt, as even the press speculated might have been the case, but certainly those were not decisions that satisfied him, given his continuing struggle for the recognition of anthropology within the British Association.

Generational change occurred definitively in 1870. With Huxley as president of the Association the new scientific model was established as representative of all scientists, the new vision of science was scientific naturalism. It was also a defining moment for Huxley to promote the life

[3] *Anthropological Review*, 1869, 7 (27): 414.

sciences, including biology, as a unified view of nature, based on Darwin's evolutionary ideas. For the sciences of Man, the greatest success was archaeology. From the slow beginning in 1868 the discipline found a role within the various parts of the Association related to the sciences of Man and an example of this role was the election of John Evans as President.

The five years leading up to the 1870 meeting in Liverpool were a very complicated period for the sciences of Man. These complications set the stage for the subsequent unification of the sciences of Man. The atmosphere that was generated within the Association meetings allowed the general public to become familiar with various controversies generated by the study of man, in all its various aspects. It is also clear that the idea of professionalizing scientists allowed the participation of as many people as possible, even if this generated situations of conflict, such as that created by the acceptance of phrenologists.

It is worth recalling here that during the many attempts at amalgamation between the ESL and ASL, one of the problems that emerged was the choice of a proper name, to the point that the 1869 proposal by the Council of ASL, that the two metropolitan societies would form one Society under the name "Society for the Study of Man in its Widest Interpretation"[4], was an option that did not please everyone, although this was possibly a title that was actually capable of including the various studies on man.[5] Regardless of the term used, the sciences of Man ended up referring to any study of man, his origins, history or physical and mental features, among others.

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[4] Stocking 1987: 256.

[5] Ironically, Hunt in 1863 had defined anthropology as the study of man in its various aspects, and it was he who rejected this proposal, suspecting that Huxley wanted to take control of the new Society.

For characters such as Huxley, the 1860s was the decade in which he was especially interested in the subject of Man. That interest ran in parallel to Huxley's quest to consolidate scientific naturalism, and his work focused on obtaining increasingly important institutional positions that made him a role model for other men of science.[6] He was president of the ESL, which allowed him to support ethnology, in ways which drew from Darwin's ideas, until amalgamation between the two metropolitan societies in 1871. In 1870 there was a turning point in his career. With the presidency of the British Association he managed to consolidate his career, and to obtain more support for his particular views on science.

Hunt and Crawfurd played a fundamental role in the sciences of Man at this time, both through the institutional support they gave the ASL and ESL respectively, and to the BAAS and through their intellectual contributions. People like Tylor, Wallace and Evans ended up being the characters that represent the sciences of Man in the British Association as Presidents. Like Hunt and Crawfurd the historical interest in their contributions to anthropology has been limited, although this situation is now changing.

As noted before, there was a wide cast of characters involved in the development and consolidation of the sciences of Man within the Association that has been revealed throughout the thesis. This has arisen from greater attention to what happened at each annual meeting and through an analysis of the professional background of the participants as well as their specific anthropological interests. One of the main aims of this thesis is to show in detail the diversity of those who were involved in the meetings, through presentations,

[6] Codella 2000: 915.

or as part of the discussions, in a way that contributed to a greater or lesser extent, to the development of these sciences. As noted by Stocking, characters like the anthropologist C.S. Wake have remained hidden,[7] but he was deeply involved both with the ASL and with the British Association and his works deserve more attention. The same can be said of any of those mentioned in the events this thesis covers, such as W.H.I. Bleek, Frederick Bridges, Adolfo Ernst, Joseph Kaines or James Reddie, just to mention a few.

The sciences of Man found its place in BAAS organisation during the 1860s, a search for legitimacy between the metropolitan societies but also with participation of external characters with ups and downs, which resulted in a consolidation that stands out in this thesis.

8.2 Professionalization and Institutionalisation

Professionalization is a difficult topic to address, since it has not been possible to provide a full account of the state of the sciences of Man as an institutionalized practice. Drawing on the analysis of Morrell,[8] we have seen that the British sciences of Man in the period examined were far from attaining professional status. It is clear that most of those individuals interested in these subjects were affiliated with either (or both) of the London societies, whose primary objectives were precisely to bring together men with a common interest. Here, the emphasis is on 'man', since both societies were against women's participation in their activities, even as spectators, but that situation changed when the ESL admitted

[7] Stocking 1987: 179-181.
[8] Morrell in Olby *et al* 1996: 980-989.

women – one of the reasons that led to the emergence of the ASL,[9] an inclusive position maintained by ESL figures such as Crawfurd, Christy and Hodgkin.[10] The presence of women as spectators at the BAAS happened particularly in Section E, a situation that displeased the "anthropologicals", to the extent of calling it the "Ladies Section".[11] In this regard, the Association was much more open, as can be seen in the cases of Lynn Linton and Lydia Becker, who despite not being active practitioners of the sciences of Man, had the opportunity to present their views on the matter, a situation that can be considered far from professionalization. Following Sera-Shriar's analysis, we can note that Hunt's position about women, in the sense to consider that ESL hospitality was a symptom of its hopelessly compromised standards of objectivity – standards compromised too, he though, by its Christian anti-slavery commitments. But also Huxley, who led the ESL executive council in 1869, proposed that for ordinary meetings ladies will not be admitted, against the protests of Linton, although he also stated that there would be 'special meetings' in which ladies will be admitted, as a way to promote ethnology among a wider public.[12] The point to emphasize here with the example of women is that participation was still restricted in metropolitan societies, whereas the BAAS promoted not just their participation as audience,[13] but as presenters.

In considering this last example, the various characters active during this decade had a broad range of professional backgrounds, with the majority being

[9] Stocking 1987: 253. For a comprehensive study on the role of women in Victorian science, see Richards 1983. On the case of women and the BAAS, see Higgitt and Withers 2008.
[10] Sera-Shriar 2013a: 472.
[11] Hunt 1865.
[12] Sera-Shriar 2013a: 472.
[13] Higgitt and Withers 2008.

physicians and surgeons, and the rest politicians, explorers, naturalists, geologists, historians, antiquarians and clerics.[14] This diversity reached out to professions such as educators, librarians, poets, journalists, architects, ornithologists, and even a pirate and "forty-niner". In short, as noted above in Table 3, this was a group of people with the most diverse of backgrounds, although it is true that they shared a common interest, the study of man. It is difficult to speak of there being professionals of the sciences of Man, in any strict sense. A good answer in the professionalization process in the sciences of Man is provided by Sera-Shriar, when speaking about how the practitioners of the sciences of Man moved from 'armchair' science to observational and field practices, professionalizing the field when this last passage point became obligatory for anthropologists.[15]

But by the 1860s there were not any paid positions in universities specifically devoted to anthropology[16] nor were there degree programmes that would allow adequate training. What did exist were scientific societies and publications, and the vast majority of those attending the meetings of the Association met both of these requirements for professionalization, so we can consider that those who actively participated in the meetings can, in this limited sense, as well as in their sharing of intertwined concerns with greater objectivity and higher status, be considered professionals of the sciences of Man.

