Fossil record

Paleontology involves studying how prehistoric life evolved on planet Earth. But how has paleontology itself evolved as a philatelic theme?

Report by Michael Kogan

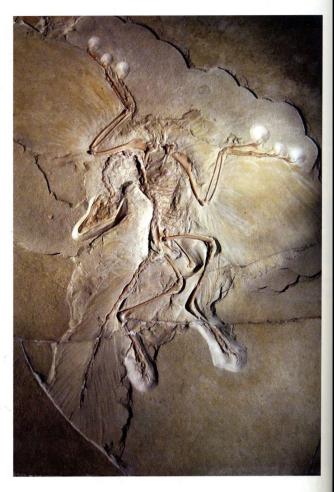
Paleontology (alternatively spelt palaeontology) is the scientific study of prehistoric life through geology and biology.

It is concerned with the analysis of ancient plant and animal fossils preserved in rocks, and the study of their origins, evolution and environment, in the eons before homo sapiens came to dominate the Earth.

It therefore looks back to the very start of life on our planet, somewhere between 3,000 and 4,000 million years ago.

The fossilised remains of prehistoric animals, especially large ones such as dinosaurs, have long stirred the imagination, but vegetable matter and microscopic organisms equally help to tell the story of the evolution of life.

A thematic collection of philatelic material relating to paleontology is therefore wide-ranging and endlessly fascinating. What were the major milestones in 'paleophilately'? RIGHT: One of the greatest treasures of paleontology is the fossil of Archaeopteryx lithographica, the bird-like dinosaur which lived about 150 million years ago, held by the Museum Für Naturkunde in Berlin



INSPIRATIONS

People have been finding fossils since ancient times, but paleontology as a science was not established until the middle of the 19th century, and was reliant on the input of scientists from many other disciplines. Foremost among these were Carl Linnaeus and Charles Darwin.

Linnaeus (1707-78), a Swedish botanist, devised the system of taxonomy, with which all biologists, botanists and paleontologists classify animal and plant species. The first stamps commemorating him were issued by Sweden in 1939.

Darwin (1809-82), a British naturalist, laid the groundwork for paleontology with his theory of evolution, On The Origin of Species by Means of Natural Selection, which was published in 1859. The first of





many stamps honouring him were issued by Ecuador in 1936, to commemorate the 100th anniversary of his famous visit to the Galapagos Islands on HMS *Beagle*.

First postmarks featuring dinosaurs, 1935-39

The first dinosaur-themed postmarks appeared in the USA in the 1930s, thanks to promotional meter frankings used by the Sinclair Oil Company.

The firm had a sauropod dinosaur as part of its logo to symbolise the length of time its petroleum (which originates from fossilised organic material) had been forming in the ground.

In 1935 and 1938, Sinclair also produced collectable stamp-like labels depicting dinosaurs, along with a dedicated album, to attract customers to its filling stations.



First covers featuring dinosaurs, 1946

The first depiction of dinosaurs on pictorial first day covers was in the United States in August 1946.

When a stamp was issued to celebrate the centenary of the Smithsonian Institution in Washington, DC (which includes a large Department of Paleobiology), souvenir covers produced by the Phoenix-Connecticut insurance group illustrated a sauropod, most likely a diplodocus.

For many years the largest dinosaur known, diplodocus lived in North America at the end of the Jurassic period, between about 154 and 152 million years ago.

Covers for the issue also exist showing other dinosaur species, such as a stegosaurus.

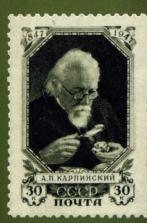


First stamps honouring paleontologists, 1947-52

The first stamps portraying a paleontologist were issued by the USSR in January 1947.

Values of 30k and 50k honoured Alexander Karpinsky (1847-1936), who was best known as a geologist but was also a paleontologist. He made some important paleontological discoveries while working in the Ural Mountains.

The first stamp issued in honour of a dedicated paleontologist was a 40k from the same country in 1952 showing Vladimir Kovalevsky (1842-83), most famous for his thesis on the evolution of the horse.







First stamp showing an academy of paleontology, 1949

The first stamp celebrating and illustrating an academy of paleontology was issued by Monaco in March 1949.

In a set of 12 featuring various areas of interest of Prince Albert I, one stamp showed the Institute for Human Paleontology in Paris, which he founded in 1914 and which was responsible for a number of important archaeological digs.

Other designs in the set illustrate the prehistoric painting of an auroch from the Lascaux caves in France, and the Anthropological Museum in Monaco.

THEMATIC GUIDE: PALEONTOLOGY



First stamp showing prehistoric animals, 1951

Prehistoric animals appeared on stamps for the first time in January 1951, when India marked the centenary of the Indian Geological Survey with a stamp showing *Stegodon ganesa*, an extinct relative of the elephant.

