

Book Reviews

pioneering research into the Hartlib Papers (*The great instauration*, 1975), and which have since remained a topic of acrimonious debate. In particular, there is no indication here of a re-assessment of the importance of religious and political factors in the encouragement, or subsequent failure, of Hartlib's various schemes and ideas. Nor, despite the recent work of so many scholars on the subject, is there any clear understanding of the problematic nature of mid-century puritanism which Webster and others have detected as an essential ingredient of the Hartlibian reform movement. With the imminent publication of the Hartlib Papers in electronic form, it is to be hoped that scholars will have greater opportunity to engage further in these crucial areas of early modern thought in England. In the mean time, students of this period, whatever their field, have been reminded once again of the incomparable richness of the Hartlib papers as a primary source for the middle decades of the seventeenth century.

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Manfred Wenzel (ed.), *Samuel Thomas Soemmerring in Kassel (1779–1784)*, Beiträge zur Wissenschaftsgeschichte der Goethezeit, Soemmerring-Forschungen, vol. 9, Stuttgart, Gustav Fischer, 1994, pp. 483, illus., DM 148.00 (3-437-11626-6).

In the nine essays united in this volume the Soemmerring Editors and Research Group and associates examine the time that Samuel Thomas Soemmerring (1755–1830) spent as a young professor of anatomy at the Collegium Carolinum in Kassel. While thus focusing on the rather brief period of 1779 to 1784, their studies open a wide window to medicine, science, and culture in the then flourishing capital of Hesse-Kassel—shortly before its decline, which came with the death of its enlightened sovereign, Landgrave Friedrich II, in 1785.

In fact the latter's patronage is reflected in many of Soemmerring's activities in those

years, which are meticulously analysed and displayed in this book. As Eberhard Mey shows in a historical account of the medical faculty of the Collegium Carolinum, Soemmerring's call to Kassel fell in a period of ambitious efforts to upgrade this institution from a higher school and training place for surgeons to university level. From essays by Ulrike Enke and Sigrid Oehler-Klein on Soemmerring as an anatomist we learn that he was able to give his inaugural lecture (on the medical utility of exact knowledge of the lymphatic system) at the opening ceremony of the newly built anatomical theatre, on the Landgrave's birthday. At a meeting of the fashionable Société des Antiquités, sponsored and chaired by Friedrich, the young professor talked about the beauty of antique statues of children's heads, combining in his paper the drawing method of his Dutch mentor Pieter Camper, the classicist ideas of Johann Joachim Winckelmann, and his own anatomical studies of infant heads. The corpses for the latter had been procured from the local obstetrical hospital and foundlings' home (Accouchier- und Findelhaus), which had been opened in 1763. From the Landgrave's natural history collection Soemmerring received teratological preparations. Having carefully examined them, he rejected both the traditional theory of maternal imagination and Albrecht von Haller's belief in mechanical obstructions in the womb as causes of malformation. Considering the uniformity of teratological types, he suggested instead that the fault should be sought in the "first disposition" of the embryo. When the corpses of black people (who had returned with Hessian troops from the American War of Independence) became available, Soemmerring was quick to dissect them to establish anatomical criteria of racial difference. In this way he arrived at his controversial and highly influential notion that—in relation to brain size—the cranial nerves were thicker in black than in white people. Mirroring contemporary prejudices, he interpreted this as a sign of greater sensual powers and inferior intellect, which brought blacks, while entirely human, "still somewhat

nearer to the race of apes" (*Ueber die körperliche Verschiedenheit des Negers vom Europäer*, 1785, pp. 77–8).

Other parts of Soemmerring's work benefited from the unique opportunities for zootomy that he had through Friedrich's menagerie. The anatomical preparation of an elephant from there put Soemmerring (in this respect) on a par with contemporary luminaries, such as Camper and John Hunter, who had had the luck to perform such a rare dissection before. As Manfred Wenzel documents, this "Kassel elephant's" skull was subsequently borrowed by Goethe, who used it for his comparative studies on the intermaxillary bone. Oehler-Klein records that it was the dissection of a half-blind squirrel that gave Soemmerring the first clues to his discovery of the crossing over of fibres in the chiasmus of the optic nerves.

Yet the limits of support for science, and its severe restriction under Friedrich's son and successor, Wilhelm IX, are apparent as well. Stimulated by the first balloon ascent by the Montgolfier brothers, Soemmerring, his friend Georg Forster (who was made professor of natural history in Kassel in 1778), and the physicist Georg Christoph Lichtenberg of nearby Göttingen experimented successfully with small balloons made from animal bladders or amnion. Yet, as Wenzel points out in an essay on these trials, Soemmerring was unable to raise enough money for a large balloon flight. The *Hessische Beiträge zur Gelehrsamkeit und Kunst*, a typical Enlightenment journal of the Kassel professors (analysed by Enke), was only half-heartedly supported by Friedrich and did not survive beyond its second volume in 1787. More importantly, failing to attract sufficient numbers of students, the whole Collegium Carolinum was eventually closed down. In 1785 most of its professors were transferred to the University of Marburg. Two years later the Accouchier- und Findelhaus was shut, the anatomical theatre dismantled and rebuilt in Marburg. In 1784 Soemmerring had already followed a call to Mainz, opening a new page of his *Stammbuch* (which is in part reproduced

and examined as a biographical source by Enke). Forster had departed for his new post in Vilna earlier the same year. The decision of the two friends to leave Kassel was facilitated by their disappointed turning away from the local Freemasons and Rosicrucians. They had been deeply involved in both fraternities, Forster as an orator among the former, Soemmerring as circle director of the latter, as Irmtraut Sahmland shows in a fine discussion of this obscure subject, based chiefly on the surviving protocols of the secret meetings.

On the whole the "Soemmerring historians", drawing largely upon correspondences and archival sources, provide a good example of studying eighteenth-century science in its political, cultural, and religious contexts, with a feel for complexity and necessary detail. Their volume should be welcomed as a solid contribution to our understanding of the late Enlightenment.

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L S Jacyna, *Philosophic Whigs: medicine, science and citizenship in Edinburgh 1789–1848*, Wellcome Series in the History of Medicine, London and New York, Routledge, 1994, pp. vii, 213, £50.00 (0-415-03614-3).

Edinburgh has often been praised as the Athens of the North for its patrician culture. Yet, even in the heyday of the Scottish Enlightenment and in its sequel, the Celtic twilight, the city was two-faced. It was notorious for sex and violence. One estimate of 1842 alleged that there were no fewer than 200 brothels in the New Town alone. Deacon Brodie, an eighteenth-century respectable cabinet-maker and town councillor by day, was a burglar at night; he was the model for Robert Louis Stevenson's Dr Jekyll and Mr Hyde. In the 1820s Burke and Hare, commissioned to find bodies for Robert Knox's class in human anatomy, graduated from robbing graves to committing murder. Such low life has little appeal for Jacyna, who has taken his cue from