

If this be magic . . .

A. Rupert Hall

Science and the Secrets of Nature: Books of Secrets in Medieval and Early Modern Culture. By W. Eamon. Princeton University Press: 1994. Pp. 490. £38.50, \$49.50.

MANY years ago, my pupil Elizabeth Ryman earned herself a few pounds by sending to the now defunct magazine *Lilliput* (which welcomed curiosities) a page from Giambattista della Porta's *Natural Magick* (1558), perhaps that containing recipes for whitening the face. "According to Della Porta", writes William Eamon, "natural magic was a science of the extraordinary [explaining] the exceptional, the unusual and the miraculous"; it also purveyed cosmetic tips and wrinkles. Like many other Renaissance scholars, della Porta had a basic principle: he believed that the power and secrets of nature were to be found not in matter but in morphology. Form accounted for everything. The basis of true knowledge was understanding the relationship between forms (as we might say, structures), especially between likes and unlikes. If the analogy between the walnut in its shell and the brain in its skull taught a lesson to physicians, equally the sage must note that polar opposites are "universal principles of intelligibility. . . . A well-ordered commonwealth implied the existence of a world upside-down." At any moment one might tumble from this world into a looking-glass one.

Another delusion of respectable antiquity (with which Eamon opens his book) was that the highest knowledge can be known only to an élite, not because it demands big brains but because it can be acquired only by patient adepts who have absorbed it through years of study. A famous exposition of such esoteric learning is the pseudo-Aristotelian *Secret of Secrets*—in fact borrowing much from the Ismaili sect of Islam—perhaps the most popular book of the Middle Ages, the great inspiration of Roger Bacon (among others) for whom it stood "midway between the Hebrew prophets and the Latin Christians".

Another popular book of secrets, falsely attributed to Albertus Magnus, was censured by Bacon as magical, although it employed only natural means (such as a goats' hair to bring about pregnancy)

rather than the invocation of demons. Many such odd practices seemed as absurd to mediaeval schoolmen as to ourselves, although they rejected them less because of their lack of empirical success than because they sprang from the popular mind as opposed to the learned texts of antiquity.



The Alchemist Experiment Takes Fire by Hendrik Heerschoop.

Magic was a supreme secrecy always officially condemned; the secrets of craftsmanship and especially of new inventions that began to be divulged in the later Middle Ages were of a different kind. 'Theophilus' linked monastic crafts to the service of God in *On Diverse Arts* (twelfth century) while in 1335 Guido da Vigevano suggested new military devices to aid a proposed crusade. In the fifteenth century such practitioners as Mariano Taccola and Francesco di Girogio Martini committed their skills extensively to paper, although they were aware of the risk of "giving up the fruit of one's ingenuity". With the introduction of printing and greater literacy in Europe, in Germany the *Kunstbüchlein* (from 1531), and in Italy the *House of Recipes* (1525, a prototype Mrs Beaton), prepared the way for the magisterial works of technological description by Biringuccio, Agricola and Ercker. Meanwhile, at Venice in 1535, the pseudony-

mous 'Alexis of Piedmont' published the most successful of all books of secrets, reaching 70 multilingual editions in half a century. 'Alexis' gave roughly equal numbers of medical, domestic and technical recipes, originally about 350 in all. He taught how to treat piles and make artificial vermilion. Printers of chapbooks, Italian *ciarlatani* and vendors of gold bricks and gilded pills were not slow to profit from his openness, and from the books of della Porta, Ruscelli and others, so that within half a century 'secrets' could be bought retail in every market. Was this a profanation of high mysteries? Or was the carrying of a weasel's heart to prevent the bite of bedbugs always rather a joke among the literate, and the codex of 'secrets' the *Playmonk* of the priory?

From Science and the Secrets of Nature

Eamon gives a rich and lively account of authors and writings that were always unacademic, unscrupulous, unprofessional, turbulent and unsettled: that is to say, an account of the popular or seamy side of medicine and natural knowledge in mediaeval and early modern times. In 'books of secrets' the range of topics covered was far wider than that of academic learning; it followed the spirit of 'do it yourself' and of 'experiment' ('try anything once'). It demanded belief not on grounds of reason or antique authority but by making the simple empiric's claim: "Believe me, it works"; this validated the quenching of iron in juice of radishes, excising a swollen spleen or boiling puppies and earthworms together to

make an ointment. More dubiously, perhaps, Eamon relates the tradition of these 'secrets' of nature to the seventeenth-century search for the mechanisms of nature, certainly linked as they are by such authors as Sir Kenelm Digby (omitted here). By then the 'secrets' had become the 'vulgar errors' exposed by Dr Thomas Browne and others, but their activist, operative tradition may have contributed to the substitution of experimental science for purely rational science.

This is a book of many unusual topics: the careers of della Porta and Leonardo Fioravanti, the south Italian academies of the sixteenth century, the weird world of Early English Paracelsans and *Books of Conceits*. Eamon is very learned and writes eloquently. □

A. Rupert Hall is at 14 Ball Lane, Tackley, Oxfordshire OX5 3AG, UK.