Stegodons are believed to have evolved nearly 15 million years ago and become extinct about 30,000-40,000 years ago. They appear to be a transitional species between true mastodons on the one hand and true elephants on the other.

They were depicted on the stamps because fossil tusks discovered in 1928 contributed to fixing the age of important geological rock formations in the Kashmir Himalayas.

First stamp showing prehistoric bones, 1955

The bones of a prehistoric animal appeared for the first time on a stamp from the USA in January 1955.

Marking the 150th anniversary of the Pennsylvania Academy of Fine Arts, the 3c design has a self-portrait by the artist and a naturalist Charles Peale (1741-1827).



Many of the museum's exhibits were collected by Peale, and his painting includes the bone of a mastodon, an extinct relative of the elephant, alluding to one of his greatest achievements: the rebuilding of a mastodon skeleton.

First stamp of a fossil, 1952

The first stamp showing a fossil was issued by Algeria in August 1952, in a set of two marking the 19th International Geological Congress. The 15f value depicted an ammonite fossil, *Berbericeras sikikensis*.

Ammonites, a group of marine molluscs which became extinct at the same time as the dinosaurs, are excellent 'index fossils', as it is often possible to link the layer of rock in which they are found to specific geological time periods.



First stamp showing a dinosaur, 1958

Dinosaurs were the dominant land animals for 135 million years, and their fossils were first identified as long ago as the early 19th century, yet it was not until 1958 that one was first illustrated on a stamp.

In April 1958, China issued a set of three devoted to Chinese Paleontology, and the image on the 8f value was of *Lufengosaurus huenei*, a herbivorous prosauropod of the early Jurassic period whose remains had been discovered at Lufeng and had become the first complete dinosaur skeleton to be put on display in China.



The other stamps in the set show a trilobite and a giant deer, and the first day cover is very rare, as it was produced in a limited edition of 1,000.

First stamp showing a plant fossil, 1961

From 1958 to 1961, Switzerland's Pro Patria series of semi-postal stamps featured fossils and minerals from museum collections, and the 1961 set was the world's first to show a plant fossil.

The fern illustrated appears to be from the *Asterotheca* genus, dating from 250 million years ago. One of the first plants on Earth, it thrived in humid and swampy regions.

The branch of paleontology dealing with plant remains is paleobotany, crucial in the study of climate.



First dinosaurs pictorial set, 1965

The first pictorial set of stamps devoted to prehistoric animals was issued in March 1965 by Poland, showing 10 dinosaurs including tyrannosaurus, stegosaurus, brontosaurus (now reclassified as apatosaurus), brachiosaurus and styracosaurus.

The designs were based on colourful illustrations by Zdenek Burian (1905-81), the Czech artist who played a central role in the development of palaeontological reconstructions during a remarkable career spanning five decades, and is regarded by many as the most influential paleo-artist of modern times.









First stamp showing a hominid fossil, 1965

The first stamp illustrating the fossil remains of an extinct ancestor of humans came, appropriately, from Tanzania, the 'cradle of mankind', in December 1965.

In a set of 14 definitives showing animals, landscapes and episodes in the development of the country, a 1.30s value showed the skull of zinjanthropus (later renamed paranthropus) and its place of excavation in the Olduvai Gorge.

Paranthropus lived between 2.3 and 1.2 million years ago, and may have been the first hominid to use stone tools.

The skull was discovered in 1959 by the British paleoanthropologist Mary Leakey, one of the world's most famous fossil-hunters, who spent much of her career working at

husband Louis.
She was honoured with a British stamp in 2013.

Olduvai with her



First stamps on human evolution, 1967

The first set of stamps illustrating human evolution were issued by Cuba in March 1967. Seven designs each showed a skull fragment of a major stage in human development, and an artist's impression of the species.

Two stamps featured homo habilis, which lived 2.8 to 1.5 million years ago, and australopithecus, which became extinct about two million years ago, remains of both of which were found in eastern Africa.

Two more depicted pithecanthropus and sinanthropus, both belonging to the Homo erectus group, which lived between 1.9 million and 700,000 million years ago and were unearthed in Java and China respectively.

The fifth stamp showed Neanderthal man, which became extinct as recently as 40,000 years ago, and whose remains have been found in Europe, Asia and North Africa. Neanderthal's DNA differs by just 0.12% from *Homo sapiens*, and it may even have had a larger brain.

Two further stamps illustrated *Homo sapiens* in the shape of Cro-Magnon man, the early modern humans who lived in Europe in the Upper Paleolitic period, from 500,000 to 10,000 years ago.



First stamps showing fossilised footprints, 1970

In January 1970, Lesotho issued a set of five stamps depicting the fossilised footprints of prehistoric animals.

Lesotho has some of the largest concentrations of dinosaur footprints in the world, the earliest finds having been made by 19th-century missionaries. Those illustrated here were found at Moyeni.

There are many things paleontologists can learn from such tracks, including the size of an animal, whether it walked on two or four legs, the speed at which it could move and whether it travelled in herds or alone.



