JOHN NORTH

John David North
1934–2008

John David North was the leading British historian of astronomy of his generation. His interests ranged from prehistoric astronomical alignments to modern nuclear physics, but peaked with the Middle Ages and Renaissance, in which he brought out a richness and complexity that hitherto had hardly been seen. In every subject he sought to cast light on the society, culture and literature of the period. His daring interpretations were not immune to controversy, but in everything he published and lectured on he demonstrated intellectual honesty and a mastery of the mathematical detail.

John David North was born on 19 May 1934, in Cheltenham, to John Ernest North, a wool buyer, and his wife Gertrude Annie North (Lobley). His family moved to Yorkshire and he attended Batley Grammar School, where he developed an interest in mathematics and science. In 1953 he went up to Merton College, Oxford as a postmaster (Merton's term for the holder of a college scholarship). He read mathematics, but switched to philosophy, politics and economics (BA 1956, MA 1958). It is perhaps symbolic that this budding historian of medieval mathematics was based at Merton, for in the fourteenth century Merton College was the centre for the Oxford Calculators, a radical group of scholars who applied mathematics to philosophy. North attended the lectures of Gilbert Ryle, John Austin, Paul (H. P.) Grice, Peter Strawson, William Kneale and, most importantly, Alistair Crombie, the first lecturer in History of Science at Oxford (from 1953). Crombie inspired in him an interest in the history of science, and became a lifelong friend. After graduating, North taught in a

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school in Derbyshire but at the same time he studied for an external degree from London University in mathematics, physics and astronomy, which he passed with distinction (B.Sc. 1958). He then embarked on an Oxford doctorate on the history of cosmology in the first half of the twentieth century, under George Temple, the Sedleian Professor of Natural Philosophy, while simultaneously teaching physics in Magdalen College School. On completing his doctorate in 1963 he obtained a five-year Nuffield Foundation Fellowship. His first book, which started life as his doctoral thesis—*The Measure of the Universe: a History of Modern Cosmology*—was published in 1965, and won many accolades, including that of the astronomer, William McCrea: 'Nothing else like it exists and it will remain a standard work of reference for a long time to come.' It tells a complicated history of rival theories, of battles between scientists, and of claims to priority in the early twentieth century.

In the same year (1965) he discovered, in the Bodleian Library, a description with drawings of a most sophisticated and complicated astronomical clock designed and built by Richard of Wallingford, Abbot of St Albans (1292–1336). The clock itself was described by Leland in his mid-sixteenth-century *De viris illustribus*, but was probably destroyed at the time of the dissolution of the monasteries, and hence these manuscripts are the only record we have of the mechanism. Hardly anyone had noticed this extraordinary example of medieval technology and nobody had realised the significance of the few pages of manuscript, copied, it appears, by the monks of St Albans from Richard's drafts after his untimely death. The St Albans clock, this second 'measurer of the universe', was the link between the microcosm and the macrocosm. It mimicked the courses of the Sun and the Moon and the planets, as well as of the slow movement of the fixed stars; it showed the tides at London Bridge, included a wheel of fortune, and a bell that struck the hours on a 24-hour system. North argued that this clock was the culmination of an English tradition of clock-making going back to the early thirteenth century, and that the mechanical clock itself was an English invention. The St Albans clock was to the Middle Ages what the Antikythera device was to Classical Greece—the most sophisticated astronomical instrument of the time—and similarly it could represent the practical application of a vast body of theoretical work. Much of this theoretical work, on time, on astronomy, astrology and mathematics, was in unpublished texts by Richard of Wallingford himself, and North's merit was to publish, in three volumes, the full range of these writings, with English translations and commentary, in 1976. This involved teaching himself how to handle medieval Latin and acquir-

ing the skills of a palaeographer and editor. This book established North's reputation as a leading historian of premodern science.

