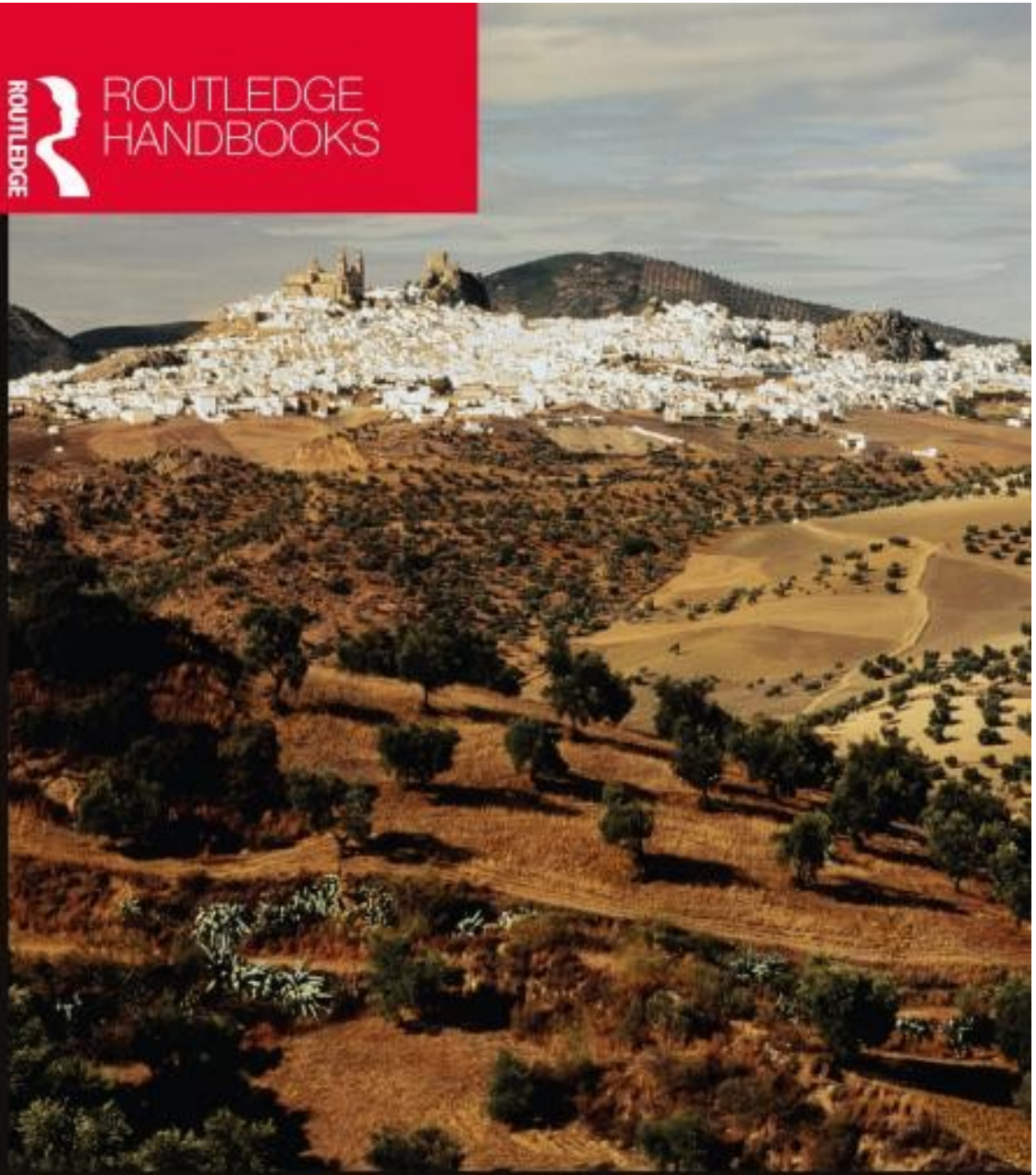




ROUTLEDGE  
ROUTLEDGE  
HANDBOOKS



# The Routledge Handbook of Landscape Ecology

Edited by Robert A. Francis, James D.A. Millington,  
George L.W. Perry and Emily S. Minor

# Table des matières

Lists of figures  
List of tables  
List of contributors  
Preface  
Acknowledgements  
Introduction

1 - A brief history and overview of landscape ecology / Robert A. Francis and Marc Antrop

## Part I : Theory and concepts in landscape ecology

2- Landscape mosaics and the patch-corridor-matrix model / Marc Antrop

3- Scale and hierarchy in landscape ecology / James D. A. Millington

4- Landscape connectivity / Lenore Fahrig, Víctor Arroyo-Rodríguez, Eliana Cazetta, Adam Ford, Jill Lancaster and Thomas Ranius

## Part 2 : landscape processes

5- Spatially structured ecosystems, connectivity and movement / Finnbar Lee, Jingjing Zhang, Craig Eric Simpkins, Justine A. Becker and George L W Perry ;

6- Habitat fragmentation / Amanda E. Martin, Joseph R. Bennett and Lenore Fahrig ;

7- Nutrient flows in the landscape / Erica Smithwick ;

8-The disturbance regime concept / Brian J. Harvey, Sarah J. Hart and C. Alina Cansler ;

9- Impacts of climate changes and amplified natural disturbance on global ecosystems / Rachel Loehman, Megan M. Friggens, Rosemary L. Sherriff, Alisa R. Keyser and Karin L. Riley ;

10- Change from within : bottom-up disturbances of ecosystems / James M.R. Brock and Sarah V. Wyse ;

## Part 3 : methods and tools for landscape ecology ;

11- Fieldwork in landscape ecology / Jesse E. D. Miller, Carly D. Ziter and Michael J. Koontz ;

12- Remote sensing and mapping of landscapes / Nathalie Pettorelli, Jennifer E. Smith, Mailys Lopes and Henrike Schulte to Bühne ;

13- Sensor networks for landscape ecology / John H. Porter ;

14- The role of palaeoecology in understanding landscape-level ecosystem dynamics / George L.W. Perry, Richard E. Brazier and Janet M. Wilmshurst ;

15- Landscape pattern analysis / Tarmo K. Remmel and Scott W. Mitchell ;

16- Quantitative modelling and computer simulation / Calum Brown ;

17- Landscape character assessment and participatory approaches / Andrew Butler and Ingrid Sarlöv Herlin ;

18- Experimentation in landscape ecology / G. Darrel Jenerette ;

## **Part 4 : landscape ecology frontiers**

**19-** Landscape ecology contributions to biodiversity conservation / Robert F. Baldwin, R. Daniel Hanks and Jeremy S. Dertien

**20-** Ecosystem services in the landscape / Matthew Mitchell

**21-** Riverscapes / Todd Lookingbill, Kimberly Meitzen and Jason P. Julian

**22-** Landscape restoration / Aveliina Helm

**23-** Landscapes and climate change - case studies from Europe/ B. C. meyer and G. Mezosi