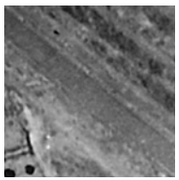
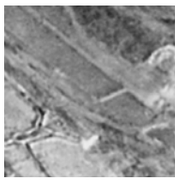
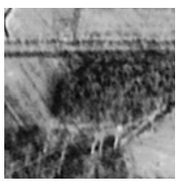
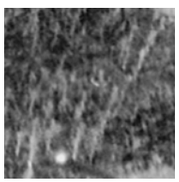
Reading the landscape

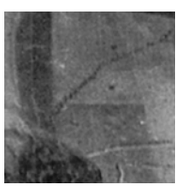
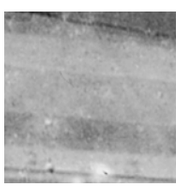
WATERWAYS → G2, H3

Topographical features such as rivers and waterways are easy to observe on aerial photos. Rivers tend to have a mainly irregular trace and a uniform dark, even black, shade; this is because water absorbs light and does not reflect it. Canals are identifiable by their linear nature, while smaller brooks and creeks have a sinuous course. Inundated ground appears as dark areas.

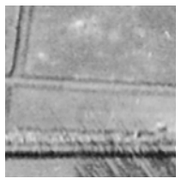
WOODS → E5, D6

Stretches of woodland can be easily identified on aerial photographs as a darker area. On large-scale photographs, the tops of individual trees can be seen. The best results are obtained when woodland areas are studied using photographs taken in winter or even during late autumn or early spring. At such times the foliage is less dense and some ground features may be visible.

FIELDS → B1, C4

Patchworks of cultivated fields can be seen everywhere in the aerial photographs. Their shade depends on the soil type and the vegetation growing there. In the areas close to the front line, agriculture was discontinued during the conflict (for obvious reasons). The fields were abandoned at the time of the first military actions and were not returned to agriculture until the front line moved further away, in some cases only four years later. The historical photographs show an interesting variety of field systems, property boundaries and small landscape elements such as hedges, woods and willows as well as evidence of certain farming practices – manure heaps, haystacks and crops.

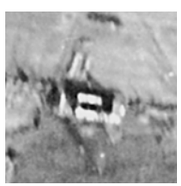



ROADS → F6, D4

Roads can be identified as pale lines on aerial photographs. In the western part of Belgium, they are often bordered by trees, the shadows of which are visible in the surrounding fields. On photographs of snow-covered landscapes, the roads are black. The snow in these photographs has melted as a result of heavy traffic. The configuration of the roads is very helpful in identifying the photographed area.


STANDS OF TREES AND HEDGES → A3, F4

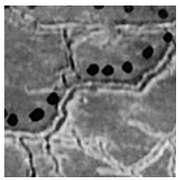
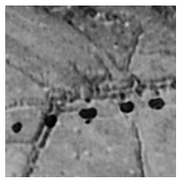
On many aerial photographs, rows of trees, hedges and woods are visible and can be identified as dark linear features. Their shadows may be visible but should not be confused with the actual trees. Shadows of trees are an ideal feature for orienting the aerial photographs correctly. On a small-scale aerial photo, hedges should not be confused with water-filled field boundaries; both have a dark tone.

DWELLINGS → B3, C6

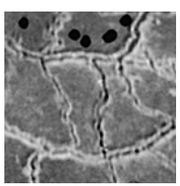
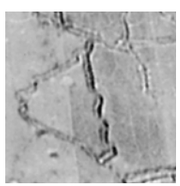
Dwellings can be observed as rectangular features, often with a saddle roof, one side of which is frequently illuminated by the sun while the other part is in the shade. In the areas around the front line, houses were a target for artillery fire because many bunkers were constructed inside them (as camouflage); basements were often used to house troops, too. As the war progressed, dwellings sustained ever more significant damage. Many of the rooftops simply disappeared and thus the houses became even more visible because of the white outlines of the (destroyed) walls.