At this time he was Librarian and Assistant Curator of the Museum of the History of Science, Oxford (the 'Old Ashmolean'), whose library and rich collection of astronomical instruments, especially astrolabes, attracted his attention. He had been appointed in 1968 by the curator Francis Maddison, who greatly admired his breadth of scholarship and for whom he would later write obituaries in *The Times* and the *Archives internationales d'histoire des sciences*. He assisted Alistair Crombie in his history of science seminars, but when Crombie failed to get the new chair in the subject in 1972 (it went to Margaret Gowing, whose reputation rested on recent history of science[1]) North looked elsewhere to teach the subject. It was thus that he was snatched up by the University of Groningen (in 1977), which immediately appointed him to the 'Chair in the History of Philosophy and the Exact Sciences'. He adapted himself to the university environment, learning Dutch and serving on committees, as well as taking on a full load of teaching and continuing his research (especially during the vacations which he was able to take in Oxford, where he kept his house). He brought together in his work the two main divisions in the Dutch system: the Humanities ('Letterkunde') and the Sciences ('Natuurkunde'). He weathered the storm of student protest and Communist Party infiltration, and served as Dean of the Central Interfaculty from 1981 to 1984 and Dean of the Philosophy Faculty from 1990 to 1993. In the latter year he was awarded the degree of D.Litt. by the University of Oxford, having been elected as a Fellow of the British Academy in 1992. (He was elected as a Corresponding—i.e. overseas-based—Fellow, and in 2001, by which time he was classified as UK-based, he was transferred to the category of Ordinary Fellowship.) In 1979 he travelled to Brazil as part of the Dutch delegation celebrating the tercentenary of Johan Maurits van Nassau-Siegen, governor of the short-lived colony of Dutch Brazil, where the first astronomical observatory in the New World was established. He remained in post at Groningen until his retirement in 1999, when he was appointed Knight in the Orde van de Nederlandse Leeuw for services to education. In this same year a Festschrift was prepared for him by his Dutch colleagues, Lodi Nauta and Arjo Vanderjagt: *Between Demonstration and Imagination. Essays in the History of Philosophy and Science Presented to John D. North*.[2]

[1] See the memoir for her in this volume by Roy McLeod.

[2] This volume (Leiden, 1999) contains a full listing of North's publications up to 1998: it has been updated by Brian Martin—<http://www.ub.edu/arab/suhayl/volums/volum8/paper%207.pdf>.

John North was not afraid to venture onto territory claimed by literary historians, archaeologists and art historians. Through his profound knowledge of astronomy, his boundless inquisitiveness and his keen intuitions, he came up with original and convincing arguments in all these fields.

In the field of literature, in which he had as a ready helpmate and inspiration his wife, Marion, he published *Chaucer's Universe* (Oxford, 1988). Here he showed, by detailed comparison with contemporary astrological texts, almanacs and horoscopes, how the plots of Chaucer's stories were determined by astrological considerations, which also led him to establish dates for their composition and sometimes to propose emendations to the text. North was aware that he might be 'bracketed with those who try to prove that Bacon wrote Shakespeare', but a reviewer in the *Times Literary Supplement* praised the book as 'one of the century's monuments of scholarship'. As well as elucidating Chaucer, the book provides a clear picture of the understanding of the role of heavens by the fourteenth-century man and woman. It includes what remains the most valuable summary to this date of medieval astrological technique, based on the unpublished Medieval English version of Alcabitius's *Introduction to Astrology*. North's own *Chaucer's Universe* showed how the theory of mastership of the planets was applied.

The immediate stimulus for his venture into prehistoric archaeology, according to his Dutch colleague, Johan van Benthem, in the obituary published by the Royal Netherlands Academy,[3] was the presence of the prehistoric 'hunebedden' near his house in Paterswolde. He had noticed that the original timber posts surrounding the Bronze Age mound at Harenermolen were aligned to the rising and setting of the sun and moon. This led him to write his 653-page book on *Stonehenge: Neolithic Man and the Cosmos* in 1996. Within a thorough survey of Neolithic structures in northern Europe, he brought forward detailed evidence that Stonehenge was an astronomical observatory for the setting midwinter sun. He received the approval of archaeologists such as Colin Renfrew, who wrote that 'John North has made a real contribution to our understanding of the henge monuments and of Stonehenge itself', and astronomers such as Patrick Moore, who reckoned that 'it will supersede all earlier works'. His book was taken seriously in university courses and even inspired Bernard Cornwell's novel *Stonehenge, a Novel of 2000 BC* (London, 1999).

[3] <http://www.knaw.nl/Content/Internet_KNAW/publicaties/pdf/20091012_8.pdf>.

His interest in the astronomical instruments of King Henry VIII's German astronomer, Nicolaus Kratzer, and the commemoration of the five-hundredth anniversary of the birth of Hans Holbein the Younger, led North to apply his talents to the study of art—as well as his consummate skills as a detective—in his detailed analysis of Hans Holbein's painting *The Ambassadors* in the National Gallery (*The Ambassadors' Secret: Holbein and the World of the Renaissance*, London, 2002). In the space of over 300 pages he explored the historical occasion of the painting, he described each of the many objects in it—astronomical and musical and religious—and then teased out from their symbolic values and their mutual arrangement the precise day and time of day on which the ambassadors were meeting: Good Friday, April 11, 1533, at 4 p.m., the end of the hour following Christ's death, which had occurred precisely 1,500 years earlier. Moreover, other features of the painting, including the anamorphic skull on the floor between the ambassadors, drew attention to an inclination of 27 degrees, which would have been the altitude of the sun at exactly 4 p.m. on that day. In his review in *The Times*, Frank Whitford commented that North had shown that *The Ambassadors* was 'a highly complex religious allegory about this world and the next, Christ's suffering and triumph over death'. He had achieved the result that 'the painting … and its maker now seem more marvellous than ever'.

