The Pilgrim Rabbit

Around and about St Mary's Church

Keeping you in touch

Summer 2021

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New Findings on the Roof Bosses

For the last year and a half, St Mary's roof bosses have been the centre of the church's National Lottery Heritage Fund project, Curious Carvings: Preserved and Interpreted. In recent months, research conducted as part of the project has uncovered new findings on these fascinating pieces of art.

Before this research, we knew surprisingly little about the roof bosses in St Mary's. The most in-depth study into St Mary's roof bosses was conducted in the 1940s by the art historian C. J. P. Cave. While Cave's research is an invaluable starting point, he provided only a general survey of the bosses in St Mary's, and until recently we have been unsure about what the majority of the carvings show or when they were made. Indeed, we didn't even know how many there were.

Over the last 12 months, research has revealed a string of new findings on the bosses. Many of these discoveries have been underpinned by modern technologies that weren't available to Cave. In summer 2020, all the roof bosses in the church were photographed. These high resolution images allow us to look face to face with objects that are usually up to 10 metres away from us. We can now more easily understand the subjects in the bosses, and can even spot the small decisions made by the carvers working in the church hundreds of years ago.

Dragon depicted in a boss from the Chancel

On a more fundamental level, the act of photographing all the bosses has also told us precisely how many there are in St Mary's. Cave estimated 587, and in the 1970s, W.C.B. Smith suggested around 625. The final count is 689.

These new photos were used in our brochure—Curious Carvings: the roof bosses of St Mary's church, Beverley—which was published in September 2020. And as of March 2021, the photos of all the bosses can now be found in our new Bosses Database, at curiouscarvings.org. Here, every boss in the ceiling has been catalogued and provided with a unique identification number. Over the coming months more and more information will be fed into this database, building an invaluable resource for anyone wanting to learn more about these fascinating carvings.

Home page of the Bosses Database

Scratching beneath the surface

The new photos, and supporting print and digital resources, have allowed us to uncover a great number of secrets about the bosses. But there are some mysteries that require us to dig a bit deeper.

Some of the most enduring questions are about the history of the bosses. Many can be dated approximately from surviving records and known periods of building work at the church. Records can also tell us about the history of the bosses after they were put in the ceiling. Of particular relevance is the various restorations carried out on the roof. In 1861, Mr Cuthbert Brodrick oversaw repairs in the north and south transepts. Later in the 1860s, a Mr Padgett repainted the ceiling in most (if not all) areas of the church. The ceiling in the Chancel was painted again in

the late 1930s - this was when the portrait of King George VI was introduced into the 'Ceiling of Kings'. One could suppose that the bosses in this area of the church were repainted then too.

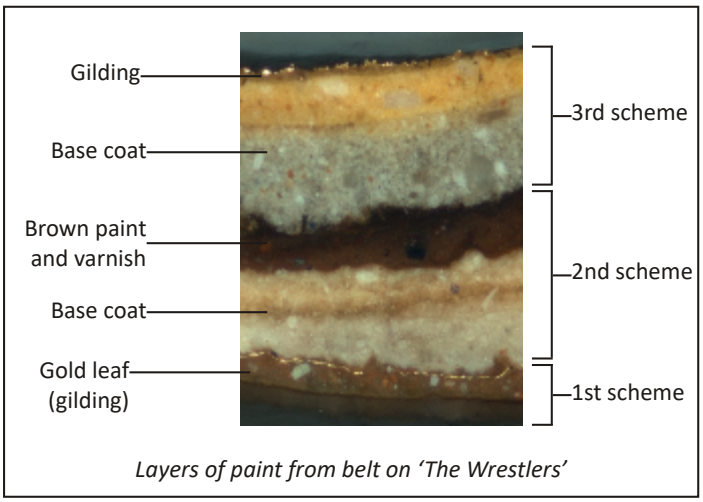
These stages of restoration and repair have left us wondering how far the bosses today actually resemble the way they looked when they were first made. By conducting paint analysis on a selection of roof bosses, we are beginning to answer that question.