[14] A seminal work that went beyond what was happening in the elite is that of Desmond 1989. This marked the way to a historical search beyond traditional channels, pointing out the relevance of radical groups.
[15] Sera-Shriar 2013b: 177-183.
[16] The first position of this type was given to E.B. Tylor in Oxford, in 1884.

Professional Background	Presenters in BAAS meetings, 1866-1870
Antiquarians	2
Architects	2
Clerics	9
Educators	2
Engineers	2
Explorers/travellers	12
Geologists	10
Historians	2
Journalists	2
Librarians	2
Military/Naval army	3
Naturalists	9
Others	7
Phrenologists	2
Physicians	20
Poets/Writers	2
Politicians	4
Surgeons	7

Table 3. Backgrounds of presenters 1866-1870

On the other hand, it is clear that the scope of professionalization is limited in explain the sciences of Man in the 1860s. Here it becomes more important to consider how anthropology was institutionalised within the BAAS. In following Cahan's view on how to characterize a scientific community, we can note that in the BAAS there was a population of individuals who share similar interests, and until some point, gave a social identity to this group,[17] since at last the ultimate goal of the whole group was to advance both their scientific careers as much their needs, since independently of being "ethnologicals" or "anthropologicals", the sciences of Man were a common interest for all of them, and the Department of

[17] Cahan in Cahan 2003: 293.

Anthropology was the place where to pursue for a common objective. This position finds continuity in Pickstone's description of Victorian science, highlighting the unified conception of British science based on multiple configurations, i.e. different practices within a field of knowledge; in fact, this conception of science "was not primarily about existing professional institutions, though that minor theme became major by mid-century; rather, it was about the relations of the new sciences to older hegemonies".[18] The sciences of Man were in a quest for their place in British science, and BAAS was the place where scientific practices were legitimised among the scientific community, as the place where a practice can be institutionalised, since "institutions and communities are not limited to formal, named social organizations or physical structures".[19]

Due the instability of the sciences of Man as a unified field of knowledge, there were no pre-ordained limits for the discipline. But if we consider what stated above, BAAS provided a place where people could share a common cognitive interest, and in which a social and disciplinary identity could be constructed, as shown in this thesis.

8.3 Science and Religion

One of the most complex issues raised by the thesis is the relation between scientific and religious concerns in the debate about the sciences of Man. This issue was closely related with professionalization. Turner's classic work presents us with a description of what happened during the nineteenth century to the

[18] Pickstone in Daunton 2005: 43.
[19] Cahan in Cahan 2003: 293.

relationship between science and religion as they became increasingly disconnected from each other. According to Turner, the first half of the century was characterized by a prevailing orthodoxy in which the sciences were seen to serve the needs of a Christian natural theology. Turner suggests that there was a decline in the influence of this view of science from the 1840s, with reforms to the Royal Society allowing a greater number of members, and the formation of new and more specialized learned societies. The decline of natural theology ran in parallel to the emergence of a different view of science, in which the practice of science was clearly separated from religion while clearly advancing professionalization: Turner characterizes this view as scientific naturalism.[20]

Cantor dates the definitive change to this new way of doing science to the 1870s,[21] but as we have seen throughout the thesis, this was a very complex process about which it is difficult to generalize. It is true, as Turner mentioned, that there was a decline in the active participation of the clergy in metropolitan societies, and a similar situation prevailed in the BAAS. During the 1860s, the presence of the clergy within the organization was relatively limited and key positions were increasingly placed in the hands of the new breed of professionalizing scientists, or in some cases, in the hands of aristocrats.[22]

Yet, this thesis has disclosed the presence of religious men and ideas as far as the sciences of Man were concerned. We are not just talking about clerics, but also about characters who openly defended religious arguments, as did the Duke of Argyll, the Duke of Buccleuch, and G.G. Stokes, among others. In fact,

[20] Turner, 1974: 8-37.
[21] Cantor 2010: 283-299.
[22] Turner 1978: 367-369.

the sciences of Man within the Association were very open to discussion and controversy that ran both for and against clearly religious visions.

During these years, the treatment of religious themes within the field of the sciences of Man focused on presentations regarding other ancient religions or civilizations, from an archaeological perspective. At the same time, there was much criticism grounded in religious views that directly criticized some of the emerging interpretations of the sciences of Man, and this was especially apparent in the meetings of the Association. As we have seen, there were numerous presentations that openly criticized the ideas of Darwin, Lyell or Huxley, many of them clearly motivated by religious concerns, as in Exeter when three clerics openly criticized Darwin's ideas on the origin of Man. The same kind of conservative thinking found fertile ground in Dundee, especially because of the support of the President of the Association, the Duke of Buccleuch. One of the parallel activities that developed as part of the annual meetings and that have gone unnoticed until recently was the sermons.[23] These sermons, presented by clergy of various denominations, give us an idea of how important religion was for Victorians, even when talking of science. Their goal was, in most cases, to promote a dialogue between the two subjects, in what can be seen as a reinterpretation of traditional natural theology, and an attempt to provide a counterweight to the growing momentum of scientific naturalism.

An example of the complexity of the relation between the practice of the sciences of Man and religion is Charles Staniland Wake, a common character in the meetings during the 1860s. In dealing with language and the origin of races, we found his 1868 book *Chapters on Man*, in which Wake provided a non-

[23] Toal 2012.

materialistic account that can be described in some ways as evolutionist, in some ways as creationist. Also, Wake was an ASL member who supported the unity of races, who saw a continuous evolutionary process in which the various human races developed complex language abilities, on Wake's view an evidence "of mental potentialities present in the minds of progenitors but since lost due to unpropitious circumstances too prolonged",[24] a religiously and even anti-Darwinian answer to relate language with lower races, in the consideration of a gradual evolution.

8.4 Public Reception and Print Culture

A fundamental part of this thesis has been the way in which the press of the time reported what happened in the Association in relation to the sciences of Man. As has been mentioned by Withers, to reconstruct the story of what happened at the meetings of the Association is a complex undertaking, especially given the disparity in information available.[25] Newspapers and periodicals gave fairly wide coverage to some of the events at each meeting, especially the presidential addresses. This thesis has also paid particular attention to those speeches, as an example of the way in which the press represented science and its impact on society. Geoffrey Cantor points out the importance of the Great Exhibition in 1851, as the beginning of a change in public attitudes toward science, as does Bernard Lightman.[26] The Victorian fascination with science continued through the end of the century. In the period covered by this thesis, we have focused

[24] Radick 2008: 362.
[25] Withers 2010: 13.
[26] Lightman 2007: 1, Cantor 2011: 8.

particularly on what was published in newspapers, to get an account of what was reported to have happened at each meeting.

