

May 2022



Dear Club Members,

Two hundred and fifteen years ago, Swiss scientist Louis Agassiz was born. In the manner of many scientists of his era he was something of a polymath, his early work mostly focused around what we would now call Zoology and Palaeontology. His initial studies focused on fish, specifically specimens that had been collected in Brazil, but he later moved on to studying fossilised fish (see further reading for a link to the illustrations in his book on this). His wife, Cecile Braun, became one of his key collaborators in his work of this type, she had been trained in scientific drawing by her brothers, but as with many of the silent female partners in scientific study of this era, it's Agassiz that gets the credit for these publications.

Our inspiration for this month's fibre comes from Agassiz's later work. On holiday in 1836 the couple met Jean de Charpentier and Ignaz Venetz. These scientists had recently caused a stir by presenting theories surrounding glaciation. Agassiz was an enthusiastic convert, and took their theory one step further, proposing that the Earth had been subject to a past Ice Age, and that the present glaciers in the Alps had once covered most of modern day Europe. He also suggested that the global temperatures had been so cold that most of the Northern Hemisphere had been under a blanket of ice.

In 1847 he took up a post at the Lawrence Scientific School at Harvard University, he remained in America for the rest of his life, studying the facts of the last ice age on North America. He died in 1873 in Cambridge, Massachusetts.

Despite his extensive research on glaciation and with the fossil record Agassiz was a devout creationist, and from this belief stems one which is much more harmful. He was one of the leading proponents of a theory known as polygenism. This theory states that people of different races are different species, and was used to justify slavery, and racism. His scientific credibility in other fields lent respectability to this theory, and allowed others to use them as rational for racial discrimination. Agassiz himself was undoubtedly a racist, and the toxicity of these beliefs have meant that many of the awards and buildings named after him have now been renamed.

Your fibre this month is inspired by glaciers. These remaining sheets of ice in the high mountains provide scientists with a way to look back in time, and allow us to monitor how quickly we are destroying our planet. Some of the first measurements of Alpine glaciers that we now use to study the effects of climate change were taken by Agassiz. Glacial ice appears blue because of the large ice crystals that are created when snow is compressed under its own weight, forcing out air bubbles. The Oxygen-Hydrogen bond in water absorbs light at the red end of the spectrum, leaving light at the blue end of the spectrum to bounce back in to our eyes.

Happy Spinning

Katie

Fibre Content- In case your parcel is missing the label

37.5% Merino

37.5% Rambouillet

25% Mulberry Silk

Further Reading-

Recherches sur les poissons fossiles-

<https://www.flickr.com/photos/biodivlibrary/albums/72157713424598533>

Louis Agassiz and his theory of polygenism-

<https://www.thecrimson.com/article/2021/3/18/louis-agassiz-scrut/>

<https://www.youtube.com/watch?v=19nOji2m8lk>

<https://publish.illinois.edu/louisagassiz/controversy/>

Louis Agassiz and daguerrotypes of enslaved people-

<https://faculty.risd.edu/bcampbel/brianWallis-blackbodieswhitescience.pdf>

Recreating Agassiz experiment to prove that glaciers moved downhill

<https://www.bbc.co.uk/programmes/p011n6c9>

How do glaciers move-

<https://www.youtube.com/watch?v=ghC-UtOfW4o>