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Hugh MacColl after One Hundred Years

Preface

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Preface

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“It all turns upon that little word *if*, Mr. Burton.”

[MacColl 1891, 955]

This volume is devoted to the life and work of Hugh MacColl (1837-1909), the Scottish mathematician, philosopher and novelist. Although MacColl is nowadays remembered mainly for his contributions to the science of logic, his work covers many other domains and witnesses the richness and variety of his intellectual interests. MacColl’s early writings (from 1861 onwards) were devoted to mathematics, notably geometry, algebra and the theory of probabilities. In the late 1870s and early 1880s, he published several papers on logic that brought him to the attention of his contemporaries. In these writings, he expressed his preference for propositional calculus instead of the term/class approach, widespread in his day. From around 1884, and for about thirteen years, he devoted much of his time to literature and published two novels. In the late 1890s however, he returned to his logical investigations and published several papers that led him into controversy with some of the leading logicians of his time, notably on the issues of modalities, implication and existence. Eventually, in 1906 he published a comprehensive exposition of his logical theory [MacColl 1906]. In his late years, he continued to write on science, philosophy and religion and ultimately published a collection of essays on these issues [MacColl 1909].

Greetings from Boulogne

The richness and originality of MacColl's intellectual production made him well known in his lifetime, but his name almost vanished in secondary literature after his death. Except for some occasional references, one has to wait until the 1980s to see MacColl's work rediscovered thanks to the research carried out at Erlangen by Christian Thiel, Volker Peckhaus and Anthony Christie. This work was pursued in the 1990s, mainly by Michael Astroh and Shahid Rahman and culminated in the organisation of a colloquium on 'Hugh MacColl and the Tradition of Logic', that took place in Greifswald (29 March - 1 April 1998), the proceedings of which appeared as [Astroh & Read 1998]. Those proceedings together with a biographical paper published shortly afterwards [Astroh, Grattan-Guinness & Read 2001; reprinted in this volume] became the starting point of all the research carried out since, notably by Rahman and his colleagues in Lille [Rahman & Redmond 2007]. In 2009, on the occasion of the centenary of MacColl's death, a commemorative meeting was held in Boulogne-sur-Mer (France), the city where he lived from 1865 to his death in 1909. All but one of the papers in the present volume were first presented at that centenary meeting.

Although MacColl might have gained some local recognition in his lifetime, it appears that he left little impression in Boulogne as his name and work sank into oblivion. In this respect, the centenary meeting was an opportunity to rediscover MacColl in his own town, as his grave was restored on this occasion and a reception was organised at the city hall. It is obvious that MacColl's life in Boulogne influenced his scientific career, achievements and acquaintances, as it kept him outside of the Victorian intellectual establishment, although maybe not so very far (see Stein Olsen's paper). Apparently, this position as an outsider both stimulated MacColl's original thinking and prevented him from gaining more academic recognition. A simple look at MacColl's biography shows that one remarkable and invariable feature of his life was his search for recognition (see the paper by Astroh, Ivor Grattan-Guinness and Stephen Read). In his papers, MacColl often claimed the superiority of his logical method over those of his contemporaries, and frequently insisted, in an unsubtle manner, that he had discovered his methods alone, rarely recognising any influence from authors who preceded him or with whom he interacted (see for instance Irving Anellis' paper on MacColl's relationship with Peirce and Schröder).

The Boulogne meeting was an opportunity to review the situation on MacColl's legacy one hundred years after his death. It was also an occa-

sion to make a survey of the progress in scholarship since the Greifswald meeting, more than ten years ago, as many participants attended both meetings. One feature that is confirmed, as one can easily observe in this volume, is the plurality of MacColl's interests, and hence, the interdisciplinary approaches of his scholars. Although logic held a prominent place in both meetings, other intellectual domains were also discussed, namely mathematics and literature. They shed new lights into little-known but important aspects of MacColl's personality and thinking, as are his activities as a contributor to the mathematical columns of the *Educational Times* (see James Tattersall's paper) and his duties as a mathematical reviewer for the journal *The Athenaeum* (see Francine Abeles and Amirouche Moktefi's joint paper).

On the way to pluralism

Even within logical studies, the focus is no longer on the MacColl-Russell relationship. MacColl is now seen as a logician working within a large intellectual community in which he was certainly a respected member, although not necessarily much followed. In this respect, MacColl's position as a "logical" outsider should be moderated, for most symbolic logicians were in any case outsiders within the academic scene which was dominated by philosophically rather than mathematically trained logicians. In his first logical phase, MacColl was just one among many logicians who invented a symbolic notation and claimed it to be the most effective for solving logical problems. We reproduce at the end of this volume a rarely cited paper by MacColl which is very useful in coming to understand how he worked in those years, as it explains the principles on which MacColl based his symbolical notation, and provides an account of its development.

Whatever his position within the intellectual scene of his time, MacColl proved to be an ingenious and innovative logician. His contributions cover such areas as propositional logic (see Jean-Marie Chevalier's paper), the logic of fictions (see Rahman's paper) and modalities (see Fabien Schang's paper). One particular issue that raised some debate among historians of logic concerns MacColl's place as a precursor of logical pluralism. The contributions of Grattan-Guinness and John Woods to this volume tend to show that MacColl was not a pluralist in the modern sense of that word, although he certainly raised questions and made several steps in that direction. As often happens with priority disputes, a close look shows indeed that historical developments are too complex to

credit a single man and most innovations turn out to be the culmination of slow and gradual improvements. MacColl might not have judged such a reading as “either just or generous” [Astroh, Grattan-Guinness & Read 2001, 92], but that is the way it is. However, thanks to his explorations beyond classical logic, MacColl certainly did contribute to opening the way to pluralism.

MacColl lived and worked within a crucial period in the history of logic. His logical writings help to understand both the mature phase of the algebra of logic and the early years in the development of logistics, as Louis Couturat used to call those two mathematical logic trends. It is the wish of the editors that the present volume will convince readers of the historical and philosophical interest and importance of MacColl’s work as a logician, and that it will also stimulate their curiosity to discover the other writings of this multi-faceted author, notably in mathematics and literature. An edition of MacColl’s scientific correspondence (both private and public) and a comprehensive bibliography of his writings are currently in preparation. It is hoped that these achievements will promote in the near future the project of editing MacColl’s *Collected Writings*, as already alluded to in [Astroh & Read 1998, iv].

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