

*Edward R. Tufte*

# The Visual Display of Quantitative Information

SECOND EDITION

HOCHSCHULE  
LIECHTENSTEIN  
fiibliothek

*Graphics Press • Cheshire, Connecticut*

# Contents

## PART I GRAPHICAL PRACTICE

- ... 1 *Graphical Excellence* 13
- 2 *Graphical Integrity* 53
- 3 *Sources of Graphical Integrity and Sophistication* 79

## PART II THEORY OF DATA GRAPHICS

- 4 *Data-Ink and Graphical Redesign* 91
- 5 *Chartjunk: Vibrations, Grids, and Ducks* 107
- 6 *Data-Ink Maximization and Graphical Design* 123
- 7 *Multijunctioning Graphical Elements* 149
- 8 *Data Density and Small Multiples* 161
- 9 *Aesthetics and Technique in Data Graphical Design* 177
- Epilogue: Designs for the Display of Information* 191