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The first derivation of 12-tone equal temperament was achieved in 1584 by Zhu Zaiyu(1536-1611), a prolific scholar associated with the Ming court. A little more than twenty years later, in his 1606 manuscript titled "On the theory of the art of singing", the Dutch mathematician Simon Stevin (1548-1620), performed a similar derivation. In this paper, we discuss their creative processes, which reveal close links between arithmetic, geometry, and the theory of musical temperament in both cultures during the period. We conclude by considering the possibility of transmission from China to Europe.