Paint analysis is a technique whereby samples are removed from an object (in this case a roof boss), and then examined microscopically to identify the materials used in the decoration. Paint is made by combining natural or artificial pigments with a medium, which allows it to adhere to a surface when it dries. From the 1400s, natural pigments included copper ores and coloured earths, and the medium was usually an oil such as linseed oil. Analysing the combination of pigments and medium can reveal the original decoration, and may suggest the date of the paint. If a sample is taken vertically from the surface down to the support (here, wood), the resulting cross-section of paint layers can reveal later repainting, or changes in the colour or design of the original scheme.

In December 2020, professionals from Crick-Smith Ltd were hired to take a series of paint samples from roof bosses in St Mary's. For these samples, we chose three bosses now in storage in the Priests' Rooms, known as 'I-S', 'Fox and Goose,' and 'The Wrestlers' (so named because the full boss shows two men wrestling). These bosses are severely damaged, and it is likely that they were removed from the ceiling and replaced by replicas in the nineteenth century.

These three broken bosses were selected for the paint analysis for two reasons. Firstly, it is easier to remove samples from bosses no longer in the ceiling. Secondly, they each originally came from different areas of the church: 'I-S' the Vestry, 'Fox & Goose' St Catherine's chapel, and 'The Wrestlers' from the Nave. Although only these bosses are being analysed, it is reasonable to extrapolate their findings onto the discrete areas of the church. So, for example, 'The Wrestlers', can suggest the history of all the bosses in the Nave, and 'I-S' the Vestry. In turn, these insights can indicate whether at points in their history these areas were painted differently from each other.

The paint analysis has yielded a series of fascinating insights. Primarily, it has shown that prior to being removed from the ceiling in the nineteenth century, these bosses were painted and repainted several times. Each of the samples revealed at least two layers of decoration. This can be seen quite clearly in a cross-section taken from the belt on 'The Wrestlers', which has three very visible schemes: a first layer of gold leaf, followed by two stages of redecorating, each consisting of a base coat and then a layer of colour.



Layers of paint from belt on 'The Wrestlers'

Because many of the same natural materials have been used since antiquity, it can be very difficult to date paint accurately. However, indicators such as pigment size and layers of dust or grime can suggest when and for how long a scheme existed. These indicators, combined with historical context, has revealed some previously unknown (and differing) stories within the bosses. These stories are best treated in turn.

'I-S' boss

Let's start with the simplest story, which is found in the 'I-S boss' from the Vestry. When this carving was first put into the ceiling in c.1530, it was highly decorated. The background of the boss was painted in bright red lead paint and the braiding around the outside was green. The letters were covered in a layer of gold leaf, through a process known as gilding.

Over the next two hundred years, several coats of varnish were applied to preserve this original scheme. In the eighteenth century, the boss was fully repainted. The background was renewed in a vivid red paint, gilding was reapplied to the letters and, for the first time, also the braiding around the outside. This final repaint can still be seen in the boss as it looks today.

'Fox and Goose'

The 'Fox and Goose' from St Catherine's chapel tells a different story. Although little of the historic paint can still be seen with the naked eye, paint samples located through digital microscopy reveal that this boss has been painted and repainted several times. However, significantly, there is some evidence to suggest that when this boss was first put into the ceiling (in around the fifteenth century) it was originally unpainted. It was only at some point in the sixteenth or seventeenth century, that the first layers of decoration were applied: the whole boss was painted a gold colour, and the goose in the fox's mouth was covered in gold leaf. Layers of dirt tell us that the boss looked like this for some time.

When it was next painted, the goose was revarnished to preserve the financial investment made with the gold leaf, but the rest of the carving was redecorated in a new scheme: the fox was painted a rich red-brown to resemble the animal's natural coat colour, and the leaves in the background became red.