Clearly, the focus of many newspapers was on the words of the current President, with the notable exception of the Duke of Buccleuch in 1867. Many of the reports about the various sections and departments focused on the most recognized characters and controversies which, it was assumed, would be of interest to the readership. In this sense, characters like Huxley and Lubbock dominated newspaper coverage, and little mention was made of others. An example of the importance of local media occurred at Dundee, where the *Dundee Courier* played a key role in the future of the sciences of Man. The publication of editorials and correspondence by this paper during and after the Nottingham meeting in 1866, gives an idea of the perception that was created in the city that discussion of the sciences of Man should be rejected in a move couched in clearly religious tones. This context was a vital factor in the final decision that there would be no Department of Anthropology that year. However, the fact that in the end there were presentations on the sciences of Man in Section E, suggests that the rejection of anthropology was not comprehensive, but referred to the particular interpretations of anthropology given by Hunt and the ASL. ASL publications, including the *Journal of the Anthropological Society of London* and the *Anthropological Review* are indispensable sources from which to track what happened at the meetings, although the perspective they promoted was obviously in favour of the "anthropological" stance.

Leading London-based publications such as *The Times* and the *Athenaeum* gave considerable coverage to the meetings, but local publications such as the *Dundee Courier* and *Leeds Mercury* also presented detailed reports of

the presentations and subsequent discussions. In all cases, as Withers has shown, newspapers and magazines give us a partial view of what happened at the meetings.[27] We can see that discussions focused on Man generated great excitement. Section E drew the largest audiences ever seen at the meetings, largely due to the interest generated by presentations describing the experiences of travellers in distant lands with exotic populations. In this thesis we have seen that issues such as the origin of man drew large crowds, even though at times they were presented in very small venues.

One way in which the discussions were perceived and disseminated more widely among the Victorian public was through images such as cartoons that appeared in the print media. The coverage of BAAS meetings not only focused on chronic of the presentations and presidential speeches, but to highlight the controversies that arose and the characters involved in them.

In this thesis we have presented some examples of these cartoons, as published in *Punch* representing major attending the meeting of Nottingham in 1866, where the illustrator Charles H. Bennett (1828-1867) presents the stars of the meeting making a caricature of each of them highlighting their different scientific practices, especially through the artefacts that each used this along a downward spiral.[28] For Victorian people it was "believed that *Punch* was pretty good at representing their world",[29] and certainly the representations of science they presented were highly complex despite the satire tone. The objective was not only to disseminate science but to provoke the reader, since "*Punch* contributors reckoned that distortion was a more effective way of making a point about

[27] Withers 2010: 13.
[28] *Science in the Nineteenth-Century Periodical*, http://www.sciper.org
[29] Noakes 2002: 92.

serious social, religious or political issues".[30] One of the topics that generated more interest were the new biological approaches, especially for their association with the origin and development of Man, in which Darwin was one of the objectives to criticize.

Darwinism and its implications for the origin of Man had been the target of numerous satires not just in *Punch*, but in diverse publications. Janet Browne has noted that these cartoons were not particularly helpful for reaching a better understanding of Darwin's ideas, but contributed to create a group identity, a shared ideology, and a way to raise common anxieties about his proposal.[31] Due to the importance of Darwin's ideas in BAAS meetings in relation to the sciences of Man, cartoons and not just reports became an important source for the understanding of public perception on discussions about Man. This last point becomes important if considering that the interest of public in the origin of Man was significant during the 1860s, but discussions were misinterpreted and polarized through cartoons. Every image showed a particular ideology or point of view, polarizing in that way the public. One example was the use that Huxley and the supporters of scientific naturalism gave to satire,[32] as noted also here in this thesis in images such as 'The Battlefield of Science and the Churches', which served to promote a conflict between opposing views.

Since the BAAS was the public image of science for the Victorian public, the reports in newspapers are a valuable source despite the disparity of information, but specially cartoons and images are very illustrative of how the press, influenced by the scientists, can present their views to the public.

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[30] Noakes 2002: 93.
[31] Browne 2001: 509.
[32] Paradis in Lightman 1997: 160-169.

8.5 Future possibilities for the Victorian Past of the BAAS and the Sciences of Man (among other sciences)

This thesis on the sciences of Man during the 1860s as seen through a concentration on the BAAS has brought attention to a wide range of topics, which have not previously been treated together. An immediate challenge would be to continue this kind of approach, one which goes beyond the history of a specific discipline, such as anthropology, to cover other subjects such as biology, geography, medicine, and, of course, anthropology, in a multidisciplinary and interdisciplinary approach. The case of biology and anthropology in the Nottingham meeting of 1866 is a good example of how two fields of knowledge came together, interconnecting intellectually and institutionally, a point that deserves a deeper analysis in future meetings, as a way to have a better understanding of how the study of life included the study of Man in BAAS meetings, until the opening in 1884 of Section H as exclusively devoted to anthropology.

As noted throughout the thesis, one of the most common professions among the practitioners of the sciences of Man were physicians. Medicine had its section at the beginning of the Association, but as shown by Morrell and Thackray, divisions among many physicians led the Section in 1844 to become a Section on physiology, and from 1848 was absorbed as a sub -section of Section D, Zoology and Botany.[33] In this sense, the role of physicians and surgeons in the development of the sciences of Man needs further research, in particular thanks to their contributions of techniques to anatomically describe human bodies.

[33] Morrell and Thackray 1981: 287-290.

It is clear that the complexity of this type of research which includes different topics goes beyond the expertise of one person, so it becomes necessary to work with several specialists. Part of that complexity focuses on understanding the sciences of Man as a discipline and as an institution. Understanding this development as a specific topic in science sometimes has no direct relationship with the institutionalisation process. As we have seen, it becomes necessary to distinguish clearly between these two ways of understanding the sciences of Man.

Part of the analysis of this thesis are the presentations on anthropological issues, among which we find not only British, but foreign characters. Of particular interest are those characters who developed their practices outside Europe, such as Latin America, Africa or Asia. In each of these cases, descriptions of human groups differ from traditional Euro-centrism (or in some other cases, Anglo-centrism) of European travellers, a point that requires attention and can provide a different view of the concept of the sciences of Man in the same meetings of the Association. Also, given the international character of the meetings of BAAS, the role and contributions of European scientists from France, Germany, Switzerland, among others, contributing to the forum of the Association different visions of the sciences of Man handled in Europe, offers an opportunity to deepen the relationships between different scientific traditions.

Particularly, making more explicit connections between the science and politics of the human races, due the importance of this topics in discussions around publications such as Darwin's *The Descent of Man* (1871) and *The Expression of the Emotions in Man and Animals* (1872). In recent years studies

such as those by Radick[34] and Desmond and Moore[35] have provided novel views about discussions around the origins of Man in Victorian times along their implication with politics. Part of these stories belonged to the meetings of the BAAS meetings as the place for wide public engagement, though this is a story that still waits to be written.

There is a specific issue that arises as a result of this thesis. The thesis has focused on a period of five years, covering the opening of the first Department of Anthropology in 1866 through to its consolidation in 1870, but it is obvious that there are important developments that succeeded this period.

In Chapter 2 I outlined, in general terms, the events that led to the opening of the Department, in line with what was stated by Withers on the influence of Crawfurd and Murchison in the consolidation of ethnology in Section E with geography. The history that followed 1870 needs to be reconstructed, especially if we consider that anthropology was not made a Section in the Association until 1884, when Section H was devoted to the subject.[36] There passes a period of fourteen years in which Tylor come to be considered one of the most renowned anthropologists of the time.[37] The RAI was fully consolidated and helped to engender a more permanent unification of the sciences of Man, with the discipline unified around a single term, anthropology. To this day, we lack a detailed reconstruction of this period.

