



Of Hedges, Myths and Memories

A historical reappraisal of the château/ferme d'Hougoumont
Battlefield of Waterloo
Belgium

Alasdair White FHEA FINS



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Frontispiece:

Hougoumont from the southwest. In 1815, the green field was a mature woodland and the farm buildings would have been obscured by boundary trees. This perspective is from the starting position of the French *6e Division* under Jérôme Bonaparte, © Alasdair White

Front Cover:

The south gate of Hougomont, © Alasdair White

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But there is a limit to what can be learned from old documents and drawings and there comes a time when the theories about what was there and what happened there simply have to be tested 'on the ground' and for this I owe a huge debt of gratitude to **Prof. Tony Pollard**, Director of the Centre for Battlefield Archaeology at the University of Glasgow, and **Dominique Bosquet**, *Attaché - Service de l'archéologie du Service public de Wallonie*, the co-Archaeological Directors of the Belgo-British 'Waterloo Uncovered' archaeology project. They, their colleagues and their teams of field workers drawn from the international ranks of wounded veterans and students, patiently listened to my theories and then designed and delivered the process of 'ground-truthing' them. Together we have revealed Hougoumont for what it was and have provided the evidence of what happened there over the years. Amongst the Waterloo Uncovered team a special mention must also be made of Dr Stuart Eve of LP Archaeology whose ability to take the drawings, plans and maps I came across and to prove their accuracy by overlaying them on satellite imagery made everyone's life a lot easier.

Despite the quality of the expertise that has been made freely available to me, any errors or omissions are, of course, my own.

Alasdair White
Braine-l'Alleud, Belgium
2016

General and historical context

The *château-ferme* of Hougoumont is situated 50°40'14"N, 4°23'40"E in the communes of Braine-l'Alleud and Plancenoit, in central Brabant-Wallonia in the country of Belgium, and forms a part of the Battlefield of Waterloo. It is situated in the northwestern corner of a slightly raised area that is roughly square and about 550 metres by 500 metres (approximately 27 hectares), the elevation is 125 metres at the highest point and 113 metres in the valley that surrounds it. Hougoumont is an enclosed (or walled) Brabant farm (*une ferme en quadrilatère*), built in the late 17th and early 18th centuries, approximately 90 metres x 50 metres in size, comprising an upper south courtyard connected to residential usage and a lower north courtyard associated with agriculture. The surrounding land is a fertile sandy loam soil with clay at the bottom of the depressions. The land tends towards a clay consistency when wet but is subjected to quick drying by the persistent and prevailing southwest wind, and can change from one state to the other in a matter of a few hours. The land is ideal for arable agriculture but historically has also supported sheep and cattle farming. Pannage (the keeping of pigs in woodland) appears to have been practised in Brabant but no documentary evidence has come to light to suggest it took place at Hougoumont. There are extensive mixed deciduous woodland parcels in this area of Brabant.



Fig. 1: Satellite image of Hougoumont and its policies, orientated with north at the top. Google Earth server, 1 October 2015.

Hougoumont is of international military and historical importance: first garrisoned in the 'War of the First Coalition' in 1794, it became an iconic symbol of the Battle of Waterloo that took place on Sunday, 18 June 1815 when it formed the bastion on the Anglo-Dutch right. After the battle, certain of the buildings were rebuilt and repaired while others were lost, but in terms of layout, it remains what it was in 1815.

Since 1815, the farm appears to have been worked as a tenancy and when the last farmer retired in 2002, the owner, Comte Guibert d'Oultremont, decided to divest himself of the property and sold it to the *Intercommunale Bataille de Waterloo 1815* together with 11.55 hectares, including the garden.¹

After the purchase, a conservation project was created under the name 'Project Hougoumont'² and, following extensive research by historian Kevin Rogers, a conservation plan was commissioned by Project Hougoumont UK and presented in December 2013 by architects Inskip & Jenkins. Over €3.5 million was raised and the conservation of the farm buildings commenced. The completed conservation was formally opened to the public by HRH Prince Charles, Prince of Wales, on 17 June 2015. Hougoumont now forms part of the national patrimony of the Battle of Waterloo and is open to visitors.

What's in a name?

Some historians assert that Hougoumont is merely a 19th century anglophone mispronunciation of Goumont, which in itself is a corruption of Gomont. It is certainly true that Gomont is an old francophone name for the place but the mispronunciation assertion is questionable as the Ferraris map (see below) of 1777 lists it as Hougoumont, as do all the cadastral maps from 1808 onwards, none of whose authors were English. The origin of the name remains uncertain but may have been Flemish.

¹ Eric Meeuwissen, *La ferme d'Hougoumont mise en vente*, Le Soir.be, édition du 9 avril 2003, p. 21 - http://archives.lesoir.be/patrimoine-les-fermes-historiques-du-champ-de-bataille-_t-20030409-ZON100.html and other sources.

² www.projecthougoumont.com

Main dates in the history of Hougoumont

According to Jacques Logie, a normally reliable historian, in his book *Waterloo l'évitable défaite* (Duculot, Paris, 1984), the freehold property of Gomont appears in a court record in 1358 – however Logie does not quote his source for this assertion.

In 1386, there is mention of a '*tenure et maison*' (tenancy and house) of Gomont within the lordship of the manor of Braine-l'Alleud.³

In 1474, it seems that the Order of Knights Hospitaller (St John of Jerusalem), the successors to the Knights Templar, acquired the land from a Jean del Tour.⁴

In 1536, it passed into the hands of Father Pierre du Fief, a lawyer for the Council of Brabant, who enlarged the property by acquiring more land. But in 1562, it appears that the property belonged to Pierre Quarré and remained in that family until 1637 when it was acquired by Arnold Schuyl, Lord of Walhorn, from near the German border east of Liège.⁵ At this point a defensive tower or tower house was in existence, together with a barn.

In 1661, the property was purchased by Chevalier Jean-Jacques Arrazola de Oñate (who was of Spanish origin) at the time of the Spanish Lowlands. In



Fig. 2: The Hougoumont tower house may have looked like this without the later addition on the right of the picture. The barn is to the left.

1654, Arrazola de Oñate had been appointed a Councillor and Auditor for Brabant and managed the *Brabançonne* domains of the Habsburg ruler, these offices making him both powerful and wealthy. He extended the *logis* or manor house (the original tower house?) and added a chapel, which was completed and consecrated in 1662.⁷ The family then constructed the *ferme en quadrilatère* or enclosed farm with the *logis*, the modified and extended tower house, at the centre. A formal walled garden in the style referred to as *un jardin à la française* together with an arboretum to the south were also established.

³ Jacques Logie, *Waterloo l'évitable défaite*, Duculot, Paris, 1984, pp.102-103.

⁴ Tarlier et Wauters, *La Belgique ancienne et modern*, Pu: Editions A Decq, Bruxelles, 1869 p.104 quoted in Logie.

⁵ Logie, *Waterloo l'évitable défaite*.

⁶ www.arrazoladeonate.be - <http://www.arrazoladeonate.be/verhalen/brussel/gomont/> accessed on 28 July 2016. This is a family-specific website.

