The Visual System
from Genesis to Maturity

The Visual System *from Genesis to Maturity*

Roberto Lent

Editor

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Cover: A detail of “Solomon’s Justice”, by the Brazilian painter Candido Portinari (1903–1962), showing an ambiguous figure.

Art Museum of São Paulo (MASP). Reproduced by permission of the Portinari Project.

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Preface

I must confess openly, before presenting this book to the reader, that the task of producing it was much more enjoyable to me than I had suspected at the project's beginning. First, I had the opportunity to discuss with my colleagues at the Department of Neurobiology of the Institute of Biophysics in Rio (who are internationally known experts in the different areas of visual research), which particular themes would best illustrate the state-of-the-art. Second, after the difficulty of having to select some of these themes and prospective authors out of a very numerous list, I had the pleasure to receive them all in Rio de Janeiro, and to chair a very active, small meeting held at the Brazilian Academy of Sciences. Third, I enjoyed the privilege of reading all the manuscripts containing scholarly, up-to-date reviews of each theme, as well as original data in some cases. Finally, I was deeply moved with the prospect of dedicating the result of this collective endeavor to the three men who initiated visual research in Rio: Professors Carlos Eduardo Rocha-Miranda, and Eduardo Oswaldo-Cruz, and the laboratory technician Mr. Raymundo F. Bernardes.

The book is organized into two broad sections preceded by an overview. The first section—Genesis—covers many of the numerous fronts of research concerning the developmental biology of the visual system, from either a molecular, a cellular, or a systems angle. The second section—Maturity—takes the same broad approach and covers the structure and physiology of different parts of the visual system, “from photoreceptors to the cortical modules,” to quote Pasko Rakic from his Overview.

Both the book and the meeting that preceded it were partially supported by funds obtained from the National Research Council (CNPq), the International Brain Research Organization (IBRO/UNESCO), the Advanced Program of Neuroscience (PAN), the Brazilian Academy of Sciences and IBM-Brazil. The book itself has been competently produced by Birkhäuser Boston.

I hope that we have succeeded in extending to the readers—students, neuroscientists, ophthalmologists, neurologists, and others—the pleasure that we had organizing, discussing, and contributing to the book.

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