Wargrave Local History Society

Latest News - January 2020

Military Photographic Interpretation and Phyllis Court - Aldon Ferguson

Aldon Ferguson recalled The Military Photographic Interpretation Unit at Danesfield and Phyllis Court with a fascinating illustrated presentation at the Wargrave Local History Society's January meeting

Aldon began by explaining what photographic interpretation was - not looking at nice landscapes or holiday snaps, but a serious and scientific process. Military leaders had long wished to know what their opposition was doing, and the act of examining photographic images was to enable objects to be identified, and their significance assessed. The first aerial surveillance came in World War 1, when an observer would ascend in a basket below a balloon tethered to the ground. By means of a phone cable he could give directions to those on the ground as to where to aim their guns. It was hazardous, however, as the observer was in a vulnerable position, not least because the balloons were filled with hydrogen.

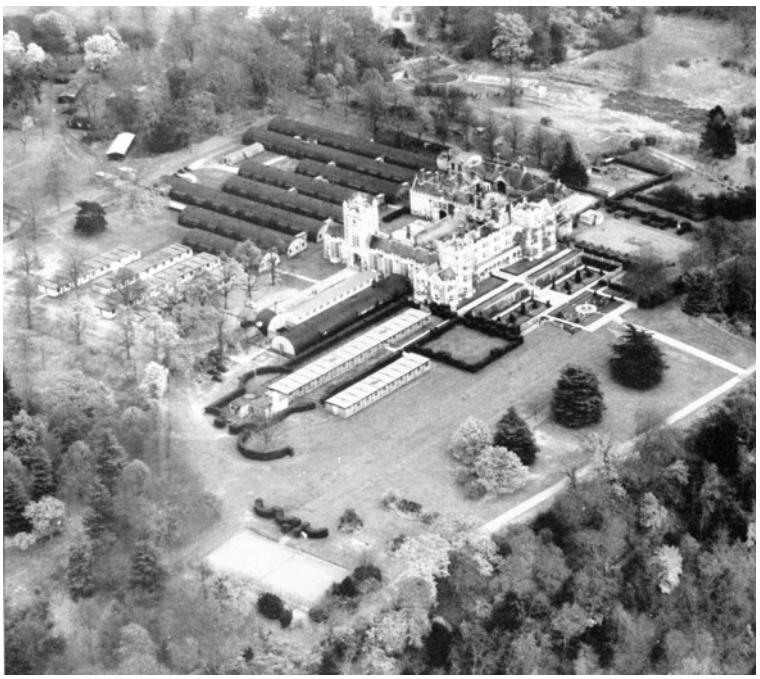
The next development was to use aircraft to take a camera up to record the scene. The large bulky cameras had to be held out over the side of the plane, the photographer also having to act as the gunner in the rear of the plane. The images were captured on glass photographic plates a fresh one being put in place for each picture. In due course, the camera would be fixed to the side of the aircraft, and in due course inside the plane, between the pilot's feet, so he could take the pictures. It was important for him to know 'where he was' when each picture was taken, there being no 'navigational aids' at that time. From the photographs, maps were produced showing the enemy positions etc. By the end of WW1, the entire Western Front was being recorded at least once every day. Interpretation skills had not been developed at that time, but the military commanders could see the build-up of troops and materials taking place. When the war ended, however, it was not thought important to continue with this type of work, and so the expertise that had been acquired was lost.

However, an Australian, Sidney Cotton, who had flown with the Royal Flying Corps during the war (later to be known as the 'father of photo reconnaissance') created Aerofilms at Wembley, taking aerial photographs of many 'places of interest'. He had good contacts, and numbered both George Eastman (of Kodak) and Winston Churchill amongst his friends. Sidney Cotton also developed the Dufay process - an early form of colour film. He travelled across Europe to sell the film, and realised - long before World War 2 started - that photographs taken over Germany would be of interest. MI6 realised that he was friendly with high-ranking German officers, and it was arranged that Sidney would surreptitiously take photographs whilst on these visits. The Government bought him a Lockheed 12A Electra Junior plane for the purpose, which was fitted with 2 cameras, each being hidden behind a motorised flap in the wing. He also developed a teardrop side glass to the cockpit, in order that he could look out over the side and see what was below him to be photographed. He was so accepted by the Luftwaffe officers, that when one asked to be flown over his mother's house, Sidney agreed to do so - and was taking pictures of the land below his flight path as he did so. The motto of the Cotton Club was "Thou Shall Not be Found Out" - and he was able to fly 15 covert missions over Germany before the war began, as well as picturing the German naval fleet 2 days before war was declared. The German air force had more sophisticated planes than most of the British ones, apart from, the RAF's Spitfires and Hurricanes. Those, however, were in high demand. Cotton wanted to have two Spitfires for photo reconnaissance work. Eventually, he persuaded Air Chief Marshall Hugh Dowding of the value of such work. The pair of planes then had the guns, armour plating

and radios removed so they could fly very high and fast, and had two cameras fitted under the wings and two under the fuselage, which then operated from a base at Heston.

Sidney Cotton, however, was a bit of a maverick', and tended to do what he wanted to do, so the RAF formed their own photo reconnaissance unit, based at RAF Benson, with some operating from Wick (where they could cover activities in Norway), and St Eval in Cornwall (where they covered the French coast. The photographs from all 3 sites was sent back to Benson, and taken to Medmenham for examination. The pilots flew alone and unarmed, at altitudes of up to 40,000 feet, the planes being painted pale blue as a form of camouflage. As a weight saving measure, the heaters had been removed from the planes, but they had to be replaced as not only was it too cold at that height for the pilots, the camera lenses had tended to freeze over.. Sadly, if a pilot was lost, due to the lack of radios, nobody knew where they were.

