

## England's Heritage from the Air: Photographs from the Aerofilms Collection

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### Introduction

In May 2007 the Aerofilms collection of oblique aerial photography was purchased by a partnership consisting of English Heritage, the Royal Commission on the Ancient and Historical Monuments of Scotland and the Royal Commission on the Ancient and Historical Monuments of Wales. They acquired an archive created between 1919 and 2006 by Aerofilms along with the AeroPictorial and Airviews companies they had taken over. It consisted of 1.2 million glass and film negatives along with 2,369 albums containing over 300,000 prints. In September 2010 the three partners secured a major Heritage Lottery Fund grant to conserve, scan and catalogue the earliest part of the collection dating from between 1919 and 1953. Today, over 95,000 photographs are available online.<sup>i</sup>

Aerofilms Ltd was founded in 1919 by Claude Grahame-White, a wealthy entrepreneur and one of the first Englishmen to fly an aircraft; he reputedly made his first solo flight without having had a single lesson. His co-founder Francis Lewis Wills, a demobbed Royal Naval Air Service veteran, was the driving force behind the business (Fig. 1).<sup>ii</sup>

Their initial plan was to establish a company that would help supply aerial footage for use in film productions through providing aeroplanes, aerodromes, pilots, cameramen and cameras for aerial cinematography. However, they soon realised that there was a greater demand for still aerial photographs though initially progress was slow; in their first six months fewer than twenty images were produced and catalogued. However, in 1920, their first full year of operation, Aerofilms logged 2,332 aerial photographs in the registers. Today, when a telephone contains a camera, photography may seem to be a straightforward skill, but for the pioneering photographers of Aerofilms, life was much more complicated. The images were captured one at a time on glass negatives measuring 5 inches by 4 inches (12.7cm by 10.16cm) in bulky cameras. Working from a target list, the pilots would aim to reach between thirty and forty sites each day plotting their positions and routes on maps with every site numbered in advance. Glass plates were exposed as they went along with the negatives numbered to tally with the map reference. Therefore, it is no surprise that there are errors in some of the photographs, such as solar flare

or the inclusion of the edge of a wing. However, this often adds to the authenticity of the image and offers great insights into the conditions under which these heroic photographers worked. Life became a bit easier after the Second World War when the revived Aerofilms acquired new roll film cameras from the RAF, but they also kept one of the company's old glass plate cameras.

As well as overcoming the limitations of the photographic technology, there were other potential impediments to the enterprise. Initially coverage was limited to the south-east of England due to the small number of licensed civilian airfields; in August 1919 there were only eight, but by September 1920, eighty-seven licences had been issued and six renewed. The length of flights only averaged around 24 minutes, thus limiting where Aerofilms could operate. Therefore, it took several years before the company consistently extended its coverage from the south and east to the rest of England, and Scotland and Wales.

Another impediment was regulatory. The 1919 Air Navigation Act introduced a series of safety measures particularly relating to flying over urban populations; if these had been followed to the letter, Aerofilms would have had to fly at such a high altitude as to make aerial photography a near impossibility. Instead, Aerofilms simply ignored the new regulations (Fig. 2).

This essay will highlight some of the ancient monuments captured in this collection using the 1938 list of Ancient Monuments as its starting point.<sup>iii</sup> The introduction to the 1938 list noted that: 'The primary object of these lists is to register the fact that the preservation of these monuments is of national importance, and to enlist the interest of the owners and of others in their protection'.<sup>iv</sup> It went on to record that: 'The present list contains the names of over 5,500 monuments of all kinds, from prehistoric camps, stone circles and barrows, to the remains of abbeys, castles, bridges, etc, and even relatively modern buildings.'<sup>v</sup> Not included in that list are many post-medieval sites, cathedrals, country houses, industrial sites, smaller buildings and occupied structures etc; these were the types of heritage that would become Listed Buildings after the Second World War, following the passing of The Town and Country Planning Act 1947.<sup>vi</sup>

Although the Aerofilms collection contains images of many ancient monuments and historic buildings, this was not its primary aim; making money through selling images and through commissions provided the financial lifeblood for the company. Postcard manufacturers and the publishers of guidebooks were regular customers as were newspapers; in 1920 several flights

took place over seaside resorts with this type of market in mind. In 1928 Aerofilms worked with Gordon Hotels to produce *London from Aloft*, one of the first guidebooks in the world to be made up exclusively of aerial photography.<sup>vii</sup>

Aerofilms liked the shiny new architecture of the inter-war years, as is witnessed by their coverage in May 1932 of Unilever House, two months before it opened and the soon to be completed Hoover Building in West London in August 1932. The company also covered many new but less architecturally distinguished sites. Among these were the Birds Eye Foods Factory at Great Yarmouth in 1949, where a few years later the fish finger would be born, and a purpose-built farm that produced eggs to make Ovaltine (Fig. 32).