⁷ In the d'Outremont Collection is a 'letter patent' dated 6 August 1662 from the Bishop of Namur to Arrazola de Oñate concerning the consecration of the Chapel being worth 40 'indulgences' per year. Seen 14 July 2016.

A hundred years later, the land was mapped by the Austrian general and cartographer, Joseph Jean François, Comte de Ferraris, for the Austrian Empire and Hougoumont is depicted. The Ferraris map, dated 1777, has a scale of 1:11,520 and is accompanied by hand-written commentaries relating to military and economic topics such as rivers, bridges, forests and so on.⁸



Fig. 3: This extract is from the 1777 Ferraris map showing the Bois d'Hougoumont to the north astride the Nivelles road, the farm and walled garden, and the geometric arboretum to the southeast together with the south wood. The brown areas indicate contours with the lighter brown at the bottom of the slope. Orientated with north at the top.

When Jean-André, the last of the Arrazola de Oñate male line, died childless in 1791, his widow, Anne Eugénie, married the 62-year old Chevalier Philippe Gouret de Louville, a major in the service of the Austrian Empire, who subsequently built a town house called 'Hôtel d'Hougoumont' in Nivelles, the regional centre of administration and the largest and most important town in the area, as well as an important centre of church affairs. Chevalier de Louville added the courtesy title of Gomont to his name and was subsequently known as de Louville-Gomont.

In 1794, during the 'War of the First Coalition' against Revolutionary France, the belligerents contested much of the land that was subsequently fought over in the 1815 Belgium Campaign and on 6-7 July 1794, a battle that involved Hougoumont was fought at Mont-Saint-Jean.

⁸ The Ferraris map is available online at www.kbr.be/collections/cart_plan/ferraris/ferraris_nl.html

On 17 June 2015, the restored buildings were formally opened by HRH Charles, Prince of Wales, in the presence of royalty from Belgium, the Netherlands, Luxembourg and the descendants of the Duke of Wellington, Emperor Napoleon and Prince Blücher.

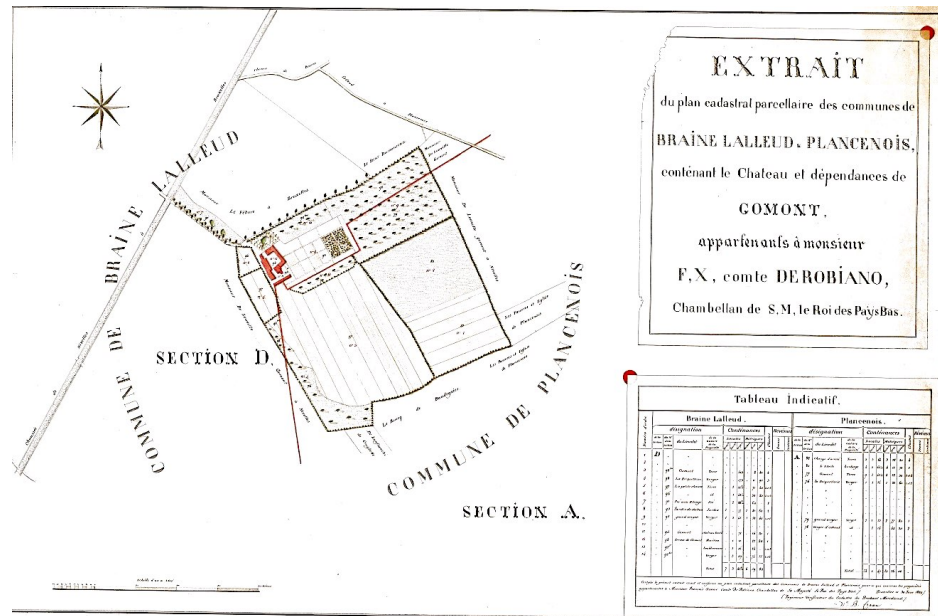


Fig. 5: The reconciliation handshake between the 9th Duke of Wellington, Prince Charles Bonaparte, a descendant of Prince Jérôme Bonaparte, and Prince Blücher von Wahlstatt, a descendant of the Prussian Field Marshal. Photo © Reuters, 2015.

Understanding Hougoumont: the use of the cadastral maps of 1816 and 1820

During his historical research for this monograph, Project Hougoumont and the archaeological project ‘Waterloo Uncovered’¹², the author accessed a variety of historical data, some of it not in the public domain and being seen for the first time. Amongst this was a documentary and artefact collection owned by Comte Guibert d’Oultremont, the last private owner of Hougoumont, which has not been fully researched by historians. This collection contains, amongst a wealth of other documents, two maps of Hougoumont, dated 1816 and 1820, which are extracts from the Belgian Cadastral and which were prepared for taxation purposes.

¹² [Waterloo Uncovered](http://www.waterloouncovered.com) is a Belgo-British archaeological project led by Dominique Bosquet, Adjunct de la Direction de l’archéologie, Service public de Wallonie, and Prof. Tony Pollard, Director of the Centre for Battlefield Archaeology at the University of Glasgow. See www.waterloouncovered.com



Map 2: Cadastral map dated 30 June 1820 – private d'Oultremont collection. The orientation of this map has been reversed so that the top of the map is to the north – compare this with the 1816 map above in which north is at the bottom.

The Belgian Cadastre

The Belgian Cadastre is structurally a personal and fiscal cadastre based on the French Cadastre established in the early years of Revolutionary France for the purpose of establishing landownership (legal entitlement), occupancy, usage and taxation (based on the assumed productive values). Established in 1808, some 13 years after the united provinces of Belgium became part of the French Revolutionary empire in 1795, the Belgian cadastre used the very latest survey techniques, measurements (both local and the new metric system) and triangulation protocols, and the maps have proven to be extremely accurate as one would expect given that taxation is based on the actual size and usage.

In 1808, when Napoleon sought to finance his wars through land taxation, the French Cadastre was updated and new cadastres were established in all *départements*, both in France and other areas conquered by the French Revolutionary Army. In Belgium, the work of creating the cadastre started in 1808, beginning with Brussels and other cities and their agriculturally rich hinterlands. The French system of cadastre maps fixed not only the ownership but also the exact boundaries and usage, using a common land-usage legend that included all public roads but often not their names; the maps did not record private roads or farm tracks. The types of boundary to each parcel of land was also recorded, e.g. hedges, walls, drainage ditches, rivers, streams, roads and so on. The work of mapping the land for the Belgium Cadastre was only completed in 1843.

The key to the taxation principles was that each type of usage – building, arable, pastoral, orchard, woodland and garden – were all recorded using a common legend and were taxed at different rates based on an ‘assumed productive value’ or rental value. Farm tracks and private access roads were generally not included as they had no taxable value. Cadastral maps were only updated if the legal status of the land changed: change of ownership/occupancy or change of land usage being the principle reasons. A good example of this is the 1820 cadastral map which shows the change in usage for parcel 3 from woodland on the 1816 map (Map 1) to arable in 1820 (Map 2).

