

More about Pipe Organs (and the People who play them) – Part 1

by Susanne Reul-Zastre

Pipe organs have been around since the Greeks invented the first water-powered or hydraulic organ (yes – just google it!). But what makes the organ truly unique, is its need for a steady air supply from an outside power source to have each individual pipe speak. When J.S. Bach was alive, it was the altar boys' job to go up to the organ loft and pump the bellows by hand to provide a steady airstream. The louder the organist wanted the organ to sound, the harder the boys had to pump! Thankfully with the advent of electricity, the organ now has an ON button that will take care of getting the air flowing and the altar boys are off the hook!

Now some more organ building trivia: for a pipe to sound, the organist has to first pull out or push down a wooden or plastic knob or tab, to make the bottom of each pipe line up with a set of sliders. Those sliders have holes drilled that exactly match the opening at the bottom part of the pipe for the air to flow through the hole into the pipe to make it sound. Once the sliders are in position, the pipe is on “stand-by”, and will sound only when the organist plays the respective key to activate the airflow. If the holes are not exactly positioned below each pipe, and the calibration is off by a millimeter or two, the pipe's general tuning will deteriorate first, and later the pipe might stop speaking altogether or sound continuously (cipher).

You might already know that the person who plays the organ is called the organist: he/she is the principal conductor who chooses various orchestral colours to create certain moods (quiet, loud, sad, happy, etc.) because different occasions require different styles of music. It therefore makes sense that organ pipes come in various shapes, sizes and material: they are either made of metal alloys or wood, can be tiny and delicate, or an unbelievable 32 feet long! Simple physics tells us, “The longer the pipe, the lower its sound” – but why does a 32-foot long pipe sometimes sound more like a vacuum cleaner? Because the human ear is able to pick up sounds more easily, if another pitch exactly 8 notes (octave) higher is played along at the same time. We make use of that tuning principal in all registers to allow the higher of the two notes to be amplified even more and thus add greatly to the very unique orchestral colour palette of the organ.

Were you also aware that organists read 3 systems of music simultaneously? One is for the notes in the right hand, the other for the left hand, and the third one just for the feet. Though knowing how to play the piano is a great pre-requisite when a student starts organ lessons, how one presses down on a key and lifts up the finger properly to release the key cleanly (this is called touch or articulation) is completely different on an organ than on a piano. In order to play hymns successfully, beginner organists must first master the art of moving their fingers in a super “legato” articulation, where there is a seamlessly inaudible transition from one key to the next. The next lesson then consists of learning how to silently change fingers while pressing down a key. After that, other articulations (slightly detached, deliberately separated etc.) are introduced, all of which are useful for playing hymns and organ repertoire from various centuries.

After the legato touch has been properly established on the manuals, it's time for the feet to get involved. Supple ankles are required to have either the toes or heels play the foot pedals. Left hand and pedal exercises seem to be especially challenging for right-handed players who find out in a hurry that an immense amount of hand-eye-and-foot coordination is necessary to conquer this task! Add to the mix the right hand on a separate manual, and you've got a “trio style” of playing. That's one of the bread and butter hymn-accompaniment styles you might hear your local organist use every Sunday ... Stay tuned for Part 2 for more trivia!