## Contents

1. **International Associations and the Provision of Outreach Programmes for Education and Training** .................................................. 1  
   William Cartwright

2. **Exercises in Cartography** .......................................................... 15  
   Ferjan J. Ormeling

3. **The Role of Output Devices in the Higher Education Courses of Cartography** ........................................................ 27  
   László Zentai

4. **Teaching Cartographical Skills in Different Educational Systems of EU** .................................................. 43  
   Eszter Simonné Dombóvári

5. **Cartography at Elementary School Level: Continuing Education of Teachers and Experiences in the Classroom** ............... 59  
   Maria Isabel Castreghini de Freitas

6. **Cartography in Textbooks Published Between 1824 and 2002 in Brazil** .......................................................... 75  
   Levon Boligian and Rosângela Doin de Almeida

7. **The Transition from the Analytic to Synthesis Reasoning in the Maps of Geographic School Atlases for Children** .................. 85  
   Marcello Martinelli

8. **How School Trips Modify the Pupils’ Representation of Space** ...... 93  
   Katarzyna Bogacz
9 Interpretation of Surface Features of Mars as a Function of Its Verbal—Toponymic—and Visual Representation .......... 103
Henrik I. Hargitai

10 Internet Mapping Education: Curriculum Technology and Creativity .......................................................... 117
Rex G. Cammack

11 Spatial Knowledge Acquisition in the Context of GPS-Based Pedestrian Navigation ........................................ 127
Haosheng Huang, Manuela Schmidt, and Georg Gartner

12 Developing Map Databases: Problems and Solutions ............ 139
István Elek and Gábor Gercsák

13 The Tile-Based Mapping Transition in Cartography ............... 151
Michael P. Peterson

14 Visualisation of Geological Observations on Web 2.0 Based Maps ................................................................. 165
Gáspár Albert, Gábor Csillag, László Fodor, and László Zentai

15 Updating a Hungarian Website About Maps for Children ...... 179
José Jesús Reyes Nuñez and Csaba Szabó

16 Teaching Cartography to Children Through Interactive Media ... 195
Marli Cigagna Wiefels and Jonas da Costa Sampaio

17 Cartographic Response to Changes in Teaching Geography and History ......................................................... 203
Temenoujka Bandrova

18 Research on Cartography for School Children ...................... 219
Rosangela Doin de Almeida

Veerle Vandelauze

20 The Spatial Notions of the Cultural Universe of Childhood ...... 243
Paula Cristiane Strina Juliasz and Rosangela Doin de Almeida

21 Map Drawing Competition for Children in Indonesia ............ 255
Rizka Windiastuti
22 Cartography in Studying the Environment: Bilingual Practice
  Aiming at the Inclusion of Deaf Pupils ........................................ 269
  Tiago Salge Araújo and Maria Isabel Castreghini de Freitas

23 Study on the Acquisition of the Concept of Spatial Representation
  by Visually Impaired People ...................................................... 289
  Silvia Elena Ventorini and Maria Isabel Castreghini de Freitas

24 Tactile Cartography and Geography Teaching: LEMADI’s
  Contributions ................................................................. 305
  Carla Cristina Reinaldo Gimenes de Sena and Waldirene Ribeiro do Carmo
Maps for the Future
Children, Education and Internet
Zentai, L.; Reyes Nunez, J. (Eds.)
2012, VIII, 316 p., Hardcover
ISBN: 978-3-642-19521-1