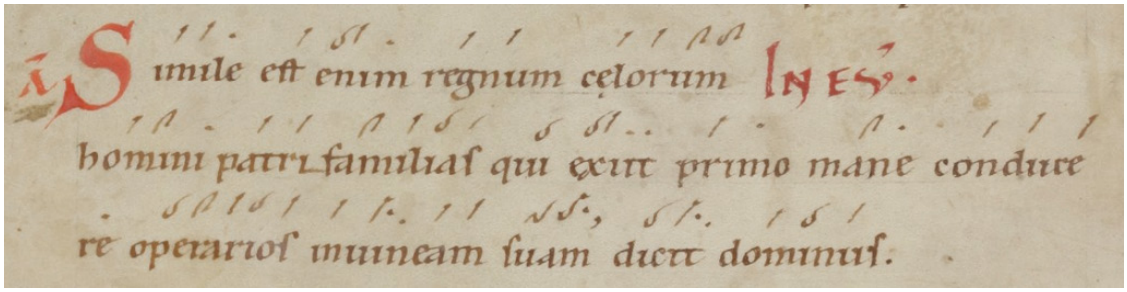
Music notation - a short history

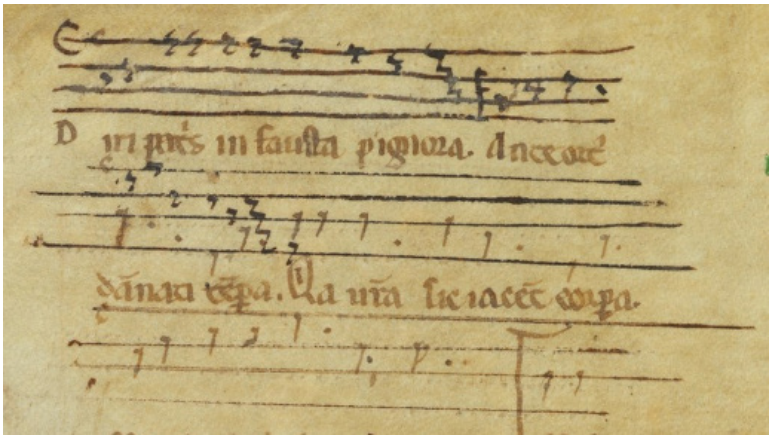
The way Western music is written today began as a shorthand. It was a way to remind singers of the shape of a melody they had learned by ear - it wasn't possible to read it at sight.

Musicians wrote symbols (known as 'neumes') above the words in books of church services, showing where the pitch rose and fell. Here is an example[1] from the 12th century:



You can see how it works, but also how it wouldn't be possible to know the exact pitch or length of any note. You also get no idea of how the music was performed - there are descriptions of music from this time which make it clear that extra parts were improvised alongside the melody, and these weren't written down.

It wasn't long before someone came up with the idea of putting the symbols on lines. This is usually said to have been invented by Guido of Arrezzo (in Italy) who in a letter written in around 1028 suggested this. The actual number of lines varied - to start with, perhaps only two, one for F and one for C - but soon it became common to use four, and to write a letter at the start of each line of music to show which line was C or F (or sometimes B flat)[2]:
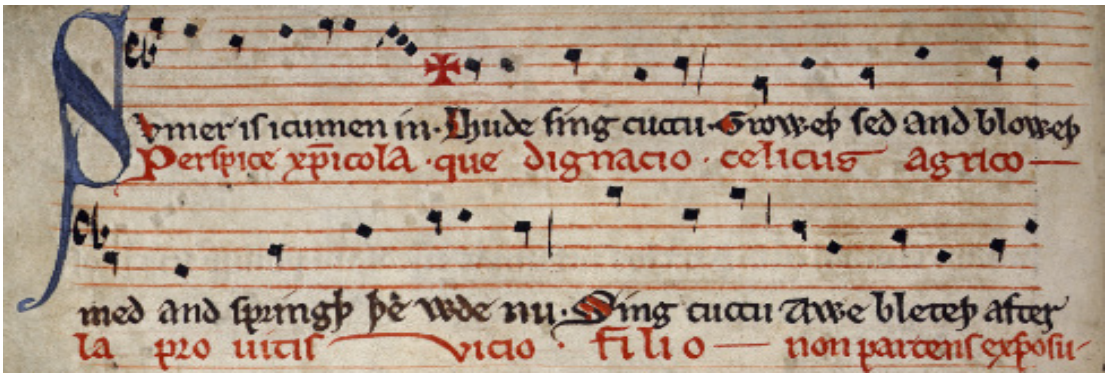


