

British tunnellers working in the underground galleries.



Walking folder Ypres Salient-South - Entry point: The Bluff

the WWI Salient Centenary

2014  
**IEPER  
YPRES  
YPERN**  
2018

## The war goes underground

A 4 kilometre walk through the authentic wartime landscape of the Palingbeek domain, Hill 60 and the Caterpillar

Entry point: The Bluff (film, info-panels, vantage point)

Crater landscape: The Bluff >>> Ravine Wood

The war site at Hill 60 >>> The Caterpillar Crater



### Three entry points in the Ypres Salient

The story of the Great War is told in an interactive and contemporary way in the In Flanders Fields Museum in the Cloth Hall in Ieper. The museum also explains how the landscape has become the last witness of these four terrible years of fighting. To help you to explore this landscape, you can make use of three entry points created along the old front line of the Ypres Salient: in the north at **Klein Zwaanhof** (Little Swan) Farm); in the east at **Hooge Crater Museum**; and in the south near **Hill 60** and the **Palingbeek provincial park**. Remembrance trees mark the positions of the two front lines between the entry points.



### Ypres Salient cycle route

People who prefer to explore the old battlefield by bike can follow the **Ypres Salient cycle route**. This 35-kilometre route starts and ends at the Market Square (Grote Markt) in Ieper. The route links the three entry points: north, east and south. It also passes many other sites of interest related to the First World War. The route folder is available at all local tourist offices and at Hooge Crater Museum.



## Remembrance trees

Along the **Ypres Salient-South** walking route 30 (out of a total of 140) *remembrance trees* have been planted at points where the old front line crosses a (public) path or road. You can recognize these trees by the coloured metal protectors around their trunks. The red protectors indicate the German line; the blue protectors the French and/or British line. These were the colours used on the maps of the front during the war. Most of the trees have an info-board showing the position of the opposing lines, with a photo from the war years.

The remembrance trees are elms, a type that was common in the countryside around Ieper from many centuries. As a result of the war and Dutch elm disease, nearly all the old elms have now disappeared. The planting of new and more resistant elms as remembrance trees is also a way of restoring this beautiful species to its rightful position in the landscape.

## Application Ypres Salient 1914 - 1918

The free application **Ypres Salient 1914-1918** indicates the position of all the remembrance trees and makes suggestions for different walks from the three entry points. The trees emit a signal that allows you to locate the position of the front line on a map and on aerial photographs on your cell phone. Highly recommended!

*The application is available in the App Store and Google Play.*



## Ypres Salient 1915-17

The section of the front line in **Ypres Salient-South** that is marked by remembrance trees is the line as it stood between 1915 and 1917, when the Ypres Salient was at its smallest extent. At the end of the *First Battle of Ypres* (20 October-22 November 1914), the war of movement ground to a halt in a wide arc around Ypres. After the first gas attack on 22 April 1915, the perimeter of this salient shrank considerably, creating a new front line just 3.5-4.5 kilometres from the city. This new front is sometimes known as the 'small' *Ypres Salient*. It remained more or less unchanged for 2 years and 3 months.

During the *Third Battle of Ypres*, from 31 July to 10 November 1917, the British broke out of the small Ypres Salient, but only at a huge cost. But the *German Spring Offensive* of 1918 saw the Salient tighten more closely around the city than ever before. During a final Anglo-Belgian offensive in September 1918, later supported by French and American troops, the Germans finally surrender the Ypres Salient for good. With a destructive power never previously seen, four terrible years of war had ravaged the countryside, wiped towns and villages off the map and claimed the lives of thousands of civilians and more than 500,000 soldiers from around the world.

In the southern part of the Ypres Salient, the front stabilized on a line that ran along the ridge from Wijtschate to Hollebeke, and on to Zillebeke and Geluveld. The positions were already held by the end of November 1914. Apart from minor changes, this situation remained more or less unaltered until 7 June 1917, when the *Mine Offensive* was launched.

During the second half of the 19th century, two major public works projects cut through this ridge: the Ypres-Kortrijk railway line (1854) and the Ypres-Comines Canal (1864/1913). This 'engineering' landscape was destined to have a major effect on the formation of the front during the war. The important war sites at Hill 60 and the Caterpillar Crater lay on either side of the railway cutting; the site at the Bluff is alongside the old canal bed.

