

THE "INHARMONIOUS BLACKSMITH": SPENSER
AND THE PYTHAGORAS LEGEND

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THE "SIXE strong groomes" whose hammers disturb Scudamour's rest in the House of Care have long been a stumbling block for interpreters of Spenser's allegory. Lemmi's suggestion that they represent the six children of Acheron¹ hardly explains satisfactorily their relation to the theme of jealousy or to the forge-symbol, the primary figure in this episode. An alternative possibility—that the poet is evoking the image of Tubalcain's smithy and the generations of the "sons of Cain"—is consistent with allegorical interpretations of the Biblical blacksmith, but yields only a tenuous basis for the poem's numerical symbolism.² A more satisfactory explanation is that Spenser is following a late variation on the tradition of Pythagoras' musical experiments. The salient details of this scene—the six blacksmiths standing about the anvil, the graduated scale of their hammers, and the comparison with bells of varying "greatnesse"—all have close parallels in Franchino Gafuri's *Theorica Musicae*.

The legend that Pythagoras first discovered the principles of harmony by investigations at a blacksmith's forge and subsequent experiments with bells, strings, pipes, and other media was widely circulated during the late classical period through such writers as Nicomachus, Iamblichus, Gaudentius, Macrobius, Boethius, and Martianus Capella and echoed in countless mediaeval and Renaissance accounts of the origin of music.³ Hammers, anvils, and bells became closely associated with the iconography of "Musica," and Pythagoras' experiments at the forge and with *Glockenspiel* recur frequently in representations of the liberal arts.⁴ When Spenser stresses the "degrees" of his smiths and compares the graduated order of their hammers to that of a series of bells (iv.v.36), he is drawing on an analogy long traditional in musical theory and iconography.

The six smiths, however, were emphatically *not* conventional in the Pythagoras legend. Some theorists, like Macrobius, had remained silent as to their number. Some had suggested four, while others agreed with Boethius in specifying five (one of whom was subsequently discarded). The first allusion to precisely six blacksmiths occurs, apparently, in Gafuri's *Theoricum opus musicae discipline*, published at Naples in 1480 and republished as *Theorica Musicae* in 1492 at Milan. Up to a certain point Gafuri follows Boethius' account of how Pythagoras overheard five smiths at their labors, noticed the musical tones they produced, weighed their hammers, and rejected the fifth hammer as dissonant.⁵

While Pythagoras was pondering the great variation in musical tones, he chanced to pass by a smithy and overheard the noise of hammers [beating on the anvil]. . . . Upon ordering the men to exchange hammers, he learned that the quality of the sound depended not on the strength of the

men but on the relative weight of the hammers themselves. After weighing the five hammers, he rejected the fifth as discordant. Of the four remaining, the heaviest was exactly twice the weight of the lightest, and together they produced the octave. . . . Then he redispersed the hammers in the following order, according to weight: 6 pounds, 8 pounds, 9 pounds, and 12 pounds.

Thus far, Gafuri's version differs little from those of his predecessors, but at this point he introduces a significant innovation. In order to include *all* the tones of the octave, he suggests that Pythagoras must have added two additional hammers, to make a total of six.

During this daily investigation of the secrets of harmony, Pythagoras also explored (I am persuaded) not only the combinations of these four tones, but also the other chords by which the art of music is perfected and nurtured. Primarily there are six combinations of tones. . . . Hence we believe that Pythagoras exchanged the fifth, inharmonious hammer for another, and then added a sixth. . . . Now the order of the six hammers according to weight would have been as follows—4, 6, 8, 9, 12, 16.

Both editions contain woodcuts illustrating the musical smithy. In the 1480 edition a full-page illustration depicts the six blacksmiths standing about an anvil and wielding hammers numbered *iiij*, *vi*, *viiij*, *xij*, and *xvj* respectively.⁶ In the 1492 edition the woodcut includes the Biblical musician Jubal and several Pythagorean experiments with bells, glasses, strings, and pipes.⁷ Jubal is shown observing six blacksmiths whose hammers are numbered 4, 6, 8, 9, 12, and 16; and Pythagoras is represented in the act of striking a series of bells bearing the same sequence of numbers.

Here, portrayed graphically, are the significant details which will recur in Spenser's forge—the "sixe

¹ C. W. Lemmi, "The Symbolism of the Classical Episodes in *The Faerie Queene*," *PQ*, viii (1929), 271–272.

² See my article, "Spenser's House of Care: A Reinterpretation," *Studies in the Renaissance*, vii (1960), 207–224.

³ For a detailed survey of this tradition, see Hans Oppermann, "Eine Pythagoraslegende," *Bonner Jahrbücher*, cxxx (Bonn, 1925), 284–301.

⁴ See Raimond van Marle, *Iconographie de l'art profane au moyen-âge et à la renaissance: allégories et symboles* (La Haye, 1932), pp. 216–225, 232, 258.

⁵ *Theorica Musicae Franchini Gafuri Laudensis* (Milan, 1492), fol. 16b–17b. For a comparison of the two editions, see Gaetano Cesari's preface in the facsimile reproduction of the 1492 edition (Rome, 1934), 36–91.

⁶ Cf. the reproduction in Cesari, p. 50.

⁷ *Theorica Musicae*, fol. 18a. For reproductions see Oppermann, 299; *Catalogue of Manuscripts and Early Printed Books . . . of the Library of J. Pierpont Morgan: Early Printed Books*, II (London, 1907), 116; Nan Cooke Carpenter, *Music in the Medieval and Renaissance Universities* (Norman, Okla., 1958), 179.

strong groomes" whose hammers "Like belles in greatnesse orderly succeed." Though the poet could have encountered the analogy between the graduated "degrees" of the hammers and the "orderly" succession of bells in virtually any extended version of the Pythagoras legend—from Boethius on down to the Renaissance—the addition of the sixth blacksmith was Gafuri's own innovation, and Spenser must have derived it, either directly or indirectly, from this source.