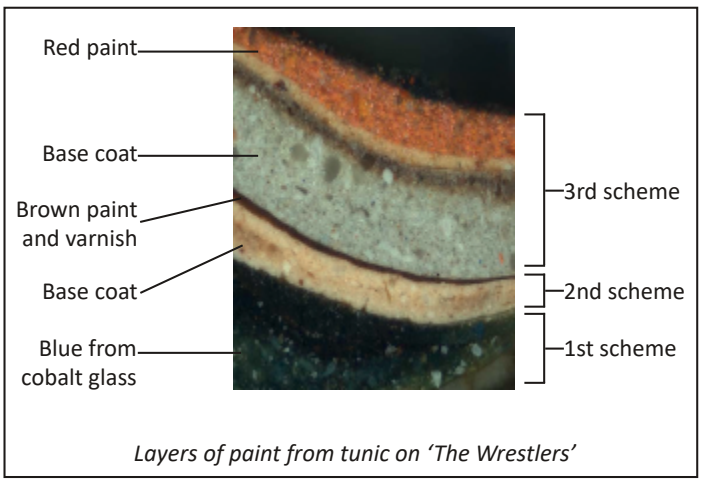
Sometime in the eighteenth century, parts of the boss, including the goose, were retouched in bright reds and ochres. Today, the bosses found in St Catherine's chapel are all a uniform bright gold. The paint analysis of the 'Fox and Goose' tells us that across the centuries, these bosses must have in fact looked very different to how they look now.

'The Wrestlers'

'The Wrestlers' boss from the Nave has perhaps the most complex and intriguing story. Like 'I-S', this boss was put into the ceiling in c.1530, and was likewise originally painted in vivid colours. The background was bright green, and the wrestler's tunic a deep green-blue made from smalt, which is blue cobalt glass ground down into dust. His belt was gilded, and his legs and face painted in fleshy tones.

The second scheme was vastly different. The whole boss appears to have been coated in a layer of brown lead paint and then covered in brown tinted varnish. The finished product may have resembled dark wood.

The third and final scheme, which dates to the late eighteenth-early nineteenth century, seems to be an attempt to return to the bright colours of the original decoration. However, by that time there would have been no way of knowing the precise details of that first design. So, the wrestler's tunic became a vivid red, and the background gained some gilding. While the belt returned to its glistening gold, the wrestler's legs were now clothed in green trousers.



Layers of paint from tunic on 'The Wrestlers'

The different schemes in the 'Wrestlers' throw up some intriguing questions. Why was this boss, and presumably all those in the Nave, painted brown at some point between the sixteenth and late eighteenth century? There were no lights in the ceiling at this time, and the whole timber roof structure around the bosses may have been unpainted natural wood. By painting the bosses brown, they must have become almost invisible from the ground. This redecoration appears to have been designed to actively hide the bosses from view. Why would this have been done?

While the brown paint cannot be precisely dated, an appreciation of historical context can begin to provide an explanation for the drastic redecoration of the bosses in the Nave.

In the first half of the seventeenth century, two successive vicars at St Mary's (William Ellis and Nicholas Osgodby) were well known Puritans. Puritans were Protestants who sought to further distance the English Church from Roman Catholic traditions. This included stripping churches of decoration that was thought to be idolatrous. At St Mary's, we know that Puritan iconoclasm resulted in the pulling up of brasses from tomb coverings, the burning of books related to Catholicism, and smashing stained glass windows that showed pictures of saints. It is likely that this was also when the overtly religious carvings on the sixteenth-century font were chipped away.

I think that it is reasonable to suspect that the brightly coloured bosses in the Nave—with their depictions of saints, sin, and other religious imagery—may also have fallen victim to the Puritans in this period. The bosses couldn't be removed from the ceiling, after all they help to keep the roof up. But if they couldn't be taken down, the next best thing surely would have been to make them invisible. Perhaps 150 years later, fashions and inclinations had shifted, and those governing St Mary's wanted to once again celebrate the bosses in the Nave. Then, 'The Wrestlers', and the bosses around them, were once again painted in bright colours.

