## The Printing Revolution and Europe's Rebirth

After centuries of devotion to a more divine power, or more specifically, God(s), a period of rebirth was brought forth in the 15th century by a shift of focus and general increase in wealth across Europe. As political discourse and a lack of trust befell upon the Roman Catholic Church in light of the Protestant Reformation, a more affluent class of merchants, like the Medici family in Florence, began to provide increased interest and support towards sprouting artists. Because of this independent support, the themes behind works of art began to expand beyond holy motives, instead beginning to recognize human accomplishments and echo philosophical ventures through art and science. Free of the grasp of the power-obsessed Roman Catholic Church, this ideology evolved into a widely recognized cultural movement known as humanism. Along with enhanced communication methods throughout Europe, these enlightened ideas began to spread more quickly.<sup>[1]</sup> Such a fine combination of events resulted in the establishment of the Renaissance movement.

The Renaissance is known by many as an era enriched with innovation and creativity, inspired by free thinking and a focus on enhancing humanity through such ventures. For instance, the famous polymath Leonardo da Vinci proposed a multitude of ideas towards both technology and art, such as the parachute and the infamous Mona Lisa painting. While these were indeed significant contributions, they tend to eclipse other relevant novelties entirely due to da Vinci's notoriety. Among these other novelties is the movable-type printing press developed by Johannes Gutenberg. The impact of this instrument is often overlooked, perhaps because it is not as complex of a concept as other revelations like the liquid Mercury thermometer created by Gabriel Fahrenheit around the same time, yet it had arguably the greatest impact on the Renaissance movement. The printing press not only quickened the spread of knowledge, discoveries, and literacy in Renaissance Europe, but it also contributed mightily to the Protestant Reformation that split apart the Catholic Church.

In the centuries that preceded the Renaissance, most people lived in small, isolated villages, and written documents were rarely seen. Instead, information was exchanged in an almost exclusively vocal manner. In fact, most commoners could not read the language they spoke. [2] Any written information that was exchanged was hand-written, and typically expensive to effectively replicate this material due to the amount of human labor such a process depended on. The most essential knowledge was exchanged orally in conjunction with oaths taken in the name of God to tell the truth. Then, in the mid 1400's, the printing press changed this all. It worked by first formatting upraised letters or other figures on small blocks called types. A printer then arranged the types within a frame on a press to form words and printed a page of writing using applied ink and mechanical compression. Beginning with religious works and textbooks, soon the printing press was churning a wide range of documents, from Reformation pamphlets to romantic novels. The number of books greatly increased, their cost diminished and so more people read than ever before. Ideas were transmitted across Europe as scholars published their own works, commentaries on ancient texts, and criticism of each other. Authorities like the Catholic Church took exception to some books and censored or even burned them, but the public's attitude to books and reading was by then already changed forever.<sup>[3]</sup>

Gutenberg's movable-type printing press was revolutionary without a doubt, and greatly transformed music in Europe. One composer, Josquin de Prez, took full advantage of this newly introduced technology, allowing his music to be easily replicated and distributed across Europe. However, the printing of his work was not what earned him notoriety, but rather, it amplified his unique compositional techniques. Before Josquin, most composers wrote for three vocalists; however, Josquin de Prez began to standardize incorporating four voices into his works, as well as applying stratification to many of these pieces. In addition to this, de Prez also developed the concept of syncopation, which entails playing rhythms that accent or emphasize offbeats. It shifts or displaces a

standard rhythm by stressing beats generally not stressed.<sup>[4]</sup> These innovative styles can be observed in one of his most famous compositions, *Guarde Virgo*, *Mater Christi*, featuring four voices at different octaves, and emphasizing the use of syncopation throughout the motet that allows for melodic variation that breaks expected patterns, which both adds emotion to the song and keeps the listener more engaged as the sudden shift in rhythm catches their attention. In this particular piece, the perceived mood is quite uplifting as a result of the sudden shifts in rhythm that have a tendency of jumping slightly higher in conjunction with the changes in pattern to provide a feeling of excitement.

As we have just seen, besides just altering ideologies, the effects of the Renaissance permanently changed how society functioned. While works like the Mona Lisa and The Last Supper are often immediately emphasized with the Renaissance period, the true superstar of this time period was the movable-type printing press. Not only did it provide the ability to replicate literature at a high volume and low cost, but it meant that writers and musicians could focus more time on their creations with the sanctity of being able to easily broadcast their work, as they no longer were constrained by the limits of exclusively hand-written pieces. As a result of efficiency provided by the printing press, information was communicated across Europe faster than ever before, soon leading to a widely literate populace that in turn brought more attention to the extensive amounts of music and literature that were being developed in this new age. One composer in particular, Josquin de Prez, took full advantage of this technology, and soon became one of the most famous composers in Europe thanks to his unique writing style accompanied by the ability to relay his concepts far and wide. Unfortunately, printing is often taken for granted in our modern age, as it has become a modern convenience that we have grown accustomed to. Indeed, our efficient lifestyles would not have been possible were it not for the revolutionary developments of the Renaissance, and thus we must not fail to take full advantage of the opportunities we have been given as a result.

## References

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<sup>&</sup>quot;I pledge my honor I have abided by the Stevens Honor System" -Alex Gaskins