

## The Scientist and the Artist

Did you ever imagine that there was a time before the “scientist” was invented? You are probably thinking, “No, she has this all wrong! Scientists ARE the inventors, not the invent-ees!” Both, in fact, are true. The term “scientist” has an interesting little story of invention born from art....

There once existed a society called The British Association for the Advancement of Science. Despite their prominent place in the scientific society and descriptive name, their members were known as “natural philosophers” or “metaphysicians”. In 1833, the Association held its third meeting at Cambridge University. <sup>[1]</sup> Over 850 men attended from the United Kingdom, mainland Europe (‘the Continent’) and America. One can imagine the excitement and energy that must have been bursting from the room, having so many individuals from the global scientific community together for one common cause...

Let’s back up a little bit. In the early 19<sup>th</sup> century, any person (man, to be specific, because women were not permitted to participate) who was interested in the sciences was called a “natural philosopher” or “metaphysician”. This term was supposed to describe both a man who was a ‘true’ philosopher who never left his arm chair, to the man who as digging in the dirt discovering new fossils or working in laboratories discovering the properties of magnetism. Often, these natural philosophers were not just interested in one subject, but *many* subjects ranging from the arts, languages, mathematics, politics or sciences.

At this particular reunion of the members of the British Association, there were both “arm chair” and “hands – on” natural philosophers present. Those whose work involved travel, getting their hands dirty, and even facing danger as new discoveries in fields like electricity and chemistry were made had enough of their work being classified as purely *philosophical*. You might be able to understand their frustration at being compared to those who were only interested in *learning* about scientific discoveries, not actively working on those discoveries, when they had probably gone through great pains to achieve their scientific successes. These “hands-on” natural philosophers desperately wanted to find a better way to differentiate themselves from their more classical natural philosopher colleagues. Passionate discussions on this topic ensued at the meeting. Both types of natural philosophers were taking great offense to the opinions of the other. Finally, one of the organizers of the event, Mr. William Werwall, (a retired Professor of Minerology at Cambridge) keenly observed that people who practice Art were called Artists, therefore men who practiced Science might be called ‘Scientists’!

Today, the terms ‘Artist’ and ‘Scientist’ are so common that we would likely chuckle if Mr. Werwall was making the same simple observation to us. It is obvious to us that someone who studies geology is a geologist, and someone who studies biology is called a biologist. It’s safe to say, that we generally associate the “-ist” at the end of a title with the scientific study of that particular thing. Though, we might consider art to be an exception to that assumption. To us it may seem that art and science are *completely* unrelated subjects, equivalent to the opposite magnetic poles of Earth. I think it is safe to assume that the members of the British Association for the Advancement of Science would be astounded by our false perceptions of these two words and subject areas. In reality, science and art are so tightly coupled that I’d venture to say one would be helpless without the other. Without artists, after all, we may not be called scientists today.

<sup>[1]</sup> Snyder, Laura J. *The Philosophical Breakfast Club*, Broadway Books, New York, 2011.