## Introduction

'Diprodoton optatum - skeletal design' (2007). Graphite on paper, 22 x 28 cm, Australia Post collection (P. Trusler).

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#### THE ARTIST AND THE SCIENTISTS

Popularity and acceptability of art styles change over time. Some styles appeal to certain groups and cultures, at different times and in different places. Scientific art is not immune to this: if one peruses, for example, dinosaur art over the past century, significant stylistic differences are quite evident.

So, one could ask, with all the literature that has been printed over this time dealing with palaeo-art, what does one more book have to offer that has not already been covered elsewhere? What makes this book any different from all the others?

First, it considers in detail the interactions of the artist and the scientists that were vital to the production of these works of art. The description of such interaction in producing scientific art has, to our knowledge, never been done before in depth.

Another answer to the question is that this book is specific in the images it presents. And it deals with three people only – an artist and two scientists – who have worked with one another for more than three decades. That by itself would have made this book unique! But this book is different in other ways as well. *The Artist and the Scientists* considers how this close association of three people over many years allowed the exploration of the why's and how's of the production of unique art, with attention to minute detail and based on a significant body of research. Examples cover a broad range of approaches, dictated by the projects and the subject matter selected.

The book could have been presented in taxonomic arrangement: thus, fish would have come before dinosaurs, and the dinosaurs in turn before Tasmanian tigers. This has been a common approach. The book could have been divided into time periods: it could have first covered the Precambrian, followed by subdivisions of the Phanerozoic, the last 542 million years (see Timeline of Geologic Time). However, we decided the organisation should be based around the development of the scientific art over 30+ years, painting by painting and sketch by sketch, in order to capture how the methodology of both art and science developed over that period.

The art rendered over time also served many different purposes. The book explores those differences, detailing how particular projects were chosen, how they were managed and funded, how they were used both for scientific research and for public exposure, for educating and for entertaining in some instances. This process is complex in itself, and the dogged determination required to produce an image as close to what was the scientific reality becomes clear. Both artist and scientists were driven to seek out the detail, discuss it in depth not only among themselves but also with a wide body of research colleagues, and to take all that into account when the final plan was emplaced. This was often a lengthy process, and had to be funded, had to meet deadlines, had to avoid the final image being shortchanged because of the pressures of time and a variety of distractions imposed by life.

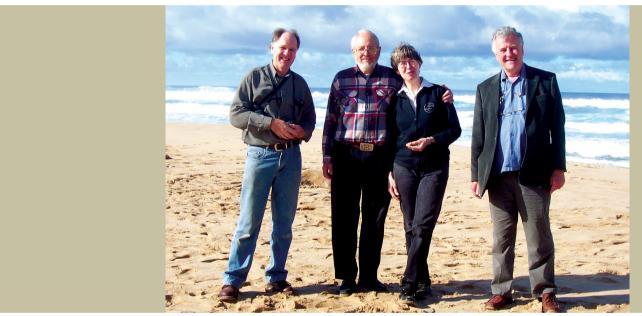
We, as artist and scientists, hope that this book will inspire readers, both scientific and general, to become more visually tuned in to the content of scientific art, which serves to pull together a multitude of threads resulting from research. We hope that the art in this book will communicate with and entice the more general reader into exploring the complexities of science – discovering, bit by bit, the fine detail after having initially

