



## Music Printing

*Sibelius*

### **DONALD BURROWS:**

And then in the 1990s everything changed.

### **BEV WILSON:**

Well in 1994 I was made redundant from Halstans. I still want to stay within music engraving. At this time Sibelius had recently launched their first programme for the old Acorn computers.

### **JONATHAN FINN:**

We first thought of doing Sibelius in the mid-nineteen eighties when we'd left school. We, we both started composing at school so we were well used to copying out large amounts of music, which is extremely time consuming, and having seen word processors on computers and studied programming as well we thought we should apply the same technology to music and we'd cast around looking at what printing technology we could use and we'd seen pen plotters and so on. But suddenly one day one of us saw an Apple Mac, one of the first desk top publishing systems with the laser printer and we suddenly realised this was the way to go.

### **BEV:**

I bought a second hand computer, bought the programme and a little printer and I remember coming down then next morning after I bought it not even knowing how to switch the computer on, I couldn't find the button. It was all totally alien to me, I had never ever worked with computers in my life, the nearest I'd ever got to a computer was a pocket calculator.

### **BEN FINN:**

The best analogy for how a music programme works is that it's really like a word processor for music. But the complication with music is that it has many more different symbols, many more complex rules about how the music is written down on the paper than there are for text and so what it was possible to do with a computer programme was to automate all of this process so that the person using the programme really just had to input the notes and think about what the notes would be and the computer would take care of all the complex processes of where they're positioned on the page and could also do more subtle like for example play the music back so you could hear how it would sound.

Before computerisation if someone wanted to print a piece of music they would basically write it out by hand on a piece of paper and then they would pass it either to a professional engraver, who would then produce a neat copy of the score, engraving the notes directly onto printing plates or drawing it out extremely neatly using rulers and ink pens and so on, so it was a very manually intensive process before computerisation. One of the most revolutionary things it became possible to do with a computer was to play the music directly into the software from a midi-keyboard and then it would be automatically turned into notation on the screen. More recently it has become possible to scan music in on a scanner if you already have a printed version of it.

### **JONATHAN FINN:**

Another major advantage of using a computer is that you can, you can edit the music directly on screen and make quite big changes very rapidly which with something like an engraving processes is very impractical its quite to correct mistakes. I remember an anecdote about Beethoven who, who finished his fifth symphony and sent it off to the engravers and its all being finalised and he suddenly decided to add a bar on one page. And of course this was a nightmare for the publisher they had to scrap several pages and re-lay it all out again at great expense and nowadays that would be a very simple change to make.

**JONATHAN FINN:**

If you think about the lay out of a page of music you might have lots of staves say in an orchestral score and the position of every note on every one of those staves depends on all the other notes because of the vertical alignment of the rhythms and that's quite different from a word processor where the position of the words on each line is more or less independent. And if you go down to the individual details such as slurs. The position of those also has to relate to the position of notes, because the end of slurs has to be close to the notes at either end but not touching. And if for instance you edit a note to move it up or down the slur will have to follow it.

**BEN FINN:**

Lyrics are written underneath the music and each syllable is meant to be aligned with the notes above it. But if you have a very wide word like the for example the word "through" which has got many more letters than other syllables then extra space has to be allowed around the note in order to ensure that the lyrics don't collide with each other. And in fact there are various other more minor factors that may adjust the spacing around notes such as for example /if the note has an accidental just before it, the computer may need to allow a further extra bit of space. So all of these different factors have to be taken into account by the software and its much easier if its done automatically than if the user has to go and adjust it by hand by moving the notes around with the mouse.

**JONATHAN FINN:**

Anybody can use the programme you don't have to be an expert engraver all of layout is done automatically for you, you can edit a score directly on the screen and make big corrections and when you have a score finished you can of course play it back and using a standard computer sound card or a separate synthesiser you can get fairly realistic results. Another major advantage of using a computer is that you can automate certain tasks such as extracting parts for an orchestra. Basically the programme can just copy out the music on one staff and produce a completely separate score for that one instrument this is a massive labour saving device it used to double the amount of time it took to produce a score when you had to do the parts separately.

**BEN FINN:**

But there are some disadvantages I think of computerisation. One of them is that although computers are extremely flexible there's nothing quite as flexible as using an ink pen on a sheet of paper. So if you come across some piece of music notation which is very non-standard, for example a score which uses plainsong or neumes or some bit of avant-guard notation which hasn't been used before and which the computer software hasn't been designed to produce you may have to go back to doing it in the old way.

Another possible disadvantage is that because anyone can buy a computer now and can buy a piece of software to write music this means that everyone thinks their an expert in doing this. Previously in order to engrave music you had to go through an apprenticeship lasting many years and learn many different skills about how music should look and about the graphic arts of music layout on the page. Nowadays people assume that the computer will do absolutely all of this for them but in fact you do still do need a bit of an eye for detail and an eye for how things ought to look.

**BEV WILSON:**

I was told many years ago by the people that trained me that no two pieces of music are the same and every one is like a picture. Not being a musician that's the way that I view a page of music, for layout and design. You try to make it look as clear as you possibly can, to any singer, pianist or whatever the instrument may be.