

## **DARKENING THE BLACK BOX**

Professor Ranulph Glanville  
The Royal College of Art, UK; RMIT University, Australia  
President of The American Society for Cybernetics

The Black Box concept was introduced as a gedanken experiment by James Clerk Maxwell. It is a phantasm introduced to bring order (pattern) to a situation by creating input and output, assumed to be linked in the Black Box in a pattern that the observer ascertains. It was given its prominent place in cybernetics by W Ross Ashby.

The Black Box cannot be opened. The test for the correctness of the pattern created is viability, not truth. It is thus a radical constructivist machine, in which the observer is always involved: the pattern discerned is a consequence of the interaction of the observer and the Black Box, as described by the observer. The Black Box and the observer act together to constitute a (new) whole, which itself is a Black Box to its observer, and so on. These observers might be the same, transcending boundaries: which may be a source of human consciousness.

Knowledge gained from examining a Black Box is based on a profound ignorance: each Black Box is potentially made up of a recursion of Black Boxes (and observers). Although it may be helpful to refer to a Black Box that repeats behaviour as whitened, this whitening is illusory; consistent behaviour does not predicate continuation of this consistency in the future.

Finally, following the Law of Mutual Reciprocity, since the Box is Black to the observer, the observer may be Black to the Box.

**Ranulph Glanville** is professor of Architecture and Cybernetics at the Bartlett, UCL; of Research Design at St Lucas, Brussels and Ghent; of Research in Industrial Design Engineering, The Royal College of Art, London; and Adjunct professor of design research at RMIT University, Melbourne. He has published more than 300 works, and has an art and design practice. He is on the editorial board of 7 journals and is an officer of 5 societies, including fellow, vice president and president elect of the American Society for Cybernetics. He has 2 PhDs and a DSc: his 1975 cybernetics PhD has been selected by the British Library as one of 6000 key predigital PhDs, to be digitized.

He has published extensively in all four fields. He has taught in universities around the world. Although he took early retirement from a full time post in the UK he currently holds posts at UCL, London, UK, where he is a Professor of Architecture and Cybernetics, Sint Lucas Brussels and Gent, where he is Professor of Architectural Research, and Professor and senior visiting Research Fellow at the Royal Melbourne Institute of Technology University, Melbourne, Australia. He travels the world advising universities as a professor of odd jobs. He has consulted in a variety of areas from a mental health hospital to a bank and from universities to the creation of CAD systems for designers. He was awarded a DSc, recognizing his research in cybernetics and design.