First stamp booklets featuring fossils, 1992

Thailand was the first country to issue paleontology stamps in booklets, in January 1992.

The booklets contained five 2b stamps sharing the same design, showing the excavation of dinosaur fossils and their skeletons, which were part of a set of four marking the centenary of the Department of Mineral Resources.

Eight months later, Sweden issued a booklet of eight stamps in four different designs illustrating prehistoric animals.



First postal stationery featuring fossils, 1970

Fossils appeared for the first time on postal stationery when Poland issued a postal card in June 1970 to mark the 50th anniversary of its Geological Institute.

The imprinted stamp showed the fossil of an extinct ammonite, and the Institute's building was also depicted on the card. A special postmark illustrated a trilobite, a marine arthropod which lived around 450 million years ago.



First miniature sheet of a prehistoric animal, 1971

Along with a set of eight stamps featuring prehistoric animals, mostly dinosaurs, Manama issued the first miniature sheet on the theme in 1971.

The stamp itself depicted a woolly mammoth, Elephas primigenius, a species which lived from 2.5 million years ago to 11,700 years ago, while several dinosaur species



were illustrated by line-drawings in the border.

This issue has only appendix status in Stanley Gibbons catalogues.

FIND OUT MORE

The author, Michael Kogan, has a website which is entirely devoted to the philatelic theme of paleontology. Visit www.paleophilatelie.eu



First self-adhesives showing dinosaurs, 1993

The first self-adhesive stamps illustrating prehistoric animals were issued by Australia in October 1993, in coils and booklets.

They showed the flying reptile ornithocheirus and the small herbivore leaellynasaura, both on 45c values.

These stamps were part of a miniomnibus issue which also included simultaneous issues from Canada and New Zealand.



First 3D stamps showing dinosaurs, 2009

The first stamps with threedimensial images of dinosaurs and fossils came from South Africa in 2009, in an issue comprising miniature sheets of four and six stamps.

Each se-tenant pair depicts the skeleton of a certain species of dinosaur alongside an artist's impression of how the creature may have looked

The three-dimensional effect was created by using anaglyphs: stereo images printed in two colours, which require special viewing glasses.



First lenticular stamp showing a dinosaur, 2012

In June 2012, Turkey's World Environment Day issue included a plastic stamp, available only in a special souvenir booklet but valid for

postage, with a lenticular image of a tyrannosaurus. When you turn the stamp slightly, the animal appears to move.

Tyrannosaurus rex, one of the dinosaur species which has been most represented in philately, was a fearsome carnivore at the top of the food chain at the time of the extinction event around 65 million years ago.



First vending machine labels of dinosaurs, 1998

The first vending machine labels depicting dinosaurs were issued in April 1998, by Singapore. Sheets of 15 self-adhesive labels, in three

different designs, depicted pentaceratops, apatosaurus and albertosaurus. Non-denominated, they were valid only for local letters weighing up to 20g.

They were sold exclusively via the ATM terminals of the Oversea-Chinese Banking Corporation, and were therefore designed with exactly the same dimensions (156mm x 74mm) as a \$50 note.



First luminous stamps of dinosaurs, 2014

Hong Kong issued set of six stamps in February 2014, which were printed with a luminous effect. When you turn the lights off, the dinosaurs glow in the dark!





STATE MAGAZINE



Sudan's sultry 1931 airmail set

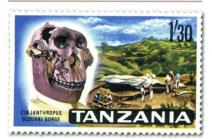


NEW SERIES: Recurring themes on British stamps



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Digging deep

How philately has treated paleontology



Magic Dutch

Why the Netherlands' first issue of 1852 was just perfect



WELCOME

It was with dismay that I heard of the death of Stamp Magazine's stalwart contributor Francis Kiddle, shortly after we went to press with the December issue. I knew it was coming (believe me, he would not have given up his Cinderella Corner column lightly), but still it was a shock.

I'm sad for his family and his friends, and sad for the magazine, because it was a coup to have such an eminent collector penning a regular piece, and a boon to have someone on hand who could write and advise about such a diverse range of subjects.

But most of all I'm sad for the philatelic world, because someone with his enthusiasm, energy and knowledge is irreplaceable.

You could not find anyone more deeply entrenched in philately than Francis. He played leading roles in local societies, specialist societies, regional federations, national societies and international organisations. He was an exhibitor, an expertiser, a commissioner, a trustee, an administrator, a judge, a researcher, an author and a journalist.

Most impressively of all, he was always willing to share his expertise, with the tone of an enthusiast rather than a know-it-all. I could ask him anything, and he would either know the answer immediately or head off to find someone who did, among his vast network of worldwide contacts.

And that sums up the hobby's loss. Francis relayed a great deal of his wisdom over the years, both on paper and to willing listeners like me, but there is so much more knowledge that is now lost forever.

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