The Hougoumont cadastral maps are from the cadastre covering the *département de la Dyle* in the *Cadastre de Brabant Meridional*. In October 1814, Willem Benjamin Craan (1776-1848), who had served the French Empire as Cadastral Surveyor for the *département de la Roer* based at Aix la Chappelle (Aachen) in what is now Germany, was appointed by King Willem I of the Netherlands as the *chef de Cadastre* responsible for the *département de la Dyle*. As the Hougoumont cadastral map dated 1816 (Map 1) is orientated with north at the bottom and the extract is signed by someone other than Craan, it would not be unreasonable to assume that it was actually prepared prior to 1814, whereas the second map (Map 2), dated 1820, has its orientation reversed to place north at the top of the map, is signed by Craan and details the change of usage for ‘parcel 3’ from woodland to arable land (thus attracting a higher ‘assumed productive value’)

W.B. Craan is best known for his 1816 map of the battlefield that shows the initial distribution of the belligerent forces compiled from personal correspondence with surviving officers. Craan’s work pre-dates that of W. Siborne who undertook similar work in the 1830s.

The two cadastral maps thus provide the first totally accurate large-scale maps of the Hougoumont estate prepared and drawn to scale by professional cartographers and engineer/surveyors, and from which information has been obtained showing land-usage, dimensions, and distribution of hedging. When the maps were digitally overlaid onto the Google Earth map it was found to be accurate with all the mapped features still visible today. The accuracy of the layout of the hedges also allowed confirmation of locations mentioned in the documentary record concerning the two military events.

Analysis of the Hougoumont maps

When analysing the maps, care needs to be taken as the 1816 map (*Map 1*) is orientated with north at the bottom and south at the top. The 1820 map (*Map 2*) and the Ferraris map (*Map 4*) have the more conventional orientation of

having the north at the top. Both of the latter are included below again for ease of comparison.



Fig. 6: Extract from Ferraris 1777.

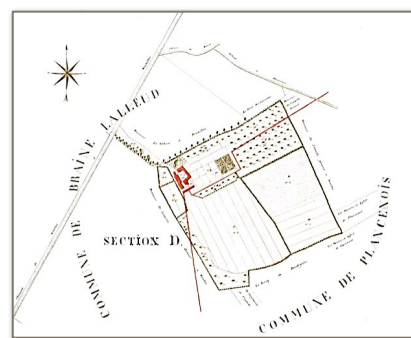


Fig. 7: Extract from Cadastral 1820.

The legend used by Ferraris shows arable and meadow land as both green and brown-striped areas, woodland as randomly placed trees, and orchards as regularly spaced trees. The cadastral maps vary slightly from this and arable is shown as brown stripes and meadow as solid green and if reference is made back to Map 1 (on page 7), it will be seen that parcel 3, representing the south wood, appears on Map 2 above as arable and the meadow in parcel 4 as orchard in Map 2.

The area shaded brown on the Ferraris map represents a lower area or valley with the darker colour indicating the more severe slope. The area to the north of the upper left-right depression is a plateau that forms the western end of a ridge and is shown as woodland (*Bois d'Hougoumont*). The ridge and the woodland are nearly 15 metres higher than the lowest point of the depression and Hougoumont itself is just under 6 metres above the valley floor. As the cadastral maps do not show contours, this topographical variation cannot be determined from them.

The first thing to note is that to the upper left is a long straight road: this is the main metalled road that links to the village of Mont-Saint-Jean (and then to Brussels and east to Liege) off the top of the map with the regionally important city of Nivelles (and then France) off to the bottom left. This was, and still is, a very important and well-maintained route called the *Chaussée de Nivelles*. In the 1970s, an autoroute was built parallel to this road, between it and Hougoumont, and the topography has changed accordingly: the ridge that contained the *Bois d'Hougoumont* is now separated from the *Chaussée de Nivelles* by a cutting containing the autoroute.

The *Bois d'Hougoumont* is not shown on the cadastral maps for a very simple reason: it is on land that was not part of the Hougoumont property for tax purposes: it belonged to a Monsieur Lefévre from Brussels. At least five of the trees in 2016, date from the 1700s or earlier.¹³

¹³ Ages have been estimated based on girth at 1.5 metres above the ground, tree species, growing conditions, size of canopy etc; dendrochronological research has not been undertaken.

The main public approach road from the *Chaussée de Nivelles* runs through the valley with what Ferraris shows as an orchard on its eastern side. This road, called *Rue aux Loups* or Wolf Lane, then runs along the northern boundary of the property¹⁴, still in the valley, before it joins the north-south road called *Chemin de Braine l'alleud à Plancenoit*, (or, in the local vernacular, *Chemin des Trois Tiennes*) which runs south to La Belle Alliance. The cadastral map shows *Rue aux Loups* as being the boundary of the Hougomont property and having a significant hedge along its southern embankment. There also appears to have been a realignment of the northern end of *Rue aux Loups*, bringing it closer to the *Bois d'Hougomont*, and the old orchard has become a meadow with two reasonably significant ponds close to the road. This field is some 30-40 metres wide and is called *Pré aux (Deux) Etangs* (or simply, the 'meadow with the (two) ponds'). Today, possibly as a result of the building of the autoroute, a modern culvert runs down the centre of the field which is wider and the ponds have subsequently disappeared — indeed, as has a much bigger pond just outside the north gate.¹⁵

This latter pond, possibly as much as 15 or 20 metres in diameter, was centralised in an area just to the south of the *Rue aux Loups* and below and to the north of the farm wall in an area designated as the *houblonnière* (the hop field). There is some evidence that the farmyard drained into this pond and the pond then drained into *Pré aux Deux Etangs*. After 1815, it is probable that material from the burnt-out manor (*logis*) and farm buildings, where not recycled by the community, was disposed of by burial in this area, as also happened in 2015 when the builders disposed of a great deal of their construction detritus by simply dumping it where the pond had been.

To the east of the pond, bordered to the north by the boundary hedge and *Rue aux Loups* and to the south by a high, quickset, hawthorn hedge along the north side of the formal garden¹⁶, is an extension of the great orchard. Confusingly, some historians¹⁷ call this the 'small orchard', a term usually relating more correctly to the area on the south side of the garden wall. On the garden-side of the hedge, Ferraris shows a linear area designated as vegetable garden whilst the cadastral map merely records it as garden.

The garden area is bounded on three sides by walls that stood around three metres high. In addition to the rectangular spaces for vegetables along its northern side, it contained a formal '*jardin à la française*' constructed as a formal rectangular parterre with an *étoile* parterre occupying the east end. An unreferenced source indicated that the owner, de Louville-Gomont, was particularly fond of the garden: however, little is known about what this garden

¹⁴ This is what historians of the Battle of Waterloo have called the 'sunken way'.

¹⁵ Comte Guibert d'Oultremont, the last private owner, remembers the ponds being in existence during his childhood.

¹⁶ The remains of this hedge, now trees of significant height, are still in existence. High hedges were often used in preference to walls as they acted as a windbreak, reducing turbulence, and producing enhanced growing conditions.