You can see that there are no accidentals. In fact, musicians didn't recognise the existence of any notes other than G, A, B, C, D, E F, and B flat. We know they sang other notes - in particular we know they raised the leading note at cadences - but they referred to this as 'musica ficta' ('false music') and it wasn't until much later that they started to use sharp and flat signs to show where these should go.

1. Stiftsbibliothek, St Gall, Switzerland, Cod. Sang. 388 – see https://www.e-codices.unifr.ch/en/list/one/csg/0388.
2. Stiftsbibliothek, St Gall, Switzerland, Cod. Sang. 865 – see https://www.e-codices.unifr.ch/en/list/one/csg/0865.

What about rhythm?

A system for writing this down was invented around the same time (called mensural notation), but to a modern musician it seems very complex and confusing. There were long and short notes, of course, but the long notes could be divided into either two or three short notes depending on the context and, usually, on some symbols and numbers written at the start of the piece. These included a circle for triple time (or 'perfect' time, since three is the sacred number of the Holy Trinity), and a broken circle for duple time (or 'imperfect') - the ancestor of today's C (it is not true that this stands for Common Time, though it is a useful way to remember it).
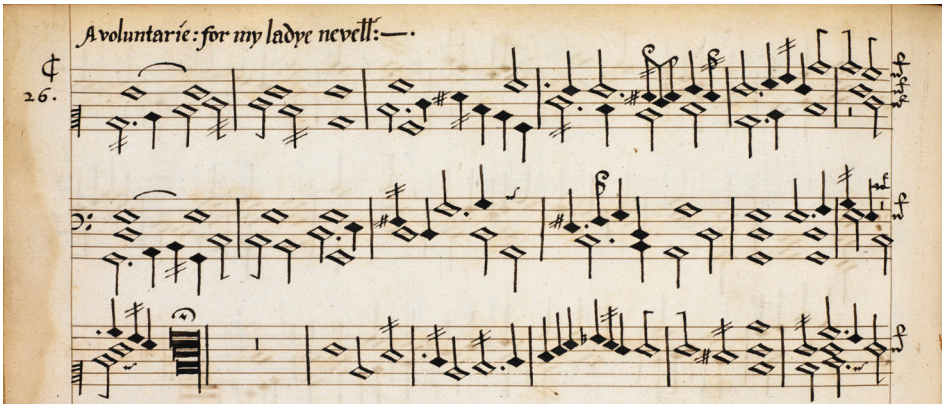
You may know the next example[3] - it's often sung today. You can see long notes (with a tail) and short ones (without) – but some of the long notes need to be three beats ('Sing cuccu' in the second line) and some two ('Sumer is icumen in' at the start). The singers would have needed to work this out by listening to the way the other parts fitted together:



We still use some of those note values today - the long (with tail) has mostly dropped out of use, but the others remain, and the names in British English remain basically the same. The square note is a breve. The next shorter note was written as a diamond and is a semibreve (whole note); next came a diamond note with a tail called a minim (because it was the 'minimum' note value) (half note). A shorter note still could be made by adding a hook, or 'croche' in French - this note was therefore called a crotchet (quarter note). Notes could be hollow or filled in - that wasn't important - but red ink was used to indicate triplets or what we now write as dotted notes.

By the 16th century, written music was starting to look pretty close to how it looks today. One major change was that longer notes were now written as hollow, and shorter ones filled in, so that the crotchet (quarter note) didn't need a hook and looks like our modern crotchet at last. Quavers (eighths) were now being joined together, too.

