Cover image Jeff Clark, Neoformix. The cover image shows one of Jeff Clark's multiscale mosaic images of Vincent van Gogh. The primary or "highest level" is of one of van Gogh's self-portraits from 1889. The tiles making up the sub-components of "lower levels" of the image are all taken from paintings by the same artist. The aim of the technique is to achieve a balance between the clarity of the highest level image and those of the lower level images comprising it. This is similar in aspiration to modern approaches to multiscale modelling, in which the properties of a complex dynamical system are understood in terms of the connections or couplings taking place at various levels within it. Typeset by Nova Techset Private Limited, Bengaluru & Chennai, India. Printed in the UK by Cambrian Printers. This paper meets the requirements of ISO 9706:1994(E) and ANSI/NISO Z39.48-1992 (Permanence of Paper) effective with volume 338, issue 1649, 1992. Phil. Trans. R. Soc. A (ISSN 1364-503X) is published 26 times a year for US\$6531 per year by the Royal Society, and is distributed in the USA by

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