Not all the outstanding questions have been addressed. Why do neither of the bosses from St Catherine's Chapel nor the Vestry show evidence of a Puritan cover-up? While we can never be sure of precise motivations, we can guess at some practical considerations. Such a renovation—presumably including the erection of scaffolding in order to paint hundreds of bosses—would have taken a significant amount of time and resources. Given this, it makes sense that the Nave, being the main public area of the church, was prioritised over the other spaces, such as the Vestry and St Catherine's. Perhaps the vicars who followed Ellis and Osgodby were never inclined to finish the repainting job on the rest of the bosses.

By combining details of the paint analysis with other historical evidence, we are beginning to uncover fascinating stories within the bosses. The ceiling in St Mary's has not always looked the way it does now. Some of its bosses may have been originally unpainted, and, for a period, a significant proportion were repainted in such a way to actively hide them from view. In the paint analysis, in a similar way to strata in the earth, we find distinct phases to the bosses' histories. In these phases we find the history of St Mary's and Beverley. Like the generous grants given to support the rebuild after the fall of the tower in 1520, the bright and expensive decoration of the bosses in the sixteenth century points to a town investing deeply in St Mary's. But with the upheaval of religious changes in the following centuries, the personnel and appetites of the town shifted, and then shifted again.

The bosses capture these dramatic changes, and so give us a glimpse back to the lives and priorities of the people who lived in Beverley hundreds of years ago. But more than that, they also tell us that the bosses have always been important to how people thought about St Mary's. Every repaint took time, trouble, and expense. With every shift, the bosses were updated to meet the needs of the present.

Old Carvings, Modern Models

In the act of repainting, at various points in the past different groups of people have made the bosses new for their own time. So far, I have shown how modern technologies have allowed us to understand the history of the bosses more fully. However, modern technologies have also allowed us in our own way to make the bosses new for us; or rather to make new versions of old bosses.

'Reynard the Fox' (left to right): photo of original boss, unpainted 3D model, painted 3D model

In summer 2020, a drone flew up to the roof inside St Mary's and captured 3D imaging of a selection of bosses. From these images, digital 3D models were created. One of these models is of a boss showing Reynard the Fox preaching to a gaggle of geese. The Reynard model was sent to a 3D printer to create a full-size plastic reproduction. The reproduction was then painted to follow the scheme shown in the boss. For the first time in centuries, we can now pick up a roof boss. We can appreciate its size and scale. We can rotate and run our fingers over it.

This model will be one of several printed and painted in 2021. These reproductions will be used in our outreach work with local schools and community groups, and will also be displayed in the church as part of our summer exhibition on the roof bosses.

Over the coming months, we will be sharing more research and resources on the fabulous roof bosses in St Mary's. Be sure to keep checking out the church's website and social media pages for the latest news on the project.

New carvings

This year, as part of the restoration of the South Nave Clerestory, nine new stone carvings are being made for St Mary's to replace carvings which have been eroded away completely. The new carvings will be installed high up on the exterior wall of this elevation of the church. In this article, our vicar Becky, tells us some more about the project, which has already attracted attention in the national media.

The south side of St Mary's is home to St Catherine's Chapel, which features the stained-glass window of St Ethelburga, St Hilda and St Mary. In deciding how to replace the worn-away carvings, then, it felt interesting to draw on this, by adding nine pioneering women to this flank of the church.

The contribution of women to humanity isn't always properly recognised in the telling of history and historically women's voices have often been silenced. We take seriously the Church's role in battling inequality and injustice. So, we hope that this project will help will not only highlight the remarkable achievements of these women but also provide hope and inspiration for future generations.

Public domain

Mary Wollstonecraft (27 April 1759 - 10 Sept 1797) Writer and philosopher, advocate for women's rights, widely regarded as one of the first feminists. Author of 'A Vindication of the Rights of Women'. Lived in Beverley as a child.