¹⁷ Mark Adkins, *The Waterloo Companion*, Aurum, London, 2001 for example.

contained but there are some references to flowers, roses, ornamental shrubs and fruit trees such as oranges and figs. An avenue of hornbeams (probably *carpinus betulus*) is thought to have run down the south side near the wall but these are not shown on the maps. Gardens designed 'à la française' are based on the work of André le Nôtre who laid out the gardens at Versailles between 1662 and 1700 and this style of garden design continued until the mid 18th century when the new 'English Garden' became popular. This suggests that the strictly geometric garden at Hougoumont was laid out for Chevalier Jean-Jacques Arrazola de Oñate around 1661 and was well established by the time it was mapped by Ferraris c1770.



Fig. 8: This LIDAR (ground penetrating radar) image of Hougoumont clearly shows the design of the walled garden used rectangles for two-thirds of its length with an étoile at the east end. This confirms the layout shown by Ferraris and the cadastral maps. The feature marked 'pathway' is the Rue aux Loups, while the area marked 'ditch' is a natural drainage channel. The four features marked '?' at the top are brick-edged landscaped features from when this was an ornamental garden. The feature marked '?' to the middle left is the remains of the deux etangs. Both the garden and the ponds ceased to exist in the 1960s. Infography © D. Bosquet, SPW-DPat, 2015.

Beyond the end of the garden wall in the eastern-most parcel of land (no. 9 on Map 1) was the great orchard, which was enclosed by a high hedge, and two parcels of land (nos. 1 and 2). No.1 is listed as arable land on both the 1816 and 1820 maps, whereas no. 2 is called *l'étoile* and is listed as pasture in both cases. When compared to the Ferraris map, these two areas are shown to be a single geometric, star-shaped area enclosed by a high hedge and laid out as a parterre with either earth or gravel walkways. Interpreting the Ferraris mapping style suggests that this parterre area was, in fact, a formal arboretum. Arboretums reached their highest development in the late 1600s but fell out of fashion in the 1700s, which may explain the disappearance of the Hougoumont parterre wood – *l'étoile* – between 1771 and 1777 (when Ferraris mapped the area) and

1816 when no sign of the design remained except for the name and the northern hedge which had separated it from the great orchard. The western side of the *étoile* does not align with the corner of the formal garden but overlaps the south wall by 20 metres.

Just to the south of the garden wall is parcel 10 (see Fig. 9). This is listed as being part of the great orchard in 1820 but is designated as the small orchard (*le petit verger*) in 1816, whilst Ferraris shows it very definitely as part of the great orchard. This is the area designated as the 'killing ground' in most descriptions of the 1815 battle and is bordered to the south by either a 'not very dense' hedge and ditch¹⁸ or a dense hedge and shallow ditch if others are to be believed. The land slopes steadily to the west and there appears to have been a hedge at the eastern end that separates it from the great orchard, about 20 metres short of the corner. At this same spot, the junction of the hedges creates the opening into the great orchard (see Fig. 9 below).

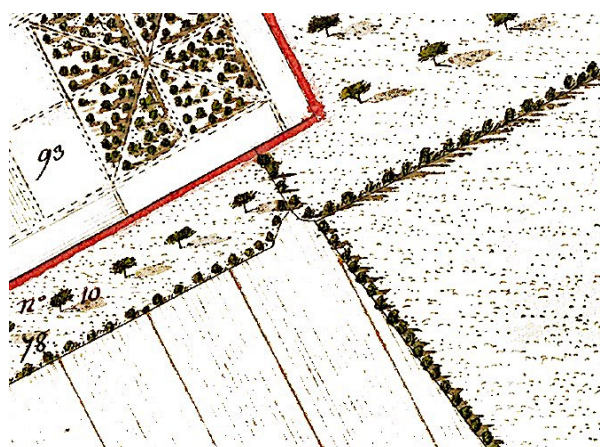


Fig. 9: An extract from Map 2 showing in detail the junction of hedges at the southeast corner of the garden wall and the entrance to the great orchard (upper right).

Next to these parcels of land is parcel 3 which is shown by both Ferraris (1777) and the cadastral map of 1816 as the *Bois de Gomont* or 'south wood', and on the 1820 map as having been clear-felled (between 1817 and 1820) and designated as arable land. The entire area slopes down significantly to the west and south. The Ferraris map shows a farm road running north to south through the wood and leading directly to the south gate of the building complex. The wood was a mixed deciduous woodland and is discussed in more detail below.

At the lower ended of the wood to the south and west, there is a ditch that is quite deep, at around one metre below the surrounding levels. This carries a significant amount of water, especially during the winter months when it becomes a winterbourne but can be wet throughout the summer. This is the boundary of the wood and also of the meadow or pastureland that runs around the south and west of the wood (parcel 4 on the cadastral maps). Ferraris shows this area as orchard, as does the 1820 map, but it is recorded simply as pasture on the 1816 map. Given the clay nature of the soil at the bottom of the valley

¹⁸ Büsgen in Siborne quoted in Project Hougoumont Conservation Report (PHCR), Vol. II, p. 66.

and around the ditch, it would be understandable if brick-making took place here and this is borne out by the fact that the name of this meadow is *le pré de la briquetterie*, (Brick Kiln Pasture) which suggests it is the field in which bricks were made. This is confirmed by the discovery close by of a brick kiln during the April 2015 ‘Waterloo Uncovered’ research.¹⁹

The final two parcels of land are nos. 4 and 5, which are located between the farm buildings and the western boundary represented by the wet ditch mentioned above. All three maps suggest that no. 5, closest to the wood, was arable and in use as the garden or paddock utilised by the gardener (*la petite closière du jardinier*), while the other parcel, no. 6, is the vegetable garden for the farmer.

The walled château-farm of Hougoumont – *une ferme en quadrilatère*

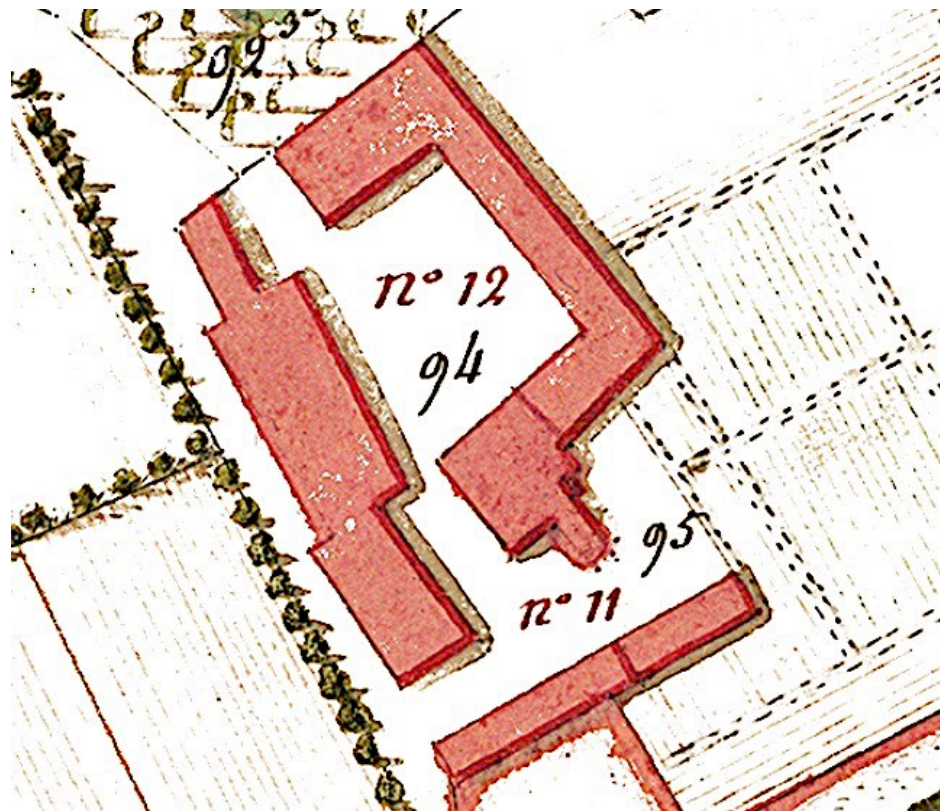


Fig. 10: Extract from Map 2 showing the Hougoumont buildings with north to the top.