At a relatively early date, Pythagoras' experiments with hammers had been transferred to Jubal, the "father of all such as handle the harp and organ." Regarding the Pythagoras legend as a fabulous corruption of Scriptural truth, Christian historians not only credited Jubal with the discovery of harmony but also identified the musical smithy as that of his half-brother Tubalcain, "an instructor of every artificer in brass and iron." Mediaeval and Renaissance accounts of the origin of music frequently cited this tradition as an alternative to the Pythagoras story,⁸ and, like the Greek philosopher, Tubalcain and his forge became standard figures in graphic representations of the musical art.

Tubalcain's special importance for Spenser's poem, however, lay in his relation to the theme of jealousy. According to Robertus Stephanus, his very name denoted *aemulatio*,⁹ and the fact that he was often identified with Vulcan made him an even more appropriate prototype of "jealous dread." In George Sandys' opinion,¹⁰ "Vulcan was truly that Tuball-Caine recorded by Moses." Vulcan himself, moreover, had long been a stock example of jealousy. Gower's *Confessio Amantis* had represented his "suspicionem inter [Venerem] et Martem" as an "exemplum contra istos maritos quos Jalousia maculavit."¹¹ The classical and Biblical blacksmiths thus embodied the same moral concept as Spenser's Care. In the language of Renaissance mythography and etymology, Vulcan=Tubalcain=*aemulatio*=*cura*. Like Tubalcain's smithy, Care's forge is literally a forge of Jealousy.

But for Spenser the tradition of the musical smithy serves a dual purpose. Besides evoking the image of Tubalcain's forge—the forge of *aemulatio*—it also reinforces the principal moral antithesis of Book iv, the contrast between Concord and Discord. In this context the Pythagoras legend suffers a sea change. Though the hammers succeed in "orderly" progression, the poet places his primary emphasis not on their order or harmony, but on the exact opposite: "For by degrees they all were disagreed." Instead of music, they produce noise. Whereas Pythagoras and Jubal had been delighted by harmony, Scudamour is tormented by a discordant din:

And evermore, when he to sleepe did thinke,
The hammers sound his senses did molest;
And evermore, when he began to winke,
The bellows noyse disturb'd his quiet rest,
Ne suffred sleepe to settle in his brest (iv.v.41)

In this way an image traditionally associated with concord becomes an *exemplum* of discord.

Care's smithy is, in fact, a compound image. Behind it lie two distinct traditions and two antithetical conceptions of the forge—as a symbol of jealousy (*zelotypia* or *martello*) and as a figure of harmony. In the context of Spenser's allegory of "Friendship" it is precisely this tension of contraries which gives the symbol its force and point. The potentiality for harmony also contains the seeds of dissonance. Just as the same musical instrument can produce either concord or discord, *amicitia* can become *inimicitia*. The "matter" of friendship and jealous hostility, like that of harmony and dissonance, is one and the same.

Like the structure of Book iv,¹² the imagery of the smithy episode centers upon the antithesis between concord and discord. As music had long been a conventional symbol for the larger significance of harmony¹³—friendship, internal peace, and political order—Spenser could effectively exploit this symbolism both for his image of *amicitia* in Canto ii (iv.ii.1-2) and for his emblem of jealousy in the House of Care. Transformed into a figure of discord, the Pythagorean forge becomes an image of Scudamour's alienation from Amoret and Britomart through Ate's slanders. It is a broken harmony, the emblem of a broken friendship.¹⁴

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⁸ One of the most detailed accounts of Jubal's discovery occurs in Pedro Cerone's *El Melopeo* (Naples, 1613), pp. 228-229. Though this work was published too late to influence Spenser, it provides a valuable example of how completely the Pythagoras legend could be retailored to fit Jubal and his blacksmith brother. It exemplifies, in a more extreme degree, the same type of development we have encountered in Spenser and Gafuri. "The manner in which Jubal discovered the proportions [of musical harmony]," Cerone maintains, "was as follows. One day, upon entering the forge of his brother Tubalcain, the inventor of the blacksmith's art, Jubal heard the hammers produce a [harmonious] concord, because one was heavy, another light, and [the others] of medium weight. Being naturally inclined to music and delighting in the sound of the hammers, which gave such sonorous strokes, Jubal discarded the fifth hammer and weighed the four remaining, in order to learn what proportions produced this concord," etc.

⁹ *Interpretatio Nomin. Hebr. Chald. Graec. & Lat.* (Paris, 1532), fol. 36.

¹⁰ Ovid's *Metamorphosis*. Englished, *Mythologis'd and Represented in Figures* (Oxford, 1632), 157.

¹¹ G. C. Macaulay (ed.), *The Complete Works of John Gower. The English Works*, II (Oxford, 1901), 419-422.

¹² See Calvin Huckaby, "The Structure of Book iv of the *Faerie Queene*," *Studia Neophilologica*, xxvii (1955), 53-64.

¹³ Cf. John Hollander, *The Untuning of the Sky* (Princeton, 1961), passim.

¹⁴ Spenser's poetic exploitation of the Pythagoras legend should not obscure the probability that, like most of his contemporaries, he accepted it as fact rather than fiction. The tradition of the musical smithy went virtually unchallenged until Dr. Charles Burney delivered the deathblow in 1789. See Charles Burney, *A General History of Music*, ed. Frank Mercer, I (London, 1935), 342-347.

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