Abstract for Italian Academy, Gundula Kreuzer:

"Wagner's Gong and 19th-Century Science"

"Music should be forceful," Richard Wagner explained in 1869; "but the tam-tam is barbarous, [... it] robs music of all ideality." Indeed, the tam-tam—or what was then synonymously called gong (a large, flat metal disk with an unusually resonant non-pitched sound)—carried multiple unsavory associations for Wagner and many of his European contemporaries: it simultaneously evoked the alleged excesses of French opera, the sounds of seemingly primitive cultures, and the acoustical foundations of Western music. Nonetheless, Wagner used the tam-tam not only in his early operas but also in his mature *Ring* cycle (premiered in 1876). Based on research from my forthcoming book, *Curtain*, *Gong*, *Steam: Wagnerian Technologies in 19th-Century Opera*, my presentation investigates this apparent contradiction in Wagner's attitude from three different perspectives: contemporary uses of, and observations on, gongs in nineteenth-century Europe; scientific investigations into the instrument; and Wagner's compositional approach to the tam-tam.

First brought to Europe by late-eighteenth-century explorers and missionaries, gongs initially circulated freely between cabinets of curiosities, physics labs, and orchestras. For natural philosophers and musicians alike, it presented an *objet trouvé* whose possible applications had to be explored from scratch. The employment of the tam-tam in London theaters, French Revolutionary music, and opera since the 1780s thus carried strongly experimental overtones. Evidence suggests, however, that imported instruments were predominantly small; along with documented playing techniques, this contextualizes the frequently prescribed loud dynamics in scores. Moreover, gongs were scarce, expensive, and fragile. To ameliorate this situation, scientists in France, England, and Germany entered a veritable race to ascertain the metal alloy and, subsequently, the perplexingly complex forging procedure: the seemingly "barbaric"

¹ Cosima Wagner, *Die Tagebücher*, vol. 1, ed. Martin Gregor-Dellin and Dietrich Mack (Munich: Piper, 1977), 126-7 (entry of 12 July 1869); translation adapted from *Cosima Wagner's Diaries*, vol. 1, trans. Geoffrey Skelton (New York: Harcourt Brace Jovanovich, 1978), 124.

instrument proved embarrassingly difficult to (re)produce. This only worsened the prejudices of nineteenth-century critics against the loud and archaic-looking colonial object.

Furthermore, the tam-tam's non-pitched sound defied then-common distinctions between noise and music. Given Wagner's desire to veil the technologies of his *Gesamtkunstwerk*, I argue, this was particularly problematic because the tam-tam's sound unabashedly betrayed its metallic essence and material production, meaning that the latter could not be concealed even by Bayreuth's sunken pit. In his *Ring* cycle, therefore, Wagner (mostly) avoided the application of unfettered tam-tam strikes to prototypical dramatic situations. Instead, his gong tends to enter in lower dynamic registers and in combination with other instruments that mask its attack. Yet Wagner would not dispense with it: according to *Oper und Drama*, a rich and flexible timbre was paramount for preventing the orchestra from merely "sounding along" the drama and, thus, drawing attention to itself (which is to say, revealing itself as yet another technology). Both gong and traditional instruments thus functioned as veiling mechanisms vis-à-vis each other: once musically tamed, Wagner's gong helped overcome the threat of the mechanical. It was, then, both instrumental medium and mediating technology; both vital timbre and sonic supplement.