

Kircher's brief book on *The Wonders of the Cross* addresses itself to the more folkloric aspects of geology.

Kircher, Athanasius. *Diatribē de prodigiosis crucibus*. Romae: Sumptibus Blasij Deuersin, M.DC.LXI. [1661]. 6 ¾ inches (170 mm), [8], 103, [1] pp., 2 folded leaves of plates.

Historia Eustachio-Mariana (1665) revealed the German Jesuit polymath Athanasius Kircher (1602–80) holding geography and religion in the balance. His *Diatribē de Prodigiosis Crucibus*, here reproduced, reveals him poised between volcanology and devotion. Yet another treatise, *Mundus Subterraneus* (1665), is a geological work with inevitable mythological overtones, recording Kircher's observation of an eruption of Mount Etna and his descent into Vesuvius, as well as documenting his acceptance of numerous wonders not personally verified: rivers of fire, underground lakes, and strange subterranean forms of life. His conclusions about volcanos, at least, were not unorthodox. For Kircher, the earth's core was a molten mass, for which volcanos acted as safety-valves, assuaging an excruciating chthonic heartburn.

This brief book on *The Wonders of the Cross* addressed itself to the more folkloric aspects of geology. The conjunction of a notable volcano and a notably credulous populace had already given birth to an extensive repertoire of local legend and superstition. The liquefaction of the blood of St. Januarius, and the apotropaic effect of holy relics upon the lava flow made Naples one of the most picturesque locations in Christendom. His own experience convinced Kircher that prophetic visions were true, but as a scientist he was skeptical about miracles. Nature, he felt, was capable of more than man was able to conceive. Portents are, he explained, “like hieroglyphic symbols swathed in enigmatic and allegorical meanings, which the Divine Wisdom records in Heaven, Earth and the elements as if in a book and sets it before mortals to read”—see **Spread 53, left**.

De Prodigiosis Crucis offers an explanation of why, when Vesuvius erupted in 1661, small crosses began to appear on the clothing of the panic-stricken citizens of Naples. The folding plate at **Spread 8** (duplicated at **30**) illustrates several specimens.

Kircher suggested that the stains, emerging crosslike along the warp and woof of woven linen could readily be explained as the result of minute particles of airborne volcanic ash that had happened to land and spread. The crosses, produced by a mixture of minerals and vapors, reacting to sunlight to form a deposit on certain fabrics, were therefore no miracle, he insisted, but the ordinary action of Mother Nature. They were too imperfect to be the handiwork of angels, or some other divine emissary. God, of course, was Nature's great architect, which reduced the debate between science and religion to the question of whether God, at any given moment, was acting in ordinary or extraordinary mode. Apparent miracles, according to Kircher, could always be explained rationally—see *De Prodigijs in genere eorumque significatione* on **Spreads 51–56**. But, as always, he was reluctant to abandon the theological dimension. The crosses, however rational their origin, were nonetheless a portent from God advising repentance; to paraphrase Art Kleps, they were a Mechanical Warning of a Spiritual Problem—see *De Significatione Istiusmodi Crucem* on **Spreads 56–60**.