Sometimes North's hypotheses have been thought to range too far from the evidence available. Of course, to claim that the Renaissance was a period in which 'people … had an excessive fondness for enigmas' (*The Ambassadors' Secret*, p. 8), gives free rein to find enigmas, secrets and symbols in anything. But, as North writes in the same context, the more deeply one penetrates the mental and spiritual world of the people of the period, the better one can distinguish between likely hypotheses and far-fetched interpretations.

In 1986 North had published with the Warburg Institute *Horoscopes and History*, a book dedicated to his parents, which, besides documenting the different methods used in drawing up horoscopes in the Middle Ages, and giving copious examples of their use, almost entirely from manuscripts, provided a practical way for the modern practitioner to draw up a medieval horoscope, using a computer program which he wrote himself. Anthony Grafton, in his own book on an astrologer—*Cardano's Cosmos* (Cambridge, MA, 1999, p. 14)—wrote that 'John North has laid the technical foundations on which any study of Renaissance astrology must rest.' North was half way through a greatly expanded version of this book until the day before his death. It remains incomplete.

His last major published work was *Cosmos* (Chicago, IL, 2008), a substantial revision in over 900 pages of the *Fontana History of Astronomy and Cosmology* which he had written in 1994. Noel Swerdlow, in his report to the University of Chicago Press concerning *Cosmos*, described it as 'the finest comprehensive history of astronomy and cosmology written, and will remain so for many years to come'. North enlivened the story with wit and anecdotes. A leitmotif of his work is the position of man, whether he be neolithic, medieval, Renaissance, or modern, within the cosmos.

Besides these ground-breaking books, North found time to write general books for a broader public—on *Isaac Newton* (Oxford, 1967), *Mid-Nineteenth Century Scientists* (Oxford, 1969), *Ptolemy* (in Italian, 1968)—and produced a stream of articles for periodicals, conference proceedings, and Festchriften, some of which were collected in two themed volumes: *Stars, Minds and Fate: Essays in Ancient and Medieval Cosmology* (London, 1989), and *The Universal Frame: Historical Essays in Astronomy, Natural Philosophy and Scientific Method* (London, 1989). His facility for finding the right words, for writing with wit, and being critical where criticism was due, made him a popular contributor to the *Times Literary Supplement*. After his death, Maren Meinhardt (Science Editor, March 25, 2009) mentioned both his 'brilliance, wit and terrifying erudition' and his 'modest, courteous and helpful' dealings with the editor. While most science reviewers are listed with their areas of interest or speciality, 'next to John North, it simply said "everything"'.

In addition to the distinctions mentioned already John North was a Fellow of the Royal Astronomical Society (from 1959), a Member of the Academia Leopoldina (from 1992), a Member of the Royal Netherlands Academy of Arts and Science (from 1985), a Foreign Member of the Royal Danish Academy (from 1985) and Member of the Académie internationale d'histoire des sciences (from 1967; administrative secretary 1983–93; perpetual secretary from 1990). He held Visiting Professorships at Frankfurt and Aarhus, Yale, Minnesota and Austin and was awarded the Médaille Alexandre Koyré 1989. He was editor of the *Archives internationales d'histoire des sciences* (from 1971 to 1984), and describes his experiences with his usual humour in an article in that journal (no. 117, vol. 36, 1986, pp. 362–73) entitled 'One of our galleys is missing'.

He died on 31 October 2008, having battled with cancer for the last years of his life, which he endured with exemplary courage, humour and lack of complaint.

He had met Marion Pizzey in Oxford and they had married in 1957. He repeatedly expresses his debt to her, and their personal and intellectual

partnership lay at the heart of his work. He was a devoted father and grandfather, inventing stories and games and building computers with his grandchildren. He is survived by his wife, one son and two daughters, and six grandchildren.

CHARLES BURNETT
Fellow of the Academy

Note. I am indebted to obituary notices and appreciations by Johan van Benthem, Lodi Nauta (*The Guardian*), Martin Sheppard (*The Independent*), anonymous (*The Daily Telegraph*), Brian Martin (*The Times*), Owen Gingerich (*Times Literary Supplement*), personal reminiscences of Julio Samsó and Will Ryan, and especially to the help of the North family.