TREBUCHET 500 BCE

While humans had been killing each other for millennia prior to its invention, it was arguably only in the first millennium BCE that they started to bring serious engineering into the equation. Emerging out of China, the earliest traction trebuchets evolved from the ancient sling and, unlike the later and more famous counterweight trebuchets, were small and built so that only a few people were needed to operate them.

This type of primitive trebuchet worked by attaching a large sling to a long, wooden throwing arm, which itself was drawn back by humans pulling on long ropes and then actuated by lever mechanism. The resultant sling action could propel weights of over 100 kilograms (220 pounds) up to an impressive 60 metres (200 feet) and were useful as anti-infantry machines, crushing man and beast alike.

Despite the proliferation of the traction trebuchet, which spread throughout the East and then into the West in the late centuries BCE, it was not until the 11th century that the more advanced counterweight trebuchet was introduced. Unlike their forebears, these trebuchets were far larger, needed huge teams of men to operate and were capable of throwing massive weights incredible distances. This was due to their novel counterweight-propulsion mechanism, which utilised gravity to rotate the throwing arm.

The consequence of the larger scale and more refined throwing mechanism meant that missiles weighing over 300 kilograms (660 pounds) could be propelled up to 300 metres (1,000 feet). Now it wasn't just men and animals that needed to fear the wrath of the trebuchet, but the inhabitants of castles and forts too, with their supposedly impregnable walls giving little protection from the rain of rocks, flaming pyres and diseased animal carcasses hurtling towards them.