Moreover, the later history of phrenology would also require further attention, particularly in relation to the interconnections between debates on the

[34] Radick 2007, Radick 2008, Radick 2010, Radick in Ruse 2013.
[35] Desmond and Moore 2009.
[36] See Sillitoe 2005.
[37] On the development of anthropology after 1870, see Stocking 1998, Sera-Shriar 2013b.

origin of humans and debates on the language centre in the brain, in line for example with Radick's work on the debate about animal language.[38] The thematic diversity that we have seen over the course of these meetings resulted in the appearance or reappearance within the scope of the Association of subjects that had been previously excluded, such as phrenology. Given the close relationship of the work of physical anthropology with the techniques used by the phrenologists, this situation may not be so surprising. The cases of Hunt and Crawfurd may be the most famous, as they were the representatives of two opposing positions that played a key role in the future of the sciences of Man. However, many of the presenters in this period can be characterized as professionals in anthropology, and each of them has a story worth telling. This thesis attempts to highlight above all how the history of science is shaped by the contributions of many men and women. It is in the stories of these characters that we keep finding answers to the many questions about the development of this discipline that remain unanswered.

Science and religion had been always controversial issues. The role played by religion in the BAAS meetings is just beginning to be appreciated, as noted by Morrell and Thackray when analysing the foundation of the Association, or as in the recent work on the sermons by Toal. However, an analysis of the overall impact of religion in the development of Victorian science in the field of the BAAS can be deepened to improve our understanding of the dynamic relationship between the two facets.

An obvious issue that results from this thesis is the need for a comprehensive examination of the history of the BAAS. Its importance in the

[38] See for instance Radick 2007: 393, n.24.

development and advancement of Victorian science has been undervalued, and there are several aspects that can be deepened; the institutionalisation of different disciplines; its role in popularizing science at different times of the nineteenth and twentieth centuries; dissemination to the public through reports in newspapers, among many others. It is my hope that this thesis will prove stimulating for others wishing to pursue these worthwhile lines of inquiry. As Huxley once wrote, some years after the events considered here, "The great end of life is not knowledge but action".[39]

[39] 'Technical Education', *Fortnightly Review* 1877, 23: 48-58.

Dramatis personæ

This thesis considers numerous characters who were involved especially in the presentations and discussions that took place in relation to the sciences of Man within BAAS between 1866 and 1870. Below are brief descriptions, which generally give an overview of the professional background, nationality, and what meetings they attended. On the sources, in the case referred to simply as 'Internet', refer to non-academic sites.

Anderson, Joseph (1832 – 1916). Scottish. Journalist, archaeologist and antiquarian. Presented in 1866. Sources: *Nature*.

Baker, (Sir) Samuel White (1821 – 1893). British. Traveller, African explorer. Presented in 1866, 1867. Sources: *ODNB*.

Becker, Lydia Ernestine (1827 – 1890). British. Suffragist leader, botanist. Presented in 1868. Sources: *ODNB*.

Beddoe, John (1826 – 1911). British. Military physician, physical anthropologist. Presented in 1866, 1870. Sources: *DDE*, *BMJ*.

Belcher, (Sir) Edward (1799 – 1877). British, born Canadian. Naval officer, hydrographer and explorer. Presented in 1866, 1869. Sources: *ODNB*, *DCB*, *Arctic*, *DDE*, *NBD*.

Black, W.J. (Dates unknown). British? Surgeon. Presented in 1866. Sources: Internet.

Blake, Charles Carter (Born c. 1840 – died after 1887). British. Anthropologist, palaeontologist, librarian. Presented in 1866, 1869. Sources: *DDE*.

Blanc, Henry Jules (1831 – 1911). British. Physician. Presented in 1868. Sources: *BMJ*.

Bleek, Wilhelm Heinrich Immanuel (1827 – 1875). German. Philologist, Africanist and librarian. Presented in 1870. Sources: *DSAB*.

Bogg, Eduard B. (Dates unknown). British. Land surveyor. Presented in 1866. Sources: Internet.

Bollaert, William (1807 – 1876). British. Traveller, author. Presented in 1866. Sources: *ODNB*.

Bonwick, James (1817 – 1906). British. Educationist, historian. Presented in 1869. Sources: *ODNB.*

Bridges, Frederick (? – 1883). British. Practical phrenologist. Presented in 1870. Sources: Cooter 1989.

Brine, Lindesay (1834 – 1906). British. Naval army. Presented in 1868. Sources: *The Geographical Journal*.

Broca, Pierre Paul (1824 – 1880). French. Surgeon, anthropologist. Presented in 1866, 1868. Sources: *DDE*, Finger 2004.

Busk, George (1807 – 1886). British. Naval surgeon, naturalist. Presented in 1866, 1867, 1868, 1869 and 1870. Sources: *ODNB*, *DDE*, Cooter 1989, *BMJ*, *Nature*.

Campbell, George (1824 – 1892). British. Colonial administrator. Presented in 1870. Sources: *ODNB.*

Charnock, Richard Spencer (1820 – died after 1899). British. Archaeologist, author, traveller. Presented in 1866, 1869. Sources: *A supplement to Allibone's critical dictionary of English Literature* (1891), *Men and women of the time* (1899).

Clarke, Hyde (1815 – died after 1895). British. Engineer. Presented in 1869 and 1870. Sources: *MEB.*

Cleland, John (1835 – 1925). Scottish. Surgeon, anatomist. Presented in 1870. Sources: *SMJ*.

Collinson James, John (1846 – 1883). British. Engineer. Presented in 1866. Sources: *PASCE*.

Conwell, Eugene Alfred (? – 1877). Irish. Educationist, archaeologist. Presented in 1870. Sources: *The Irish Builder.*

Crawfurd, John (1873 – 1868). Scottish. Orientalist, colonial administrator. Presented in 1866, 1867. Sources: *ODNB*, *DDE*.

Creswick [Criswick], Henry C. (1838 –?). British. Writer, meteorologist. Presented in 1867. Sources: *The Farmer's Magazine.*

Davy, John (1790 – 1868). British. Physician. Presented in 1866, 1867. Sources: *ODNB*, *DDE*.

Dawkins, William Boyd (1837 – 1929). British. Geologist, palaeontologist, archaeologist. Presented in 1869, 1870. Sources: *ODNB*, *DDE*, *GM*.

Day, Samuel Phillip (Dates unknown). British. Journalist. Presented in 1866. Sources: Foreman 2011.

Dendy, Walter Cooper (1794 – 1871). British. Surgeon. Presented in 1869, 1870. Sources: Clarke 1874.

Dixon, W. Hepworth (1821 – 1879). British. Journalist, writer. Presented in 1868. Sources: *ODNB, The Times, Athenaeum*.

Drake, Francis Edwin (1830 – 1891). British. Architect. Presented in 1869. Sources: Internet.

Du Chaillu, Paul Belloni (1817 – 1903). French-American. Traveller. Presented in 1866. Sources: *DDE*.

Dumbleton, Rev. Edgar N. (1830 –?). British. Clergyman. Presented in 1869. Sources: *Alumni Oxonienses* 1891.

