CHARLES LYELL AND GIDEON MANTELL, 1821 – 1852: THEIR QUEST FOR ELITE STATUS IN ENGLISH GEOLOGY.

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SYNOPSIS

An analysis of the correspondence between Charles Lyell and Gideon Mantell from 1821 to 1852, in conjunction with other manuscript material, highlights the contrasting backgrounds and geological careers of the two men. It is also characterised by two underlying themes: the nature and timing of their geological work; and the influence of various social factors on their career plans and desire to achieve high social and scientific status. In turn, these points raise several wider issues and inter-related questions concerning the following aspects of English geology in the first half of the nineteenth century.

- When, why and how did an elite group of geologists emerge in England during this period? Who were its members and what were their characteristics in common?
- What was the nature and scope of the geological work carried out by the identified elite? In what way did it differ from Mantell’s?
- What social and other barriers did Mantell encounter in his search for scientific and social status? What were the critical factors?

In this thesis these issues are examined on a decade-by-decade basis, in three main chapters, as a prelude to examining the central question of why Mantell, unlike Lyell, did not achieve the status of an elite geologist. First, an elite group of English geologists is identified through a series of prosopographic and ‘screening’ analyses of all members of council of the Geological Society of London (GSL). Geologists who did not meet the prescribed criteria are taken into account. Thirteen geologists are identified in the penultimate and final stages of screening over the four decades. Mantell was the only provincial identified, but he did not attain a position in the final list, which consisted exclusively of a distinctive group of ‘gentleman-specialists’. Second, the concept of a geological ‘domain’ is introduced to analyse the nature and scope of the geological work carried out by the identified group. A critical finding is that all members identified in the final ‘screening’ list established a ‘domain’ in one of four categories of the concept and were recognised as the leading authority or exponent of the domain they had fashioned. Finally, the impact and relative importance of specific social and other factors on the careers of Lyell and Mantell are examined.

When the findings from each decade of the three chapters are brought together it is shown that by the end of the 1820s it was necessary for a future elite geologist to be so ‘positioned’ in terms of basic geological experience, location, income and available time that he was able to identify and subsequently fashion an appropriate geological ‘domain’. ‘Gentleman-specialists’, such as Lyell, who were able to follow this strategy, constituted a
clearly defined elite that dominated the GSL in the 1830s and 1840s. Mantell’s failure to achieve elite geological status stemmed from the fact that he placed too much emphasis on fashioning his image and social status, rather than his scientific career. In doing so, he let the opportunity slip of establishing a major domain – British fossil reptiles – in the early 1830s.

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APS American Philosophical Society, Philadelphia
In this thesis the nature of the geological work carried out by 15 identified English geologists during the first half of the nineteenth century is reviewed, including that of Lyell and Mantell. Relevant data concerning the careers of these geologists are summarised below. This information has been obtained


WHEWELL, William, Rev. (1794-1866). Educated Heversham Grammar School, Westmoreland. In 1812 he obtained an Exhibition to Trinity College Cambridge, becoming Master of that college in 1841. Elected FRS 1819 and member of the GSL council 1830-33 and 1836-42. GSL president 1837-39. Received the Royal Medal in 1837.

president 1821-23. Recipient of the Copley Medal in 1802.

LOCATION MAP – SOUTH EAST ENGLAND
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