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## What the computer saw

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*Cybernetic Serendipity; the computer and the arts*, edited by Jasia Reichardt. 104 pp illustrated throughout in monochrome with colour frontispiece. *Studio International* special publication. 25s paperback; 35s cloth.

In the ICA exhibition itself, it was a pity that the din of bleeping and hooting from various exhibits tended to devalue, for instance, the tremulous responsiveness to sound of Tsai's stroboscopic sculpture. Similarly in the catalogue there is enough facetiousness and pretentiousness to camouflage some of the more interesting material. The very title 'Cybernetic Serendipity' seems to me regrettably precious. However, I see no point in dwelling on the weaker points of Jasia Reichardt's notable enterprise. Anyone who confronts it other than in a spirit of some intellectual upheaval seems to me to be missing a serious point.

The catalogue is loosely structured but stands up quite well as a 100-page book in its own right. The

introductory pages explain some basic technical terms, though already by page 17 the innumerate reader will be lost with the term 'coefficient of expansion' applied to music. The section on computer poems and texts is comparatively trivial, no serious contribution having been made by a student of linguistics and syntax. One could use nothing here to refute someone who accused the practitioners of computer texts of being totally insensitive to language. But the section on computer music includes articles which relate the subject to statistical information theory and to psychoacoustics. The section on graphics is also comprehensive. As Miss Reichardt notes, the exhibition 'deals with possibilities rather than achievements'; and it is necessary to distinguish work which could have been done without a computer but is aesthetically pleasing—like Csuri and Shaffer's *Flies in a circle*, which would not have lost much by being done with Letraset transfers—from work which is dependent on computer techniques but aesthetically crude—like the Tokyo Computer Technique Group's *Return to a square*. (By contrast, Gordon Pask's description in the catalogue of his *Colloquy of mobiles* is more satisfactory than its actual incarnation in the exhibition, where its func-

tioning is obscured by the effort to create 'modern art'.) Many of the graphics are reminiscent—in their naivety but also in their artistic potential—of the nineteenth-century experiments with photography described in Aaron Scharf's *Creative Photography*. There is a further parallel here with the long-standing argument, not yet dead, about whether photography is an art or not.

Miss Reichardt's own contributions to the catalogue are appropriately tentative about theory and value-judgments. Some of the other articles are less so, and raise important questions. For instance, Dr J. R. Pierce remarks 'A composer equipped with a digital computer has no limitations except his own', since in theory all musical experience is digitally encodable. It is worth recalling here W. Ross Ashby's assertion in *An Introduction to Cybernetics* that efficient communication requires not only the acceptance of constraints but also their exploitation. Perhaps the computer will lead not to greater 'diversity' and 'liberation' in art (such as is predicted at various points in the catalogue), but to a restored awareness of the necessity of artistic genres.

**Jonathan Benthall**