Duncan, Peter Martin (1824 – 1891). British. Geologist. Presented in 1869, 1870. Sources: *ODNB, DDE*.

Dunn, Robert (1799 – 1877). British. General practitioner, psychologist. Presented in 1866, 1867, 1868. Sources: *ODNB*, *BMJ*, Cooter 1989.

Elliott, (Sir) Walter (1803 – 1887). Scottish. East India Company servant, archaeologist. Presented in 1868. Sources: *ODNB*.

Ernst, Adolfo (1832 – 1899). Venezuelan, born German. Botanist, naturalist, zoologist. Presented in 1866. Sources: Internet.

Flower, John Wickham (1807 – 1873). British. Geologist, archaeologist. Presented in 1866. Sources: *MEB*, *GM*.

Foster, Balthazar Walter (1840 – 1913). British. Physician, politician. Presented in 1866. Sources: *ODNB*, *Lancet*, *BMJ*.

Fox, A. Lane [Augustus Henry Lane-Fox Pitt Rivers] (1827 – 1900). British. Anthropologist, archaeologist. Presented in 1869. Sources: *ODNB*.

Freeman, Archdeacon Philip (1818 – 1875). British. Clergyman. Presented in 1869. Sources: *ODNB.*

Garner, Robert (1808 – 1890). British. Surgeon and naturalist. Presented in 1869. Sources: *MEB.*

Gibb, (Sir) George Duncan (1821 – 1876). British, born Canadian. Physician. Presented in 1867, 1869. Sources: *MEB, DDE*.

Ginsburg, Rev. Christian David (1821[1831] – 1914). British, born Polish. Bible scholar, missionary. Presented in 1870. Sources: *ODNB.*

Grierson, Thomas Boyle (1818 – 1889). British. Physician, antiquarian. Presented in 1870. Sources: *BMJ*.

Grattan, John (1800 – 1871). Irish. Apothecary, naturalist. Presented in 1866. Sources: *DIB.*

Hall, Townshend M. (Dates unknown). British. Geologist, mineralogist. Presented in 1869. Sources: *Mineralogist's Directory.*

Hall, W.S (Dates unknown). Traveller. Presented in 1869. Sources: Internet.

Harkness, Robert (1816 – 1878). British. Geologist. Presented in 1870. Sources: *ODNB.*

Houghton [Haughton], Edward P. (1833 –?). Irish. Physician. Presented in 1866. Sources: *Medical Who's who*.

Hitchman, William (1819 – 1888). British. Physician. Presented in 1870. Sources: *MEB.*

Holden, (Sir) John Sinclair (1837 [1836] – 1925) Irish. Physician, antiquarian. Presented in 1870. Sources: *BMJ*.

Howorth, (Sir) Henry Hoyle (1842 – 1923). British, born Portuguese. Historian. Presented in 1866, 1867, 1869, and 1870. Sources: *Who was who, DDE*.

Hume, Rev. Abraham (1814 – 1884). British. Clergyman, antiquarian. Presented in 1869. Sources: *ODNB.*

Hunt, James (1833 – 1869). British. Speech therapist, anthropologist. Presented in 1866.Sources: *ODNB, DDE*.

Hutchinson, Thomas Joseph (1820 – 1885). Irish. Traveller, surgeon. Presented in 1866, 1868. Sources: *MEB*.

Huxley, Thomas Henry (1825 – 1895). British. Biologist, science educationist. Presented in 1866. Sources: *ODNB*.

Ingram, Rev. Arthur Henry Winnington (1818 – 1887). British. Clergyman, poet. Presented in 1866. Sources: Browne and Burton 1916.

Jackson, John Hughlings (1835 – 1911). British. Physician. Presented in 1868. Sources: *ODNB, DDE*.

Kaines, Joseph (1834 – 1900). British. Positivist. Presented in 1870. Sources: *The Positivist Review*.

Kinahan, George Henry (1829 – 1908). Irish. Geologist. Presented in 1869. Sources: *ODNB, DIB*.

King, Richard (1810/11 – 1876). British. Arctic traveller, ethnologist. Presented in 1870, 1869. Sources: *ODNB, DCB*.

Lagneau, Gustave Simon (1827 – 1896). French. Anthropologist, physician. Presented in 1866. Sources: *BSAP*.

Leitner, Gottlieb Wilhelm (1840 – 1899). British, born Hungarian. Educationist, orientalist. Presented in 1866. Sources: *ODNB, MEB*.

Lewis, Alfred Lionel (1841 – 1920). British. Anthropologist, archaeologist. Presented in 1869, 1870. Sources: *Nature*.

Linton, Eliza Lynn (1822 – 1898). British. Writer, meteorologist. Presented in 1867. Sources: *ODNB*.

Lord, John Keast (1818 – 1872). British. Naturalist, traveller, veterinarian. Presented in 1866. Sources: *ODNB, DCB*.

Lubbock, (Sir) John (1834 – 1913). British. Banker, politician, scientific writer. Presented in 1867, 1869, 1870. Sources: *ODNB*, Keith 1934.

Mann, Robert James (1817 – 1886). British. Medical practitioner, scientific writer. Presented in 1866. Sources: *ODNB, MEB*.

M'Cann [McCann], Rev. James (Dates unknown). Scottish. Clergyman. Presented in 1869. Sources: *Scottish Episcopal Clergy, 1689 – 2000*.

Melville, P. (Dates unknown). Scottish. Presented in 1867. Sources: Internet.

Morris, Rev. Francis Orpen (1810 – 1893). Irish. Ornithologist, entomologist. Presented in 1869. Sources: *Expository Times*, *The Auk*, Morris 1897.

Murchison, (Sir) Roderick Impey (1792 – 1871). Scottish. Geologist, geographer. Presented in 1867. Sources: *ODNB*, Geikie 1875.

Palgrave, William Gifford (1826 – 1888). British. Traveller, diplomatist. Presented in 1868. Sources: *ODNB*, *MEB*.

Perkins, William (1827 – 1893). Canadian. Land surveyor. Presented in 1867. Sources: Dócola *et al* 2009, Perkins 1964.

Phené, John Samuel (1823 – 1912). British. Antiquarian, architect. Presented in 1870. Sources: Lavington 1914.

Plant, John (1819 – 1894). British. Naturalist, librarian. Presented in 1866, 1870. Sources: *MEB*.

Prideaux, Thomas Symes (c. 1790 – ?). British. Surgeon, dentist, phrenologist. Presented in 1869. Sources: Cooter 1989.

Prigg [misprint of Trigg], [Henry] J. (1838 – 1892). British. Banker, antiquarian, archaeologist. Presented in 1866. Sources: *Gentleman's Magazine*, Prigg 1901.

Raimondy [Raimondi], Giovanni Antonio (1824 – 1890). Italian. Naturalist, geographer, explorer, writer. Presented in 1867. Sources: Internet.

Reddie, James (? – 1871). British? Scottish? Anthropologist, scientific writer. Presented in 1866. Sources: Numbers 1993.