Reading the war landscape

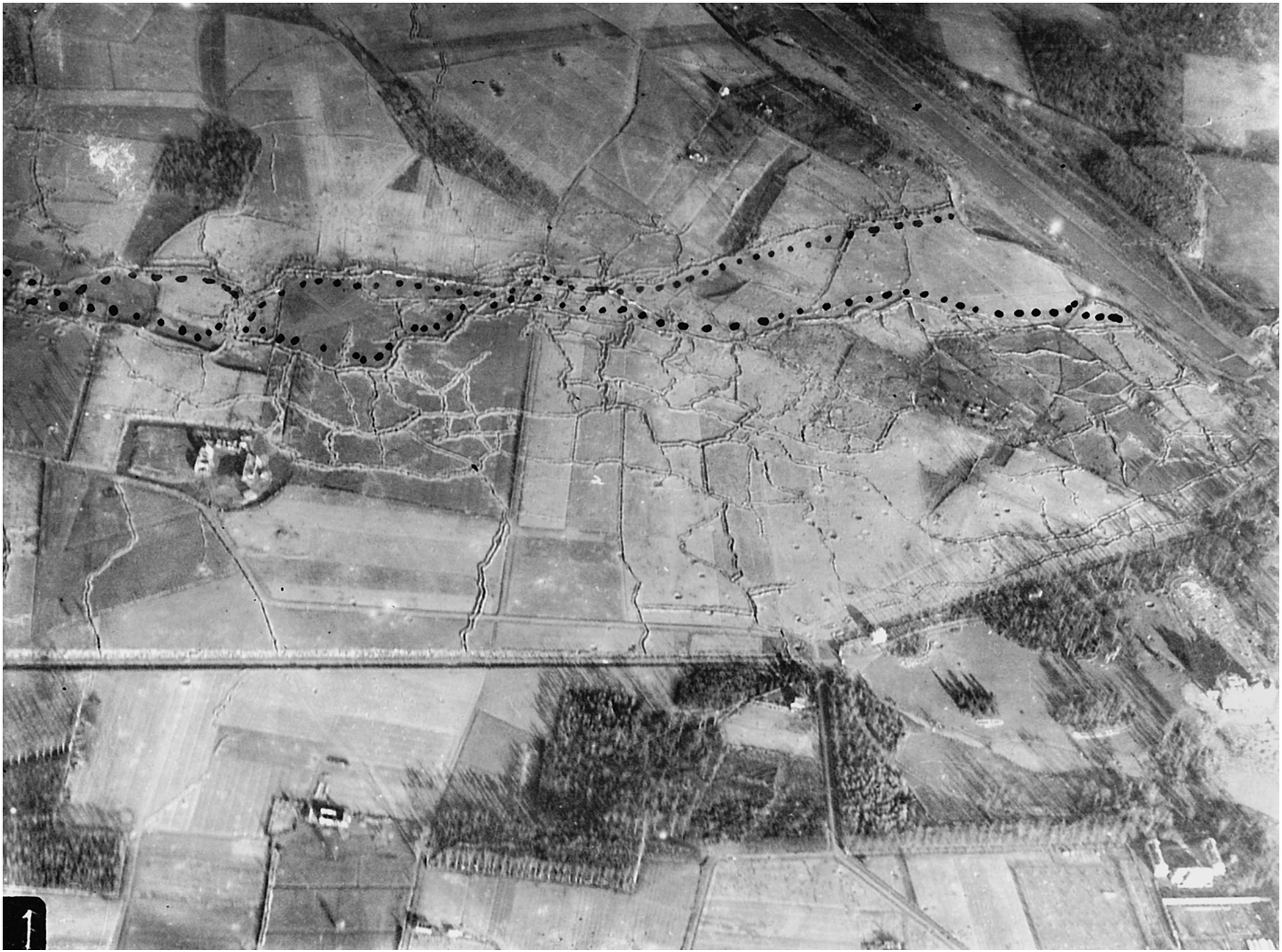
FIRE TRENCHES → C3, F2

The trace of a trench is outlined on an aerial photograph as a narrow dark line, cast in shadow, beside a bank of excavated earth, which has a lighter shade. Trenches can be spotted most easily in an aerial photograph if they are newly constructed because the contrast between the vegetation on the ground and the excavated earth is at its most defined. The longer trenches have been in use, the darker their tone becomes as the excavated earth becomes overgrown with vegetation. The shape and trace of trenches can vary a great deal. Trenches were built with alternating fire bays and traverses. Fire bays are the parts of a trench facing the enemy. Traverses, on the other hand, are the parts receding in the opposite direction. In this way, soldiers in a traversed trench were protected against fire from the flanks, while the effect of exploding shells was confined. Sometimes it was impossible to dig trenches into the soil. Where the water table was high, trenches were constructed as surface breastwork and were located almost entirely above ground.

