

A controversial chemist

I am reminded by a historical profile by Colin Russell of Cambridge in *Chemistry World* for September of a controversial but certainly prominent chemist, namely Johann Rudolph Glauber, who was born 400 years ago. There is no agreement over his exact day and month of birth, and some books have cited 1603 rather than 1604 as the year, but that is almost certainly an error.

Johann was the son of a barber in the Bavarian town of Karlstadt am Main. Lacking a university education or an apprenticeship, he became a keen experimenter in chemistry, becoming during his lifetime celebrated as “the German Boyle” and “the father of chemistry”.

It is said that he first discovered the attractions of chemistry after a visit to Neustadt to drink the spa waters, when suffering from a gastrointestinal upset incurred in Vienna. The waters cured his complaint and he was intrigued sufficiently to isolate some crystals from them, later to be known as sodium sulphate or Glauber’s salt. He became an ardent Paracelsian.

After wandering through Vienna, Salzburg, Frankfurt and Köln, Glauber settled in Amsterdam, where he established his Hermetic Institute in 1648. Between then and 1660 he wrote some 30 treatises and carried out many experiments. He claimed to have discovered the secrets of the philosopher’s stone and the universal solvent, but believed that such discoveries should not be revealed to lesser mortals. He made ammonium nitrate, ethyl chloride and the chlorides



of antimony, arsenic and mercury. He distilled woods of various kinds and devised a waterproof fabric with linseed oil. A vegetable extract he prepared seems to have been the first vitamin preparation, and he recommended it for preserving health on long sea voyages.

Glauber was sick for two years after 1661, probably because he had handled so many toxic metals. He died in poverty in 1670. Like his birth, his date of death is controversial. He died in March, but whether 10 March or 19 March remains a matter of contention.

SIDS: strange syndrome still baffling the experts

The strange condition known as sudden infant death syndrome (SIDS) was originally described in 1969 to account for unexplained deaths of children before their first birthday. Much refining of the definition has been carried out by expert groups of paediatricians and forensic pathologists, without a completely satisfactory conclusion.

In the *New England Journal of Medicine* for 2 September, Michael Malloy of the University of Texas has reviewed the current situation. The syndrome is characterised by the sudden and unexpected death of an infant younger than one year, the fatality occurring during sleep and unexplained after complete autopsy and review of all the clinical circumstances.

After the original definition in 1969 the number of unexplained infant deaths in the US rose dramatically, reaching the figure of 2,234 in 2001. Studies undertaken between 1970 and 1990 in Europe, Australia and New Zealand found an association between the condition and the prone positioning of the infant for sleep. It was hypothesised that oropharyngeal obstruction, hypoxia and hypercarbia

and overheating were factors responsible. After publication of recommendations that infants should be positioned on their backs, it was reported that SIDS in New Zealand and the UK had decreased in incidence. In the US the incidence fell between 1999 and 2001 by more than 50 per cent. However, there is some confusion over the classification of the deaths.

Unfortunately, a diagnosis of SIDS is based on the absence of criteria rather than a summary of them. Risk factors in mothers include youth, poor education, and “disfranchisement” — whatever that may mean. Other factors, such as preterm birth and maternal smoking, have not been specifically associated with SIDS. Bed sharing between infants and mothers who abuse alcohol or other drugs may account for cases. When SIDS occurs in two or more siblings there are suspicions of infanticide.

It should be possible to identify biologically vulnerable infants before the event. However, apart possibly from the alpha-fetoprotein level in maternal serum, there are no reliable warning features that could avert SIDS.

Dismal history of the religious fanatic

Religious fanaticism reaches far into the past of the human race. It is impossible to estimate how old this revolting trait really is.

Students of archaeology will recollect the recent instance in the Near East, when the great Buddha statues at Bamiyan were blown out of their sheltered niches and reduced to powder by the hands of Al-Qaeda and Taliban, who took exception to portrayals of the human body. However, such acts of sheer vandalism committed in the name of religion are by no means uncommon through the ages in more civilised countries. For example, in the wars of the 17th century on our own doorstep, enthusiasts damaged the saints gracing the facades of ancient cathedrals to emphasise their own brand of worship. They were called enthusiasts rather than fanatics, since enthusiasm is defined as a state of mind inspired by a god, and fanaticism as excessive and mistaken zeal, and therefore far less respectable.

A book by Eberhard Sauer published last year and entitled ‘The archaeology of religious hatred in the Roman and early medieval world’ describes the historical development of religious fanaticism and its repercussions on works of art, and makes fascinating reading. Sauer remarks that in Syria in the third century, in particular, Christians destroyed pagan shrines on a wide scale.

Mithraic images depicting the sacrifice of sacred bulls, and a range of images displayed in the great temples of ancient Egypt, were specially picked upon, and the destruction continued into later Roman times. Statues of the classical deities were often beaten into pieces and then literally pulverised, often thrown into wells. The giant heads of Hathor and other Egyptian deities at Dendera were brutally smashed, and although some statuettes were undoubtedly stolen by barbarian invaders and carried away as loot from temples, many more were deliberately destroyed by the Christian leaders of monasteries. Anything reflecting the values of Mithraism was particularly detested by the early Christians who encountered it in public places.

Thus, when we lament the vandalism of the Taliban in Afghanistan, we ought not to forget that our own culture from its beginnings also encouraged fanaticism in a sinister guise.

The riddle of Socrates

“Socrates is a very difficult subject for the historian. There are many men concerning whom it is certain that very little is known, and other men concerning whom it is certain that a great deal is known; but in the case of Socrates the uncertainty is as to whether we know very little or a great deal.” — Bertrand Russell: ‘History of Western philosophy’ (1946).