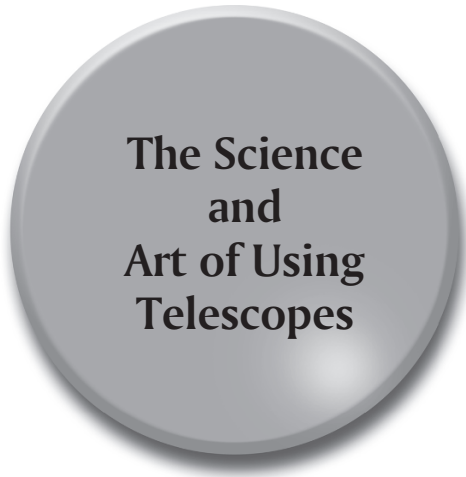


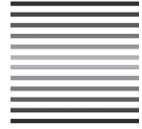
# Patrick Moore's Practical Astronomy Series

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The Science  
and  
Art of Using  
Telescopes



Philip Pugh

 Springer

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To my wife, Helga and daughter, Marcela,  
who have given me lots of encouragement in  
working on this book.



# Preface



Astronomy seems to be good at grabbing the attention of the general public, whether it is from seeing the exciting pictures of the rovers Spirit and Opportunity on Mars, a solar eclipse, or a feeling of amazement while looking at the night sky on a particularly clear night. Indeed, some people are so inspired they rush out to buy their own equipment. Eventually, they may have seen enough of the Moon or brighter planets and to want to do more, but the question is, how?

This book addresses how you can move on from the beginner stage. Yes, it is true that many astronomy writers have lots of expensive equipment, and yet they tell you that you do not need to. This may appear (at first glance) as much of a mystery as the missing mass in the universe.

However, many astronomy writers are financially challenged, like the rest of us, and those who do spend money on expensive equipment do so because they wish to pursue some particular branch of the hobby. The short answer is to learn how to get the most from your existing equipment and seeing how your interest develops, rather than rushing out to buy the newest “next best thing.” There is not any “one size fits all” advice when it comes to buying equipment, but this book will present some of the options available.

Having a few grand to spend wisely on equipment will help you get more enjoyment from the hobby, but sometimes a smaller purchase is all that is needed or even no purchase at all, just a fresh approach.

## What Is in This Book

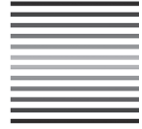
The Introduction discusses the overall use of equipment and introduces the types of instruments available in today's increasingly complex market. It also suggests a strategy to progress beyond the beginner stage and introduces the skills and equipment required to do so. The following chapters, from "Lunar Viewing" to "Beyond the Local Group," discuss the techniques and equipment needed for each subbranch of the hobby. The "Imaging" chapters discuss astrophotography using amateur equipment from the humble digital camera to CCDs and driven mounts.

The later chapters provide supplementary information to accompany the main chapters. "Usual Suspects List" describes some deep sky objects that can be viewed using modest equipment and "Planetary Data" gives some guidance on the sizes, orbits, and brightness of planets. Finally, the Glossary is deliberately large and comprehensive but is not intended to take the place of an astronomical dictionary or encyclopedia.

Philip Pugh



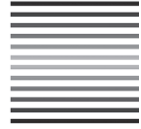
# Acknowledgements



Many thanks to Anthony Glover for contributing the "Deep Sky Astro-Imaging" chapter. Thanks to his knowledge and expertise, I was able to complete the book in a way that the path from the beginner stage onwards is more clear.



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