### **Brian Vickers**

# Okkulte Wissenschaften



Geboren 1937 in Cardiff, Wales. Studium am Trinity College, Cambridge, wo er auch lehrte, bis er 1972 Professor für Englisch an der Universität Zürich wurde. Seit 1975 Professor an der ETH Zürich, Direktor des Centre for Renaissance Studies. Neuere Veröffentlichungen: *Rhetoric Revalued* (Binghamton, N.Y., 1982); *Arbeit, Muße, Meditation. Betrachtungen zur Vita activa und Vita contemplativa* (Zürich, 1985); *English Science, Bacon to Newton* (Cambridge, 1986). Adresse: Centre for Renaissance Studies, ETH Zürich, Rämistr. 101, CH-8092 Zürich.

I arrived at the Wissenschaftskolleg with one publishing project nearing completion, and another in a fairly advanced stage.

The first was to complete a book, *In Defence of Rhetoric* which traces the history of rhetoric from Plato to the present, with three main areas of focus: a. the attacks on rhetoric by philosophy, from Plato to Croce, and rhetoric's counter-attacks; b. rhetoric as a total communication system, which was fully-formed by the first century A. D., fragmented in the general cultural lacuna of the Middle Ages, reintegrated in the Renaissance, then spreading from literature into music, painting, and architecture before being dismantled and rejected as an educational subject in the nineteenth century; c. the survival of rhetoric as a constant resource for literary expression in contemporary writing.

The two chapters yet to be written, which I completed in the winter of 1986-87, concerned the use of rhetoric in the modern novel (James Joyce, George Orwell, Randall Jarrell, Raymond Queneau, Michel Tournier, Graham Swift, *et al.*); and its fragmented application — being reduced to one or two tropes only — in modern literary criticism (Roman Jakobson, Paul de Man and his followers). The book will be published by Oxford University Press in January 1988.

This completed, in Spring 1987 I picked up again a research project that has occupied me, intermittently, since 1975, the history of the occult sciences (astrology, alchemy, arithmology, magic, geomancy, etc.) in the European Renaissance, and the part they may have played in the Scientific Revolution, Copernicus to Newton. As is well known, some modern historians of this period (Lynn Thorndike, Frances Yates, Allen Debus, Pia Rattansi, Charles Webster, and others) have argued that the oc-

cult sciences were formative in stimulating scientific research, in providing concepts and methods for the sciences, and that credit for the scientific breakthrough ought really to be given, in Yates's formulation, to "the Renaissance Magus, operating on nature".

This thesis seems to me extremely misleading, being based on a very narrow range of texts (mostly the Neoplatonist tradition post Ficino), and quite lacking in selfcriticism. In general terms, I would argue, the Scientific Revolution derived from a number of converging traditions: first, the well-documented rediscovery of Greek mathematics in Renaissance Italy, above all, and the application of mathematical techniques to problems in physics, mechanics, astronomy, etc.; secondly, the intensive discussion of Aristotelian science in medieval and Renaissance universities, which established an intellectual tradition and a conceptual framework that was receptive to mathematical treatment; thirdly, the definition and elaboration of such concepts as "mass", "velocity", "force" in neutral terms, able to be quantified; fourthly, the parallel growth of empirical, observational methods in other sciences — medicine, botany, mining—and the rejection of long-established philologically-based science; and, finally, the gradual emergence of the controlled and repeatable experiment not just to demonstrate the known but to test hypotheses and yield new knowledge. All this is of course very familiar to historians.

The occult sciences, by contrast, retained their philological, textbound traditions. Alchemy, astrology, arithmology — all were learned from books, or from other adepts, and all remain substantially the same arts that they were in the time of Claudius Ptolemäus, say, in the second century A. D. As many modern studies have shown, there is a striking continuity within the occult sciences over a two-thousand year period. Most of them took on their essential form in that remarkably fruitful time from the Hellenistic age to the early Roman empire, especially in the cosmopolitan Greco- Egyptian- Roman culture in Alexandria and other centres around the Mediterranean. During the Dark Ages in Europe they were taken over into Arabic culture (not to mention Indian and Chinese), being reintroduced to Europe in the Middle Ages, mostly in Latin, and with some Jewish influences. In the learned tradition deriving from Quattrocento Florence a new synthesis of the occult traditions was made, blending elements from the Platonic, Neoplatonic, Aristotelian and Stoic traditions with Hermeticism, the Kabbalah, Gnosticism, and much else. Anyone wishing to study this tradition must be willing to work with an eclectic, syncretist habit of mind that can fuse together material in five or six languages from many different periods.

The new amalgam of the occult sciences in the Renaissance is histori-

cally important, and influenced various aspects of life, from astrology, with the universal interest in horoscopes, to the visual arts (where the ancient lore of the planets and zodiac provided a programme for many designers and painters), to demonology and witchcraft. It is perfectly legitimate to study these subjects, but erroneous to see them as in any way productive of science. The old tradition (Hegel, Comte, Frazer) which postulated a movement "from magic to science" was exploded by the pioneers of French social anthropology, Emile Durkheim and Marcel Mauss, whose work was unknown to Frances Yates and her school. Revival of this tradition does not recognize that in several respects the occult was deeply resistant to science as it developed in the sixteenth and seventeenth centuries. The differences can be highlighted — although some issues inevitably simplified — if set out in tabular form:

#### Occult Sciences

- 1. Man is an integral part of the universe, bound by the same laws, sharing the same characteristics: hence macrocosm parallels microcosm, "sympathy" or affinities between categories of the same kind unify animate and inanimate planes.
- 2. Use symbols which are anthropomorphic, allegorical, imbued with socio-cultural attitudes that express hierarchical categories and value judgments (male is better than female; right better than left).