The maps all agree on the buildings (parcels 11 and 12) – see Fig. 10 above. These are physically laid out as a *ferme en quadrilatère* as described by Michel

¹⁹ Bosquet, D., et al. 2015a, 2015b.

Anselme²⁰ in his 1983 book on 17th-18th century vernacular farm architecture. The farm buildings, those extant now and those lost, were erected between 1661 and 1730 by Chevalier Jean-Jacques Arrazola de Oñate as a statement of his wealth and *seigneuriale* status, thereby creating a high-prestige, large agricultural complex²¹ surrounding the *logis* or manor house at its centre and with extensive pleasure gardens and an arboretum – effectively making a statement that he did not have to obtain revenue from his estate.²²

Physically, the whole complex slopes significantly to the northwest with a drop of 4.85 metres between the ground floor of the *logis* (the residential manor house) and the north gate, and 2.52 metres between the northeast corner and the north gate. Parcel 11 is the south or ‘upper’ courtyard and contained the domestic buildings associated with the residential function of the site.

The long range of buildings to the south contains a low residential building under a steep pitched and gable-ended roof containing a second floor or attic and is connected to a two-storey residential complex with rooms over the south gate – this was the bailiff’s house originally. There is an attic here as well, probably containing servants’ bedrooms.



Fig. 11: The south range viewed from the east side of the manor house. The chapel is to the right of the picture and the garden wall to the left.

²⁰ Ed: Michel Anselme *Hesbaye Namuroise* (Centre d'histoire de l'architecture et du bâtiment), pub: Editions Mardaga, 1983.

²¹ At 90 x 50 metres, the entire complex is almost twice the average size of a walled farm (normally 50 x 50 m), and with the *logis* acting as a dividing barrier it really is a ‘statement’ building.

²² www.arrazoladeonate.be, the Arrazola de Oñate family website (accessed 28 July 2016), asserts that when Hougoumont was acquired from Arnold Schuyt in 1661 it was ‘no more than a barn...with a tower that protruded above the other buildings...’ suggesting that a residential building of an essentially defensive nature (a tower house, perhaps, see Fig. 2 on page 3) together with a stone barn and some wooden buildings was all that existed and that Arrazola de Oñate redeveloped the entire site.



Fig. 12: The west end of the south range.

The west end of the range is of similar design to the other end and appears to have been a cowshed with a hayloft above. There is some evidence²³ that the range of buildings to the south was the first to be built after the *logis* or manor house and its chapel²⁴. It is believed that Carlier, the gardener, lived there in 1815.

In the two cadastral maps, the south range is *NOT* connected to the west range and appears as an entrance – the Ferraris map, however, shows it as connected. This is almost certainly a drafting error by the cadastral as such an entrance is not recorded in any of the documentary records of the 1815 battle and had it existed, the outcome of the battle would almost certainly have been different. Today, as it probably was then, this is a curtain wall

against which in more recent times there had been a set of low structures that were dog kennels but became used as pigsties.

The building at the southern end of the west range is an agricultural building that functioned as the stables for four horses, and contained a milking parlour for around four cows and a dairy or cheese-making area. There is a hayloft above. There is now, and was in 1815, a wide door entering the back of the building from the west for horses and personnel only. Opposite this is a similar door connecting to the southern or upper courtyard. At the north (or lower) end of this building is a cart shed. Below the dairy or cheese-making room is a cellar used as a cheese store. Built into the wall is a well shaft with access to the well from the courtyard.



Fig. 13: The south end of the west range viewed from the manor house.

Opposite the south/west stables was the *logis* or manor house, on the south side of which was a single-storey chapel that was entered via a door from the courtyard into an internal hall and thence the chapel. As the manor house was totally destroyed by fire during the 1815 battle leaving only the chapel standing,

²³ Anselme describes the order of building a *ferme en quadrilatère* and suggests that the entrance gate and the range containing it is usually built first to provide immediately useful buildings.

²⁴ The chapel was completed by 1662 and consecrated by the Bishop of Namur with Letters Patent dated 6 August 1662 – the original letter is in the private d'Outremont collection and was seen and translated by the author on 14 July 2016.

little is known about its design, although the SPW²⁵ has conducted an archaeological excavation²⁶ of the manor house foundations and so the dimensions are known to be approximately 16 metres east to west and 12-15 metres north to south. The house appears to have been built in at least two phases: the first to incorporate the original tower house into a 12 x 12 metre residential building with its attached chapel, and the second external to this with the addition of a gallery to the south and an additional room to the east giving the final dimensions. Given the probable construction period of phase 1 as being the early to mid 1660s, this building was almost certainly two storeys high with the servants' rooms in the garrets with attics above. It is probable that



The Ruin Court
Published in Mudford's History, 1817

Fig. 14: This watercolour by James Rouse was painted in 1816-1817 for Mudford's Historical Account of the Campaign in the Netherlands published in 1817. It shows the ruin of the manor house after the battle of Waterloo which took place on 18 June 1815.

the main part of the building was the same height as the central section of the south range and that a lookout tower or external staircase adjoined it in the southeast corner. The location of the manor house is currently represented by a raised, grassed, flat-topped mound and the entire upper courtyard is cobbled.

Between the manor house and the east wall of the complex and adjoining both was a residential building thought to be used as the farmer's house where Dumonceau lived there in 1815. Currently, nothing is known about its design but it was probably similar to the east wing

of the south range shown in Fig. 11 above.

The northern end of the west range is a five-bay great barn with an upward sloping lateral carriageway running north to south. Inside, the central bay has a break in the threshold to allow sideways unloading onto the threshing floor. The carriageway exits into the upper (south courtyard) which is some two metres higher than the entrance.

The north range of farm buildings in the north courtyard were completely destroyed by fire in 1815. These were almost certainly stables but nothing is currently known about their design although artists at the time render the ruins as being two-storeys high under a gable-ended, pitched roof and this might indicate that it was used as accommodation for farm workers or other staff. The

²⁵ SPW, or *Service public de Wallonie*, is the governmental department that oversees all archaeological work in Wallonia.

