



## Strange new worlds: The search for alien planets and life beyond our solar system

by Ray Jayawardhana

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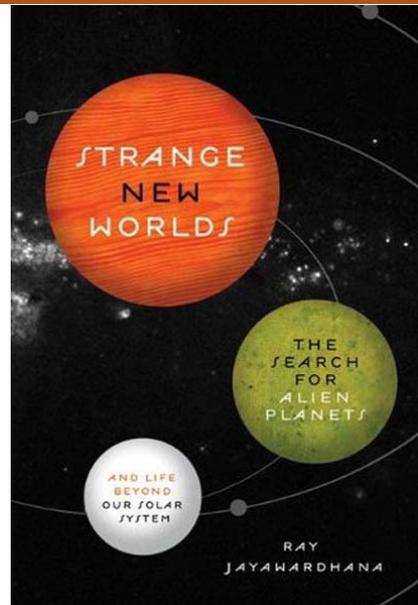
The topic of extrasolar planets, or exoplanets as they have come to be known, is at the forefront of the modern push in astronomy. During the next few decades, enormous efforts will be made to detect and investigate these strange new worlds, especially Earth-like ones, and so it is timely that Ray Jayawardhana, a very capable science author and academic, has produced this eminently readable account of how we have arrived at our present understanding of exoplanets. The book should appeal to a wide spectrum of potential readers including amateur astronomers, students and many other folk.

Following the announcement by Mayor & Queloz in 1995 of the first definitive discovery of an exoplanet orbiting a normal star, the rate of new discoveries has skyrocketed, with the number of objects known by the year 2010 surpassing the 400 mark. However, the story is much older than this timeframe suggests and the author uses the first third of the text to document in a fascinating way the history of our interest in, and search for, planets around other stars, explaining in the process some of the science and excitement behind the quest, thereby setting the scene for the remainder of the book.

The author, currently Professor of Observational Astrophysics at the University of Toronto, has been actively involved in planet searches and related areas, having begun working in the

field of protoplanetary disks around young stars during the late 1990s when researching his PhD thesis at Harvard. He is therefore well placed to write this account, the style and layout of which reminds me of that of Bill Bryson's popular book entitled 'A Short History of Nearly Everything', and as such it should appeal to a wide audience. Many chapters have enticing names, including 'A Wobbly Start', 'Flickers and Shadows', 'Blurring Boundaries' and 'A Picture's Worth'; these dealing with the topics of detection by radial velocity measurement, microlensing and transits, brown dwarfs, and direct imaging respectively.

As with Bryson, it is clear from the many personal anecdotes recounted in the book that this author has spoken with, or taken the trouble to interview, many of the people he mentions, thereby giving the book that extra human touch. Here at last we have a spellbinding and technically accurate account of this fascinating subject. I suspect that many people might be tempted to read it from cover to cover without a



break – I almost did!

The author includes a glossary of terms, an extensive bibliography (chapter by chapter), and an index to help readers along the way. In the main text, he explains not only the role of advanced observatories such as the Hubble Space Telescope, Subaru, Keck and Kepler, but also the backgrounds of researchers in the field, both professional and amateur, who have made noteworthy contributions.

In the final chapter entitled 'Signs of Life', the ultimate question of life on other worlds is addressed, touching on historical

viewpoints, current understanding and future prospects. He wraps up his account by speculating how such a discovery might trigger a shift or revolution in thought much like that brought about by Copernicus' heliocentric theory or Darwin's theory of evolution. To quote the last line of the book: 'It may well occur in our lifetime, if not during the next decade.' Let's hope so. On reading this book, you too can share in this exciting adventure. I thoroughly recommend it.

**Richard Miles**

*Dr Richard Miles is a past-president of the Association and, as Director of its Asteroids and Remote Planets Section, envisages that one day we might see the formation of a new BAA observing section dedicated to the study of exoplanets.*

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