## Towards a Genealogy of Grey Literature via Newton's Journals

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## ABSTRACT

The question "Is Grey blind to the Review Process?" suggests a number of contradictory answers, all somewhat begging the question of how we identify Grey Literature. In this study the problem will be approached from an historical perspective.

A mass of grey literature from the pen of Isaac Newton was rediscovered in the past century. In 1936 the economist John M Keynes bought a lot of papers at auction at Sotheby's, among which he discovered the so-called "alchemical journals" of Isaac Newton, voluminous working papers devoted largely to Newton's alchemical and code experiments, which he pursued throughout his life. Only in the past 30 years or so have biographies of Newton appeared which attempt to deal with this 'grey' question.

Newton's journals themselves base themselves on a body of grey literature scholars have recently begun to discern under the general notion of "Hermetic writings", which date back at least to the building of the first University at Alexandria by the Ptolemies (3rd century BC Egypt) and generally claim a much greater antiquity than that.

Newton's own description of the reasons for keeping alchemical and hermetic writings away from public review (keeping them grey, as it were) can be found in a letter he wrote to a fellow alchemist, Robert Boyle:

"Because the way by which the Mercurial principle may be impregnated has been thought fit to be concealed by others that have known it, and therefore may possibly be an inlet to something more noble that is not to be communicated without immense damage to the world if there be any verity in Hermetic writers. There are other things besides the transmutation of metals which none but they understand."

On the level of peer review, though Newton has become a sort of icon of the mechanistic universe, both Leibniz and Descartes expressed some suspicion of his notion of gravity, as action at a distance, something that smacked a bit too much of medievalism and magic. (And indeed, the problem of gravity remains a bit of a sticking point in physics today, on its way to the Holy Grail of a unified field theory, caught up in relativity and quantum chaos.)

It is expected that a careful review of the problematic of Newton's 'grey' versus his 'review processed' work, considered against the backdrop of the larger question of 'hermetic writings' in general, will reveal the nature of the link between such literature and the development of mathematics and science in history. It will at the same time permit us to gain a clearer definition of grey literature from the perspective of one of its oldest and most persistent forms.

## The question "Is Grey blind to the Review Process?" is here addressed from an historical perspective, taking the case of Isaac Newton as exemplum.

Emphasizing the link between an emerging awareness of grey literature and cybernetic data processing – I believe the term was coined back at the dawn of the cybernetic age in the Kennedy administration – I must begin by acknowledging my indebtedness to the work of the Newton Project, Imperial College London, which, with the aid of the document management system developed by the Australian Science, Technology and Heritage Centre (AUSTEHC), Melbourne University, has provided, on the web --http://www.newtonproject.ic.ac.uk/index.html -- an indispensable resource, replete with bibliography, locations and descriptions of extant Newton manuscripts, etc., without which my researches would have been much more limited.

Aside from his published (review processed) 'scientific' writings, Newton's literary remains, his grey literature, may be generally broken down into four divisions: scientific and mathematical papers, theological and chronological writings, writings having to do with his duties as Warden and then Master of the Mint in England, and the alchemical papers.

Some of the scientific papers appeared here and there in drips and drabs after Newton's death, along with a few of the theological/chronological papers, such as his "Chronology of Ancient Kingdoms Amended" and the well known 'An historical account of two notable corruptions of Scripture in a Letter to a Friend' (25,000 words, sent in two parts as a letter to John Locke), to which we shall return later.