



INTRODUCTION

FLIES IN AMBER

Pretty in Amber to observe the forms
Of hairs and straw and dirt and grubs and worms.
The things, we know, are neither rich nor rare,
But wonder how the devil they got there!

Alexander Pope, 'Epistle to Dr Arbuthnot'

I am standing in the Ashmolean Museum in Oxford. In a glass case in front of me are some small, irregular beads of dark, honey-coloured amber. Discovered in a Mycenaean tomb in Crete by Sir Arthur Evans, they date from between 1700 and 1300 BC, the dawn of classical civilisation. At around the same time, in north Wales, hundreds of amber beads were placed in a stone-lined tomb along with a body wrapped in the spectacular gold shoulder ornament known as the Mold Cape, now in the British Museum. Amber has been found in the tomb of Tutankhamun and in the ruins of Troy. The Etruscans imported large amounts of it, which they used to adorn jewellery, as did the Romans after them.

My fascination with the substance began as a child. My father had a small piece of opaque, tawny amber, about an inch long, crescent-shaped and holed in the middle like a bead. I have it on the desk in front of me as I write. It was a relic of his days as an apprentice telephone engineer in pre-war Germany, and he would use it to demonstrate its electrostatic

properties. After suspending the amber from a length of thread, he would rub it on his sleeve and hold it over an ashtray, so that flakes of ash would fly up and adhere to the resin, like iron filings to a magnet. It was the Greek philosopher Thales of Miletus, around 600 BC, who first discovered amber's ability to attract seeds, dust and fibres after being rubbed on wool. The ancient Greek name for amber, *elektron*, is the root of the word electricity.

The amber came from the southern and eastern shores of the Baltic, where it was washed up by storms and gathered by local people. It began its existence as resin oozing from the trunks of conifers in the prehistoric forests of northern Scandinavia between 40 and 50 million years ago. Carried downstream by rivers, the resin settled in a layer under what later became the southern Baltic some 10,000 years ago as the glaciers of the last Ice Age receded. In the course of time, it was transformed into amber by the processes of polymerisation and oxidation. Some even made its way into the North Sea to wash up on the shore of Suffolk. Amber is also found in Siberia, the Far East, Mexico and the Dominican Republic. It was Dominican amber that inspired Michael Crichton's 1990 novel *Jurassic Park*, and the Steven Spielberg film that followed. The premise, that a mosquito trapped in amber could contain a sample of dinosaur DNA, appeared far-fetched at the time, but since the discovery in 2015 of the feathered tail of a small dinosaur in a piece of Burmese amber, it seems slightly less improbable.

It is the Baltic deposits, however, that are the most plentiful, producing around 90 per cent of all the world's supply, their chemical composition making them easily distinguishable from amber originating elsewhere. For the ancient Greeks and Romans, these golden nuggets had mysterious properties: cool in summer, warm in winter, they often contained glimmering fragments of plants, insects and even small vertebrates, frozen in the moment they were caught in the trickling honeytrap.

Amber was attributed with healing powers, and gave rise to myth and legend. In his *Historia naturalis*, the Roman writer Pliny the Elder dismissed the old tales in favour of a brisk scientific explanation: ‘Amber is formed by the pith which flows from trees of the pine species, as a gum flows from cherry trees and resin from pines.’ A remarkable understanding that was to be lost for more than 1,500 years.