### Stories for along the way: the landscape as witness

More information about the wartime landscape between the Ypres-Comines Canal and Hill 60 can be found in the book *Stories for along the way, from the Bluff to die Grosse Bastion*. Available from the tourist office in Ieper and the Palingbeek visitors centre, cost 4 euros.

## ➤ Entry point SOUTH

Address: **Provinciedomein De Palingbeek**  
Palingbeekstraat - 8902 Zillebeke



The war site at Hill 60, with the craters from April 1915 in the foreground.

### Car park *Palingbeek* domain to entry point *Ypres Salient-South*

➤ The entry point **Ypres Salient-South** is 180 metres from the main car park (with bike racks) of the **Palingbeek provincial domain**. From the car park, walk in the direction of the cafeteria (white building) and turn right onto the path that runs in front of it. The entrance point is a further 200 metres along this path.

The entry point for **Ypres Salient-South** is a pavilion where you can watch an informative film (15 min.) about the story of the war in this vicinity. A series of info-panels give further details about this story and also about other walks in this part of the front area.

The 4 kilometres walk follows the front line and connects the best preserved section of wartime landscape in the Ypres Salient: **the Bluff, Ravine Wood, Hill 60** and the **Caterpillar Crater**.

The walk consists of two short circuits. You can either start at the entry point **Ypres-Salient South (The Bluff)** in the Palingbeek provincial domain (walking circuit 1) or at the **Hill 60** site (walking circuit 2).

**Walking circuit 1: The landscape as witness: The Bluff**

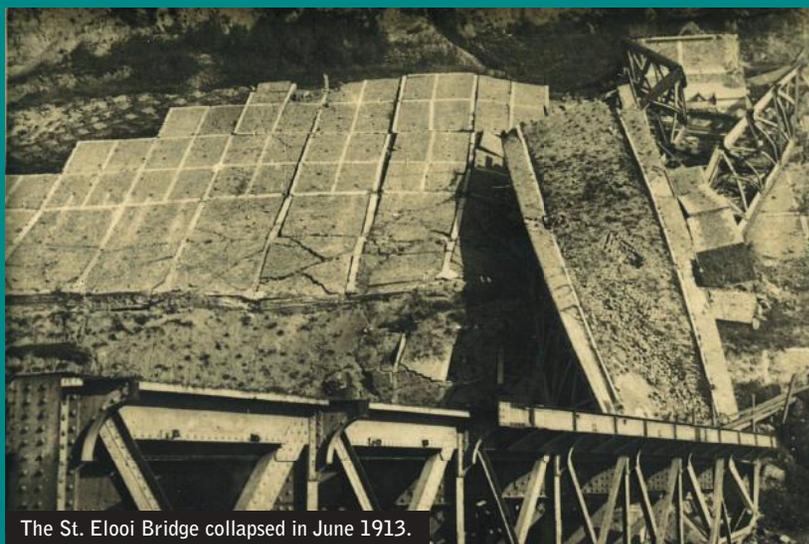
**Walking circuit 2: Hill 60 / Caterpillar** (starts from the car park at Hill 60 - Zwarteleenstraat Zillebeke).

*Sturdy footwear is recommended. Wheelchair users and parents with prams and buggies can explore the area using an alternative path. Dogs must be kept on a lead.*

## Walking circuit 1 The landscape as witness: *Bluff*

From the entry point **Ypres Salient-South** you will walk across what was once no-man's-land. The pavilion stands on the old German front line and looks out to the north on a double hawthorn hedge. This hedge - together with the remembrance trees - marks the site of the front line as far as the *Molenbos* (Mill Wood, but known as *Ravine Wood* during the war). The walk starts on the main path.

➤ After a short distance, turn left onto a planked walkway. There is a flight of steps at the end of this walkway. If you prefer not to take the walkway and the steps, just carry straight on along the main path.



The St. Eloi Bridge collapsed in June 1913.

