

bipolar disorder (manic-depressive illness).

Huygens was never as interested in philosophy as his contemporaries Newton or Leibnitz, but in his sixties he nevertheless managed to write a more general view of the Universe, his *Cosmotheoros*, and once more his scientific and instrumental genius flashed forth. He devised a way quantitatively to reduce the

brilliance of sunlight to that of the star Sirius, thereby photometrically determining the distance to a typical nearby star. "What bounds of number must we set, especially if we consider the infinite Power of God!" he exclaimed. "Really, when I have been reflecting thus with myself, methought all our Arithmetick was nothing, and we are vers'd but in the very

Rudiments of Numbers." It was his last great work. As the printing began, his health steadily deteriorated, possibly from cancer, and he died before the book was published, in 1695. ■

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A vision of birth

A nativity scene painted by Hugo van der Goes bears a medical message.



Martin Kemp

Christmas inevitably brings with it traditional images of the nativity of Jesus Christ. Many show the Virgin Mary kneeling before her son, who lies naked on the ground. We tend to accept this imagery without a second thought, because it is so familiar. But it arose at a particular point in history and carried with it specific associations and meanings that could be adapted to specific contexts.

The image of the Virgin Mary kneeling comes from one of the visions of Saint Bridget, a fourteenth-century Swedish noblewoman. Her vision, she said, made her an eye-witness to Christ's birth: "The Virgin, kneeling with great reverence, placed herself in prayer, with her back to the crib. And while she thus remained at prayer, I beheld her child move in her womb, at once in a moment and in a twinkling of an eye, she brought forth her son... I could not perceive how... she brought forth... the glorious babe lying naked and most pure on the ground."

The idea of a birth that was miraculously quick and painless served to reinforce the dogma of the virgin birth and the doctrine of the Immaculate Conception. Mary was free of the sins and stains that women suffered following the fall in the Garden of Eden.

In one of the greatest of all paintings of Saint Bridget's account of the nativity, this message was adapted for a particular medical context. Hugo van der Goes' huge three-panel altarpiece was commissioned in Bruges by a banker for the Medicis, Tommaso Portinari, and his wife Maria in about 1475. It was shipped to Portinari's native Florence on its completion a few years later. The central panel depicts the nativity with the shepherds, Joseph, angels in ecclesiastical garments, and the ubiquitous ox and ass. The left panel contains Tommaso with two sons and two male saints; in the one on the right, Maria is accompanied by one daughter and two female saints.

This great painting was destined for the chapel of Sant'Egidio, which was attached to the Hospital of Santa Maria Nuova. With 220 or so beds arranged in men's and women's wards, and a staff of physicians, surgeons and apothecaries, the hospital served as a European model in its emphasis on curative procedures.

An obvious medical allusion is apparent in the painting's foreground. The vase containing the irises and lilies is an albarello, almost certainly from Valencia, of the kind used specifically for the storage of medicinal

herbs and minerals. The Venetian drinking glass beside it contains columbines and carnations, which, like the lily, iris and violets scattered on the ground, were used extensively for therapeutic purposes.

Less obviously medical is the miraculous nature of Christ's delivery. However, the presence of the chapel and the emphasis on devotion in effecting cures and alleviating suffering reminds us that the health of the spirit and the well-being of the body were conjoined in Renaissance medical practice. The Virgin Mary, through her painless birth, could act as an inspiration for those in pain to rise above their suffering through spiritual contemplation.

For a twenty-first-century viewer concerned with childbirth, the image may bear other resonances. The favoured birth position in the West from the eighteenth century onwards — lying on the back — has been challenged by those who advocate a return to more traditional and 'natural' methods, including positions that involve kneeling. Perhaps for Saint Bridget, mother of eight children, kneeling to give birth was not that extraordinary, but the absence of pain was undoubtedly unique. Martin Kemp is professor of the history of art at the University of Oxford, Oxford OX1 1PT, UK.