²⁶ Willems D., 2015. *Un passé réveillé à la ferme d'Hougoumont*, Namur, SPW Éditions, *Pré-actes des Journées d'archéologie en Wallonie (Rochefort 18-20 novembre 2015)*, *Série Rapports archéologie*, 1, p. 103-105.

dimensions of the north range suggest that it probably provided stabling for up to ten horses.

The east range is of similar dimension to the east wing of the south range as shown in *Fig. 11* above and probably resembled it closely in construction. As with the north range, the east range was stabling, probably for four draft horses or six riding horses or coach horses. It was of high-status as can be seen from the quality of the highly-engineered drain and sump found during archaeological work in 2016²⁷ – this led from the back half of the stables indicating that the horses were stabled facing the farmyard. There is some evidence that the east range was free standing but connected to the east wall. The same evidence suggests it had a pitched roof with hipped ends.

Memoirs of the events of 18 June 1815 indicate that these stables were shelled in the afternoon and the hay stored in the hayloft was set alight, completely destroying the roof and interior, leaving the building a shell.

Logically, a dung heap would have occupied the northeast corner of the north courtyard, while between the north end of the great barn and the north wall there was probably an open-fronted structure that would have housed the workshops of the blacksmith and perhaps the carpenter.

In front of the north and east ranges there would have been a level area or terrace of two to three metres in width, which would have been cobbled. A cobbled drain/gully would have led from the drain seen in *Fig. 15* to carry its discharge down to the north gate and then round to the ponds in the valley bottom. The north courtyard slopes both northwards and westwards creating a curved profile with a drop of 2.52 metres to the west and 4.85 metres to the north. It is probable that this curving yard was surfaced with compacted earth.

Near the north wall of the *logis*, there was a 16-metre deep well with a structure containing the winding mechanism, above which was a multi-level dovecot. The wellhead and dovecot survived the 1815 destruction and parts were still standing in 1904²⁸. The shaft had been filled in with detritus from the demolished buildings but it was excavated between 1979 and 1982. No finds of significant importance were found.²⁹



Fig. 15: The highly-engineered drain and sump running east to west from inside the east range stabling.

²⁷ See www.waterloouncovered.com

²⁸ It was still in existence in the early 20th century but was then levelled and has been fitted with a safety grill.

²⁹ Project Hougoumont Conservation Report (PHCR), Vol. III, page 218.

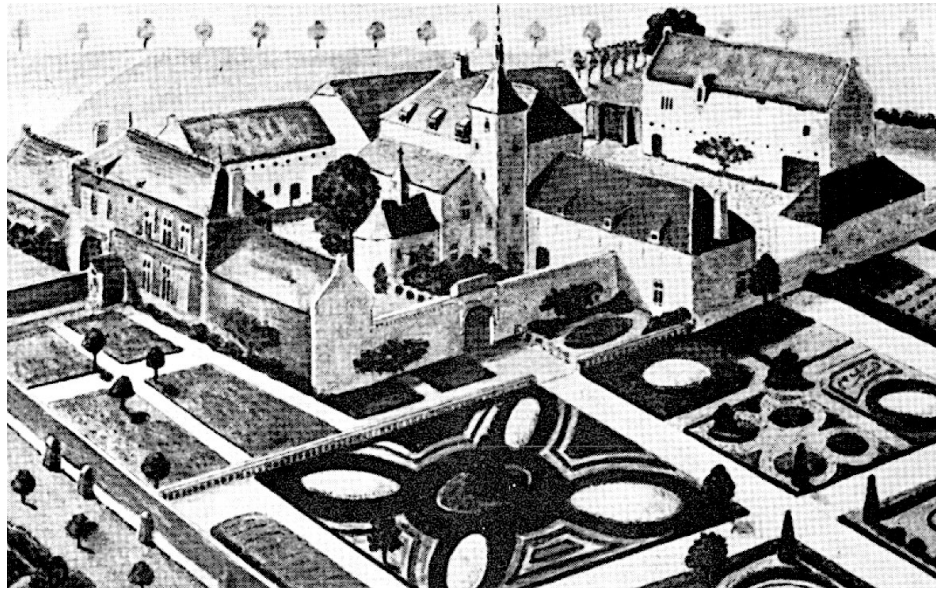


Fig. 17: This black and white print is a modern and rather romanticised interpretation of what the buildings might have looked like viewed from the southeast. The south gate is to the upper left, the north gate can be seen on the upper right/centre and the formal walled garden to the lower right. Artist unknown.

entered through a large gated entrance in the north wall and from the upper courtyard. The upper courtyard also provided pedestrian access to the formal walled garden. Following conservation in 2015, all these entrances are usable, although for security and touristic experience reasons, access is limited to pedestrians only through the door in the west wall.

As this was a very high-status building complex, it is very probable that all the roofs would have been of dark grey (Ardenne) slate. However, in January 1817, Comte de Robiano, as Chamberlain to King William I of the Netherlands, wrote to the King seeking war reparations of 59,000 francs for the damage to Hougoumont³⁰ but there is no evidence to suggest that anything was paid³¹ and it appears that de Robiano simply demolished the damaged buildings and re-roofed the others with cheap local clay/terracotta tiles. This is borne out by the quantity of slate detritus in the north farmyard uncovered during the 2014 renovations which followed the same principle.

As a working farm, all the external and internal walls of the agricultural buildings and the external walls of the residential buildings would have been lime-washed (calcimine), creating a white finish that has antibacterial properties; it can become yellowish in certain conditions and needs to be re-lime-washed on a regular basis.

³⁰ [The letter, dated 19 January 1817 and written in French is part of the d'Outremont collection.](#)

³¹ [...or else he received the money and spent it elsewhere.](#)

The use of hedges in the 18th and 19th century landscape

Analysing the cadastral map legends, it becomes clear that there are two types of boundary hedges identified: a thick and a thin hedge. Descriptions in the documentary records show that the main boundary hedges, those shown on *Map 1* and *Map 2* as surrounding the entire property, were dense/thick, quickset hedges mainly of hawthorn (*crataegus*), with European maple (*acer campestris/pseudoplanatus*), stunted beech (*fagus*) and blackthorn (*prunus spinosa*) often up to 2 or 3 metres in height, usually set on a raised dyke or on the upper side of a deep ditch or road/track as shown in *Fig. 18* below.



Fig. 18: An example of a mixed boundary hedge on an embankment. This is on similar soil to Hougoumont and is located on the other side of the battlefield at Papelotte, 3 kms to the east.

The other type of hedge, such as that between parcel 10 (the small orchard or 'killing zone' along the south wall) and the woodland in parcel 3, were generally between 1.75 metres and 2 metres, less dense and less thick although of the same mix of species, and only a shallow ditch. This can be seen in *Fig. 19* below.

During the 18th and 19th centuries there was an increase in the enclosure of land. Each enclosure had

to be properly defined in law and was often marked by the use of a hedge and ditch. The ditch marked the boundary and the excavated earth was placed on the inner (enclosed) side as a raised dyke on which a 'fence' was placed in the form of a hedge or, in northern European countries, a dry-stone wall. The hedge, therefore, appears to have been the responsibility of the enclosing owner.

