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Models of Visuospatial Cognition

New York: Oxford University Press 1996

> ISBN: 0-19-510084-0 ISBN: 0-19-510085-9

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Preface

As human beings, our reality is a visuospatial one. Physics, biology, and psychology combine to make visuospatial cognition perhaps our most important form of information processing. Research (and intuition) has shown that visuospatial processes play a vital part in language comprehension for both abstract and concrete materials. We can rotate, fold, travel, and even zoom in and out on visuospatial images in our "mind's eye". For over two millennia, visuospatial strategies have been used to augment human memory, and they have played prominent roles in science as well as art. Even people who are totally, congenitally blind report mental representations and processes similar to those of sighted people.

How is it that we are able to perform all of these wonderful feats? How are visual and spatial information represented in the mind and in the brain? Why does visuospatial imagery play such a preeminent role in cognition, memory, and language? If the answers were known, there would be no need for this volume – but they are not. Theory and research on visuospatial processes have been a guiding force in the shaping of cognitive psychology over the past three decades. From verbal learning to connectionism and neuropsychology, the mechanisms of visuospatial cognition continue to present challenges to our understanding of the psychology of the mind.

The present volume provides a seminar of sorts with prominent experts in the area of visuospatial cognition. Their counterpoints on visuospatial processes in cognition, memory, and language are already well-known through their extensive writings in the area. With the support of the University of La Laguna, and its Faculty of Psychology (Tenerife, Spain), the Ministerio de Educacion y Ciencia, and the Consejeria de Educacion del Gobierno de Canarias, we were able to come together and discuss a variety of relevant issues at the Fourth European Workshop on Imagery and Cognition at Puerto de la Cruz in the Canary Islands. We now are able to share

the fruits of that discussion in a form that captures the content as well as the tone of that meeting. We hope that our progress toward answering the above questions has as much influence on others than it did on us.

MM, M de V