### The failure of the Ypres-Comines Canal

150 metres further to the south (left of the walkway) a huge cutting splits the landscape. Begun in 1864, this is the bed of the canal that was once intended to connect Ypres (and the Ypres-IJzer Canal) with Comines (and the River Lys). To make this possible, the canal had to be driven through the ridge. Until 1913, four separate attempts were made to carry this out. A cutting measuring 3 kilometres in length, 100 metres wide and 30 metres deep was dug into the slopes of the ridge. But in spite of

this massive effort, no ship ever sailed on the canal. The problem was the instability of the Ypres clay, which caused ground movement that led the walls of the cutting to repeatedly collapse. Two further attempts to run the canal through a tunnel also ended in failure. Eventually, the canal project quite literally ran out of room. The major landowner in the area - and the proprietor of a nearby chateau - was the Mahieu family, but they were unwilling to sell the adjacent land that might have turned the project into a success. Before 1914, Chateau Mahieu was one of the most prestigious country houses in the entire region. Sadly, it was completely destroyed during the war and the two sons of the family were both killed in the service of the French Army, not only bringing to an end the direct family line but also sealing the fate of the once glorious chateau: it was never rebuilt.

The collapse of the impressive Sint-Elooi bridge over the canal in 1913 signalled the definitive end for the project. A year later, the violence of war swept over the uncompleted canal bed, which formed a serious obstacle for the armies of both sides.

You can learn more about the dramatic failure of the *Old Canal* in the Palingbeek visitors centre and in the book *Het Verhaal van de Oude Vaart* (The story of the old canal).

### Crater landscape

The front line here came into being in November 1914 and remained static with only minor changes until 7 June 1917. At this part of the line, the no-man's-land between the opposing trenches was about 150 metres wide. The British had managed to secure the high ground, which allowed them to dominate the German positions on both sides of the canal. This was exceptional: elsewhere in the Ypres Salient it was usually the Germans who overlooked the Allied positions.

In this case, the high ground was formed by a triangular mound made from earth that had been dug out of the canal bed and piled up to one side. This embankment rose some 9 or 10 metres above its surroundings. With a degree of irony, the British called this position *the Bluff* (meaning a steep and impregnable height). The Germans referred to it as *die Grosse Bastion*.

Along the right-hand side of the wooden pathway you can see many ponds and pools in a landscape that has been clearly marked by the war. This is an authentic crater landscape, which has remained more or less unaltered since the end of the war. The Germans wanted to capture *the Bluff* from the British at all costs. After a number of failed attacks, they decided to take the war underground. The first mine exploded by the Germans under the British trenches was detonated in October 1915.



Craters in the war landscape of *the Bluff*. Left: current situation, Right: situation 1917.

## 1916: a year of intense underground warfare

Another 20 mine detonations followed in 1916. On 22 January 1916, a huge German explosion destroyed a section of the well-constructed British positions, killing 70 of the defenders. On 14 February 1916, the Germans exploded a further three mines (*blue in the aerial photograph*) and in infantry attacks over the next two days managed to capture *the Bluff*, killing 352 British troops and wounding many more. A reminder of this tragedy is still visible today in the form of the large, water-filled crater with a steep, high rim on the right-hand side of the path. The photo-panel shows how the Germans dug shelters into the side of this crater wall in the second half of February 1916.

But it didn't take long before the British hit back. On 2 March 1916, a well-prepared attack by six battalions from the 3rd and 17th Divisions won back all the lost ground, but at a cost of a further 300 fatalities. The six small cemeteries nearby testify to the fierceness of the fighting for this strategically important spot.

The Germans soon resumed their own underground activities. On 25 July 1916, *the Bluff* was almost completely torn apart by the detonation of a huge charge spread over three mine chambers. A large, kidney-shaped crater was blown in the hill immediately behind the British front line, which can now be seen to the left of the path (*yellow in the aerial photograph*). The once impressive *Bluff* was reduced to narrow, low ridge (the present path), which no longer had any military significance. The Germans have succeeded in their aim of robbing the British of their strategic advantage.



German shelters in the sides of the crater, February 1916.

The succession of explosions and detonations both above and below ground, including a further mine on 11 December 1916 (*green in the aerial photograph*), transformed the entire area into a near inaccessible wasteland. Further infantry attacks above ground were almost impossible. But the British tunnellers and the German *Mineure* continued their bitter underground struggle, seeking to locate and destroy each other galleries and sometimes even engaging in bloody hand-to-hand fighting metres below the surface.