Ancient monuments and historic buildings were something that might prove of interest to commercial customers, but it is clear they also piqued the interest of the photographers aloft. This range will be illustrated in the following selection of aerial photographs, but Aerofilms was also adept at capturing images of events. Its archive contains many live sporting events, from greyhound races and rugby fixtures to football matches at Wembley (Fig. 37) and the crowds gathering there for the opening ceremony of the 1948 Olympics. It also captures everyday events and the sites of great national ceremonials; to illustrate this an image of Westminster Abbey prepared for the 1953 Coronation has been selected (Fig. 13).

## Captions

Fig. 1

Francis Lewis Wills, pilot Jerry Shaw and Claude Friese-Greene with camera, in a DH9B biplane, July 1919. Aerofilms' founders were a collection of adventurers and aviation enthusiasts. The firm married the fledgling technology of flight to the discipline of photography. © *Historic England Archive. Aerofilms Collection AFL03/Aerofilms/C12930*

Fig. 2

Forced landing in Southwark Boating Lake, February 1920. When Aerofilms was formed, flight technology was still in its infancy and mechanical failure was a real danger. Aerofilms'

pilots had some spectacular crashes in the early days. © *Historic England Archive. Aerofilms Collection EPW000213*

## Prehistory and Historic Landscapes

### Fig. 3

Tintagel Island, 11 July 1950. Tintagel Island is a headland with a long history of human activity. Surviving remains suggest a sequence of occupation and use from the Roman period or earlier, including a major post-Roman settlement and port, a 13th century chapel and castle of the Earls of Cornwall, and post-medieval mining. © *Historic England Archive. Aerofilms Collection EAW031041*

### Fig. 4

Cerne Abbas Giant, April 1947. The club-wielding figure on the slopes of Giant Hill is known as 'The Giant' and the 'Rude Man'. Antiquaries and archaeologists have suggested various dates of origin; recent studies date it to the late Saxon period. © *Historic England Archive. Aerofilms Collection EAW004894*

### Fig. 5

Maiden Castle, 24 September 1947. One of the country's most recognisable multivallate Iron Age hillforts, Maiden Castle also incorporates significant Neolithic remains and a late Roman temple. © *Historic England Archive. Aerofilms Collection EAW010927*

### Fig. 6

Avebury, 11 June 1947. Avebury's Neolithic henge and stone circle is one of the largest and best-preserved examples of its type in the country. The establishment of a village within and

outside the monument is evidence of changing attitudes towards ritual monuments. ©  
*Historic England Archive. Aerofilms Collection EAW007046*

Fig. 7

Badbury Rings, 30 August 1947. This multivallate hillfort stands prominently within the chalk plateau of Cranborne Chase, an area rich in archaeological remains. Their survival is a consequence of its history as a royal hunting ground and the associated land-use laws. ©  
*Historic England Archive. Aerofilms Collection EAW010546*

Fig. 8

Fleam Dyke, 20 September 1948. Fleam is one of four parallel linear monuments known as the Cambridgeshire Dykes. Each has a ditch facing west and a bank to the east. The earliest phase of construction of Fleam dates to the 5th century. © *Historic England Archive. Aerofilms Collection EAW019437*

## Abbeys and Cathedrals

Fig. 9

Fountains Abbey, 11 August 1947. Fountains was founded in 1132 by monks of the Cistercian Order. Before surrendering to Henry VIII in 1539, it was one of the most powerful religious houses in Yorkshire and the richest Cistercian abbey in England. © *Historic England Archive. Aerofilms Collection EAW009245*

Fig. 10

Netley Abbey, 19 May 1949. Netley was one of the last Cistercian houses established in England. It was founded in 1239 by the Bishop of Winchester. Its setting was typically

Cistercian, being secluded in this case at the end of a valley between a scarp and the sea. © *Historic England Archive. Aerofilms Collection EAW023221*

Fig. 11

Buildwas Abbey, 31 August 1947. Buildwas was founded as a Savigniac monastery in 1135 by the Bishop of Coventry and Lichfield. In the 19th century the track of the Severn Valley Railway was laid less than thirty meters from the remains of the abbey church. The remains of a rectangular monastic fishpond can be seen beyond the railway. © *Historic England Archive. Aerofilms Collection EAW009994*

Fig. 12

Tynemouth Priory, 18 October 1927. Dominating the point where the River Tyne meets the North Sea, this headland has a history spanning over 2,000 years. It has been home to an Iron Age fort, an Anglo-Saxon monastery and an artillery fort. © *Historic England Archive. Aerofilms Collection EPW019754*