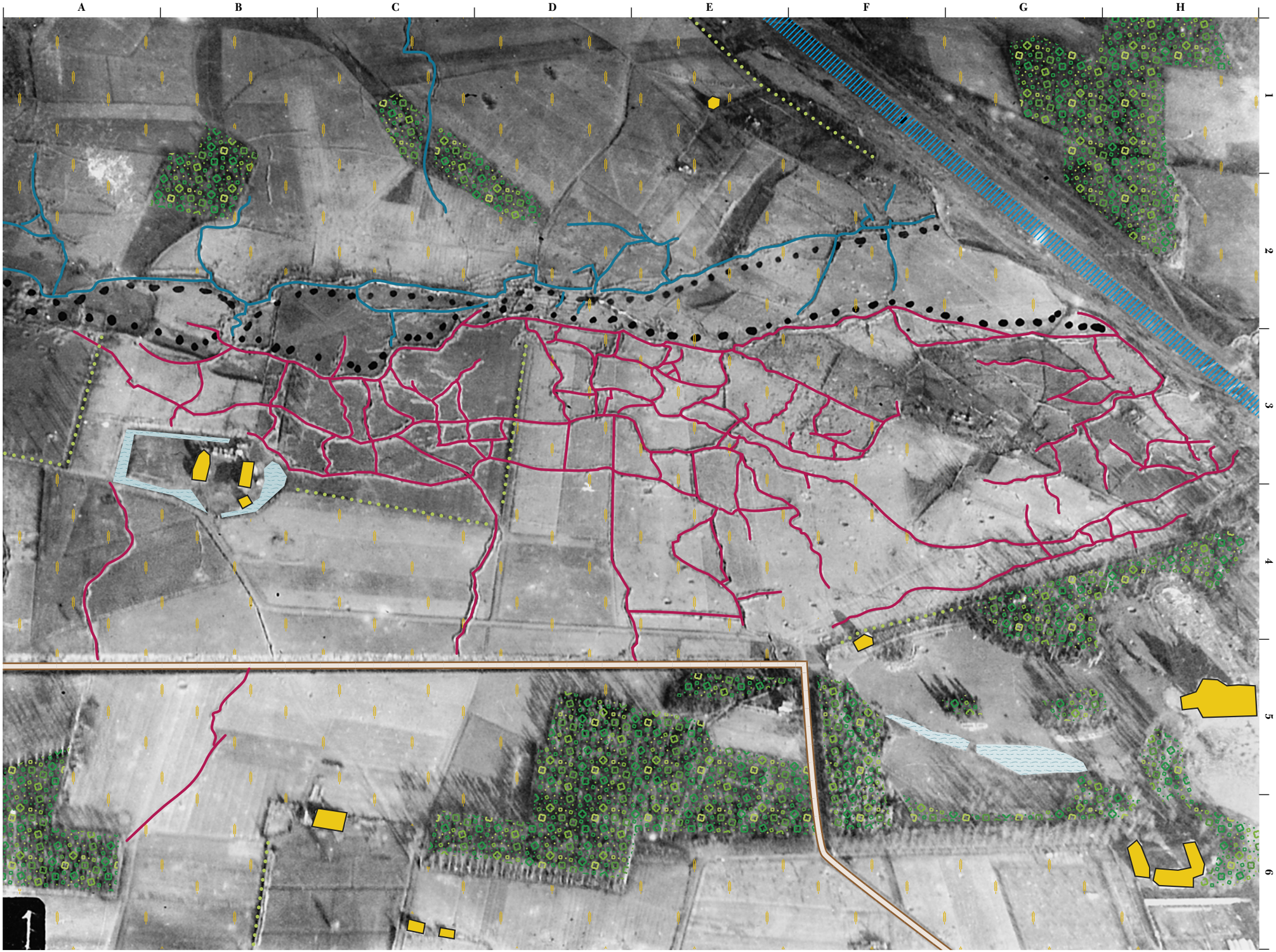



COMMUNICATION TRENCHES → C3, E4

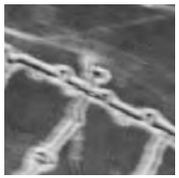
Communication trenches link the fire trenches and connect them with zones in the rear, thereby tying together the whole system of field defences. The most typical communication trenches have a zigzag or sinuous trace.



↑
Hollebeke. Front lines near the 'White Château' and the Ypres-Lys Canal.

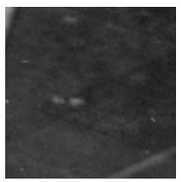


Hollebeke. Front lines near the 'White Château' and the Ypres-Lys Canal.




SHELTERS → E1, D1/E1

Along the front line, thousands of shelters were constructed to protect soldiers from artillery and gunfire. Some provided protection only from the rain, shrapnel and small shell fragments. In many instances, these are dug into the sides of trenches. It was possible to construct them completely underground, or in the breastwork of a trench. The best way of spotting them was by using oblique aerial photographs. On some of these, the entrances to the shelters can be observed.

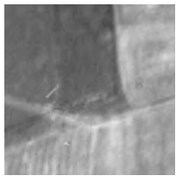
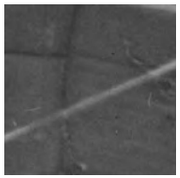



BARBED-WIRE ENTANGLEMENTS → D1, H2

Barbed wire is sometimes visible on an aerial photograph as a grey- or even black-shaded ribbon. Entanglements are often found in front of trenches. They are usually located parallel to the trenches but can also be found throughout the landscape at intervals between positions or trench lines. In aerial photographs, it is often possible to observe gaps in the wire, which