Fig. 19: This hedge is just 1 metre thick although 3 metres high. Mainly hawthorn with a few other species, it is opaque in mid summer (this photograph was taken in June 2016), completely stock-proof, and is both a visual and physical barrier.



Except for the remnants of the hedge above the sunken way to the north of the great orchard and that between the walled garden (parcel 8) and the strip of parcel 9 shown in *Fig. 20*, the Hougoumont hedges have all been grubbed up



Fig. 20: The 250-year-old remains of the hedge between the walled garden and the strip of orchard to the north.

and some have been replaced by wire fences. This stems from the second half of the 19th century, when the less maintenance-intensive wire fencing – particularly barbed wire – for enclosures was adopted, and the early 20th century, with the mechanisation of agriculture.

It is interesting to note the offset hedge line at the junction of the hedges at the southeast corner of

the garden wall in *Fig. 9* on page 13. Based on superimposing the cadastral maps on satellite imagery and then checking on the ground, the hedge line sat on a small dyke of about 10-15 cms in height with a shallow ditch on the south side, as can be seen in *Fig 21*. A farm track ran (and still runs) along the south side, providing a link between the working farm buildings and the great orchard (upper left of the image) and the pasture (upper right of the image). The angle is such that it would allow a horse-drawn cart to turn off the track and into the orchard.



Fig. 21: The area of the offset junction discussed above. The farm track is clearly visible to the right with the ditch to its left. The dyke is directly under the fence line. The fence post to the bottom left is a little east of where the original hedge line became offset to the left of the picture. The great orchard, parcel 9, is to the upper left of the picture.

The southern wood – *le Bois de Gomont*

It is reasonable to assume that the three large sweet chestnut trees (*castanea sativa*), two of which are dead as a result of lightening strikes in the 1980s and 1990s and the third still alive although lightening-damaged, situated some 40 metres south of the south gate of the farm complex, are the remnants of the south wood that is shown as parcel 3 on the 1816 cadastral map (*Map 1*) and through which the French attacked in 1815, probably up the road or track marked on the Ferraris 1777 map. The smaller, fourth tree was planted by the 8th Duke of Wellington in the 1970s. These trees were declared the *European Trees of Peace and Memory* in 2016.



Fig. 22: The sweet chestnut (castanea sativa) trees at the edge of what was the south wood. The two on the right are dead, the large one is damaged but alive, and the one on the left, planted by the 8th Duke of Wellington in the 1970s, is flourishing. The road through the wood came out between the two trees on the left. Photo © Marc Fasol.

The documentary evidence suggests that in 1815 this wood was mixed deciduous woodland and the diameter of the trees was not much greater than the width of a man. Based on the author's study of similar woodlands on similar soils (e.g. see *Fig. 23*), it becomes apparent that the age of the wood must have been around 75-150 years. A dendrochronological report on the chestnut trees³² suggests a planting date of between 1675 and 1775, with the covering explanation that an estimate had had to be made as the core sample was 30 cms too short. Taking the evidence together, a planting date of around 1725 seems about right for the wood as a whole.

³² [Rapport d'Analyse Dendrochronologie – Les Chataigniers de la Ferme d'Hougoumont \(Braine-l'Alleud\) by Jérôme Eesckhout, Université de Liège, 2005.](#)

We know from the cadastral maps of 1816 and 1820 that at some time between the two dates the woodland had been clear-felled and the land usage changed to arable. Chevalier de Louville-Gomont is known to have felled some of the worst damaged trees but the clear felling was undertaken by the Comte de Robiano. However, in 1816, James McQueen³³ visited Hougoumont and reported that the “*wood is intersected with natural hedges and ditches*” and this is borne out by the landscape within other parcels of woodland in the area. Extensive re-profiling of the landscape has occurred over the last 200 years as a result of the land being worked using mechanised farm machinery.



Fig. 23: This woodland in Hoeilaart, 11 kms away, is on similar soils and topography to what would have existed at Hougoumont in 1815. The French traversed this type of woodland in 1815. Experienced serving soldiers have estimated that it would have taken them between 40 and 90 minutes to cover the 400 metres involved against a spirited defence and under bombardment.

The south gate open area

An examination of the flat area 40 metres to the south of the south gate and just to the north of the sweet chestnut trees shows that the area covered by concrete is part of a man-made modification incorporating a lateral sugar-beet silage pit made of breeze-block to its westward side and producing a large area of level hard-standing for parking farm vehicles. The area used to slope down to the west as shown in the late 19th century photograph in *Fig. 24* below. This modification took place in the early 1960s and the earth for its construction came from the man-made excavation at the west end of the small orchard (parcel 10).

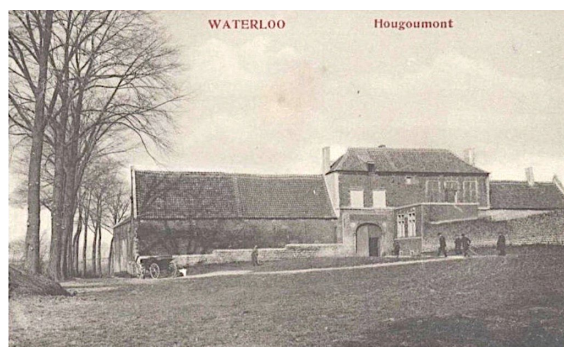


Fig. 24: The south gate of Hougoumont showing the sloping ground to the bottom left – this area has now been levelled and has a concrete hard-standing on it. It is interesting to note that trees of some considerable age line the track to the west of the farm.

³³ Quoted in the PHCR, Vol. II, p. 76.

The northern wood – *le Bois d'Hougoumont*

This area of woodland is just to the north of the *Rue aux Loups* (sunken lane) and ran up and over the end of the ridge and then down to and across the *Chaussée de Nivelles*. It covered around 12 hectares and is clearly identified on the Ferraris 1777 map with a suggested density of 25-35 metres between trees which is a much lower density than in the south wood and more akin to a wooded parkland.

The wood does not appear on the cadastral maps of 1816 and 1820 concerning Hougoumont as by then the wood was owned by a M. Lefévre who resided in Brussels. The 1820 map indicates a tree-lined boundary between the wood and the *Rue aux Loups* which, based on an analysis of the mapping key, tends to indicate that the wood still existed in 1820.

The author examined the wood in 2016 and found that the majority of the trees had been planted within the last 100-140 years, but a close examination of three specimen trees, all European beech trees (*fagus sylvatica*), showed them to be older, each having girths at 1.5 metres above the ground commensurate with being 250 years old or more. Two other trees were thought to be of similar age. These trees would, therefore, have been there at the time of the 1815 battle, thus indicating that at least some part of the *Bois d'Hougoumont* existed then.³⁴

Agricultural usage of the land

Without access to a farm diary or records listing what was being grown where – something modern farmers maintain in detail but may have been missing in the late 18th and early 19th centuries – it is difficult to offer anything other than generalisations.³⁵ In this region of Brabant-Wallonia, most farms engaging in arable farming would be growing a mix of the following: wheat, rye, barley (all of which grew to a height of 1.5-1.8 metres or 5-6 feet), turnips, potatoes, grass and clover. In the 1740s, after the failure of the wheat and rye harvests, potatoes had become an essential crop for economic and nutritional reasons: potatoes generate four times that of grain crops in consumable calories



Fig. 25: The main cereal crops from left-right – rye, barley, wheat.