Fig. 13

Westminster, 6 May 1953. Temporary stands are visible around Parliament Square and outside the Houses of Parliament and Westminster Abbey. On a rainy day, less than a month later, Queen Elizabeth became the thirty-ninth sovereign to be crowned at Westminster Abbey. © *Historic England Archive. Aerofilms Collection EAW049015*

Fig. 14

Coventry Cathedral, July 1946. The Luftwaffe raid of 14 November 1940, codenamed *Operation Moonlight Sonata*, prompted Hitler to invent a new verb: *coventrieren* – to coventrate – or ‘to destroy’. The Cathedral Church of St Michael was severely damaged in the raid. © *Historic England Archive. Aerofilms Collection EAW001829*

## Castles and Houses

### Fig. 15

Colchester Castle, 12 July 1947. The Castle Keep was built in the late 11th century on the site of a Roman temple, the foundations of which survive beneath. It is thought that the surviving structure is less than half its original height. © *Historic England Archive. Aerofilms Collection EAW008091*

### Fig. 16

Dover Castle, April 1920. Aerofilms flew over a prohibited area to take this photograph. The company was warned at least twice in 1920 by Scotland Yard that staff risked prosecution under the Official Secrets Act, which forbade photography over sensitive areas. © *Historic England Archive. Aerofilms Collection EPW000580*

### Fig. 17

Tower of London, 2 June 1947. Wartime bomb damage can be seen in this view of the Tower of London, particularly towards the City. The Tower suffered too; raids in 1940 damaged the Mint, the Old Hospital Block and the North Bastion. © *Historic England Archive. Aerofilms Collection EAW006475*

### Fig. 18

Tattershall Castle, 20 March 1951. Built in around 1440 for Ralph Cromwell, Lord High Treasurer, Tattershall sits on the site of a 13th century castle. It was saved from destruction by Lord Curzon, an advocate for heritage protection, who restored Tattershall between 1911 and 1925. © *Historic England Archive. Aerofilms Collection EAW035006*

Fig. 19

Hampton Court Palace, 7 April 1948. Cardinal Wolsey began the transformation of Hampton Court before Henry VIII acquired it for a royal palace. Later monarchs made significant additions before Victoria opened the palace and gardens to the public in 1838. © *Historic England Archive. Aerofilms Collection EAW014181*

Fig. 20

Prefabricated housing, Lichfield Road, Cambridge, 1 October 1946. Announced in 1944, the Temporary Housing Programme aimed to provide temporary accommodation at speed. Over 150,000 homes were built by the time the Programme came to an end in 1948. © *Historic England Archive. Aerofilms Collection EAW002930*

Townscapes

Fig. 21

Bath, 8 September 1949. The open space in front of Royal Crescent was used for seventy-two allotments during the Second World War. By 1945 there were nearly 1.4 million allotments in Britain. This strip of land was transformed back into lawn in 1957. © *Historic England Archive. Aerofilms Collection EAW026453*

Fig. 22

Bristol, 20 March 1921. The terraces of Hotwells and Clifton fill much of this view but it is Brunel's Clifton Suspension Bridge that catches the eye. Construction began in 1831 although it was not until 1864 that Brunel's masterpiece finally opened. © *Historic England Archive. Aerofilms Collection EPW005463*



Fig. 23

Great Yarmouth, June 1920. This topographical view illustrates Great Yarmouth's evolution from river port to seaside resort. To the right is the River Yare, the historic rows and Market Place. To the left is the resort and the later town. © *Historic England Archive. Aerofilms Collection EPW001879*

Fig. 24

Manchester, September 1934. The focus of this view is the recently opened Central Public Library standing adjacent to Manchester Town Hall. Designed by Emmanuel Vincent Harris the Library was constructed between 1930 and 1934 and drew inspiration from Rome's Pantheon. © *Historic England Archive. Aerofilms Collection EPW045995*

Fig. 25

York, 30 June 1926. York Castle was originally a Norman motte and bailey built between the Rivers Ouse and Fosse. It became the site for the Assize Courts and gaols. The radial plan prison adjacent to Clifford's Tower was demolished in 1935. © *Historic England Archive. Aerofilms Collection EPW016071*

Fig. 26

Stratford-upon-Avon, 28 May 1947. Three structures important to Stratford's townscape feature in this view: at the bottom is Clopton Bridge, originally built in c.1484; Old Tramway Bridge in the centre, built in 1823; and Elisabeth Scott's Royal Shakespeare Theatre of 1928-32. © *Historic England Archive. Aerofilms Collection EAW006662*