The missions flew over any 'target area' where the number and type of German planes, where the ammunition was stored and so on, and the definition of the photographs was extremely good, so individual people could be picked out. As well as airfields, the ships of the German navy were recorded. Many were held in the Norwegian fjords, often close to the cliff-side. Their crews were aware of the activities of the photo reconnaissance pilots, who of course needed clear weather to get their pictures, so would generate smoke screens when the weather was set fair, whilst there were anti-aircraft guns both on the vessels and the shore, making it hazardous for the RAF men. When one of them - Michael Suckling - succeeded in taking pictures of the Bismark in 1941, the negatives were examined as soon as he returned to base at Wick. The Admiralty were advised of the results, and needed to see them 'at once', so Michael Suckling had to take to the air again to fly down to London. A lack of fuel meant he landed near Nottingham, and then requisitioned a friend's car to get the negatives safely delivered, such was their importance. Other tasks, however, involved flying at low level - to record the beach defences for D Day. That meant photographing the entire coast line from Denmark to France, so that no clue might be given as to where the invasion was to take place. Other tasks would be 'before and after' images, to show the damage done, such as to the Mohne dam in the 'Dambusters' raids. In the early days, these record shots caused animosity with Bomber Command, who thought the photo reconnaissance had pictured the wrong location - in reality the bombers had missed the targets, and had to improve their performance.



The process of interpretation of the photographs took place in 3 stages. The first was the immediate viewing at the airfield where the pilot landed. Once the images had reached Medmenham, (where the photographic interpretation unit for the entire operation, including the US forces, was based), they were carefully examined and a first report produced. The pictures were taken as stereo pairs - two images of the same location taken at slightly different angles. By using a stereo viewer, the structures could be seen in 3D. Danesfield House had been a private residence pre-war, and then a boys' school until 1941, when the RAF took over the whole site, adding many huts for the hundreds of staff who worked there. As their expertise developed, more specialists were used, for example to use the ecology to assess what might be happening, or the type of factory be seen. All the pictures were kept, carefully indexed, so that any changes taking place on the ground could be seen.

Many of the people who worked at Medmenham were women, it being considered that they were more diligent than the men, and not satisfied until they had identified what a mystery object was. An example was Constance Babington Smith. Having trained as a milliner, she became a journalist for The Aeroplane

magazine before the war, and so was used to examining photographs of aircraft and airfields. At Medmenham, she noted 'something unusual' in pictures at PeenemÃ¼nde, where Information from spies had indicated that strange activities. By knowing the day and time of the images, the unusual height of some of the buildings could be calculated, from the shadows they cast. This was the base where the V1 Doodlebug' flying bombs and later V1 rockets were being developed, and Constance was able to interpret the pictures by very careful examination of 'old' and 'new' pictures. The site having been discovered meant that the Germans moved the work underground - which whilst not stopping the work, severely delayed its progress. Amongst other ladies who worked there were Lady Charlotte Bonham-Carter and Sarah Churchill, who both worked as photographic interpreters. It is said that the latter sometimes knew more than her father, Winston Churchill!

By this time, Medmenham was 'bursting at the seams, and so additional accommodation was needed. Phyllis Court was therefore acquired, initially to be used as the Officer's Mess for the ladies of the WAAF. Subsequently, other sections of the Medmenham work were moved to Phyllis Court, including the model making. These gradually became more sophisticated. Photographs taken of a chateau on the French coast in December 1941 revealed a mystery dish shaped object near the cliff top. From the pictures, a model was made, a mould then taken from that, so that all those involved in a subsequent raid could carry a copy of it. The Germans were taken totally by surprise when the radar station was then dismantled and removed in submarines! Other examples of models made by the photographic interpretation unit were of the locations targeted in the Dambuster raids. Further expansion of the Medmenham activities meant that additional space was needed, and so the map making work was moved to nearby Hughenden Manor, named RAF Hillside for the purpose.

The work undertaken at Medmenham was on an enormous scale. By the end of the war, 25,000 negatives were being received per day, all to be indexed, studied and interpreted. The site also made copies of the pictures for use by - in particular - Bomber Command. At one stage around 60,000 prints were being made daily, whilst over the course of the war Medmenham had produced 36 million prints, copies of many of the images still surviving. It is thought that around 80% of the intelligence gained of what was happening in nazi controlled areas (from the North Cape to Italy) - was by means of photo reconnaissance, as unlike the messages intercepted and decoded at Bletchley Park, the photographs were capable of revealing instant evidence.

Despite its importance to the war-effort (and being conspicuous from the air being painted white), the Medmenham site was never attacked by the enemy. It remained an RAF station into the 1970s, when it became the headquarters for the Carnation food company. Subsequently, the main building has been converted into the Danesfield Hotel.

The Society's latest publication - A Brief History of Wargrave, outlining aspects of village history, illustrated with over 40 photographs from the Society archive, is now available at Society meetings, or at Newberry's in Twyford.

The next meeting will be on Tuesday, February 11th when Catherine Sampson will give an insight into Georgian Cooking, whilst the Society will hold its AGM on Tuesday, March 10th.