#### Exact Sciences

1. The natural world exists outside man, and obeys different laws.

2. Use signs for notational purposes, neutral, non-hierarchical.

- 3. Categories are formed into sets, then correlated with other sets on the principle of equipollence (7 = 7). Subordinate category is manipulated to conform to the dominant, then qualities are transferred across the grid. But the correlation process is arbitrary, at the whim of the individual
- 3. Categories are independent of each other, and neutral: length, mass, time, velocity.

- 4. Reality is invoked intermittently, but always subordinate to a symbol system, or seen in terms of qualities, which are irreducible.
- 4. Reality is observed constantly, and analyzed in quantitative terms (mathematics, mechanics ...).
- 5. No testing of theory possible: assumptions determine whole substance of discourse. The answer to a question is already contained in its premisses. Circular argument.
- 5. Movement from empirical observation to theory and back is always able to call the theory in question (or vice-versa).
- 6. Tradition-based: communicated originally by some god/priest. Revelation is legitimized by its religious context: vision, epiphany. Lore passed on across generations, unchanging.
- 6. Knowledge is subject to continuous growth and revision.

- 7. Knowledge is limited to a few, *adepti* or "initiates". Communication is protected by deliberate obscurity codes, private alphabets, "other" levels of discourse, ambivalence, allegory
- 7. Knowledge is open to all. Language must be clear, unambiguously denotational.

- 8. Knowledge is valued only insofar as it relates to human fortunes, good or bad.
- 9. Knowledge is pursued for personal gain, material or spiritual: success in worldly affairs, love, marriage, riches, longevity, immortality, union with God.
- 10. Claim to be able to understand all things, achieve all things, satisfy all human desires.
- 11. Take metaphor and analogy as if they were literally true: reification of the figurative level of discourse, and hypostatization of abstract concepts.
- 12. All these items form a complete set: the package must be bought as a whole, or rejected as a whole.

- 8. Knowledge is pursued independently of its relation to human affairs.
- 9. Knowledge is pursued for its own sake, or for the benefit of humankind.
- 10. Acknowledge the limits of their understanding and power.
- 11. Use metaphor and analogy heuristically, for purposes of enquiry, or illustratively, to clarify an argument; operate easily with abstractions.
- 12. Acceptance of one of these principles does not automatically commit one to all the others.

So far, my published work has concentrated on the Renaissance end of the spectrum. In a review-essay I drew attention to many deficiencies of Frances Yates's historiography (especially in the later work): inaccurate examination of sources, uncritical acceptance of hearsay accounts, use of unreliable texts, failure to consider negative instances.' In 1982 I organized an international colloquium on scientific and occult mentalities at the ETH Zürich which was subsequently published.<sup>2</sup> In the introduction (pp. 1-55) I emphasized that the occult sciences could only be understood if placed in their cultural context, using the methods of historical anthropology; and in my own contribution (pp. 95-163) I showed how the occult characteristically collapses analogy into identity, treating metaphors and symbols as real things. In a contribution to the Folger Institute conference on Hermetism (March, 1982: not yet published<sup>3</sup>) I looked at another aspect of analogy in the occult tradition, its habit of forming "grids" or "correspondences" between the various realms ofmi-

crocosm and macrocosm, static structures which were of no use to experiment and discovery. And in a paper given in Tel Aviv and Zürich<sup>4</sup> I analyzed the criticisms of the occult in the Renaissance, establishing that, far from there having been a unified and monolithic endorsement of occult ideas, as Yates *et al.* suppose, many writers developed a wideranging, articulate, and surprisingly "modern" critique of occult assumptions and methodology.

The future direction of my research, for which I laid a fresh base in the remaining six months at the Wissenschaftskolleg, much aided by the admirable bibliographical and secretarial support, is to return to the ancient sources of the occult and analyse their world-view and methods. Accordingly, I have been studying astrology, alchemy, magic, arithmology, and cosmology between the Presocratics and the Neoplatonists, completing a first draught of these five sections. I hope to be able to show, in due course, that in the Renaissance magic and science sprang from different backgrounds, had different goals, and contributed very little to each other — although the growth of science may have been in part responsible for the sudden withering, or discrediting of the occult in the late seventeenth century.

## **Notes**

- 1 "Frances Yates and the Writing of History", *Journal of Modern History*, *51* (1979), pp. 287-316.
- 2 (Ed.) *Occult and Scientific Mentalities in the Renaissance*, Cambridge: Cambridge University Press, 1984, pp. xiv+408.
- 3 "On the Function of Analogy in the Occult", forthcoming in: A. Debus and I. Merkel (eds.), *Hermetism and the Renaissance*, Cranbury, N.J.: Associated University Presses, 1988, pp. 269-92.
- 4 "Critical Reactions to the Occult Sciences during the Renaissance", publication of the English text forthcoming in the Proceedings of the Van Leer Foundation, Jerusalem; a German translation in: *Zwischen Wahn, Glaube und Wissenschaft*, Zürich: Verlag der Fachvereine.