provided access for working parties and counter-attacking troops. In rear areas, the presence of wire is often made visible by the different tonalities found in the aerial photographs, since, of course, farmers were unable to sow or harvest crops in these areas.

NEW MILITARY ROADS → C3

BURIED CABLES → A2

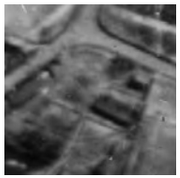
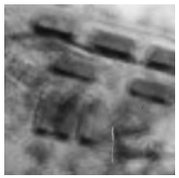



NARROW-GAUGE RAILWAYS → E3, G2

In order to supply and distribute a variety of goods (building materials, ammunition, water and food supplies, etc.) to the front as efficiently as possible, a network of narrow-gauge railways was set up. The visibility of such railways varies enormously. While in open fields they are easily legible because of their curved trace, where they have been constructed alongside an existing road, their detection is much more difficult and relies mainly on the availability of large-scale aerial photographs showing the rails and cross-beams.

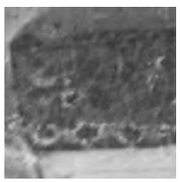

BUNKERS → p. 44 D3, p. 36 B1

Many protective structures are made of concrete. These are called bunkers, concrete shelters or pillboxes. In general, these concrete structures can be identified – where they are not hidden from aerial observation – as bright squares or rectangles in stark contrast with the natural soil. Yet, many bunkers are effectively camouflaged. However, they become more visible when they are the target of artillery fire, destroying the camouflage and exposing the concrete walls and ceiling.

