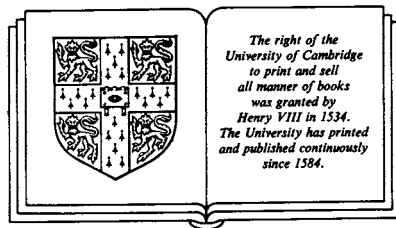


Scientist of empire

Sir Roderick Murchison, scientific exploration and Victorian imperialism

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Introduction

In the formal and informal empires of Victorian Britain, natural scientists played a primary role in reconnoitring natural resources, stimulating their exploitation, and advising government policy makers on related issues. Geology and botany led the other sciences in support received and research accomplished because of the immediate economic usefulness of their results. In the second quarter of the nineteenth century the Geological Survey of Great Britain was established and the Royal Botanic Gardens at Kew transformed into a state institution, to direct official activity in these disciplines and function as centralised information repositories for the empire. Geography found quasi-official expression in the Royal Geographical Society. The initiative for founding these institutions came from London scientists. Because of the nation's expanding overseas interests and the precedent for official patronage provided by the Royal Society, metropolitan savants realised the opportunities for research abroad which an alliance with government could provide. They were able to realise their ambitions because of their skill at organised lobbying, for by this period Britain's governing elite had been imbued with enthusiasm for the goals of science and belief in its power to promote economic progress. Still, in an era of retrenchment and reform, public science had to perform to earn its keep. It did so by providing the nation with information of utilitarian value as well as cultural capital worthy of Britain's status as a great imperial power.¹

If imperialism is defined according to the formula proposed by David Fieldhouse – 'the deliberate act or advocacy of extending or maintaining a state's direct or indirect political control over any other inhabited territory'² – a study of Sir Roderick Murchison's career offers important insights into several facets of this phenomenon in mid-nineteenth-century Britain. If the connotation of the term is widened to include the exportation of metropolitan culture to the periphery, Murchison assumes an even larger historical significance. The interlocking relationships between his high office in several scientific societies, his official position as Director-General of the Geological Survey, and his vast social and political influence made him a crucial connection between the decentralised structure of British science and the imperial government. From this pivotal position, previously occupied by Sir John Banks and less authoritatively by his successor Sir John Barrow, second Secretary of the Admiralty,³ Murchison manoeuvred to institutionalise natural science as an integral component of both imperial administration and foreign policy. By promoting exploration, resource reconnaissance, commercial expansion, and imperial development and security, he stimulated systematic

