

## Sience<sup>St</sup> RIMIF

The Victorians' enthusiasm for scientific research often strayed into unlikely areas of study. Composing detailed case histories, Freud used the empirical method to formulate a subject as intangible as his theory of the unconscious. Linking lust to overcrowding in cities, Thomas Malthus, the nineteenth-century 'moral statistician' (as social scientists were then known) proffered mathematical proof to support his view that sexual abstinence was the only cure for overpopulation." With the invention of photography came the empiricist's accomplice: a tool for 'objectively' recording one's findings, among them, the presence of ghosts.

Applying scientific methods to their work, a number of artists in Secret Victorians reveal the persistence of some of the defining ideologies of the Victorian era - from positivism and Darwinism to the infatuation with new technology. In her investigations of the body Helen Chadwick often turned to science for instruments and inspiration, whether superimposing a tempest of viral cells extracted from her own body across a computer-manipulated photograph of the Pembrokeshire coast, or featuring premature or deformed foetuses from medical museums as the subjects of cameo-like portraits. In the last series before her death, Unnatural Selection, 1996, enlarged photographs of fertilized human eggs - actually the pre-implantation embryos from which in vitro fertilization takes its name - are presented as gigantic jewels within clear Plexiglas settings. To

obtain these images, Chadwick had to engage fully with the medical modus operandi, from gaining the consent of the donating couples to mastering the difficult technique of orally manipulating this microscopic matter through a glass pipette. Darwin's legacy, she reminds us, has never been stronger than in recent feats of assisted fertility and genetic engineering. But Unnatural Selection also represents the degree to which science has penetrated our private lives; it is a force that cures but also controls.

Chadwick's memorials to these stilled lives draw inspiration from Victorian funereal customs, wherein relics of the dead, such as braided hair, were encased in glass lockets and worn by mourners. The tangled strands of cells in *Opal*, 1996 (cat. 11), for example, even resemble hair. Chadwick's works seem to suggest a relationship between the prevalence of infant death in the nineteenth century and of infertility today.

Monstrance, 1996 (cat. 10) is an oval brooch as large as a looking-glass, seemingly attached to the wall by its plastic pin; a column of silvery cellular constellations glows against the blue-grey ground. The title refers to another type of reliquary, that of the vessel in which the host is presented to worshippers in Christian ritual. In this work, art's facsimile of nature merges with science's simulation of reproduction and the symbolic manifestation of the body of Christ in religion. From the aesthetic eye of the artist to the scrutiny of the empiricist, the authority of the visual sense is also interdisciplinary, and its extensions in the camera, the microscope, the sonagram and the telescope remind us of the human eye's insistence on seeing all, everywhere. This panoptical urge gained force in the nineteenth century, as Michel Foucault illustrates in his analysis of the architectural design of penitentiaries.<sup>22</sup>

The heady imagery of modern science seems close to traditional religious art. Although the swirling cloudscape in Glenn Brown's Jesus; The Living Dead (after Adolf Schaller), 1997-98, (cat. 5) offers a God's-eye view of the heavens reminiscent of nineteenth-century apocalyptic painting, its actual source is a scientific rendering of a planetary surface by the American commercial artist credited in the title. Brown's billboard-size version, copied from a clipped illustration according to his usual working method, embellishes the level of detail as well as the colour in the original. This overzealous concern with detail - his paintings can be mistaken for photographic reproductions - together with a prismatic, sickly-sweet palette led by lavender and red brings to mind Pre-Raphaelite paintings, the work of Edward Burne-Jones in particular.

There is no doubt about Laura Stein's engagement with science. Her work involves horticultural experiments in aberrant grafting and gardening. Tomatoes, for example, are forced to grow within polyurethane moulds shaped like cartoon characters - Sylvester the Cat, Snoopy, etc. - and turn out surprisingly full-featured. In colour photographs documenting the tomatoes' growth- sumptuously lit in the manner of a food advertisement - the cute, smiling faces parody the redder, rounder hot-house variety (cat. 51). Yet these seemingly decapitated heads also bear spots of rot and malformed areas, failing as both faces and fruit. These works offer a critique of the collusion between science and industry in attempting to outdo nature, but at the same time revel in its artistic possibilities. Stein also makes living sculptures by grafting together disparate plants. In her most subtle splicing, the collaged hand-tinted and colour-xeroxed parts of different botanical prints coalesce into elegantly unnatural species (cat. 50). These two- and three-dimensional hybrids flout empiricism's rigid schemes of classification in favour of florid creativity.

Stein's horticultural handiwork recalls the domestic hobbies, ranging from needlepoint to taxidermy, described in a plethora of nineteenth-century 'how-to' books and women's journals. This science-mindedness in the female domain also exerts itself in ladies' watercolouring manuals that furnish the colour codes for **Suzanne Bocanegra**'s assemblages. In such works as *Table of Colours for Sunsets*, *All Parts of Sky*, 1995 (cat. 2), little painted swatches bearing a recommended red, yellow or orange tag each object - bits of string and rag, quilt squares, a jar lid - displayed in a shelf-like arrangement. By using these formulae to order household scraps, Bocanegra bolsters them with imaginative play that the nineteenth-century instructions would otherwise constrain