

Foreword

Author Aldous Huxley provided an exceptionally versatile entry in the lexicon of modern phrases when he penned the title to his 1932 novel *Brave New World*. There comes a time during almost every generation and in every avenue of human endeavor when it seems appropriate to invoke Huxley's words. For the hobby of astrophotography, that time is now.

After more than a century of dominance, emulsion-based astronomical photography has not only passed its Golden Age, but is in such rapid decline that I suspect we'll see someone writing its definitive history before the end of the present decade. Rolls of film and the alchemic interiors of darkrooms have given way to silicon chips and personal computers.

In the world of conventional photography this transition happened so suddenly that even pundits were taken by surprise. But those of us in the world of astrophotography saw it coming for years. Indeed, by the beginning of the 1990s, long before most people ever heard the term "digital photography," amateur astronomers were prowling the heavens with specialized CCD cameras. Many of these individuals were either well heeled or irresistibly drawn to the cutting edge (or both), for back then CCD imaging was expensive, and there were few places where one could turn for advice.

The rewards of digital imaging, however, more than offset its challenges. With CCDs, backyard telescopes in suburban neighborhoods could probe the universe to depths only seen by the largest mountaintop telescopes in the days of emulsion-base photography. Furthermore, digital imaging changed many of astrophotography's long-standing ground rules. Whereas bigger telescopes traditionally produced better pictures with film, with digital imaging you could compensate for a small aperture by simply taking longer exposures. And amateurs leveraged this advantage with the freedom of their observing agendas to create not only images that competed with those made at professional observatories, but in many cases surpassed them. And amateur images grow better with each passing day.

As profound as these changes are, they are not the reasons why I see astrophotography today as a "brave new world." For those we must turn to traditional consumer photography where the digital revolution began

changing the landscape just a few short years ago. A new photographer today is more likely to purchase a digital camera than a film camera. And since most astrophotographers ascend from the ranks of conventional photographers, today's budding astrophotographer is likely to be starting out with a digital camera. Until now the wealth of astrophotography literature came from the age of film, and as such leaves gaping holes for the beginner. Because even such basics as focusing a lens and making a time exposure are so vastly different between film and digital cameras, beginners are indeed facing a "brave new world."

With *Digital Astrophotography*, Robert Reeves has prepared a superb new roadmap that will help not only beginners navigate astrophotography's digital landscape, but will also aid those of us who have crossed the territory with film cameras and are now switching to digital. His years of experience have taught him the pitfalls of this transition, so he knows what points bear special emphasis when teaching anyone how to get started with digital astrophotography.

Reeves has also carved himself a fascinating niche in the history of amateur astronomical photography. In my opinion, his previous book, *Wide-Field Astrophotography*, was the last significant work to appear on the subject when film still ruled. This new volume is the first significant one to appear in the brave new world of digital photography.

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