Richardson, (Sir) Benjamin Ward (1828 – 1896). British. Physician. Presented in 1866. Sources: *ODNB*, *MEB*, *BMJ*.

Ricketts, Charles (1818 – 1904). British. Physician and geologist. Presented in 1870. Sources: *GM*.

Rolleston, George (1829 – 1881). British. Physician and physiologist. Presented in 1868. Sources: *ODNB*.

Rónay, Hyacinth (1814 – 1889). Hungarian. Clergyman, teacher, scientist, writer. Presented in 1866. Sources: Engels and Glick 2008.

Sewell, Rev. C. (Dates unknown). British. Clergyman. Presented in 1870. Sources: Internet.

Shortt, John (1839? – 1932). British. Physician. Presented in 1866. Sources: Internet.

Stirling, John (1816 – 1880). British. Physician. Presented in 1869. Sources: *BMJ*.

Stuart, Robert (c. 1812 – 1901). Irish. Officer of British Army, politician. Presented in 1867. Sources: *The Foreign Office List*.

Tate, Ralph (1840 – 1901). British-Irish. Geologist. Presented in 1869. Sources: Praeger 1949.

Tennant, J.W. [James] (1808 – 1881). British. Mineralogist. Presented in 1866. Sources: *ODNB.*

Thin, George (? – 1903). British. Physician. Presented in 1870. Sources: *BMJ*.

Tristram, Rev. Henry Baker (1822 – 1906). British. Clergyman, Biblical scholar, traveller, ornithologist. Presented in 1867. Sources: *ODNB.*

Vambéry, Arminius (1832 – 1913). Hungarian. Orientalist, traveller. Presented in 1868. Sources: Internet.

Wake, Charles Staniland (1835 – 1910). British. Anthropologist. Presented in 1866, 1869, 1870. Sources: *DDE*.

Wallace, Alfred Russel (1823 – 1913). British. Naturalist, traveller, anthropologist, biologist. Presented in 1866. Sources: *ODNB.*

Woodward, Henry (1832 – 1921). British. Geologist, palaeontologist. Presented in 1870. Sources: *The English Cyclopedia*, *Who was who.*

Wilkinson, Thomas (Dates unknown). British. Traveller, filibuster, Forty-niner, journalist. Presented in 1866. Sources: Internet.

Wilson, George (Dates unknown). British. Surgeon. Presented in 1869. Sources: Internet.

Yule, (Sir) Henry (1820 – 1889). Scottish. Geographer. Presented in 1870. Sources: *ODNB.*

International Congress of Prehistoric Archaeology, 1868

Arcelin, Adrien (1838 – 1904). French. Geologist, archaeologist. Sources: Internet.

Blackmore, William Henry (1827 – 1878). British. Lawyer, philanthropist. Sources: Internet.

Brash, Richard Rolt (1817 – 1876). Irish. Architect, archaeologist. Sources: *DIA*.

Broca, Pierre Paul (1824 – 1880). French. Surgeon, anthropologist. Sources: *DDE*.

Busk, George (1807 – 1886). British. Naval surgeon, naturalist. Sources: *ODNB*, *DDE*, Cooter 1989, *BMJ*, *Nature*.

Cartailhac, Émile (1845 – 1921). French. Pre-historian. Sources: Internet.

Clarke, Hyde (1815 – died after 1895). British. Engineer. Sources: *MEB*.

Cotton, Gen. Frederick Conyers (1807 – 1896). British. British army. Sources: *Who was who*.

Crompton, Rev. Joseph William (Dates unknown). British. Church of England clergyman, geologist. Sources: *Penrith Herald* 1874, *The Christian Pioneer*.

Dawkins, William Boyd (1837 – 1929). British. Geologist, palaeontologist, archaeologist. Sources: *ODNB*, *DDE*, *GM*.

Elliott, (Sir) Walter (1803 – 1887). Scottish. East India Company servant, archaeologist. Sources: *ODNB*.

Ellis, Henry Samuel (1825 – 1878). British. Politician, astronomist. Sources: Unknown 1878.

Evans, (Sir) John (1823 – 1908). British. Archaeologist, numismatist, paper manufacturer. Sources: *ODNB*.

Testot-Ferry, Henry Bernard Alfred (1826 – 1869). French. Geologist, archaeologist, palaeontologist. Sources: Internet.

Fitch, Robert (1802 – 1895). British. Archaeologist. Sources: Trenn 1974.

Flower, John Wickham (1807 – 1873). British. Geologist, archaeologist. Sources: *MEB, GM*.

Foote, Robert Bruce (1834 – 1912). British. Geologist, archaeologist. Sources: Pappu 2008.

Fox, A. Lane (1827 – 1900). British. Anthropologist, archaeologist. Sources: *ODNB*.

Franks, Augustus Wollaston (1826 – 1897). British, born Swiss. Antiquary, museum administrator. Sources: *ODNB*.

Furse, Paul George Frederick (dates unknown). British. British army. Sources: *London Gazette*.

Harkness, Robert (1816 – 1878). British. Geologist. Sources: *ODNB*.

Hooker, (Sir) Joseph Dalton (1817 – 1911). British. Botanist. Sources: *ODNB*, Endersby 2008.

Howorth, (Sir) Henry Hoyle (1842 – 1923). British, born Portuguese. Historian. Sources: *Who was who*, *DDE*.

Huxley, Thomas Henry (1825 – 1895). British. Biologist, science educationist. Sources: *ODNB*.

Inman, Thomas (1820 – 1876). British. Physician. Sources: *ODNB*.

Kirwan, Rev. Richard (1828 – 1872). British. Clergyman, archaeologist. Sources: *The Archaeological Journal*.

Lamprey, John H. (Dates unknown). British. Ethnographer, photographer, geographer. Sources: Maxwell 2000.

Lewis, Alfred Lionel (1841 – 1920). British. Anthropologist, archaeologist. Sources: *Nature*.

Lubbock, (Sir) John (1834 – 1913). British. Banker, politician, scientific writer. Sources: *ODNB*.

Lukis, Rev. William Collings (1817 – 1893). British. Clergyman, antiquary, archaeologist. Sources: Gregson 1893.

Machado y Núñez, Antonio (1815 – 1896). Spanish. Anthropologist, zoologist, geologist. Sources: Glick 1982, Engels and Glick 2008.

Moggridge, Matthew (1803 – 1882). Welsh. Botanist. Sources: *A biog. Index of Br. & Irish Botanists*.

O'Callaghan, Patrick (Dates unknown). Irish. Lawyer, antiquary. Sources: *SAL*.

Pereira da Costa, Francisco Antonio (1809 – 1889). Portuguese. Physician, geologist, archaeologist. Sources: Internet.

Reboux, M. (Dates unknown). French. Geologist. Sources: *BSAP*.

Rolleston, George (1829 – 1881). British. Physician and physiologist. Sources: *ODNB*.

Schmidt, Waldemar (1836 – 1926). Danish. Egyptologist, archaeologist. Sources: *Journal of Egyptian Archaeology*.

Simpson, (Sir) James Young (1811 – 1870). British. Physician, obstetrician. Sources: *ODNB*.

Stevens, Rev. Edward Thomas (1833 – 1898). British. Clergyman, archaeologist. Sources: *MEB*.

