

# CONTENTS

|                                                                                                       |     |
|-------------------------------------------------------------------------------------------------------|-----|
| Preface.....                                                                                          | 3   |
| Préface.....                                                                                          | 4   |
| Acknowledgements.....                                                                                 | 5   |
| Introduction .....                                                                                    | 7   |
| I. The Development of European Astronomy during<br>the 20 <sup>th</sup> Century .....                 | 11  |
| II. ESO, La Silla, the 3.6-m Telescope, Other Telescope Projects<br>in Europe .....                   | 25  |
| III. Origin of the ESO VLT Project; The NTT .....                                                     | 43  |
| IV. Technological, Financial and Scientific Planning<br>of the VLT.....                               | 59  |
| V. Construction of the VLT .....                                                                      | 69  |
| VI. Sites for Telescopes .....                                                                        | 87  |
| VII. The VLT Observatory: Adaptive Optics, Instruments,<br>Interferometry and Survey Telescopes ..... | 109 |
| VIII. Ground and Space Based Optical Telescopes.....                                                  | 123 |
| IX. Radio Astronomy; ALMA and SKA.....                                                                | 139 |
| X. Europe in Space: ESA's Horizons 2000 .....                                                         | 161 |
| XI. European Space Missions: IR, X- and Gamma Rays ..                                                 | 175 |
| XII. European Space Missions: The Solar System .....                                                  | 203 |
| XIII. European Space Missions: The Sun and the Heliosphere ..                                         | 219 |
| XIV. Astroparticles and Gravitational Waves .....                                                     | 231 |
| XV. Looking for Planets and Life in the Universe .....                                                | 243 |
| XVI. Publications .....                                                                               | 253 |
| XVII. European Astronomy: Researchers and Funding .....                                               | 265 |
| XVIII. The Future .....                                                                               | 277 |
| XIX. Epilogue .....                                                                                   | 289 |
| Notes .....                                                                                           | 291 |
| Acronyms .....                                                                                        | 301 |
| Index .....                                                                                           | 317 |
| Photo credits.....                                                                                    | 325 |