

it contains a wealth of up to date information on life history aspects of the platypus as well as clearly elucidated features of physiology and anatomy. Natural history elements are cleverly presented in a season by season sequence, for example reproductive and feeding behaviours exhibit significant seasonal activity. Interwoven with this are coherent and concise segments on relevant topics such as the unique (with the echidnas) reproductive system and the marked seasonal activity of the male platypus' poison gland.

Tasmania abounds with prime platypus habitat. This has been recognised by naturalists, cinematographers (eg. the *Nature of Australia* platypus sequence) and also some accommodation hosts whose reputation as "platypus guides" has justifiably enhanced their business. Further local interest should follow, it would be interesting to have more details of the known platypus usage of Tasmania's thousands of highland lakes, for example.

As was reported in previous reviews of volumes in this series, production errors are again apparent. The preface includes an unfinished sentence and *mono tremes* (sic) appears as two words on page 7. The bibliographical page doesn't clearly indicate that this is in fact the second, revised edition of the 1984 hardcover edition.

A diversity of readers should nonetheless find this book to be both entertaining and highly educational.

SHELL COLLECTING — FROM CAVEMEN TO KINGS

by Elizabeth Turner

Tasmanian Museum and Art Gallery

The history of shell collecting goes back to prehistoric times and started with the need for implements to cut and carry objects. It was also the beginning of shell ornamentation which continues today.

The first artistic shell representations known are from the Minoan civilization in Crete. Aristototele is thought to be the first person to seriously document descriptions of shells and the habits of the animal inside, while it has been suggested that shells found during the excavations of Pompeii may have been from a natural history collection. Two Roman consuls 100 years B.C. collected shells and the infamous Caligula, while pretending to invade Britain, ordered his men to collect shells after he had marched them battle-style to the shore.

During the Middle Ages early 13th century Dominican monks wrote books on shells and also used them to illustrate the borders of manuscripts.

The 15th and 16th centuries saw a time of great world exploration and soon shells were being brought back as curios from the East and West Indies, the American continent, India and by church missionaries.

Much of the shell trade centred in Amsterdam and Antwerp as ships unloaded exotic cargoes from all over the world. Two notable shell collectors in Holland were the scholar Desiderius Erasmus and the engraver Albrecht Durer.

In the early 17th century Antwerp had become the haven for painters of still-lives and portraits. It was fashionable to have your collection of curios and memorabilia recorded for posterity. Even Rembrandt painted a cone shell, but the engravers reproduced the cone mirror-images, with the opening around the wrong way. This also happened in many of the engraved plates in books depicting shells in the 16th and 17th centuries. (Australia Post did the same with the Textile Cone in their recent marine stamp series).

The first museum with many natural objects was reputed to have been formed by a Swiss naturalist, Conrad Gesner, in the 16th century. Over the following 100 years, large shell collections were made by enthusiasts in Germany, Italy, Denmark and Britain.

Although shells were mainly collected to please the eye, by the end of the 17th century scientific interest had begun to emerge. Books were produced to illustrate shells, but also the first introductions to the science of conchology were written.

Martin Lister, a physician to Queen Anne of England, wrote extensively and produced the "Historia Conchyliorum", which comprised nearly 1000 plates and was the first attempt to arrange shells in some sort of order.

A Dutch contemporary, Georg Rumphius, lived for a long time on the island of Amboina in the East Indies. He was the first genuine field collector and observer, and he recorded excellent descriptions of shells and the animals' habitats.

By the late 17th and 18th centuries, every house of worth in Europe boasted many cabinets of marine life. Some collectors had a real interest in natural history, but for most it was a sign of wealth and intellectual and social status.

Nowhere did this fad take off more than in court society, and collections were often displayed in an extreme manner with opulent surroundings. King Louis XIII had the largest royal shell collection of the 18th century. The French court became so obsessed with the craze that anyone who was anyone outdid the others. Consequently shells exchanged hands for large sums of money.

In the mid 18th century, however, conchology was at the crossroads of decorative curiosity and of science. Although Michel Adanson of France proposed the first classification of shells, it was the Swedish genius Carl Linnaeus who revolutionised natural history. He provided the first and still used system of zoological nomenclature, known as the binomial system, whereby each animal or plant is given two scientific names, which represent a genus and a species. Linnaeus also had a large shell collection of his own and many of these specimens were used by him when describing new species. His collection is now in the Natural History Museum of Geneva.

Linnaeus inspired numerous naturalists during the 18th century and a copious number of books were produced, all adding to the documentation of shells. However, many collectors of the "cabinet" society would not accept the new scientific names. Linnaeus had often unabashedly described new species in anatomical terms. Certain parts of the body were not mentioned in those days,

and considerable embarrassment resulted when collectors had to translate the Latin scientific names into common names for display purposes.

By the mid 18th century so many shells were being brought into Holland by traders that shell cleaning became a recognized trade, employing many people. Filing broken shells and painting their surfaces often caused confusion and brought protests from bonafide naturalists.

The next phase began with the three expeditions by Captain James Cook from 1768-79. The naturalists Joseph Banks and Daniel Solander collected zoological and botanical specimens from all over the Pacific and turned the ships into floating museums. Many new species of molluscs were found and there was a ready market for the shells in Europe.

The French expeditions in the 19th century also provided more new species and information.

The next milestone was the work of the Frenchman Lamarck, who introduced a different scheme of genera, antagonizing the Linnaean purists who though the latter's system was perfect.

At the same time books were published on cleaning shells and the latest equipment. Preservatives improved, replacing the earlier recommended rum and brandy. Collecting became for the sake of science and less for artistic purposes. Also the importance of rare and natural shells was recognized.

The 19th century was the "golden era" for shell collecting and classification. It was considered "gentile" for women to collect and draw specimens. Traders, dealers and collectors were willing to co-operate with naturalists and shell auctions created avid interest. The greatest private collections were formed during this time.

The First World War was to change all this. Very few people had the opportunity, time or money for shells both during the war and for many years afterwards. The shell auctions had almost disappeared by the 1930's, though some collectors and dealers did survive the lean times.

A curious twist in the Second World War came from servicemen stationed on Pacific islands. Many collections were made during this time and some continued into civilian life. Gradually, as the world settled down, shell collecting became popular again. Cars enabled beaches to be visited and improved postal services provided shell dealers with quick trades. Collections are smaller now, but with better material, and wealth and position are no longer necessary.

Unfortunately the current craze for shell jewellery has depleted large areas of seashores, particularly in the Indo-Pacific and the Caribbean. Many regions are now restricted to collectors or totally protected. If the current demand continues, however, some species will not survive and dealers may find their incomes less lucrative.