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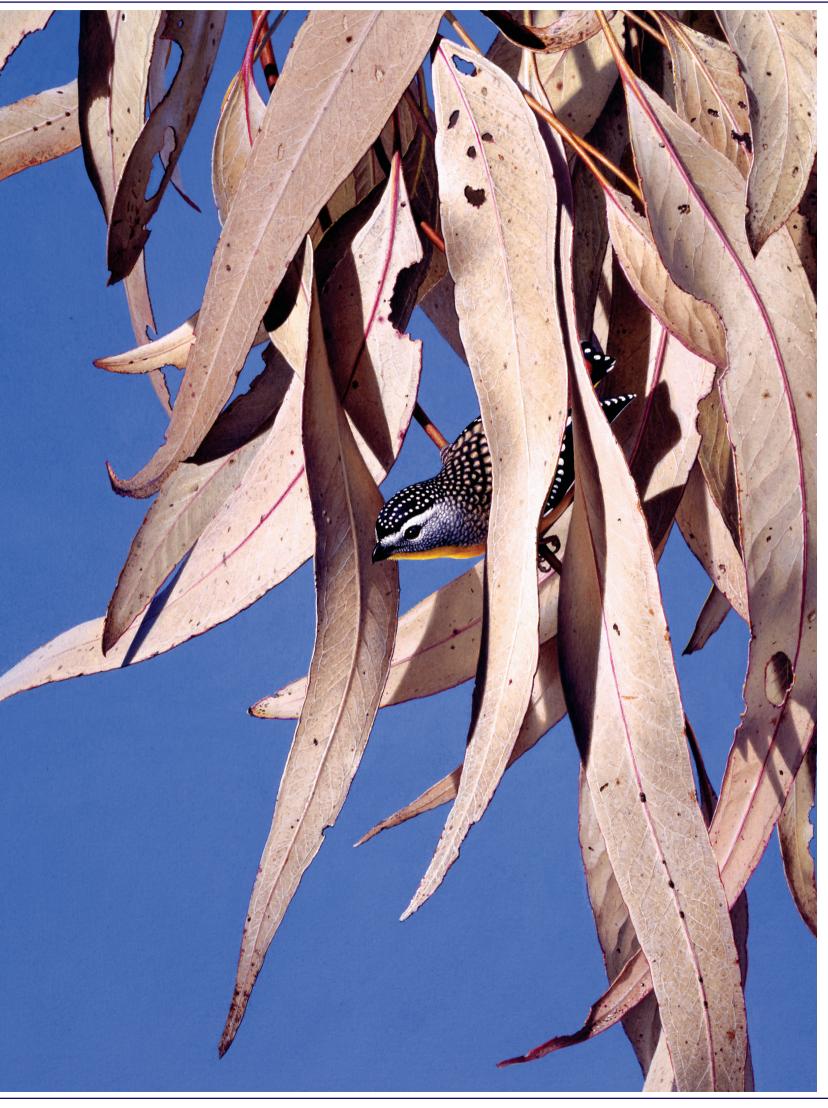
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been attracted to the bigger picture. To assist in this process, an explanation of selected scientific and technical terms has been included in a glossary at the back of the book.

Much of the art in this book has already served as a portal stimulating scientific discourse, sometimes challenging prevailing paradigms and sparking debate – which is the core of science. Some of the art, using colourful and imaginative style yet rendered with respect for scientific data, has also enticed young people into thinking about their past. And now, with the variety of styles presented in this book, and the explanation of how and why it was developed, we all hope it will encourage an attention to scientific detail in reconstruction art in the future.



The authors and a friend: from left to right, Peter, Tom and Pat with fellow palaeontologist Richard Fortey (photo by J. Fortey).



CAMBRIDGE

Cambridge University Press 978-0-521-16299-9 - The Artist and the Scientists: Bringing Prehistory to Life Peter Trusler, Patricia Vickers-Rich and Thomas H. Rich Excerpt More information

# A New Paint Box

Figure 1.1 Pardalote, one of Peter's many modern bird images, which initially attracted Tom and Pat to Peter's realism.

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THE ARTIST AND THE SCIENTISTS

### **The Artist: Peter**

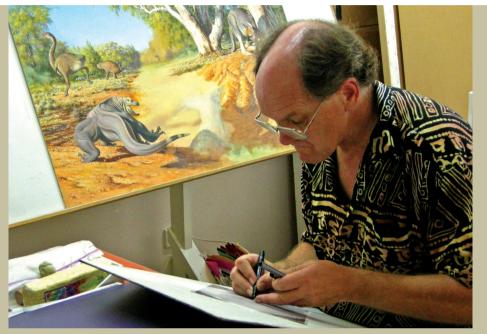
'Introspection' is probably the most apt description of my childhood realm. I seem to have been a quiet kid who was totally preoccupied with watching and thinking; probably in a very confused way! I do not know from whence this sense of wonder came, but I managed to find an outlet and further stimulus through drawing. It was all I apparently did; the physical rough and tumble of boyhood was not my desire for the most part. My parents expressed some concern about this. Over the years I can recall tentative comments and gentle coercions that they made in this regard.

My parents had no direct interest or experience in either biology or art and may have had some difficulty in satisfying my insular pursuits. My father was a keen amateur photographer, however, and as an engineer was also an efficient draftsman. His enthusiasm for knowledge was infectious. My lasting recollection is that both parents fostered my pursuits with some pride.

