



Music Printing

Letter Press Technology

DONALD BURROWS:

From the middle of the 15th century onwards, the intellectual and cultural life of the West was revolutionised by the development of systems for printing multiple copies of word-text. This revolution was made possible by adapting existing technologies and technological innovations...not only the printing press, but also the production of suitable paper and inks. Success with printing words and images was quickly followed by attempts to adapt the process for printing music. This is a page from the earliest known book of printed musical pieces dating from the 1470s.

With music, as with words, the task for the printer was to reproduce notational conventions that had been developed in handwritten forms. The problem was that in music the notational forms were much more complex than for simple word texts. In this sequence, we're going to look at some of the technological problems and solutions that were specific to the printing of music. Not surprisingly, early printed music related to the most valued repertory of previously written music – the liturgical music of the church. In the beginning it had been reproduced by monks copying by hand, and music manuscripts were often the opportunity for elaborate decorative artwork. But some of the most striking features of the originals, such as the use of two or more colours and prominent capital letters, also served a practical function for the performance of the music. Early music printing attempted to reproduce these features. There were elaborate woodcuts for the capital letters and double impression printing was used, in which the lines were printed first in one colour or shade, and then the notes and words were added in another. Sometimes the notes even ended up on the right lines. There was a natural pressure to simplify this process and once multiple colours were abandoned, the obvious thing to do was to give every musical note a separate piece of type, just as every alphabetical letter had a piece. But while letters are strung out in a series along one line, music has to accommodate notes located on different lines and spaces, to denote the pitches; and notes of different shapes, to denote the durations. There are also subtleties of spacing to consider, to avoid the notes becoming crowded; and when you had to fit words or syllables under the notes as well, the situation got more complicated still.

DONALD BURROWS (P to C):

Here at the Plantin Moretus Museum in Antwerp we have some preserved examples of 16th century music type and we can see how the printed music was literally, put together. For each note you would need a separate piece of type. Here's one with the note head on the middle line of the staff. If you wanted to build an ascending scale you would go from there to one with a piece of type on the next space and then on the next line up and the next space and on the top line. You could save the number of pieces of type by turning it the other way up...and so now we have the ascending scale of all the notes from the bottom line up to the middle line. You'll notice that in this note the stem goes from the middle of the head. But music written in manuscript usually has the stems going to the sides of the note heads – left or right - whichever the composer or copyist preferred. Music printing eventually followed this convention, but in order to make the note invertible it standardised the pattern, and in fact it then gradually changed the way people wrote manuscript music so that the down stem went to the left hand side of the head and the up stem to the right hand side. As well as a piece of type for each note you needed a piece of type for each musical symbol and for bar lines and for pieces of empty staff. It becomes more complicated if you want to put one note above another or if you want to put a rest into one of the spaces between the staff lines. In this case instead of having a single piece of type you have to build it up with a separate piece of type for each of the 5 staff lines.

You need a lot of pieces of type to make up a complete line of music but in this system you can put the notes on every line or space and you can put pieces of stave line in where you need them. The disadvantage is that it shows up little gaps between the various pieces of type and therefore the stave lines are not as solid as they would be if you drew them as a single line.