

Kircher's guide to early baroque compositional technique and musical theory is the first great encyclopedia of music, both theoretical and practical.

Kircher, Athanasius. *Musurgia vniuersalis, siue, Ars magna consoni et dissoni*. Romae: Ex typographia haeredum Francisci Corbelletti, anno iubilaei, 1650; Vol. 2: Romae: Typis Ludouici Grignani, anno iubilaei, 1650. 13 3/8 inches (340 mm), 2 vols.: [20], 690 [i.e. 692] p., X, [1] leaves of plates; [2], 462, [38] pp., XI & XII–XXIII leaves of plates (2 folded): ill., music, port.

“The last man who knew everything” is an encomium that tells us as much about contemporary aspirations as individual achievement. It is hard not to be impressed by Athanasius Kircher's range (if not grasp) of learning. He wrote about everything from Noah's Ark and hieroglyphs to the Tower of Babel and his own invention, the magic lantern. No category or subject seemed to exclude another, inducing at times in the reader a mind-numbing or intoxicating sense of scholarly synaesthesia. Kircher's thirty books are often beautifully produced, usually in quarto format, and abound in illustration. Something of the sense of interconnectedness and overlapping spheres of thought comes from the fact that he had on hand drawings or engraved plates or blocks for so many illustrations that he was able to indulge in frequent creative recycling from one publication to the next.

Kircher (1602–80) was a German Jesuit who served as professor of mathematics at the Collegio Romano. The centrality of Rome was ideal for the encyclopedist with an entire stable of hobby-horses. The many churches and rich musical life made it almost inevitable that a scholar of Kircher's temperament would produce something like *Musurgia Universalis* (or *Universal Music-making*). As a guide to early baroque compositional technique and musical theory this first great encyclopedia of music, both theoretical and practical, retains its value to the musicologist even today.

Just as many Greek and Roman texts have been preserved (albeit often in fragments) only through casual allusive quotation by Aulus Gellius or Athenaeus in their long discursive entertainments, so many 17th-century musical pieces, otherwise unpublished, owe their survival to having been reproduced in the pages of *Musurgia*

Universalis. Kircher includes compositions by Frescobaldi, Froberger, Gesualdo, Carissimi, and many others. No less valuable to the musicologist is his richly illustrated Book Six (**Spreads 226–89**) on musical instruments, each with an appropriate score. It is characteristic of Kircher that he does not neglect the humble origins or natural sources, with plates of animal sounds—in man, the honeybee, the cicada, and the frog at **Spread 27**, and in parrots and poultry at **32**. Charmingly, at **30**, he prints a wood engraving of a New World Sloth, with the music for its echoing cry of “Ha ha ha ha ha ...”

As a professor of mathematics, Kircher could not but be interested in ancient theories of the mathematics of harmony—in music as a symbol of the deity expressed numerically. At **Spread 567**, for instance, is an elaborate full-page engraving of *Harmonia Nascentis Mundi* (The Harmony of the Birth of the World), represented by a cosmic organ with six registers, each corresponding to a day of the Old Testament creation. Other impressive pictorial examples of this theoretical approach to music, mankind, and the heavenly spheres appear at **Spreads 588, 590 and 614**. The Table of Contents (**Spreads 619–25**) is an essential guide to the riches of this extraordinary encyclopedia, which ends with an account of echoes, speaking trumpets, acoustics, musical codes, and fantastic instruments.

The rhetorical aspects of theology, instilled by intensive training in every Jesuit, are given full play in *Musurgia Universalis*, with much space devoted to poetry and metre, including some unique material not seen before or since. Greek music, for example, is a subject about which little is (or can be) known with any certainty. Kircher nonetheless prints the original musical setting for a poem by Pindar, the Greek poet of the fifth century B.C. (**Spreads 295–96**). Although he vouches for its authenticity, the mysterious manuscript that contained the music has now disappeared from the monastery library in Sicily where it was supposedly found just as completely as the disturbing “Secret Gospel of Mark” discovered by Morton Smith at Mar Saba in 1958.