

David Malin's 'A View of the Universe'

The arrival of this long awaited book by Malin has caused the editorial team of Southern Sky no small difficulty. The book has generated such enthusiasm and eloquence that we have received several reviews of the work from people who were so impressed by the work that they immediately took to the keyboard to analyse and describe their reactions.

Indeed, we too, have found so much that was novel, exciting and enriching about the book that we all vied for review space, but, in fairness to our contributors, demurred. Suffice it to say that the two reviews selected, the first by Zac Pujic and the second by Andrew Goodfellow, manage to convey a goodly portion of Malin's achievement. There is, however, so much here for the individual, that no review can do it real justice. Judging by the number of people who have already enjoyed the book from cover to cover it appears that Malin has delivered exactly what the reader has been waiting for.

During a recent visit to Puimichel Observatory in France, a French amateur astronomer who spoke no English and I (who speak no French) were flipping through an astronomy magazine. Although

we engaged in no conversation while looking through the magazine, we did understand each other when we saw a beautiful photograph taken from the Anglo-Australian Observatory. The French amateur pointed to the photograph and said, "Ah, Malin!".

In his latest book, *A View of the Universe*, David Malin explains the use of colour photography in the attempt to understand what we see in the world around us. He relies heavily on photographs taken through the Anglo-Australian Observatory's 3.9m and UK Schmidt telescopes. Although he is photographic scientist at the AAO, David Malin certainly does not have the free run of the 3.9-m or UK Schmidt telescope many believe he has. He is bound by the same time constraints imposed by the Time Allocation Committee as are all the many research scientists who use the facilities.

Consequently, most of the photographs are necessarily of bright, well known objects whose images can be obtained with short exposure, sometimes during twilight. Often, there already exist one or more of the blue, green or red emulsions required for the tri-colour photography process which has revealed much of the astrophysical processes that underlie the images.

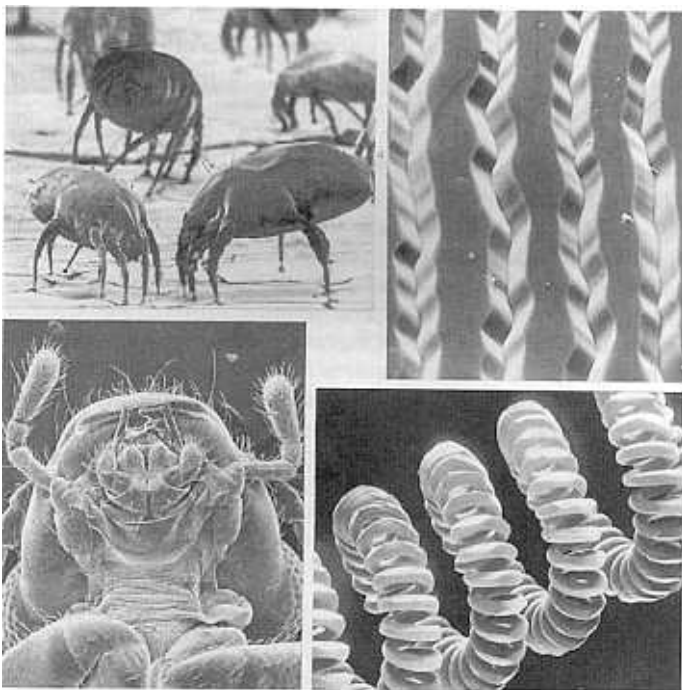
While many of the images are familiar, what is unique about this work is the narrative style which Malin uses to explain the significance of the photographs.



A recent picture of David Malin in the prime focus cage of the Anglo-Australian Telescope. Reprinted with permission AAT Board.

It opens with Malin's aphoristic description of the path which led him from the chemical labs of what is now Ciba-Geigy in England to his life's work at the Anglo-Australian Observatory. He describes the development of the darkroom techniques used to produce his trademark images, and then sets about explaining what they reveal about the celestial objects photographed.

The book, therefore, is aimed at neither the astrophotographer nor the backyard astronomer but the armchair astronomer. While the style of writing is lucid and succinct, making it easy to read, it is perhaps devoid of the kind of detail the backyard amateur astronomer would like to have. However, since the work is not meant to be a photographic textbook, nor a technical



Other views of the Universe taken with scanning electron microscope: Top left—house dust mite colony; Top right—grooves on stereo LP record; Lower left—insect surrendering to the electron beam; Lower right—coiled coil lamp filament. With permission AATB.

reference it fulfils its role as a descriptive text.