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Mary Seacole (23 Nov 1805 - 14 May 1881) Pioneering nurse and heroine of the Crimean War. In her lifetime her reputation rivalled that of Florence Nightingale. In 2004 she was voted 'the greatest black Briton'.

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Ada Lovelace (10 Dec 1815 - 27 Nov 1852) Mathematician and writer, considered the first computer programmer for writing an algorithm for a computing machine in the mid-1800s.

Marie Curie (7 Nov 1867 - 4 July 1934) Physicist and chemist who conducted pioneering research on radioactivity. Discovered radium and polonium, hugely contributing to finding cancer treatments.

Public domain

Fair use

Hilda Lyon (31 May 1896 - 2 Dec 1946) Aeronautical engineer, designed airships. First female recipient of the Royal Aeronautical Society's R38 Memorial Prize. Her work is still used for stability software and submarine design. Attended Beverley High School.

Amy Johnson (1 July 1903 - 5 Jan 1941) Pioneering aviator. The first woman to fly solo from London to Australia. Set many long-distance records during the 1930s. Born in Hull.

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Rosalind Franklin (25 July 1920 - 16 April 1958) Chemist and x-ray crystallographer, crucial contributor to the discovery of the double helix structure of DNA.

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Queen Elizabeth II (b. 21 April 1926) Longest-reigning Monarch in British history.

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Helen Sharman (b. 30 May 1963) Britain's first astronaut, visiting the Soviet modular space station Mir in May 1991.

In the carvings the women are represented in their period clothes which will provide an immediate visual indication of when they lived. But also, their clothing – including their hairstyle – is used to help convey their specific story, their

individual achievements. For instance, Ada Lovelace wears a Victorian headdress which has flowers and lace which abstracts into tables of numbers, not only referencing her name but also suggesting the connection she herself made between lace weaving machines which weave flowers and leaves and the Analytical Engine which "weaves algebraic patterns".

In addition, each woman holds objects which further place them in an historical context and are used to convey their story. Amy Johnson holds a map which charts her flight from the UK to Australia – and this map is folded in a very specific way. Mary Wollstonecraft (150 years earlier) holds a quill above a sheet of paper - the paper scrolling in at the edges.

Within a broader tradition of decorative carving in this context, these are not intended to be naturalistic portrayals of these women – the lace simplifying into a geometric table is an example. Rosalind Franklin, for instance, holds a microscope and is looking outwards whilst the waves of her hair are suggestive of the DNA double helix, which her x-ray diffraction image was integral in discovering.

PCC has thought carefully about the themes of these carvings and has chosen them for their contemporary resonance, missional opportunity and theological connections.

We have chosen these women because of their contribution to science, technology and compassion – for the work they have done which has either inspired or enhanced the lives of others. In so far as each has promoted knowledge and understanding, or justice and mercy, they have contributed to the building of a society where men and women are becoming more equal and more in line with the Christian understanding of the Kingdom of God; "*There is neither Jew nor Gentile, neither slave nor free, nor is there male and female, for you are all one in Christ Jesus*." (Gal 3.28)

Wherever we see the development of human society working to bring about the common good, we want to celebrate it and acknowledge that each person is made in the image of God, with the capacity to do great works which enhance the lives of others. Indeed, when Jesus' disciples encouraged Jesus to stop others doing good because it was not in his name he said, "*Do not stop him, for whoever is not against you is for you.*" (Luke 9.49)

We want these carvings to inspire girls and women, to remind them that even though society and indeed the church may have overlooked the achievements of women, God does not, and we celebrate all that is good.

Spotlight on the three local women

Three of the women to be included in the new carvings have local associations: Mary Wollstonecraft, Hilda Lyon and Amy Johnson.