Two pivotal events are clear to me. The first was a Christmas gift box of 72 different coloured pencils. I was five years old at the time and the set of Derwent brand pencils were sharpened to the verge of extinction in less than three years! The next revelation was actually due to a mistake on my mother's part. I simply longed for a box of real paints – not those little kiddy ones in pans but real ones in tubes. For my eighth birthday a set arrived and by the end of that day I had made a disastrous mess. They just did not work! When my father walked in the door at day's end, he consoled my fallen pride when he picked up the box and said: 'Oh, no. You need to mix these with turps, not water.' What a revelation this was to me! So began my passion for oil painting, and this box of paints was soon to be followed by private tuition with a local artist, Jessie Merritt. Her influence on my formative practice was to be profound. It was not long before the entire experience of painting – the paraphernalia and equipment, the multiplicity of possible techniques and even the smell of it – was captivating. My initial allergic reaction to the solvents was eventually conquered!

My time was divided between my art pursuits and my interest in birds and animals. Like most children, this was easily fostered through keeping household pets – budgies, cats, tortoises, a real menagerie of odd things at odd times. I amassed collections of feathers, bones and skulls, rocks, insects and picture cards. Through my secondary school years I became involved in the local field naturalists club, and my combined interests flourished. What was interesting about the Ballarat Field Naturalists Club was that it was made up of mainly retired people, and so the very few younger members received generous mentoring. These older members obviously imparted considerable depth and wisdom with their knowledge. This seems to have been fundamental in a

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**Figure 1.2** Peter at work on the Australia Post megafauna stamps in his studio, 2008 (photo by G. Narbonne).

couple of ways. Firstly, it was different to my contemporary experience of both family life and peer group: it was 'old world', and it still bemuses me that I enjoyed it, because I feel that most children would not. Secondly, it was a learning environment with unbridled information that came not via curriculum, but via personality. Knowledge came passionately, imparted by unusual people from all walks of life. My art teacher, too, fitted this profile – being in her late 70s, with a gentle nature that did not disguise her sharp intellect and conservative attitude to life. She was able to impart her broad and deep knowledge because of her very personality. Her individuality and passion were what challenged me to learn and to think about things for myself.

My formal education throughout the 1960s and 1970s was rich, and this time was characterised by a transition from traditional methods and subjects to the incorporation of many innovative learning programs. There was a paradigm shift in educational policy throughout this period. It was so profound that for a brief moment tertiary education was offered for free. Reflecting on this period of time has made me realise that in many ways the absence of constraints that I enjoyed during childhood actually extended into my early adulthood. My student colleagues and I were totally free to pursue interests without fear or favour. This allowed for an intellectual freedom that favoured learning over vocational education. These unpragmatic times are now gone.

My education in science underpinned my interest in natural history, but for me dinosaurs have never loomed large. This may surprise students of palaeontology, for I am keenly aware that for many the subject is an all-consuming passion. I can look in

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wonder at an ancient jade carving of a mythical dragon just as easily as I can marvel at an enormous Mesozoic bone! I have a feeling that this difference in my focus is centred in my fundamental interest in art. I am just as fascinated by the natural world as I am by the social and internal workings of the human realm, and so I find that I am often at odds with enthusiasts in all fields, art or science. There is a continuum and breadth to my interests, and I am not likely to adhere to boundaries in any sense.



Figure 1.3 Peter at Mistaken Point, Newfoundland, sketching in 2005 (photo by P. Strother).

This is not to say that I lack discrimination, for I can and do make deeply critical decisions and distinctions in both respects – artistically and scientifically. Whether I am working on a person's portrait at one moment or organising a tectonic plate diagram on the computer the next, there is a nexus of criteria I can apply to my approach in either case. One might be rooted in a Western cultural history where the psyche is able to run free, and the other might be bound by the logic of scientific discipline where my role is totally subservient to information content and the creative thought of others. Either extreme can be as simple and direct as I can make it or as complex as need be. Essentially, there is great beauty and joy to be found in all, and so any hierarchy, as profound as it may be, is somewhat artificial to me. The doing of the work is fundamental – living the moment! The high points might constitute art, independent of intention or purpose and irrespective of subject. The high points might also provide a genuine contribution to science. I don't know!

The multitude of variations and subjects in between these examples is of particular interest to me: I can dwell on the edge by sliding the aesthetic component of the art in any direction. You will find considerable variation in the work featured throughout these pages, which in turn represents a small, yet significant, part of my output. These works have been produced for, and generated by, science. The manner in which Pat, Tom and I have collaborated has allowed our work to transcend boundaries, since we value communication above all. My colleagues have appreciated not only my pictorial skills, but also the intellectual approach to my craft. This has led to a genuine fusion of our ideas and has given me the privilege of contributing as a scientist to the research process. I have personally valued our egalitarian relationship, and feel that it has extended each of us.

