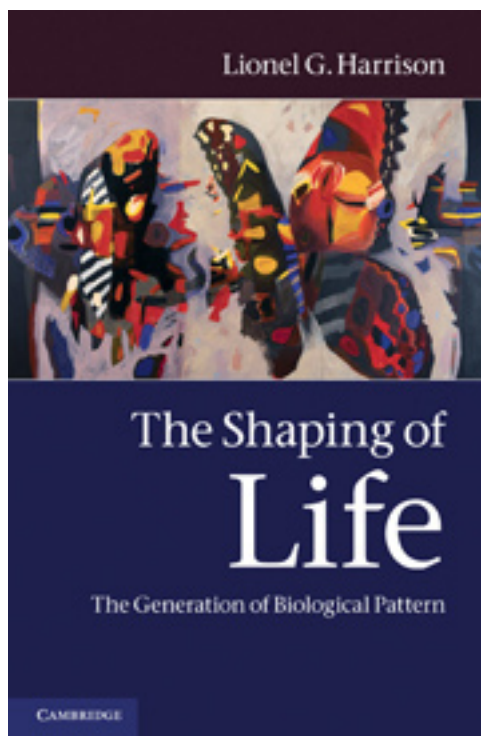


# The Shaping of Life

*The Generation of Biological Pattern*

**New!**

Lionel G. Harrison, University of British Columbia, Vancouver

## About the Book:

Biological development, how organisms acquire their form, is one of the great frontiers in science. While a vast knowledge of the molecules involved in development has been gained in recent decades, big questions remain on the molecular organization and physics that shape cells, tissues and organisms. Physical scientists and biologists traditionally have very different backgrounds and perspectives, yet some of the fundamental questions in developmental biology will only be answered by combining expertise from a range of disciplines. This book is a personal account by Professor Lionel Harrison of an interdisciplinary approach to studying biological pattern formation. It articulates the power of studying dynamics in development: that to understand how an organism is made we must not only know the structure of its molecules; we must also understand how they interact and how fast they do so.

**Order Today!**

Visit [www.cambridge.org/us/9780521553506](http://www.cambridge.org/us/9780521553506) (Hardback)

Or Call 1.800.872.7423



**CAMBRIDGE**  
UNIVERSITY PRESS  
[www.cambridge.org](http://www.cambridge.org)

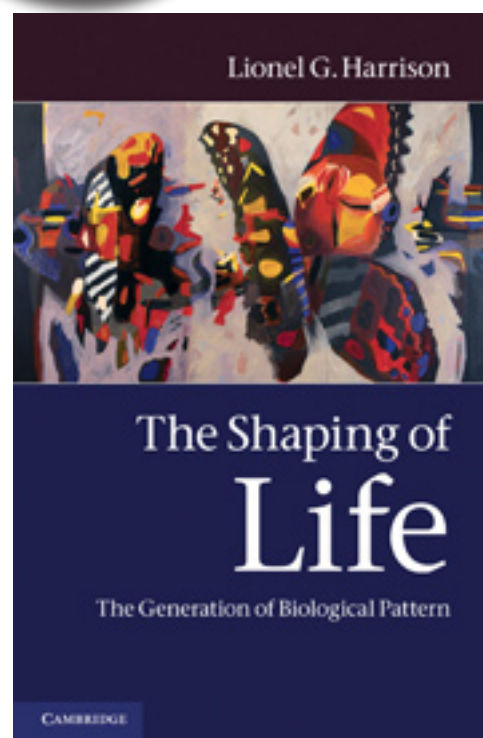
## Key Features

- Provides an historical perspective on the development of this field with relevance for current quantitative and systems biology
- Mathematics is kept to a minimum and any calculus-dependent points are also explained verbally
- Thought-provoking case study examining the application of physical chemistry and mathematics to study developmental biology

## Contents

Foreword Thurston Lacalli; Preface; Acknowledgements  
 1. Organizer. Organize thyself; Part I. Watching Plants Grow:  
 2. Branching: how do plants get it started?; 3. Whorled structures; 4. Dichotomous branching; 5. Micrasterias and computing patterning along with growth; Part II. Between Plants and Animals: 6. The emergence of dynamic theories; 7. Classifying developmental theories as physical chemistry Part III. But Animals are Different: 8. The dreaded fruit fly 9. Various vertebrate events; Epilogue; References  
 Index.

**New!**



January 2011

272 pages

61 b/w illustrations

Hardback / 9780521553506

List Price: \$99.00

Discount Price: \$79.20

Promotion Code: FoTSOL

*Order Today!*

Visit [www.cambridge.org/us/9780521553506](http://www.cambridge.org/us/9780521553506) (Hardback)  
 Or Call 1.800.872.7423



**CAMBRIDGE**  
 UNIVERSITY PRESS  
[www.cambridge.org](http://www.cambridge.org)