Science in culture

The art of rigorous chance

Keith Tyson has put a new spin on science in Berlin.

Martin Kemp

The diagram is the one genre of visual representation that may be credited to science — at least before the advent of modern techniques for seeing the invisible, such as X-rays. A diagrammatic image typically has a hard, impersonal, precise appearance, however personal the choices and errors that might have entered into its generation.

Unsurprisingly, few artists have made much of diagrams. The most notable exceptions were Paul Klee and Joseph Beuys — though Marcel Duchamp also did his bit. Klee, in the years between the two World Wars, became fascinated by the inherent dynamics of lines and colours in diagrammatic configurations, aspiring to devise a linear vocabulary that was more universal and less wholly symbolic than most diagrams.

Beuys, on the other hand, used diagrams as diagrams in his project of 'social sculpture'. In the many happenings and installations in which the shaman-like artist expounded his all-embracing ideas about science, technology, art, politics, economics and society, he smothered blackboards with chalk diagrams of his concepts. Many of his blackboards have been preserved as concrete records of otherwise intangible processes of thought and exposition — like Einstein's blackboard conserved in the Institute of Advanced Study at Princeton.

The impersonality and sense of process that

are potentially embodied in diagrams have recently attracted Keith Tyson, the British artist who is currently exhibiting his "Works from a Teleological Accelerator" at Arndt & Partner, in Berlin. Winner in 2002 of the most prestigious British art award, the Turner Prize, Tyson's 'manifestations' have consistently subverted expectations about art, the artist and the artwork. Looking into his studio, we are as likely to see boards covered in diagrams as normal artistic sketches. A residue of his initial training as a mechanical engineer is perhaps more apparent than the training he received in fine art.

Tyson first achieved international prominence with his *Artmachine*, which involves his programming a computer to access the vast bodies of information on the Internet, from which the computer generates proposals for the creation of artworks. The artist receives instructions, often incompatible and bizarre, for the making of a sculpture or painting, which he then obeys. The artist is the conceiver of the project, but not of the individual works, which arise from the impersonal results of an inexorable process. The *Artmachine* conducts its own creative experiments in chaos.

Tyson explains the relationship with the machine: "I program it, using language and making structures. And then it programs me [because] I make the work with my own hands, which forces me to reprogram the machine. ... It's a research project on myself. I'm seeing what are my limits ... I'm viewing it as if I'm experimenting on a frog."

In Berlin he has constructed the *Teleological Accelerator*, shown above: a large installation centred around a massive wall 'instrument', 5 metres wide. Two interlocking discs with moveable indicators permit the random combination and recombination of words and concepts covering many types of human endeavour and science. The 'direction' of the accelerator is characterized as predetermined, according to a teleological law, while the individual 'events' are random. It is as if evolution has been set on a path predetermined by what the physical laws of the Universe have decreed to be the optimum outcome, while working via a mechanism of natural selection involving chance combinations.

Tyson is not conducting science, obviously. What he is doing is to interweave the visual vocabulary and conceptual framework of science and technology with philosophical conundrums and the ironic questioning of artistic creativity. The results are not easy to appreciate and may lay themselves open to ridicule. But, in the face of the facile irony delivered by much contemporary art, the potential rewards of his work are considerable. *Martin Kemp is professor of the history of art at the University of Oxford and co-director of Wallace Kemp/Artakt.*

Keith Tyson's "Works from a Teleological Accelerator" is at Arndt & Partner, Zimmerstrasse 90-91, Berlin, Germany, until 25 October 2003.