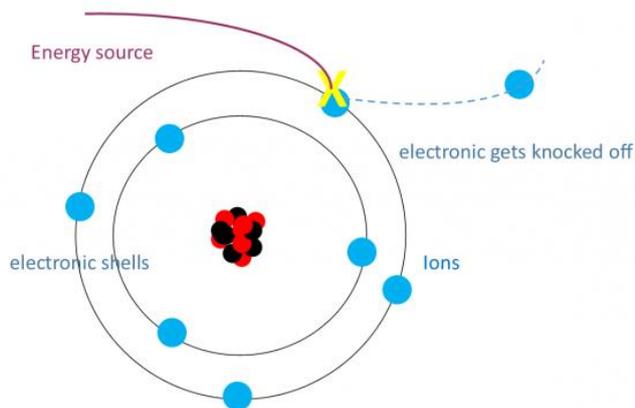


Ionisation

Edgard Varèse composed *Ionisation* for **13 percussionists** between 1929 and 1931. It is the **first piece of classical music** composed **only** for **percussion** instruments. Listen to it here performed by Ensemble Intercontemporain conducted by Susanna Mälkki: <https://www.youtube.com/watch?v=wClwaBuFOJA>



Ionisation is a **scientific term** which describes when an **electron breaks away** or is knocked off an atom when it is battered by another particle or high energy. Varèse studied science and mathematics when he was younger, and his dad was an engineer. He often said that he was more **influenced by science** than by other composers and their music. His musical works often have scientific sounding names like *Hyperprism*, *Octandre* and *Intégrales*.

In *Ionisation*, the 13 percussionists play **40 different instruments**.

Below are all the instruments used in the piece. How many of them do you **recognise**?



3 bass drums (medium, large, very large), 2 tenor drums, 2 snare drums, tarole (a kind of piccolo snare drum), 2 bongos, tambourine, field drum, crash cymbal, suspended cymbals, 3 tam-tams, gong, 2 anvils, 2 triangles, sleigh bells, cowbell, chimes, glockenspiel, piano, 3 temple blocks, claves, maracas, castanets, whip, güiro, high and low sirens and a lion's roar!!

Here are some useful websites to help you **identify** the different instruments and learn what they sound like: <https://www.mrqsmusic.com/percussion-family.html> and <https://www.mydso.com/dso-kids/learn-and-listen/instruments>

Varese revolutionised the way **percussion instruments** were used in Classical music. Up until this point, percussion instruments and rhythm were less important than melody and, the instruments that could play a melody. Varese made **timbre** (the quality of the sound an instrument makes) and **rhythm** an important part of how he thought about and constructed his music.

Your Turn!

Varèse was **fascinated** by the different **qualities** of sounds - their **timbre**. He was impatient for **new instruments** to be **invented** that would enable him to compose the music he imagined in his head. He tried, often without success, to work with electricians, scientists and engineers to create new ones.

Go around your house and discover interesting and fascinating new sounds:

1. Really listen to the qualities of the sounds you find and make
2. Tap, shake, stroke, rattle, roll, bounce, rub, blow the objects that you find
3. Use different beaters
4. Can you invent an instrument from what you find? What is it called?
5. Think of as many words as possible to describe the sounds you find
6. Categorise the sounds you find and make - by what they are made from, whether they are long or short, loud or quiet, rattly or solid...etc.
7. Organise the sounds you make from low to high, long to short, soft to spiky, loud to quiet.....

Below are the new percussion instruments I **found** in **my house** which I've tried to try to **match** with the instruments Varèse uses in *Ionisation*. Here are my drums, gongs, cymbals and glockenspiel and in photo 2 my claves/woodblocks/temple blocks, guiro, maraca and castanets:



Now that you have **collected** your sounds and **experimented** with them, it is time to create a piece of music which uses them all. Think about Ionisation and what it means scientifically - what musical and sound ideas does this **conjure up** in your **imagination**?

*Ionisation describes when an **electron breaks away** or is **knocked** of an atom when it is **battered** by another **particle or high energy**.*

Or maybe there is a **different scientific phenomenon** that you might like to describe instead? **Experiment** with different ideas and try to **record** your favourite. As you perform, **really listen** to sounds and shapes that you are creating.

Please send any music you create to learning@bcmg.org.uk