Not all the craters on *the Bluff* were created in the war years. During the clearance of the old battlegrounds after the Armistice, large quantities of munitions were collected. From 1919 onwards, the deep crater caused by the mine blown on 25 July 1916 was used as a site for the destruction of these unexploded shells and grenades. The site was known locally as the *Springputten van Hollebeke* (the Hollebeke blasting pit). The repeated detonations over a number of years gradually blew away the wall of the crater on the side of the canal bed, so that the crater now merges into the bed, as a result of which it no longer contains water.

Recent research has shown that the craters on the western (left-hand) side of the wooden walkway were caused by German detonations during the Second World War, most probably in 1943 when they were most likely destroying the First World War munitions that were still being found in large amounts (*pink in the aerial photograph*).



After exploring *the Bluff*, cross over the main path to view the entire front area from the raised viewing platform.

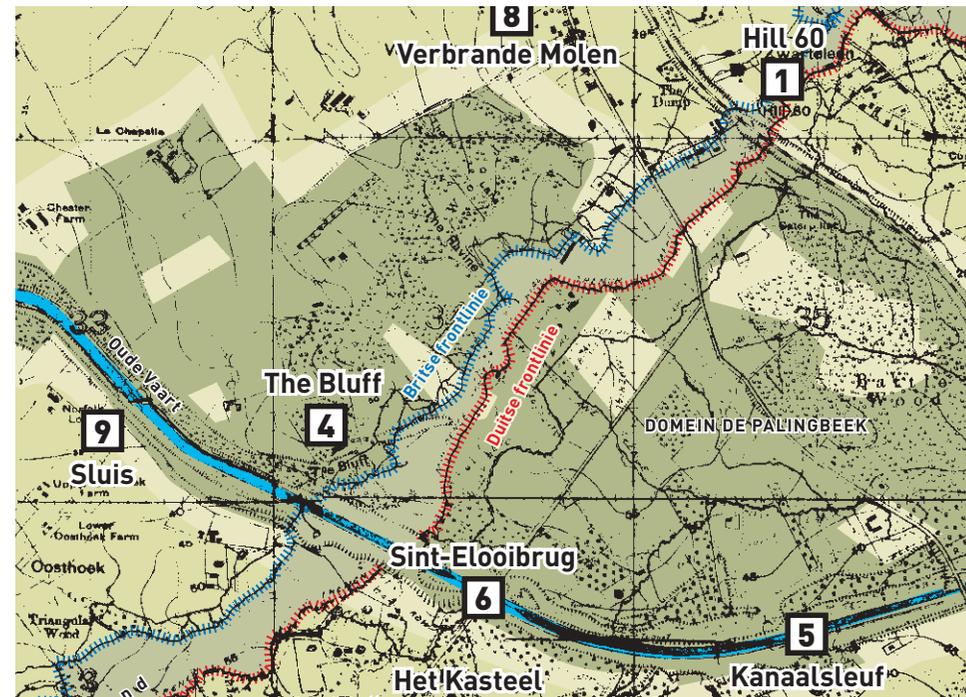


## A view over the front

The panoramic photograph at the end of the platform shows the same landscape during the war. It was taken on 26 May 1915. The German front line was made from raised breastworks constructed in sandbags, to restrict British observation from their positions on the higher ground. These breastworks are now suggested by the double line of the hawthorn hedge and the remembrance trees with red cages. The remembrance trees with blue cages indicate the site of longest-lasting British front line during the period 1915-1917. This line is not visible in the May 1915 photograph.

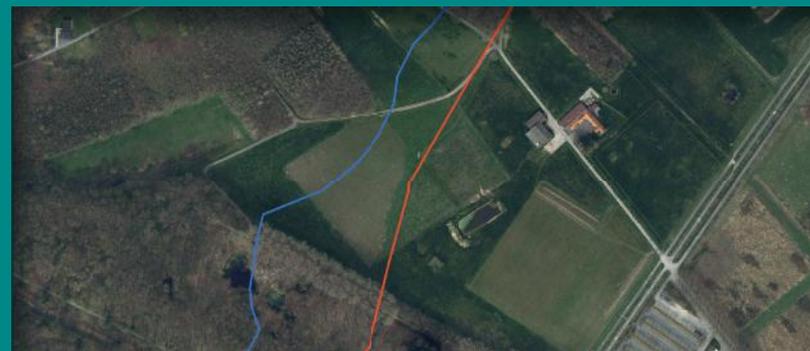
➤ When leaving the platform turn left and walk a dozen or so metres back along the main path (in the direction of the direction of the entrance point and the cafeteria), and then follow the side path that descends sharply to the left, in the direction of the **Molenbos**. The path follows the old British front line, which further on crosses an area of meadowland. From the edge of the wood on the far side of this meadow, the path follows the old German front line, which is also the main avenue through the **Molenbos**.

