

# Preface

This is the tenth volume of a series of books dedicated to the dissemination of basic research in the interdisciplinary field of spatial cognition. Researchers in spatial cognition investigate the foundations, representations, and processes involved in the acquisition, organization, utilization, and revision of information about spatial environments. These environments can be real or virtual spaces, and research questions and findings even apply to abstract, non-physical realms such as organization structures and formal descriptions. Moreover, both natural and technical cognitive systems are investigated and employed in the diverse subfields of spatial cognition. Thus, research in human spatial cognition often serves as an inspiration for technical solutions, as well as it is supported by the implementation of intelligent procedures in technical devices.

The present volume contains a collection of 11 selected papers that originally were presented at one of the following two conferences focused on spatial cognition research held in 2016: KogWis 2016: Space for Cognition and Spatial Cognition 2016.

KogWis 2016: Space for Cognition was the 13th biennial conference of the German Society for Cognitive Science, which was held September 26–30, 2016, in Bremen, Germany. This conference belongs to a series that in general is open to all research topics pursued in cognitive science; a special emphasis in the 2016 conference, however, was on research on spatial cognition. Three of the papers contained in this volume were originally presented at KogWis 2016.

Spatial Cognition 2016 belongs to a series of biennial international interdisciplinary conferences dedicated to all aspects of intelligent spatial information processing in humans and in technical systems. This conference series was established in 2002. In 2016, the meeting took place August 2–5, 2016, in Philadelphia, USA. Eight papers of the current volume originate from Spatial Cognition 2016.

The selection of contributions to the above conferences – both for oral and poster presentations – was based on extended abstracts submitted by the authors. For the present volume we issued a call for contributions directed to the authors of accepted presentations at one of the conferences. In response to this call we received 20 submissions, which were thoroughly peer-reviewed by three reviewers each. On the basis of the reviewers' assessments, 11 contributions were selected covering a variety of aspects of spatial abilities and skills, findings in human wayfinding and navigation, insights into structures and processes of human spatial memory, as well as technical systems that enable research in virtual environments and simulations of verbally described motion events.

Many people participated in the realization of the present volume. Thus, we would like to thank everybody involved in the organization of KogWis 2016 and Spatial Cognition 2016. We thank all authors for submitting their work to either of the two conferences, as well as for extending their contributions and submitting them for this book. We thank all the reviewers of both conferences and of this volume for their

critical assessment and the numerous suggestions that helped us select the best papers and further improve the work of all submitting authors.

Finally, we would like to thank Alfred Hofmann, Anna Kramer, and their team at Springer for their continuing support of our book series.

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Spatial Cognition X

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