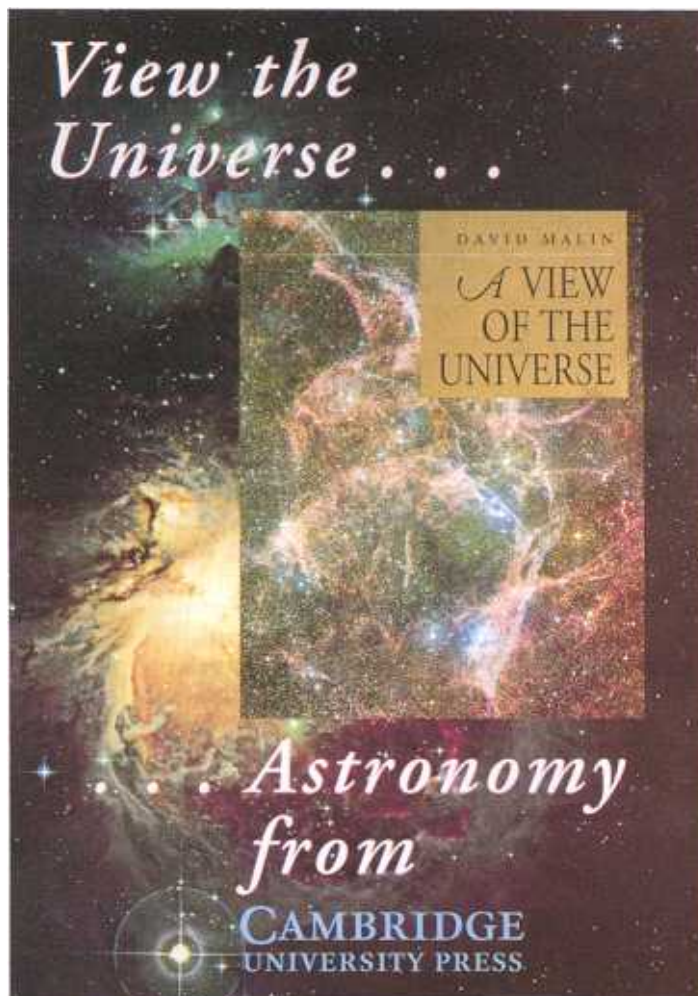
There are many surprises, quite apart from the images taken with a scanning electron microscope which give quite another 'view of the universe' in the opening chapter. Mention is made, for example, of 'the Emu', the silhouette of an emu produced by the arrangement of dark nebulae between the Coalsack through to Scutum, a feature which has received little attention in other books. On page 126, David Malin claims to not be able to see colour in the trapezium area of the Orion Nebula, even using the AAT visually and elsewhere explains the nature of a curious blue-green blob in two images of NGC 5128. Read the book to find out what it is. Other objects are shown photographed in a manner which reveals features not noted before. In particular, a stunning photograph of the Trifid Nebula shows the nebula surrounded by a reflection nebula with a greenish tint.

Cometary globules in Scorpius and Puppis, photographed in colour, are published for the first time in this book and the nature of Malin 1, a distant supergiant galaxy in Virgo is explained.

I found few mistakes throughout the book. Figure 8.6 is reversed east-to-west while on page 67, the caption to M83 states it is 10 million light years from Earth. However the text underneath the picture gives its distance as 25 million light years. One disappointing feature was the relatively small size of the photographs. Obviously increasing their size would have meant reducing the amount of text which Malin could have included, but the attraction of the photographs is their beauty, and I think that such a compromise may have been wiser.

Nevertheless, David Malin's book is of extremely high quality. The shortcomings are few and minor and the author has managed to produce a beautiful account of the use of photography in astronomy which should appeal to armchair observers as well as anyone interested in a non technical text on astronomy

Andrew Goodfellow had this to say about *A View of the Universe*. This is not a book of illustrations but an illustrated book,



thus a horse of a quite different colour. The avowed intention is to instruct as well as entertain. For all its lack of technical apparatus this is a book by a scientist telling us of his science; a scientist blessed with the ability to write clearly and engagingly, to convey to us the satisfaction of old mysteries solved and new ones uncovered. That his subjects are beautiful in their own right he does not play down and many of the plates are justly famous for this quality alone. His colour print of the deep Schmidt plates of the Greater Orion Nebula, M42, M43 and NGC1977, must rank as the astrophotographic image of the century. Throughout the Renaissance and the Baroque, artists adorned religious edifices with apotheoses, adorations and assumptions attempting to portray the glory of the theologians' heavens, yet never in their wildest dreams were they able to match the reality of the beauty of star birth as captured here by the secular eye of the camera.

While the greatest impact is made on the reader by the images depicted, it was a disappointment that the quality of photographic reproduction achieved in this work var-

ied so greatly. The defects in some images unavoidably detract, in my opinion, from what is otherwise a splendid book. However, while there are some deficiencies in the plates, this is not the case with the text. One derives a very clear impression of the active, interested mind, ever questioning, inquiring and experimenting, that is the driving force behind the quest to render up the secrets of the universe.

Vividly portrayed in the second half of the book is a dynamic universe, the great arcs of turbulence in the dusty arms of the spiral galaxies, the distortions of interacting galaxies, the expanding shells, marking the hiccups of digestion by cannibal galaxies.

By its breadth and scope, *A View of the Universe* is akin to a painting by Michelangelo where surface appearances are rendered to reveal the structure of the body as a dynamic whole. As Malin himself says, 'the pleasure of these pictures comes because they communicate the beauty of the natural world to a wide audience and convey complex astrophysical concepts in a painless and even enjoyable way.' 📖

COMPETITION!

A View of the Universe

Donated by Cambridge University Press, this superb book has won all the reviewers' accolades.

IT COULD BE YOURS if you can name the astronomical photographer whose work appears on the cover of the March/April edition of *Southern Sky*.

This is NOT a trick question and the competition is open to all our readers, including our valued overseas readers!

All entries received before May 10 will have a chance to win.

The winner will be announced in our July/August edition.

GOOD LUCK!