

Student Assignment C: Instruments, technology and timbre

Almost every instrument has evolved in some respect as a result of technological innovation. Some instruments have been dramatically altered, leading to a change in the way they are used by composers and arrangers.

1. Using Sibelius Instruments, identify and describe cases in which technological advances have played a role in:
 - Making an existing instrument easier to play,
 - Extending an instrument's range of pitch, dynamics or timbres,
 - Making an existing instrument more durable, and
 - Developing new instruments.
2. From Sibelius Instruments, research any three of the following. Describe in a paragraph what development(s), if any, of a technological nature may have influenced the history of this instrument. (Note: the development(s) may have been in connection with another instrument.)
 - The horn
 - The oboe
 - The harpsichord
 - The bugle
 - The piano
3. Discuss in two paragraphs (using examples from Sibelius Instruments) how the shape and mechanism of an instrument might influence:
 - The sound (volume, pitch range and tone) it produces, and
 - How easy or hard it might be to play certain pitches, sequences of notes, or dynamics.
4. What, in your opinion, is the most important technological development of an instrument since the Early Classical period? Give reasons why you think this is so.
5. a. In terms of tone, does one stringed instrument (e.g. a violin) sound more or less like other strings than one woodwind (e.g. a flute) sounds like other woodwinds? Rank the four sections (strings, woodwind, brass and percussion) in order of increasing unity of sound amongst the section members.
b. What factors do you think might account for the unity of sound within some sections compared to others?