## Industry

Fig. 27

Ironbridge, October 1934. Spanning the River Severn is the world's first cast iron arch bridge. Designed by Thomas Pritchard and Abraham Darby III, the bridge was cast at Coalbrookdale and constructed in 1777-9. It was formally opened on New Year's Day 1781. © *Historic England Archive. Aerofilms Collection EPW046398*

Fig. 28

Brockhampton Lane Leather Works, Havant, August 1928. Hundreds of animal skins hang from parallel rows of tenters on three sides of a field at this Hampshire leather works. A workman laying out skins on the ground appears to be 'painting' himself into the middle of the field! © *Historic England Archive. Aerofilms Collection EPW023037*

Fig. 29

Gasometer, Hitchin, 2 February 1949. This atmospheric view over the outskirts of Hitchin shows a blanket of winter fog enshrouding trees and a telescopic gasometer. A plume of smoke emitted by a passing steam train rises above the misty landscape. © *Historic England Archive. Aerofilms Collection EAW020885*

Fig. 30

The ICI Synthetic Ammonia Works, Billingham, June 1930. In 1917 the Government selected Billingham as a site to produce synthetic ammonia for use in explosives. After the War the site was handed over to private industry and a new plant was developed to manufacture fertilizers. © *Historic England Archive. Aerofilms Collection EPW032716*

Fig. 31

Railway Works, Swindon, 29 March 1954. In the mid-19th century the Great Western Railway transformed a small hilltop market town into an industrial giant. At its height, the works was one of the largest railway engineering complexes in the world. © *Historic England Archive. Aerofilms Collection EAW053783*

Fig. 32

The Ovaltine Egg Farm, Abbots Langley, May 1932. The Ovaltine Factory was supported by a series of farms that produced barley, milk and eggs, the main ingredients in Ovaltine. The egg farm extended over 300 acres and housed 100,000 hens. © *Historic England Archive. Aerofilms Collection EPW037949*

## Sport and Leisure

Fig. 33

Sandford Park Lido, Cheltenham, 31 May 1947. Opening in May 1935, the lido stayed open throughout the Second World War. Despite a German bomb smashing the paddling pool, it recorded some 90,000 admissions a year over the course of the war. © *Historic England Archive. Aerofilms Collection EAW006518*

Fig. 34

Dudley Castle & Zoo, 3 June 1947. Dudley Castle dates to the 11th century. It was used as a residence until largely destroyed by fire in 1750. In the 1930s the Earl of Dudley engaged the Tecton Group to transform the grounds into a zoo. © *Historic England Archive. Aerofilms Collection EAW007505*

Fig. 35

Festival Pleasure Gardens, Battersea Park, 12 May 1951. Battersea Park opened to the public in 1854. For the 1951 Festival of Britain celebrations, an area of the park next to the Thames was requisitioned for the Festival Pleasure Gardens. Its funfair remained in use until 1974. © *Historic England Archive. Aerofilms Collection EAW035838*

Fig. 36

Hull Fair, 10 October 1952. An annual fair has been held in Kingston-upon-Hull since the Middle Ages. Trade originally dominated but from the 18th century entertainment took precedence. When this photograph was taken in 1952 the event was more popular than ever.

© *Historic England Archive. Aerofilms Collection EAW047510*

Fig. 37

FA Cup Final, 27 April 1935. The 1935 Final between Sheffield Wednesday and West Bromwich Albion was watched by over 93,000 spectators (Wednesday won 4-2). The Cierva autogyro in the foreground was flown on behalf of Scotland Yard, probably for crowd monitoring. © *Historic England Archive. Aerofilms Collection EPW046905*

Fig. 38

Hastings Pier, 25 May 1931. Aerofilms has captured Hastings on a busy Bank Holiday Monday. Trippers relax on the beach and recline on deckchairs by the bandstand. Hastings Pier was designed by Eugenius Birch and built 1869-72. © *Historic England Archive. Aerofilms Collection EPW035334*

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<sup>i</sup> Britain from Above <https://www.britainfromabove.org.uk/en> (Accessed 27 July 2021)

<sup>ii</sup> A history of the early decades of Aerofilms Ltd is told in J. Crawford, K. Whitaker and A. Williams, *Aerofilms: A History of Britain from Above* (Swindon: English Heritage, 2014)

<sup>iii</sup> *Ancient Monuments of Great Britain: List of monuments to 31 December 1938 prepared by the Commissioners of Works* (London: HMSO, 1939)

<sup>iv</sup> *Ancient Monuments, op. cit.*, 4

<sup>v</sup> *Ancient Monuments, op. cit.*, 5

<sup>vi</sup> 10 & 11 Geo. VI c. 51

<sup>vii</sup> *London from Aloft. A pictorial survey ... from a new angle* (London: Gordon Hotels, 1928)