Stuart, John (1813 – 1877). Scottish. Archivist, archaeologist. Sources: *ODNB*.

Tait, Robert Lawson (1845 – 1899). Scottish. Gynaecological surgeon. Sources: *ODNB*.

Trutat, Eugène (1840 – 1910). French. Naturalist, geologist, photographer, mountaineer. Sources: Internet.

Tylor, (Sir) Edward Burnett (1832 – 1917). British. Anthropologist. Sources: *ODNB*.

Vilanova y Piera, Juan (1821 – 1893). Spanish. Geologist, palaeontologist. Sources: Engels and Glick 2008.

Vogt, Karl August Christoph (1817 – 1895). Swiss, born German. Politician, zoologist, geologist. Sources: Engels and Glick 2008.

Waddington, Alfred Penderell (1801 – 1872). British. Writer, railway promoter. Sources: *DCB*.

Wallace, Alfred Russel (1823 – 1913). British. Naturalist, traveller, anthropologist, biologist. Sources: *ODNB*, Fichman 2004.

Westropp, Hodder Michael (1820 – 1884). Irish. Archaeologist. Sources: *DIB*.

Appendix A. BAAS meetings, 1860-1872. Sections D and E.

Date, Place	Section	President	Department	President
1860, Oxford	*Zoology and Botany*	J.S. Henslow	*Physiology*	G. Rolleston
	Geography and Ethnology	R.I. Murchison		
1861, Manchester	*Zoology and Botany*	C.C. Babington	*Physiology*	John Davy
	Geography and Ethnology	John Crawfurd		
1862, Cambridge	*Zoology and Botany*	T.H. Huxley	*Physiology*	C.E. Paget
	Geography and Ethnology	Francis Galton		
1863, Newcastle	*Zoology and Botany*	Prof. Balfour	*Physiology*	G. Rolleston
	Geography and Ethnology	R.I. Murchison		
1864, Bath	*Zoology and Botany*	John E. Gray	*Physiology*	Edward Smith
	Geography and Ethnology	R.I. Murchison		
1865, Birmingham	*Zoology and Botany*	T. Thomson	*Physiology*	Professor Acland
	Geography and Ethnology	Henry Rawlinson		
1866, Nottingham	*Biology*	T.H. Huxley	*Anthropology*	A.R. Wallace
			Physiology	Professor Humphry
	Geography and Ethnology	Charles Nicholson		

Date, Place	Section	President	Department	President
1867, Dundee	*Biology*	Professor Sharpey		
	Geography and Ethnology	Samuel Baker		
1868, Norwich	*Biology*	Rev. M.J. Berkeley		
	Geography and Ethnology	Capt. G.H. Richards		
1869, Exeter	*Biology*	George Busk	*Botany and Zoology*	C. Spence Bate
			Ethnology	E.B. Tylor
	Geography	Bartle Frere		
1870, Liverpool	*Biology*	G. Rolleston	*Anatomy and Physiology*	M. Foster
			Anthropology	J. Evans
	Geography	Roderick I. Murchison		
1871, Edinburgh	*Biology*	Allen Thomson	*Botany and Zoology*	Wyville Thomson
			Anthropology	W. Turner
	Geography	Colonel Yule		
1872, Brighton	*Biology*	John Lubbock	*Anatomy and Physiology*	Burdon Sanderson
			Anthropology	A. Lane Fox
	Geography	Francis Galton		

Appendix B. Presentations related to the sciences of Man, (1866-1870)

(Capital letters for Section's name; lowercase for Department's name)

Nottingham, 1866 (August 22-30)

Section D, BIOLOGY

J. K. Lord on the Indians of Vancouver Island

Department of Physiology

J. Davy on the Colour of Man

Balthazar W. Foster on a Peculiar Change of Colour in a Mulatto

Richardson on the Comparative Vitality of the Jewish and Christian Races

Department of Anthropology

J. Anderson's Recent Explorations in Chambered Cairns in Caithness

J. Beddoe on the Stature and Bulk of the Irish, and on Degeneration of Race

Sir Edward Belcher on Stone Implements of Esquimaux

W. J. Black on Colonies in South Africa

C. Carter Blake on a Condyltis Tertius occasionally observed in the Skulls of Natives in the Indian Archipelago
On Skulls from Round BaiTows in Dorsetshire
On a Human Jaw from the Belgian Bone-Caves

E. B. Bogg on Fishing Indians of Vancouver's Island

W. Bollaert on Ancient Engravings on Stone from Southern Peru
On Central American Hieroglyphs

P. Broca's Researches into the Anthropology of Lower Brittany

R. S. Charnock on the People of Andorra

J. Collinson on the Indians of the Mosquito Territory

S. P. Day on the Power of Rearing Children among Savage Tribes

A. Ernst on the Anthropology of Caracas

J. W. Flower's Notice of a Kjökkenmödding in the Island of Herm

E. P. Haughton on the Land Dayas of Upper Sarawak

J. Hunt on the Cranial Measurements, &c. of Modern Norwegians
On the Principle of Natural Selection applied to Anthropology, in Reply to Views propounded by some of Mr. Darwin's Disciples

T.H. Huxley's Remarks on two Extreme Forms of Human Crania

T. J. Hutchinson on the Indians of the Parana

G.S. Lagneau on the Saracens in France

G.W. Leitner on Papers from Lahore

Robert Mann on the Mental and Moral Characteristics of the Zidu Kafirs of Natal

J. Plant on Human Remains from Poole's Cavern

J. Shortt on the Habits and Manners of the Marvar Tribes of India

Edward B. Tylor on Phenomena of the Higher Civilization traceable to a Rudimental Origin among Savage Tribes

C. S. Wake on the Antiquity of Man in relation to Comparative Geology

T. Wilkinson's Notes on Madagascar

Section E, GEOGRAPHY AND ETHNOLOGY

Sir S. W. Baker's Observations on the Character of the Negro Tribes of Central Africa

John Crawfurd on Caesar's Account of Britain and its Inhabitants
On the Migration of Cultivated Plants with reference to Ethnology
On the Invention and History of Written Languages

R. Dunn on some of the Bearings of Archaeology upon certain Ethnological Problems and Researches

Sir Walter Elliott on a Proposed Ethnological Congress at Calcutta

Henry H. Howorth on some New Facts in Celtic Ethnology

R. J. Mann on the Kaffirs of Natal

Sir R. I. Murchison on the Reported Discovery of the Remains of Leichhardt in Australia

J. Reddie on the Various Theories of Man's Past and Present Condition

H. Ronay on the Voguls

Dundee, 1867 (September 4-12)

Section D, BIOLOGY

Department of Anatomy and physiology

Robert Dunn on the Phenomena of Life and Mind

George Duncan Gibb on Vocal and other Influences upon Mankind, from Pendency of the Epiglottis

P. Melville on Life—its Nature, Origin

Section E, GEOGRAPHY AND ETHNOLOGY

John Crawfurd on the Antiquity of Man
On the History and Migration of Saccliiferous or Sugaryielding plants in reference to Ethnology
On the Animal and Vegetable Food of the Aborigines of Australia
On the supposed Plurality of the Races of Man
On the supposed Aborigines of India, as distinguished from its Civilized Inhabitants
On the Complexion, Hair, and Eyes as Tests of the Races of Man
On the Dissemination of the Arabian Race and Language