Mary Wollstonecraft (1759-1979)

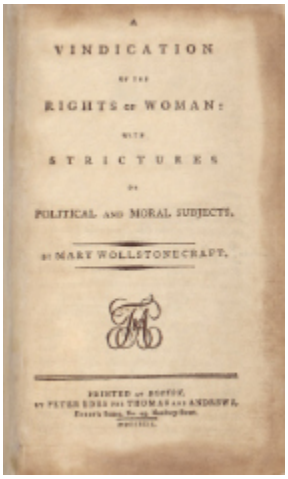
(Information from '*Extraordinary Women*' exhibition at the Beverley Guildhall)

Mary Wollstonecraft (by John Opie, c.1797)

Born in London in 1759 Mary Wollstonecraft's incompetent father forced the family to move house many times. In 1768 he became a tenant farmer at Walkington, and three years later moved to Highgate, Beverley (now known to have been no.2). As a child Mary became friendly with Jane, daughter of Dr John Arden of Beverley, a philosopher and scientist (he made scientific instruments for Burton Constable where they can still be seen). Arden taught and encouraged Mary, recognising her fierce intellect.

Mary lived in Beverley until 1775. She enjoyed her time in the town, quoting a poem in a letter "*It's Beverley Sweet Beverley, in thee I take delight*", and speaks about her "*darling Westwood*".

Acclaimed as a feminist her views and unconventional lifestyle made her unpopular with male authors of the time, but she was instrumental in influencing 19th century educational reforms in Britain. She didn't believe girls' education was adequate and wrote that women should be educated so they could support themselves and educate their children.


A VINDICATION OF THE RIGHTS OF WOMAN: WITH STRICTURES ON POLITICAL AND MORAL SUBJECTS. BY MARY WOLLSTONECRAFT.

She wrote several books including, in 1792, '*A Vindication of the Rights of Women*', one of the most significant books in the English language.

Mary made a short return visit to Beverley, probably in 1795, when she wrote "*the town did not please me quite so well as formerly. It appeared so diminutive and when I found that many of the inhabitants had lived in the same houses ever since I left it, I would not help wondering how they could have thus vegetated*". She also commented "*The good folks of Beverley were very ready to find out their neighbours' faults*".

Mary died in 1797, only eleven days after the birth of her second daughter, leaving a number of unfinished manuscripts. Her second daughter became an accomplished writer herself, as Mary Shelley, famous as the author of '*Frankenstein*'.

Hilda Lyon (1896-1946)

(Information from '*Extraordinary Women*' exhibition at the Beverley Guildhall)

Hilda Lyon was one of the first women to become as Associate Fellow of the Royal Aeronautical Society. An obituary spoke of her death at 50 as "*a very great loss not only to the aeronautical industry and the scientific world, but her many friends will also feel the personal loss of a charming and exceptional woman*".

She was born in Market Weighton, the second child of Margaret and Thomas Lyon. Her father owned Thomas Lyon & Son, a grocers shop in the High Street, established since 1802.

Hilda was one of the first pupils at Beverley High School for Girls, and went on to Newnham College, Cambridge, securing an MA in Maths. After taking a course on aeroplane stress analysis she was employed by Siddely-Deasy in 1918 as a Technical Assistant. She helped to develop the R101 airship and was on its first test flight. On a 1929 postcard she wrote "*I hope it is a north wind when I get my first flight so that I can persuade them to fly over Market Weighton*". The R101 crashed in 1930.

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The ill-fated R101 airship at mast

As a post-graduate at Massachusetts Institute of Technology she focused on wind tunnel research. She was awarded the R38 Memorial Prize for her paper on "*The Strength of Transverse Frames of Rigid Airships*", the first time a woman had been awarded a prize by the Royal Aeronautical Society.

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Launch of the USS Albacore in 1953, the first vessel to use the new hydrodynamic 'Lyon Shape' that was adopted for almost all subsequent US submarines.

She returned to care for her mother in 1930, but continued research on flutter wings and elastic blades at Hull University. In 1937 she was appointed Principal Scientific Officer at the Royal Aircraft Establishment at Farnborough. She devised the 'Lyon Shape' which was used in American submarines.

