

January-19



Dear Club Members,

We did this theme last year... but I then got enthused, so we're revisiting it again! Space is such a rich vein of inspiration, and with the new year it seemed appropriate to look at our earth from a new perspective.

Last January was the 50th anniversary of the Apollo 5 mission which was the starting point for the moon landings. The Apollo programme wouldn't have been possible without the work of an army of women, we're only just beginning to publicly recognise their brilliance. Over Christmas we watched the 2016 film *Hidden Figures*, a biographical film about the black female mathematicians who were known as computers. My parents are both old enough to remember the space race, and neither had any idea about how the calculations were done to achieve space flight. Women ended up performing these as number crunchers because the men who had the mathematical ability required had ended up going to university and ended up as engineers. Women, particularly black women were not given the same career opportunities. Many ended up working for NASA after first qualifying as teachers. Working as computers involved huge amounts of data calculation, as the first programmable electronic computers were developed many of these women became the first experts in programming these machines. The use of computer as a job title disappeared.

The pioneering work of women with computers is by no means isolated to NASA, 20 years earlier Bletchley Park was a crucial part of Britain's war effort. Over 75% of the people who worked there were women, but we now only tend to recall the male names. It was the women who were responsible for operating the Colossus and Bombe electronic code breaking machines. The secrecy surrounding the work done at Bletchley means that many of these women were never recognised in their own lifetime.

Many of the women who worked on the NASA Apollo missions are now finally getting their work recognised. Probably one of the most famous is Katherine Johnson. Her calculations were critical to ensure the safe return of Alan Shepard, the first American in space. She carried on working at NASA throughout the Apollo missions, and at the start of the Space Shuttle Programme. In 2015 President Obama awarded her the Presidential Medal of Freedom.

Your fibre this month is called the Thin Blue Line, from space the earth's atmosphere is revealed to be a narrow band around our planet. When looking towards the sun it appears to be a narrow band of blue.

Happy Spinning

Katie

Further Reading-

Nasa Image that inspired this fibre- <https://earthobservatory.nasa.gov/images/85855/scandinavia-at-night>

When the Computer wore a skirt- <https://www.nasa.gov/feature/when-the-computer-wore-a-skirt-langley-s-computers-1935-1970>

When Computers were Human- <https://www.newscientist.com/article/2118526-when-computers-were-human-the-black-women-behind-nasas-success/>

How History forgot the black women behind NASA's space race- <https://www.theguardian.com/lifeandstyle/2016/sep/05/forgot-black-women-nasa-female-scientists-hidden-figures#comment-82643354>

The Women of Bletchley Park- [https://en.wikipedia.org/wiki/Women\\_in\\_Bletchley\\_Park](https://en.wikipedia.org/wiki/Women_in_Bletchley_Park)

Katherine Johnson [https://en.wikipedia.org/wiki/Katherine\\_Johnson](https://en.wikipedia.org/wiki/Katherine_Johnson)

The Edge of Space, beautiful documentary made by James May about the Moon Landings <https://www.youtube.com/watch?v=jJJRoj2qWSC>

Fibre Content- In case your parcel is missing the label  
25% Sari Silk, 12.5% Bamboo Rayon, 62.5% Merino