IMAGE UNAVAILABLE FOR COPYRIGHT REASONS

A HISTORY OF THE THINGS IN THE BRITISH MUSEUM (NATURAL HISTORY)

National Darwin Centre

funds and space become severe. The latter is a chronic museum problem and one often felt by the British Museum (Natural History). Confusion of function has been further compounded by the perceived tastes of the television generation: museum exhibitions and popular publications admittedly seek the lower end of a vague average intellect. They seek their market, attendance having become a crucial statistic with which to defend old support and to solicit new funds, by offering gentle instruction and mounting increasingly brilliant displays. Old values have in the process been transformed and the new product — the word fits well — is perplexing.

In this world agog with educational technology and associated display techniques, one must ask a foolishly obvious question — what use the artefact itself? It was the very object whose protection was the minimal original objective of any serious natural history collection, yet many modern displays, including the “spectaculars”, offer more aluminium and plastic than rock, cellulose or flesh, however dry. Study collections, the hard core of a museum in confident times past — and today, as extinctions proceed apace, one of our few hopes for further increasing our understanding of the career of life on this globe — occupy the back room; the public is given a glance at most. The moral is obvious: as display divorces itself from artefact, so might this circus in miniature easily and effectively separate itself from a central museum. Modern displays are instructive and entertaining but they are also reproducible; they can play in Palermo or Peoria as well as in London or New York. So perhaps they should, while the central museums redirect their limited resources to the care, study and display of the genuine objects of natural history. □

William Coleman is Professor of History of Science and History of Medicine at the University of Wisconsin, Madison.

The public's view of the Natural History Museum in the 1980s. Opposite — part of the “Nature Stored: Nature Studied” exhibition, a display in a more traditional mould. Above left — the artefacts of nature remain, but push-button displays obtrude in the “Man's Place in Evolution” exhibition. What would Richard Owen (right) have made of it all?

The grand Vernonian omnibus

Robert Fox

Gentlemen of Science: Early Years of the British Association for the Advancement of Science. By Jack Morrell and Arnold Thackray. Pp. 592. ISBN 0-19-858163-7. (Oxford University Press: 1981.) £30, \$59.

THIS summer, in York, the British Association for the Advancement of Science celebrated its 150th anniversary. There could have been no more appropriate location. For it was in York, in 1831, that some 350 “friends of science” set in motion what a friendly contemporary called “the grand Vernonian omnibus”. (The reference was to the Revd William Vernon Harcourt, the son of the Archbishop of York and the central figure in the task of foundation.) By 1844, when the fourteenth of its peripatetic annual meetings took place, once again in York, the BAAS had completed a circuit of the main traditional centres of British cultural life — Oxford, Cambridge, Edinburgh and Dublin (London, then as now, being excluded as a possible venue) — and of some of the bigger industrial cities. On the way it had given unprecedented visibility to the scientific enterprise and signally advanced the incipient sense of community among Britain's men of science. Oxonians and Cantabs, manufacturers and clergy, military men and doctors, peers and politicians, even some women, had become united in an organization whose seemingly easy commitment to the value-free universalism of science in reality carried a carefully constructed ideology.

Gentlemen of Science is a meticulous study of the first 13 years of the BAAS, in

which these successes were achieved. They were decisive years for science in Britain: the neologism “scientist” won acceptance, and more importantly, as Morrell and Thackray argue, the very *idea* of science as a distinct form of knowledge, at once benign, powerful and progressive, was articulated. In the process, Harcourt's Baconian conception of the Association as a vehicle for the predominantly empirical work of his fellow provincials gave way to a rival conception, emanating from London and Cambridge, which stressed the primacy of theory and mathematics. Inexorably, it seems, the intellectual weight of the Association drifted towards Section A (mathematical and physical science), and it was in mathematical physics that the early BAAS established its most distinctive and coherent tradition of research. Moreover, as mathematical physics rose in the BAAS hierarchy of the sciences, the biological and social sciences — agriculture, ethnology and geography, for example — fell, while phrenology and education were among the would-be sciences that were edged out altogether. Even medicine succumbed as the Association's leaders took upon themselves the task of defining “science”: it was no coincidence that the medical section disappeared in 1848.

The waters which the BAAS chose to sail were often choppy. Tractarians and fundamentalists joined the most conservative elements in political life in seeing the organization as a rival claimant to the various areas of authority which they regarded as their preserve. Then there was always the problem of competing interests within its

ranks. How, in particular, did it find room for two such abrasive and mutually hostile personalities as Sir David Brewster and William Whewell, the former virtually unemployed and obsessed with the inadequacy of scientific patronage, the latter basking in the ample luxury of Trinity College, Cambridge? One answer seems to lie in the prosopography of the twenty Gentlemen of Science whom Morrell and Thackray identify as the ruling coterie of the BAAS (and who give the book its title). All but two of the twenty were Anglicans of a liberal or latitudinarian persuasion, and most of them were also Whigs or Peelite Tories with an interest in moderate reform. They were, in short, predominantly men of the centre, wedded to an ideal of conciliation and social harmony.

