



### **Strokkur, Iceland's active geyser**

Iceland provided the name for all the world's geothermal waterspouts. A water spout, or gusher, is known as a geysir, and the real Geysir lives on in southeastern Iceland, though the geological term has evolved to geyser. Geysir is in the Haukadalur valley, 75 km east of Reykjavik, and lies at the heart of a hugely popular tourist site, though it is now almost totally inactive. Fortunately for the tourist industry, the adjacent geyser of Strokkur erupts in grand style about every five to ten minutes, so every visitor can manage to see plenty of eruptions. Strokkur has been recorded since before 1800, but through the early 1900s it ceased to erupt after its conduit was blocked during an earthquake. However, in 1963 the conduit's blockage in the floor of its pool was cleared out, and since then it has been reliably regular, with eruption fountains reaching heights typically around 15 metres. Every geyser erupts when its boiling water flashes to steam due to a reduction in hydrostatic pressure caused by the initial steam expansion pushing water out of the top of the conduit. Overflow from the geyser pool signals an impending eruption, which then typically starts with small fountains that grow progressively taller. But Strokkur is different. Instead of its steam rising and increasing bit by bit, a unique characteristic of its conduit morphology causes the steam to rise and emerge as a single mass. This causes the geyser pool to rise into a spectacular turquoise-coloured dome with the bubble of steam visible through its clear water. The dome of water can reach to a metre high, but it is only an instantaneous feature, before it ruptures with the steam escaping to drive the fountain high into the air. Strokkur is like no other geyser, and is totally mesmerising with its crowds of visitors waiting for an instant's glimpse of its exploding bubble. Geology in action, and less than ten minutes before it happens again for those who blinked at the wrong moment. © *Photographs and text by Tony Waltham Geophotos*