Hilda died in Surrey after an operation in 1946, and is buried in Market Weighton.

Amy Johnson (1903-1941)

(Information from research by David Marchant of East Riding Museums. Images courtesy of East Riding Museums)

Amy in the cockpit of her Gipsy Moth 'Jason' prior to take-off from Croydon Airfield on 5 May 1930 at the start of her solo flight to Australia

Amy was born near the docks in Hull in 1903, daughter of John William Johnson, a partner in a big family fish processing business. Her father was a loyal supporter of Amy's career once she had set her heart on being a pilot.

After attending a succession of private schools, Amy joined the Boulevard Secondary School in 1915. Although a bright pupil, Amy was a bit of a rebel with a passion for sport. Having left school with good qualifications she attended Sheffield University (an unusual option for a girl at the time), and obtained a degree in Economics, Latin and French.

Amy in trainee pilot's gear (including parachute) in front of a London Aeroplane Club 'Moth' in 1928-29

Amy took a variety of secretarial jobs in Hull and London, and in 1928 she joined the London Aeroplane Club on a

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whim, taking her first flying lesson in September and obtaining her pilot's licence in July 1929, despite her first flying instructor asserting that she would never make a pilot! Although heavy landings were a feature of her flying for much of her career she had an uncanny ability to navigate, almost by instinct alone.

As well as learning to fly Amy started learning how to maintain an aircraft, and gained her Ground Engineer's licence in December 1929. This ability was to prove indispensable on her flight to Australia.

Eventually Amy was able to secure the backing of Lord Wakefield, the oil magnate, who agreed to provide half the £600 needed to buy a Gipsy Moth biplane, and arranged for petrol and oil supplies at agreed points along Amy's planned route to Australia.

With very little experience of the actual plane (christened 'Jason' by Amy) she set off from Croydon airfield on 5 May 1930. Although she failed to break the England-Australia record her outstanding achievement in being the first woman to fly solo to Australia caused an outpouring of celebration. She was awarded the CBE, two aircraft and a cheque for £10,000 from Associated Newspapers. However, the money had a price - she had to hand over 'Jason' and undertake an exhausting round-Britain tour, which she sadly failed to complete due to ill-health.

Postcard showing Amy sitting in the cockpit of 'Jason' on her arrival at Darwin on 24 May 1930

This remarkable achievement has largely eclipsed the rest of her career. In January 1931 she attempted to fly from London to Peking, but crashed near Warsaw in appalling weather. In summer 1931 she and Jack Humphries set a record time of 10 days fro the England-Japan flight, but this was over-shadowed by Jim Mollison's 9 day flight from Australia to England at the same time.

In July 1932 Amy married Jim Mollison, a good-looking pilot with a liking for black clothes and black planes. After a high profile and stormy marriage they divorced in 1937.

Amy twice broke the record for solo flights from England to Cape Town, South Africa (in 1932 and 1936), requiring Amy's renowned ability to plan thoroughly. She spent short periods as a commercial pilot in 1934 and 1939, and for six months was the aviation editor for the Daily Mail. In 1938 she took part in a number of motor car rallies and also took up gliding. She like to drive her cars fast and was fined for speeding on a number of occasions.

Amy at the wheel of a Frazer Nash BMW sports car at the Shelsley-Walsh speed hill-climb in Worcestershire in 1938

In May 1940 Amy joined the women's section of the Air Transport Auxiliary, flying transports, trainers and other non-combat aircraft from the manufacturers' airfields to RAF bases. On 5 January 1941 Amy disappeared on a flight from Blackpool to Oxfordshire. Parts of her plane and items of her baggage were recovered from the Thames Estuary. It seems likely that, despite her navigation instinct, she got lost in extreme weather conditions, ran out of fuel and had to ditch the plane. Although her death was premature she died doing what she loved.