H. C. Criswick's Life amongst the Veys

John Daty on the Character of the Negro, chiefly in relation to Industrial Habits

H. H. Howorth on some Changes of Surface affecting Ancient Ethnography
On the Origins of the Norsemen

Lynn Linton on the Ethnography of the French Exhibition, as represented by National Arts

Sir John Lubbock on the Origin of Civilization and the Early Condition of Man

Sir R. I. Murchison on the International Pre-historic and Anthropological Congress

Observations on the Livingstone Search Expedition now in progress

W. Perkins's Exploration of the Grand Chaco in La Plata, with an Account of the Indians

J. J. Pratt on the Colony of New Scotland, in Southern Africa

A. Raimondy's Account of the Wild Indians inhabiting the Forests of Huanta, Peru

Major Robert Stuart on the Vlakhs of Mount Pindus

Norwich, 1868 (August 19-25)

Section D, BIOLOGY.

Department of Botany and Zoology

Rev. F. O. Morris on the Difficulties of Darwinism

Department of Anatomy and Physiology

R. Dunn on the power of Utterance in respect to its Cerebral Bearings and Causes

Paul Broca on the Seat of the Faculty of Articulate Languages

J. Hughlings Jackson on the Physiology of Language

George Rolleston on sixteen Eskimo Crania

Edward B. Tylor's Remarks on Language and Mythology as Departments of Biological Science

Section E, GEOGRAPHY AND ETHNOLOGY

H. Blanc on the Native Races of Abyssinia

Commander Lindesay Brine on the Past and Present Inhabitants of the Cyrenaica

W. Hepworth Dixon on the Great Prairies and the Prairie Indians

Sir Walter Elliot on the Sepulchral Remains of Southern India

H.H. Howorth on the Nomade Races of European Russia

T. J. Hutchinson on the Tehuelche Indians of Patagonia

W. Gifford Palgrave on the North-East Turkish Frontier and its Tribes

A. Vámbéry on the Uigurs

Section F, ECONOMIC SCIENCE AND STATISTICS

Lydia E. Becker on some supposed Differences in the Minds of Men and Women with regard to Educational Necessities

Exeter, 1869 (August 18-25)

Section D, BIOLOGY

Department of Anatomy and Physiology

G. Wilson on the Moral Imbecility of Habitual Criminals, exemplified by Cranial Measurements

Department of Ethnology

Sir E. Belcher on Stone Implements from Rangoon

C. Carter Blake and R. S. Charnock's Notes on Mosquito and Wulwa Dialects

James Bonwick on the Origin of the Tasmanians, Geologically considered

W. C. Dendy on the Primitive Status of Man

Francis Drake on Human Remains in the Gravel of Leicestershire

Rev. Edgar N. Dumbleton on a Crannoge in Wales

P. M. Duncan on the Age of the Human Remains in the Cave of Cro-Magnon in the Valley of the Vezere

Colonel A. Lane Fox on the Discovery of Flint Implements of Palaeolithic Type in the Gravel of the Thames Valley at Acton and Ealing

Archdeacon P. Freeman on Man and the Animals, being a Counter Theory to Mr. Darwin's as to the Origin of Species

E. Garner on the Brain of a Negro

Sir Duncan Gibb on the Paucity of Aboriginal Monuments in Canada
On an Obstacle to European Longevity beyond 70 years
On a Cause of Diminished Longevity among the Jews

Townshend M. Hall on the Method of forming the Flint Flakes used by the early inhabitants of Devon, in Prehistoric Times

W. S. Hall on the Esquimaux considered in their relationship to Man's Antiquity

H. H. Howorth on the Circassians or White Kazars
On a Frontier of Ethnology and Geology

Rev. A. Hume on the so-called "Petrified Human Eyes" from the Graves of the Dead, Arica, Peru

G. Henry Kinahan's Notes on the Race Elements of the Irish People

Richard King on the Natives of Vancouver's Island

A. L. Lewis's Notes on the Builders and the purposes of Megalithic Monuments

Sir John Lubbock on the Origin of Civilization and the Primitive Condition of Man

Rev. J. M'Cann's Philosophical Objection to Darwinism or Evolution

Rev. F. O. Morris on the Difficulties of Darwinism

T. S. Prideaux on the occasional definition of the Convolutions of the Brain on the exterior of the Skull

J. Stirling on the Races of Morocco

Ralph Tate's Notes on an Inscribed Rock

C. Staniland Wake on Initial Life
On the Race affinities of the Madecasees

Section F, ECONOMIC SCIENCES AND STATISTICS

Hyde Clarke on the Want of Statistics on the Question of Mixed Races
Note on Variations in Rapidity and Rate of Human Thought

Liverpool, 1870 (September 14-21)

Section D, BIOLOGY (including Ethnology)

Professor John Cleland on the Physical Relations of Consciousness and the Seat of Sensation: a Theory proposed

John Beddoe on the Anthropology of Lancashire
On the Ottoman Turks

W.H.I. Bleek on the Position of Australian Languages

F. Bridges on New Views of Craniology

G. Campbell on the Village System in India

Hyde Clarke's Note on the Distribution of the Names of Weapons in Prehistoric Times

Eugene Alfred Conwell on Ancient Sculptures and Objects of Art from Irish Cairns

W. Boyd Dawkins and George Busk on the Discovery of Platycnemic Men in Denbighshire

W. Boyd Dawkins on the Exploration of the Victoria Cave, Settle, Yorkshire

W. C. Dendy on the Shadows of Genius

P. Martin Duncan on the Geological Changes which have occurred since the first Traces of Man in Europe

Rev. C. D. Ginsburg on the Relation of the Ancient Moabites to Neighbouring Nations, as disclosed in the newly discovered Moabite Stone

T. B. Grierson, Anthropological Note on Carved Stones recently discovered in Nithdale, Scotland

R. Harkness on the Discovery of a Kitchen-midden at Balycotton in County Cork

William Hitchman's Remark on the Anatomy of the Intellect

T. Sinclair Holden on some forms of Ancient Interment in County Antrim

H. H. Howorth on the Massagetae and Sacae
On Pre-Turkish Frontagers of Persia
On the Avares

J. Kaines on the Racial Aspects of Music

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Sir John Lubbock's Remarks on Stone Implements from Western Africa.

J. S. Phené on a recent Examination of British Tumuli and Monuments in the Hebrides and on the Western Coast of Scotland, with suggestive Inferences

John Plant on a Flint-flake Core found in the Upper Valley-gravel at Salford, Manchester

Charles Ricketts on a Wooden Implement found in Bidston Moss, near Birkenhead

Rev. C. Sewell on certain remarkable Earthworks at Wainfleet, in Lincolnshire

G. Thin on the Use of Opium among the Chinese

C. Staniland Wake on the Mental Characteristics of the Australian Aborigines
On the Physical Characters of the Australian Aborigines

Section E, GEOGRAPHY

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