— **SHORTER ROUTE** (Walking circuit 1): Once you have reached the **Molenbos**, you can return to the entrance point and the car park. At the first remembrance tree with a red cage along the path (German front line), turn right and walk back between the two rows of the hawthorn hedge, which mark the most forward German trench.



## The Molenbos (*Ravine Wood*)

During the war, the edge of the Molenbos was a little further up the slope than now. This edge marked the British front line and is now suggested by the fence enclosing the meadow. Herds of cattle now peacefully graze in what was once no-man's land between November 1914 and 7 June 1917. The British called this locality *Ravine Wood* because of the deep and narrow gullies cut by the springs that form the source of the Klijtgatbeek (Clay-pit stream). At this point, the front line trenches were only 25 metres apart! The red line marks the German trenches; the blue line indicates the British ones.



## The decimation of the Algerian Tirailleurs

This locality was the scene of a terrible drama in mid-December 1914. On 8 December, a company (approximately 200 men) of Algerian *Tirailleurs* serving in the French Army was urgently transferred from Pollinkhove on the IJzer front to the trenches at *Hill 60*, where the Germans were attacking. After a march of 30 kilometres in a single day, they were sent straight back into the front line. When they were not relieved as promised the following day, one company refused to obey the order to attack. As punishment for this disobedience, the French general d' Urbal ordered that one in every ten of the Algerians should be shot. As a result, on 15 December 1914 11 *tirailleurs* and a corporal, selected by the drawing of lots, were executed. To make their humiliation complete, they were first paraded along the length of the divisional front, each wearing a board with the word 'coward' written on it. Some of them were possibly shot by the Germans.

➤ Via the *Molenbosstraat* you will arrive at the *Komenseweg*. Cross the road, walk at short distance to the right and then turn left into the *Zwarteleenstraat*. This leads to the war site at **Hill 60**. Cross over the bridge, walk past the hill on your right until you reach the car park.

## Walking circuit 2 *Hill 60*, a mythical place of British remembrance

On the car park you will begin your exploration of one of the most important sites on the Ypres Salient: **Hill 60**. The wooden walkway leads you comfortably around the most well-preserved battlefield landscape from the war years. Even during the war, **Hill 60** had already assumed a mythical place in British military history.

**Hill 60** is a 3 hectare triangular parcel of higher ground that was created in the years around 1854 with the earth excavated from a railway cutting for the new Ypres-Kortrijk line. In the same way, other neighbouring areas of high ground were created at *the Dump*, the twisting bank of the *Caterpillar* (both on the western side of the railway) and the hillock at Larch Wood (on the eastern side). These four artificial mounds of earth were all destined to play a crucial strategic role during the war.



Hill 60 in 1915: French and British craters blown under the German front line.

## *Hill 60*

The war arrived in this obstacle-strewn landscape on 20 October 1914. At first, the position was defended by British and Indian troops. From 31 October onwards, the French took over this sector of the front. They stubbornly resisted the repeated attacks of Bavarian infantry and established a line of defences that ran at right angles to the railway.

The most serious fighting started on 8 November 1914. Two French battalions managed to hold their ground until 15 November, but little by little they were forced back uphill, towards the *Zwarteleenstraat* and *Verbrandemolen*.

On 10 December 1914, **Hill 60** finally fell into German hands, completing the formation of the Ypres Salient. The French launched furious counter-attacks with the bayonet, but they were all beaten off. It was during this period of bitter fighting that the Algerian *Tirailleurs* were executed.

In a last attempt to throw back the Germans, the French exploded three small mines a few days before Christmas 1914. This was the start of an underground war that would last for two and a half years, until the great offensive of 7 June 1917. In all, almost 50 mines were exploded in and around **Hill 60**.



## The course of the war at *Hill 60*

### Two years of underground war

At the end of January 1915, the British relieved the exhausted French. Between 22 and 27 February 1915, 146 British mine workers of the Tunnelling Company set to work. They sank three deep shafts behind the British lines, from where they dug mine galleries towards the German positions. The end of each gallery was split into two, so that in all six mine chambers were packed with high explosive.