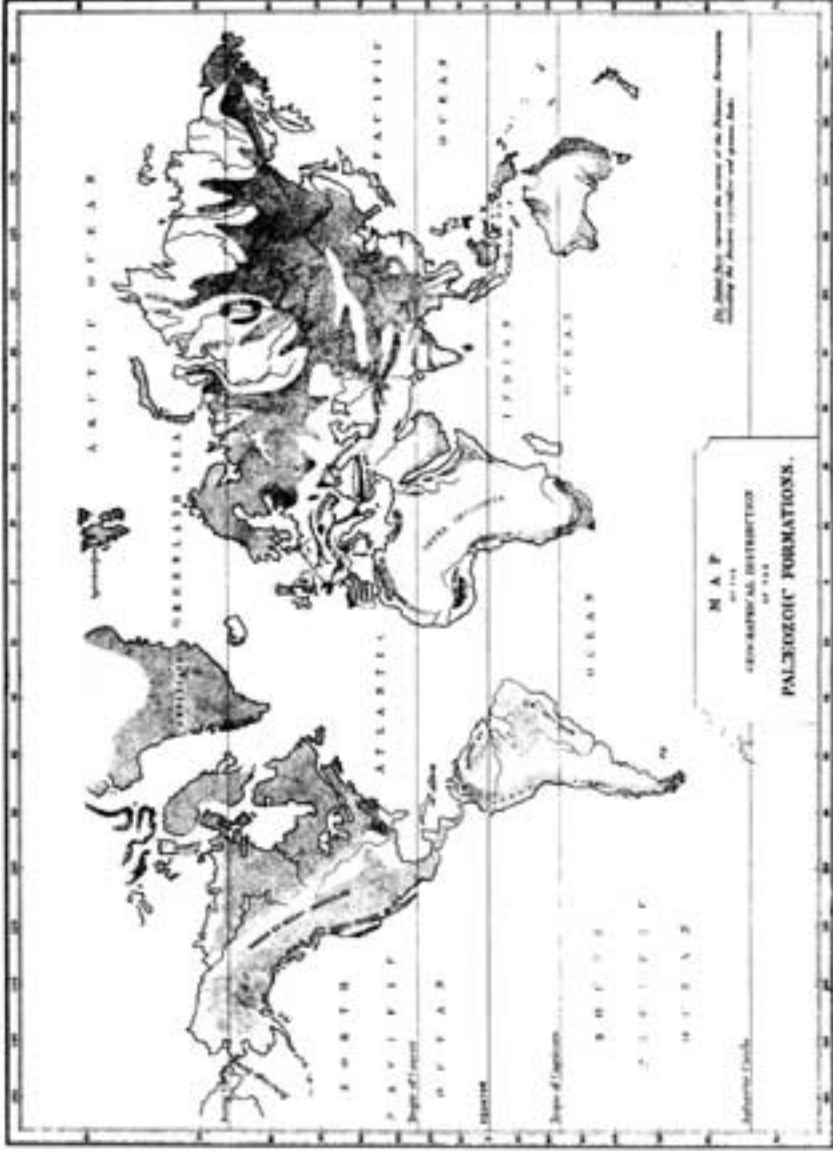


Plate 1 Murchison's map from the first edition (1854) of *Siluria*

exploitation of the empire and the entire periphery. By mediating the resultant flow of information reaching the home audience, he also played a significant role in defining metropolitan perceptions of this zone.

The standard biography of Murchison is now over a century old. As a work Murchison commissioned his protégé Archibald Geikie to compose, it hardly represents a critical treatment.⁴ The results of extensive research regarding specific aspects of Murchison's geological work have recently appeared,⁵ and analysis has begun of the interplay between science and empire in his career.⁶ In what follows I develop these themes and present a comprehensive assessment of Murchison's imperial activities throughout their chronological and geographical range. While addressing the general subject of science and empire, my account also provides partial answers to more specific questions.

I endeavour to clarify the relationship between the growing demand of Britain's governing and commercial elites for accurate data about the extra-European periphery, and the simultaneous search for increased status and authority by scientists willing to provide such information. I seek to demonstrate how colonial data and career opportunities influenced the development of British scientific disciplines, and thus how imperialism formed part of the social matrix in which nineteenth-century British science was embedded. I attempt to elucidate how British scientists exported their disciplines to the gigantic laboratory of the colonies, where they thrived as resource intelligence services and motors of economic development. This study contributes to an understanding of when, where, and why key sectors of colonial infrastructure such as railways, mines, and port facilities were installed. It illuminates how the official mind of imperialism procured the facts upon which it based its decisions, how its priorities could be manipulated by interest groups or even individuals, and how it often proceeded to its goals through unofficial channels such as the metropolitan scientific societies. Finally, it helps explicate the way in which public reaction to imperial adventures could be orchestrated through the medium of organisations such as the Royal Geographical Society and how the debate among British savants about the appropriate function and style of science in the imperial context played itself out on this institutional stage.

The first chapter is biographical, emphasising those factors in Murchison's background, personality, and career which predisposed him to a keen interest in and personal identification with the British empire. In the succeeding six chapters I present regional studies of Murchison's efforts to elaborate a symbiotic relationship between science and the forces of imperial development and national expansion. In the conclusion, I evaluate the evidence set forth according to the hypotheses advanced in Chapter 1 about Murchison's significance and the larger issues of science, empire, and public opinion illustrated by his career.