

A Gallery of Fluid Motion

Edited by M. Samimy, K. S. Breuer, L. G. Leal, and P. H. Steen, Cambridge University Press, New York, 2003, 128 pp., \$95.00 (hardback), \$35.00 (paperback)

This is a reprint of about 60% of the winning entries in the "Gallery of Fluid Motion" presented every year since 1985 at the scientific meeting of the Division of Fluid Dynamics of the American Physical Society (APS). The photographs and the authors' descriptions of them are all available in *Physics of Fluids* but it is a great convenience—and a great pleasure—to have them in one volume, classified into 11 sections according to subject. The selection has been made on combined scientific and aesthetic grounds. Like the Rorschach inkblot test used in psychiatry, the interpretation of fluid motion photographs can often tell one about the interpreter as well as the phenomenon: anyone who does not find most of these pictures beautiful has no soul.

The APS Gallery of Fluid Motion was motivated by Milton Van Dyke's 1982 assembly (his word) "An Album of Fluid Motion" with nearly 300 black-and-white photographs. In the present book, color photographs are in the majority: many could have been printed in grayscale without any loss except that of beauty—but that would have been a considerable loss. The titles of the different sections are, not surprisingly, quite similar to those of the sections of Van Dyke's book, but there have been

many improvements in techniques in the past 20 years. Nearly all of the pictures show unsteady and/or three-dimensional flows, in which the transport and diffusion of vorticity are at their most complicated. Of course, still pictures of unsteady flows are not as much fun as movies (and much less fun than flow visualization in real life). Many of the APS Gallery entries have been movies, and both movies and stills are available on the Web at <http://ojps.aip.org/phf/gallery/>. The book has been copyrighted by the Cambridge University Press; the images in *Physics of Fluids* are the copyright of the American Institute of Physics, as are the Web images (which are the most convenient for further reproduction). Also a lot of the work was supported by U.S. government agencies and is presumably therefore in the public domain. Courtesy suggests that anyone wanting to reproduce one of the images should start by contacting the author of the original.

Every teacher of fluid mechanics should buy a copy of this book for personal pleasure and for the education of his or her students.

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