These six mines were exploded by the British on 17 April 1915. The Germans were completely surprised by the blasts and suffered heavy losses. The British then captured the hill with relative ease.

The Germans responded on 1 May with a gas attack, but this failed when the wind changed and blew the noxious fumes from 65 gas cylinders back towards the German lines. However, a new and more successful gas attack on 5 May forced the British back to their old positions. Now that the hill had been recaptured, the Germans fortified it with concrete bunkers.

The front lines above ground then remained unchanged until June 1917, but the war underground continued to rage with great ferocity. Between June 1915 and May 1917 numerous further mines were detonated. Together with Bellewaarde Ridge, **Hill 60** is one of the most remarkable mine landscapes of the war years.

The succession of surface and underground explosions transformed no-man's-land into an impassable chaos of water-filled craters and mounds, strewn with bits of bodies and the other detritus of war. The repeated attempts by both sides to seize and hold **Hill 60** cost many thousands of lives. The whole area is effectively a mass grave, containing the remains of countless unknown soldiers.

### Preparations for the great Mine Battle

At the suggestion of the engineer Lieutenant-Colonel John Norton-Griffiths, the British decided to dig longer and deeper mines in the layer of hard, dry Ieper clay. This bold plan was designed to break open the entire front between **Hill 60** and Ploegsteert with a series of powerful explosions, the like of which had never before been seen.

From a shaft in *Larch Wood*, to the north of **Hill 60**, the tunnellers dug the 'Berlin tunnel' along the line of the railway cutting, but 30 metres below the surface. The tunnel was eventually 700 metres long, and was dug at a speed of 5 centimetres per hour or 5 metres per day. The work was carried out in the greatest silence and secrecy, with all the clay spoil being removed unseen to a dump behind the lines.

By the end of 1915, the tunnellers had reached as far as the railway bridge. Here they split the tunnel in two: one branch leading under **Hill 60**, the other under the *Caterpillar*. The digging now became dangerous: the German *Pioniere* were listening all the time and there was a risk that they might break into the galleries at any moment or destroy them with a countermine.

By 12 April 1916, the charge of 24,267 kilograms of high explosive was ready under **Hill 60**. On 26 April, the Germans exploded a mine under the British trenches, killing 12 men, but the mine chambers were not discovered. By 18 October 1916, a further 31,752 kilograms of explosive had been packed under the *Caterpillar*. Even then, the perilous underground work continued: making side galleries, pumping out water, listening for German activity, firing countermines, erecting defensive barricades, bringing down oxygen supplies, etc.

After 8 November 1916, the Canadian tunnellers who had laid the mines were replaced by Australians, whose task was to defend the charges and keep them in working order until they were ready to be detonated. On 19 December 1916, a German offensive gallery under the *Caterpillar* was destroyed by a controlled British explosion. Undeterred, the Germans continued their search for the mines they knew must be there. Sometimes they came very close, but the mine chambers remained undiscovered.

### The Mine Battle: a British success

On the morning of 7 June 1917 the waiting was finally over. At ten past three in the morning, the opening of the Battle of Messines Ridge - the great Mine Battle - quite literally shook the earth. Over a 15 kilometre front from **Hill 60** to Ploegsteert, 19 mines (out of 21 planned) were fired simultaneously.



The *Caterpillar* Crater in the 1920s, incorporated as part of a path of remembrance.

27.4 metres under **Hill 60** and 30.5 metres under the *Caterpillar*, two enormous explosions ripped the ground apart. At **Hill 60**, the blast formed a crater measuring 58.2 metres in diameter and 10.1 metres in depth. The crater at the *Caterpillar* was 79.2 metres in diameter and 15.5 metres deep. This perfectly formed crater at the *Caterpillar*, which you will see later in the walk, clearly illustrates the huge impact created by the detonation of a deep mine. The level of the water in the crater, which remains the same all year round, marks the upper limit of the underground layer of clay, in which the tunnellers had to dig with such difficulty.