BARRACKS → H1, C2

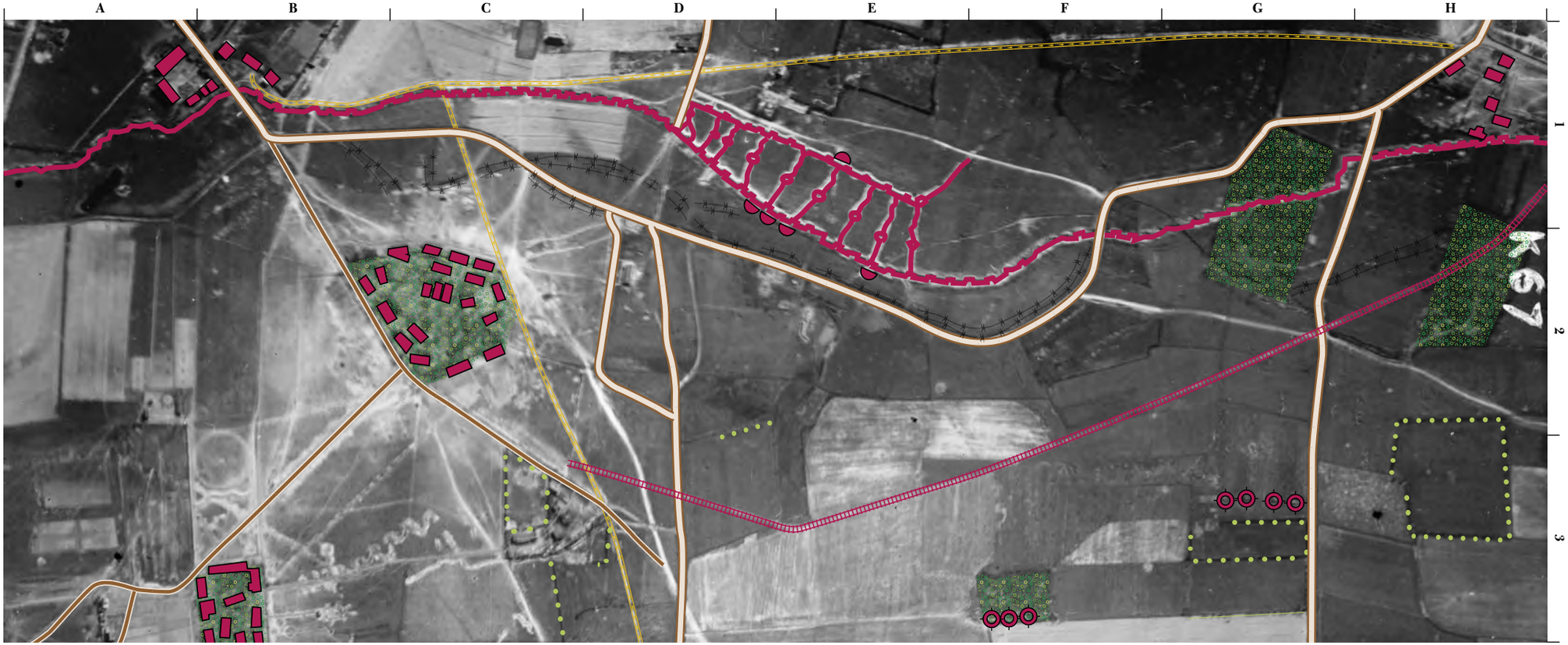
Large military camps and quarters were impossible to camouflage as a result of the intense movement of ground troops. Therefore, barracks can be clearly seen in the aerial photographs as rectangular buildings with a regular layout. These constructions are mainly lightly coloured because they are made of wood. Barracks were often grouped together and the layout of such a group depended, in many cases, on field boundaries and the presence of hedges and stands of trees. Vegetation provides significant cover from aerial observation if the barracks are situated in its shadow. In many cases, woods were used to conceal groups of barracks, which were very hard to spot beneath dense foliage.




ARTILLERY EMPLACEMENTS → F3, G3

The massive amount of artillery fire was a prime characteristic of the First World War, and typical of a war of position. The first few kilometres of a region's defensive organisation are strewn with very diverse artillery emplacements forming a network of batteries. Sometimes a battery of heavy artillery was fired in the open without any field defences. However, in the aerial photographs a large number of gun pits can be detected.
The least developed and therefore most basic type of artillery emplacement consists of open gun positions. Many of them take the form of a horseshoe and are arranged in batteries of up to six emplacements. Another type consists of covered gun emplacements. Usually, these are well camouflaged and covered with a trapezoidal casemate made of earth and probably wooden beams and girders.

→
German camp between Nieuw-Kruiseke and Oud-Kruiseke.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