It is one of the most impressive achievements of this impressive book to relate the spirit of accommodation which pervaded the higher reaches of the BAAS to the political and social conditions of the troubled decades that separated the massacre of Peterloo (1819) from the Chartist National Assembly of 1848. With mob violence a real or potential threat, and with established institutions being questioned as never before, there was every

reason for the gentry and aristocracy to feel beleaguered. They needed allies, and so reached down the social scale to make common cause with an increasingly powerful educated middle class which shared the aristocracy's horror of wholesale revolution. In this quest for social integration, science was quickly recognized as a natural field for shared endeavour, if only because it was deemed to be of such varied utility, whether as uncontroversial rational amusement, as the foundation of Britain's industrial prowess (a particularly dubious claim at the time) or as the source of at least a limited understanding of God. After two or three decades in which, for all these reasons, the vogue for science had gripped polite society, in metropolis and provinces alike, the conditions for the success of the BAAS could hardly have been more auspicious.

Gentlemen of Science is the fruit of more than ten years of painstaking research, in the course of which thousands of previously unknown letters (300 of them soon to be published in the Royal Historical Society's *Camden* series) have been culled to exciting effect. The authors bear their immense erudition gracefully, ingeniously mingling detailed narrative with passages

of analysis, and succeeding brilliantly (where so many others have failed) in elucidating the constant interplay between the content of scientific knowledge and the context of its production. The book bristles with challenging interpretations. If only by implication, it tilts effectively at the *canard*, launched by contemporary Jeremiahs like Charles Babbage and still alive to this day, according to which British science about 1830 was in decline. Babbage was, of course, correct in stating that science in Britain did not have the level of state patronage that it enjoyed in France. But what he did not say was that many French *savants* were in turn envious of Britain's tradition of self-help. That the French were justified in their envy is made abundantly clear by Morrell and Thackray's account of the BAAS's achievements, whether as a forum for the discussion and dissemination of ideas or as a lobby in what was at the time the new game of hunting research grants.

At last the early history of the BAAS seems to make sense. Above all, it is to be hoped that historians will never again try to squeeze the devotees of British science in the 1830s and 1840s into the uncomfortable strait-jacket of conventional models of professionalization. The aim of the Gentlemen of Science was not the advancement of science as a means of livelihood; they regarded the study of nature as a vocation whose interests were more likely to be harmed than served by the fetters of full-time scientific employment. Hence there was nothing paradoxical about their enthusiasm for colourful public displays, ranging from the sparkling dinner which the Archbishop of York offered at his palace during the 1831 meeting, to the impromptu sermon which Adam Sedgwick delivered "to some 3000 or 4000 colliers and rabble" on the beach at Tynemouth (Newcastle upon Tyne meeting, 1838). There was nothing paradoxical either about the fact that independent men of science like the Marquis of Northampton and the retired stockbroker Francis Baily occupied as prominent a place in the BAAS leadership as university chairholders like Sedgwick, Whewell and Baden Powell. By their work for the BAAS, these men undoubtedly contributed to the establishment of science as a profession. But they did so unwittingly. Had they been at York this year, they would have marvelled at our modern paraphernalia of formal qualifications and rigid career-patterns. They might also have reflected that science is no longer quite the *fun* which this absorbing and entertaining book shows it was 150 years ago. □

Robert Fox is Reader in the History of Science at the University of Lancaster and President of the British Society for the History of Science. His most recent book, co-edited with George Weisz, is The Organization of Science and Technology in France, 1808-1914 (Cambridge University Press, 1980).

DINNER

GIVEN BY THE

Magistrates & Town Council of Glasgow LIST OF TOASTS.

1. The Queen,	CHAIR.
2. Prince Albert,	Do.
3. The Queen-Dowager and the rest of the Royal Family,	Do.
4. The Army and Navy,	Do.
5. The British Association & the Marquis of Breadalbane,	Do.
6. The City of Glasgow, and the Lord Provost and Magistrates,	MARQUIS OF BREADALBANE.
7. The University of Glasgow, and Principal M'Farlan,	LORD BELHAVEN.
8. The Scientific Institutions and Societies of Europe and America,	PRINCIPAL M'FARLAN.
9. The Memory of James Watt, and the other eminent men of Great Britain who have contributed to the Advancement of Science,	GENERAL TSCHIEFFKINE.
10. The Noblemen and Gentlemen from other parts of the Kingdom, who have honoured this Meeting of the British Association with their presence,	SIR JOHN ROBISON.
11. The Astronomers of the Continent, and Mr. Encke,	PROFESSOR AIRY.
12. The Royal Society, and its Noble Chairman, the Marquis of Northampton,	MR. ENCKE.
13. The Foreigners who have contributed so much to the interest and success of this Meeting of the British Association,	MARQUIS OF NORTHAMPTON.
14. The Ladies who have honoured the Meeting by attending its Sections,	DR. BUCKLAND.
15. Railway Communication, & other Improvements which tend to facilitate intercourse between mankind, and thereby promote friendly relations,	LORD SANDON.
16. The Members for the City,	CROUPIER.
17. The Rajah of Travancore, the great Promoter of Science in the East,	SIR D. BREWSTER.
18. The Commercial and Manufacturing interests of the Country, which owe so much to Science for their advancement,	LORD MONTEAGLE.
19. Foreign Naturalists, and M. Agassiz,	MR. LYELL.
20. The Lord Lieutenant of the County,	
21. The Secretaries of the British Association,	
22. The Local Officers for the Glasgow Meeting of the Association,	MR. PHILLIPS.

For the early members of the BA science was perhaps more fun than it is today, but must have had its tedious aspects. The illustration shows the list of toasts proposed at a dinner given for the Association by Glasgow Corporation in 1840.