The number of lines on a stave did vary: four for Gregorian chant, five for choral music, sometimes as many as six for keyboard music. Once you are used to reading from six lines, you will probably find it pretty easy to make sense of this example by William Byrd from My Ladye Nevells Booke, written in 1591[4]:
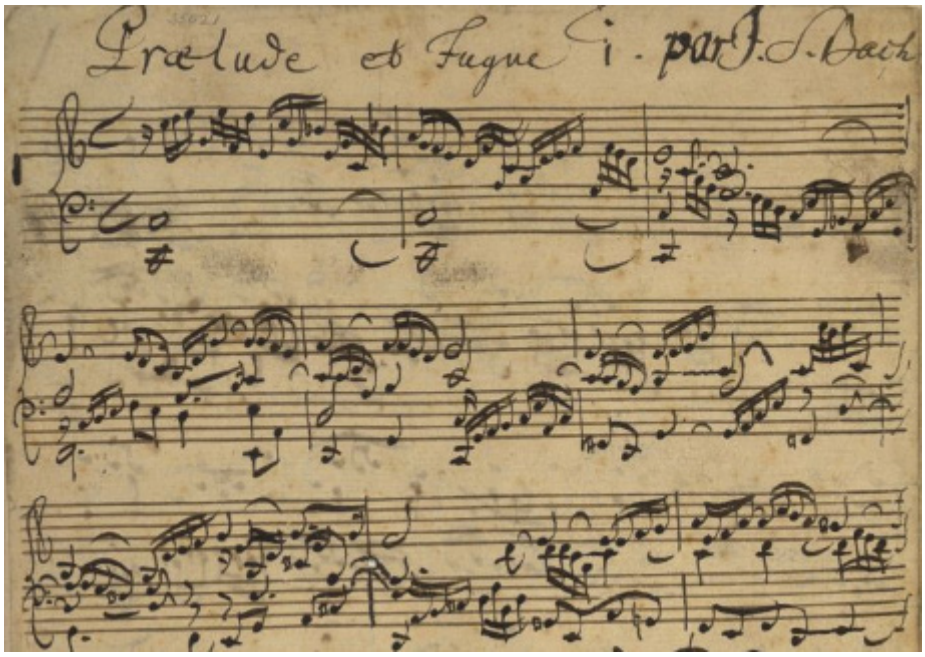


3. British Library, MS Harley 978: see https://en.wikipedia.org/wiki/Sumer_Is_Icumen_In; you can listen to it at https://www.youtube.com/watch?v=sMCA9nYnLWo.
4. British Library, MS Mus 1591 http://www.bl.uk/manuscripts/Viewer.aspx?ref=ms_mus._1591_fs001r; you can listen to this and the following movements at https://www.youtube.com/watch?v=jomZcpqkfUI.

This is also when music started to be mass-produced by printing. As it was expensive to print in colour (the paper had to be printed twice, and lined up very accurately), dots and triplet signs replaced the use of red ink around this time. Printed square and diamond-shaped note heads were replaced by round ones during the 17th century.

If you have performed much music from the 16th century, you may have discovered it tends to be written in long note values – the main beat is usually in minims (half notes) – and many modern editions halve the note values to make it easier to read. In fact, over the history of music notation up to the end of the 19th Century, composers seem to use shorter and shorter note values – and make up for it with slower tempos. It isn't obvious why they did this, but it is very easy to see. As a result, shorter note values were needed – first the quaver (eighth) (so short it sounds like 'quavering'); then the semiquaver (sixteenth), and so on.
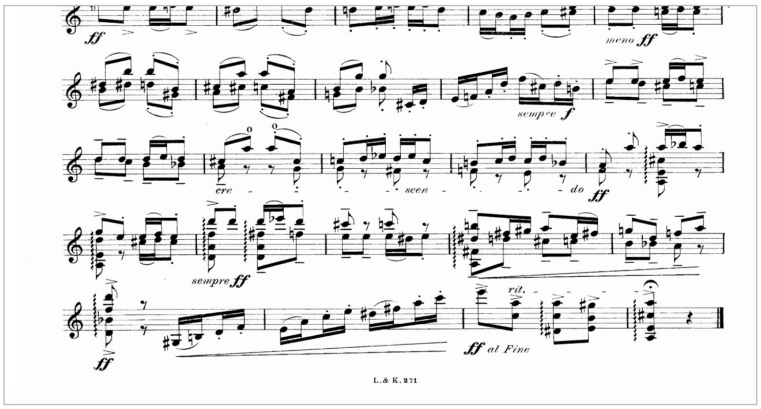
By the 18th century written music looked much the same as now. This example is from Bach's Preludes and Fugues printed between 1739 - 1742[5]:



From this time until the 20th century, written music didn't change much. The main difference is in how much information composers added about performance. You will remember that in the first example I gave, there was still a lot of room for interpretation - written music is only a 'musical road map' and a lot is left for the performer to add. However, composers started to offer more precise instructions. In the example by Byrd, there is no indication of tempo (although the title 'The Marche before the battell' provides a clue), but Bach has added Italian words to describe the tempo ('Grave adagio' and 'andante'), and this is also the period when dynamics, articulation, ornaments and even fingering and bowing marks begin to appear.

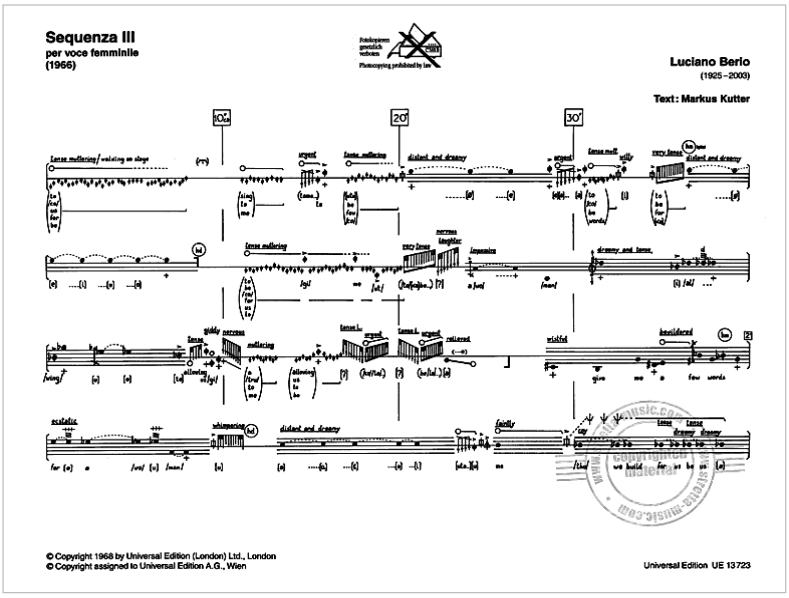
By the end of the 19th century, composers were writing in a huge amount of detail. If anything, performers weren't allowed to make enough decisions themselves. This example from Max Reger's sonata Op. 91 no. 1 for solo violin is typical[6]:

5. British Library, MS Mus http://www.bl.uk/manuscripts/Viewer.aspx?ref=add_ms_35021_f001r You can listen to this at https://www.youtube.com/watch?v=fw3A4RSryXk.
6. Leipzig: Lauterbach & Kuhn, 1906. Plate L. & K. 271. You can listen to this sonata at: https://www.youtube.com/watch?v=wUds7O8L_9I - this extract starts at 14:17.



Every note has some kind of mark, whether an accent, or an articulation sign, and the dynamics are written in great detail.

You will not be surprised, then, to find that in the 20th century, some composers rejected this and started to give some control back to the performer. Some began to use graphic scores, which show more of an impression of what the performer should play instead of saying which exact notes. This is the beginning of Sequenza III by Luciano Berio[7]:



Different performers interpret this quite differently - a few examples can be found on YouTube, and comparing these will help you understand how the notation works, and also how much freedom it gives the performer.

Music notation is important - before the invention of sound recording, it was the only way for a composer to pass his ideas on to a new generation. It is, though, at best the beginning, not the end, of a performance; the performer needs to use it to guide them, always remembering what is not shown on the page.

7. http://arteyanalisis.com.ar/secuenza-iii-luciano-berio/. There are many ways to interpret this notation, so it is worth listening to a few different versions: try https://www.youtube.com/watch?v=E0TTd2roL6s, https://www.youtube.com/watch?v=aFb0Nz8cVq4, and https://www.youtube.com/watch?v=DGovCafPQAE&t=2s - this last one has the notation on screen.