After the explosion, the British launched a full-scale offensive. Supported by more than 3,000 pieces of heavy artillery, nine divisions of infantry (almost 100,000 men) stormed the German positions. It was the most successful British attack of the entire war. The Germans were pushed back over one and a half kilometres. This was, however, just a preliminary to the *Third Battle of Ypres*, which from August 1917 onwards would break out over the entire Ypres Salient.

### The German Spring Offensive of 1918

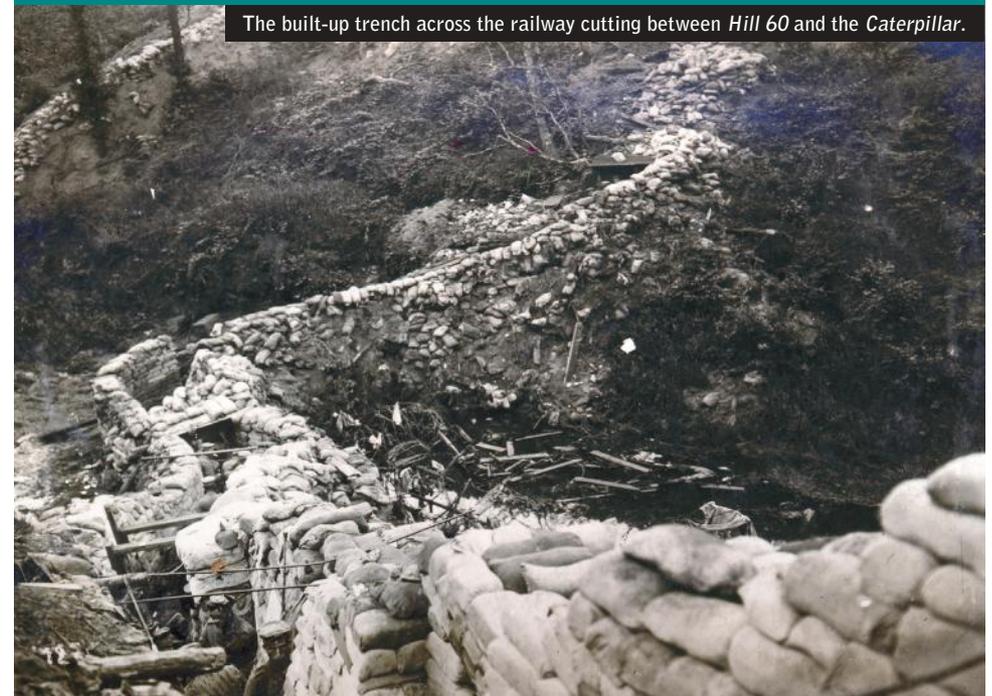
But the Germans were not yet finished. During their *Spring Offensive* in 1918 the Allies were forced to give up **Hill 60** for a third time. After savage fighting around the hill on 15 April, they were forced to pull back behind Zillebeke Lake. It was not until the end of September 1918 that the Germans finally surrendered Höhe 60 for the last time. After just two days of fighting, the British 14th Division captured what was left of this shell-blasted mound of earth. Their monument now stands near the viewing platform on the hill.

Half way across the site stands a large bunker, which was used and adapted by both sides. Originally, it was a German bunker facing the British lines. After the front moved forward during the *Mine Battle* on 7 June 1917, the British rebuilt it, with firing embrasures now facing the German lines.



When you reach the end of the wooden walkway that leads through the **Hill 60** site, you will find yourself on a wide footpath. Turn left and cross over the railway bridge. Just over the bridge, turn left again and walk towards the woodland ahead: the **Vierlingen** domain. This path will eventually bring you to the imposing **Caterpillar Crater**.

**SHORTER ROUTE (Walking circuit 2):** Visitors who only want to follow the short circuit at **Hill 60** should return to the car park by retracing their steps from the crater to the road and turning right over the railway bridge. After visiting the **Caterpillar Crater**, visitors who want to follow the full route should carry on walking southwards through the **Vierlingen** domain until they reach the Komenseweg. The main entrance leading back to Palingbeek domain is a little further along this road to the left. The car park is about 800 metres along the entrance driveway.



The built-up trench across the railway cutting between *Hill 60* and the *Caterpillar*.



The crater landscape at *the Bluff* and the canal cutting in 1917.



The war landscape with the huge craters at *Hill 60* and the *Caterpillar* after June 1917.



## Ieper Tourist Office – In Flanders Fields Museum

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