

## Casper Hakfoort (1955–99)



Dominated by its medieval moated castle, the small Dutch market town of 's-Heerenberg stands a few miles from Arnhem close to the German border. Casper Hakfoort was born into this rural community on 6 January 1955 and he returned to it to be buried shortly after his death on 4 March 1999. In the intervening forty-five years Casper had travelled far from his roots in this small agricultural town and played a significant – but tragically curtailed – role in the international history of science community.

As a bright pupil at school in 's-Heerenberg he was attracted to the study of physics. Deciding to pursue further studies in this area he registered at the Catholic University of Nijmegen in 1973, transferring to the University of Utrecht two years later and obtaining his first degree in 1980. However, physics did not fully satisfy his intellectual strivings and

he sought answers to fundamental questions that are not engaged in most physics courses. This dissatisfaction prompted him to forsake the study of physics and instead to register for a Ph.D. in the history of science under the supervision of Professor H. A. M. Snelders at the University of Utrecht, where he studied from 1980 to 1985. In the following year he successfully defended his dissertation, entitled 'Optica in de eeuw van Euler', later published in Amsterdam, in 1986.

Owing to his background in physics he was attracted to the history of optics, but rather than research one of the standard topics – such as Newton or Huygens – he identified the optical writings of Leonhard Euler as highly innovative and proceeded to trace the impact of Euler's *Nova theoria lucis et colorum* on German natural philosophers through the second half of the eighteenth century. He was able to show that, in contrast to Britain, Euler's wave theory of light was widely adopted and extended. Indeed, for a time it remained the dominant theory of light and the main locus for arguments between the wave and particle theorists. Only towards the end of the eighteenth century did the rival emission theory gain ground, primarily owing to evidence from chemistry. Casper's thesis was expanded and translated into English, being published as *Optics in the Age of Euler: Conceptions of the Nature of Light, 1700–1795* by Cambridge University Press in 1995. He

also published several papers on the history of optics in the seventeenth and eighteenth centuries.

Casper's first academic position was at the Technical University of Eindhoven where he taught the history of physics and pursued research into the history of materials. However, in November 1986 he joined the History of Science and Ideas Department at the University of Twente. Although Twente is primarily a technical university it contains this small but lively history of science group, under the leadership of Floris Cohen. At Twente Casper showed himself to be an inspiring and dedicated teacher and a respected colleague. He gained the affection of the several MA and Ph.D. candidates whom he supervised at Twente; as a supervisor he was generous and constructive, but also intellectually demanding, honest and challenging. In an appreciation, which forms the preface to his Ph.D. dissertation, one of his students, Fokko Jan Dijksterhuis, writes that Casper 'made me discover history of science and taught me how to think ... [He enabled me to] think deeper and further than I thought I was capable of'. (Dijksterhuis, 'Lenses and waves: Christiaan Huygens and the mathematical science of optics in the seventeenth century', Universiteit Twente, 1999.)

Although most of his research was pursued while working at the University of Twente, Casper also spent two periods abroad, one with Alan Shapiro at the University of Minnesota, the other at the University of Leeds in 1991. Reflecting on the personal and academic value of such collaboration he helped set up the Simon Stevin programme with the aim of enabling graduate students to spend time at universities abroad.

Despite entering the history of science through a detailed study of eighteenth-century optics, Caspar was continually striving to relate his academic researches to wider problems. This can be seen in the final chapter of his *Optics in the Age of Euler* in which he sought to extend the terminology developed by Thomas Kuhn in order to describe different types of scientific tradition. However, *Optics in the Age of Euler* is both a testament to his ability as a disciplined scholar and also an admission that he considered academic history of science inadequate at analysing the large questions that mattered so much to Casper.

His subsequent decision to alter his research trajectory was a further attempt to make history of science personally meaningful. He became fascinated by the issue of scientism and particularly by the way in which Wilhelm Ostwald turned the theory of energy into a world-view. His fascination with Ostwald was marked by a deep ambivalence; on the one hand he was distressed by the way some scientists – including various hard-nosed contemporaries – turned science into an all-encompassing religion; on the other hand he was profoundly sympathetic to Ostwald's conviction that research has much of importance to say beyond the confines of academia. During his last years Casper researched Ostwald's scientism and prepared several chapters towards a book with the working title 'Science as religion: the science-based worldview of Wilhelm Ostwald'.

Casper's principal English-language publication on Ostwald is his masterly article 'Science deified: Wilhelm Ostwald's energeticist world-view and the history of scientism', (in *Annals of Science* (1992), 49, 525–44). This paper was written during his stay in Leeds and it formed the basis of a memorable seminar. Those present will not only recall Ostwald's formula for calculating happiness, but also that in his crusade against

Christianity he sought to popularize his 'Ersatzreligion' based on science in general and energetics in particular. Thus instead of Christmas Ostwald urged his followers to celebrate the winter solstice by lighting candles – little energy sources – and singing 'carols' to traditional tunes but with positivistic and anti-Christian lyrics. Despite some initial English reservation Casper persuaded his Leeds audience to sing Ostwald's carols with great gusto!

Casper's subsequent work on Ostwald progressed slowly. At times depression took hold and halted his research. At other times his study of Ostwald and his personal odyssey coincided, giving strength to both ventures. He even considered freeing himself from the constraints of academia by writing a novel about Ostwald to which he could direct his creative energies. Never quite satisfied with the emotional fulfilment offered by his academic life Casper developed his talents in other areas. He shared a deep feeling for music, especially Bach, with his wife Caecilia who is a musician. He also found great emotional satisfaction and self-expression in amateur dramatics and joined a group in Zutphen, close to Warnsveld where he lived. Poetry became increasingly important to him especially as his health declined during his long final illness. Like many historians he developed a close liaison with his subject, finding strength and solace in Ostwald's life which in some respects mirrored his own.

Although he and Caecilia parted a few years ago, she and his friend Wies were very supportive during his final months when his physical powers were greatly reduced by a brain tumour and Matthijs, his son, proved a great source of pride. He was also known to many members of the British Society for the History of Science mainly through his participation in several meetings organized by the Society. A good conversationalist, he will be remembered for his smile, wit and for the twinkle in his eye. He will be greatly missed by his many friends in the history of science community.

GEOFFREY CANTOR