³⁴ For more details, see White, A., *Dating the Bois d'Hougoumont*, White & MacLean, 2016 - www.whiteandmaclean.eu

³⁵ Lisa Rosner and John Theibault, *A short history of Europe 1600-1815: search for a reasonable world*, Routledge, London, 2015.

per hectare. This reduced the hectareage of cereal crops and pushed up the price of flour, thus increasing the price of bread. In itself this then became a causation factor for the move within the national diet towards potato-based nutrition and an associated increase in other root vegetables. A typical crop rotation would include one or two cereal crops, turnips and potatoes, together with a crop that actively captured essential plant nutrients from the air and returned them to the soil, clover being the most common example.

As the population in the late 1700s and early 1800s ate a diet heavy with vegetables and low on meat, which was expensive, dedicating fields to pasture was an economic gamble but one that paid off if the farm could support sheep: this was a double harvest as the fleece fed into the clothes manufacturing process and the mutton (meat from a sheep of more than two years in age) was used in the human food chain. At the time, the fleece was more in demand than the meat as the economically dominant cloth was wool – a demand that was to grow significantly after the 1783-84 volcanic eruptions in Iceland that impacted the weather in northern Europe, causing crop failures in cereals and in flax (*linum usitatissimum*). Flax, used for making linen, a clothing material that is harder wearing than cotton (which is not grown in northern Europe) was an economic staple and, with the crop failures in the late 1700s, wool production became more important. In these circumstances, there was high economic risk in raising sheep for meat alone, resulting in there being little demand for lamb or hogget – one-year-old and two-year-old sheep respectively. Mutton had a market as older sheep died off or were culled. Sheep did not need dedicated pasture, except for large flocks, and most farms ran their flock of sheep in the orchards as a natural method of keeping the grass short.

Dairy products – butter and cheese – were a relatively small-scale agricultural activity and it seems that up to six milking cows were kept to fulfil the needs of the Hougoumont community and the thriving cheese-making activity that seems to have taken place.

Beef was not a normal part of the regular diet of the majority of people as it was too expensive. In 1808, however, the crossing of Shorthorn bulls with Charolais cows had produced a genetically modified beast that had a very low fat content and produced a very fine-grained and lean meat in huge quantities. This type of animal became the breed known as the Belgian Blue (*Blanc Bleu Belge*); it is a very gentle animal and easily managed, and a few of the richer farmers started to experiment.

Pigs are known to have been kept at Hougoumont as there are reports of soldiers in 1815 killing and eating pigs at the farm. Although it is currently unknown whether a formal pannage system of allowing the pigs to roam freely in the wood in autumn was in existence, it is probable that the farm pigs were indeed free-range part of the time.

The field called *l'étoile*, just to the south of the great orchard, and formally designated as pasture. This leads to the likelihood that it was kept as a source of hay for winter-feed; however, to dedicate a large field to this alone seems unlikely and it is probable that horses were put out to grass for part of the year. The total number of horses on the farm is likely to have been significant whilst

the owners lived in the manor house: carriage horses, riding hacks, draught horses, and children's ponies all add up to a sizeable number – it is estimated that there was stabling for around 18 horses.

Hougoumont has very extensive orchards listed and it is very probable that distributed across these would be apple trees (both for cooking and for eating), pear, plum, damson, quince and cherry. In addition, nut trees would have been cultivated and walnut, sweet chestnut, beech and hazel all flourish in this landscape. Orchards will have been planted in a regular square pattern with around 12 metres between trees which often grow to between 5 and 12 metres in height and have an extensive canopy spread. The large distances between trees would have enabled horse-drawn carts to get between the trees without damaging the crop, such vehicles having a significant size of turning circle, and also allowed the entire crop to receive sunlight. In other Brabant farms with similar land dedicated to orchards, the production of cider was of importance as the water available in the wells was often not entirely safe to drink – the low alcohol ciders were a perfect substitute – and this probably applied to Hougoumont as well.

Within the garden area, the vegetables grown will have included kale, brassicas, peas, beans of various types, spinach, cabbage and so on. It is very probable that soft fruits will also have been grown: strawberries, raspberries and currants of various types would all have featured within the extensive gardens at Hougoumont.

Although Siborne, in acquiring data on which to base his famous 1830's model of the battlefield, asked his correspondents for details of crops they encountered, there is little reliable evidence of what was actually planted around Hougoumont at the time. Matthew Clay³⁶ identifies that the top of the ridge to the north of Hougoumont was under clover. On page 17 of his account, Clay also identifies that the field on the rising slope to the west of the farm was a cornfield (as corn is not a crop but a generalised description, this may have been wheat, rye or barley). He then describes retiring down to the *Pré aux Deux Etangs* and seeking cover behind a clover stack, suggesting that this meadow had been under clover. What was planted in parcels 1 and 2 is unknown but eyewitness memoirists have indicated that in June 1815 French cavalry were operating around the area and that at least one artillery piece, a howitzer, was brought into play in parcel 2. It might therefore be acceptable to assume that parcel 2 was indeed pasture but the crop in parcel 1 remains a mystery.

The type of crops, the animal husbandry, and the general land usage helps explain the military events, particularly of 1815, and these are all mentioned in passing in a number of memoirs and journal entries on which historians have relied.

³⁶ Matthew Clay, *A Narrative of The Battles of Quatre-Bras And Waterloo; With the Defence of Hougoumont*, edited by Gareth Glover, Ken Trotman Publishing, 2006, p.13.

The problem of historical documents: memoirs and visual media

The traditional approach to investigating historical events is to base underpinning assumptions on the documentary evidence about the event and this is certainly the way that the history of the Battle of Waterloo has been developed. In this case, the documentary evidence used has mainly been the military records (muster rolls, order books, copies of orders, military maps, etc.), descriptions and memoirs written by participants on both sides of the conflict, and the many sketches, watercolours and oil paintings made shortly after the events. However, recent research and developments in the fields of clinical and behavioural psychology, neuroscience, endocrinology, memory and the response to stress, calls into question the value of memoirs and reports written by participants in the events described. It also raises doubts about the validity of observations recorded by non-participants (i.e. observers). And as to artists: except for very few, such as Denis Dighton, the royal war artist, and Thomas Stoney who were slightly more reliable, their images were highly romanticised to say the least and simply bizarrely inaccurate on the whole.

Between 2004 and 2012, neuroscientist John Coates conducted research into the biological response to risk-taking, especially in high-stress environments and described the results in his 2012 book *The Hour Between Dog and Wolf*. His principle findings are that people in high-stress environments, especially those involving risk-taking, have a distinct biological response involving the endocrine system, which affects the way their bodies work and how their minds process data to assess risks and determine actions. The most common physiological response is well-known as the 'fight or flight' adrenal response in which the hormone, adrenaline, prepares the body for short-term action. This affects the blood supply to the internal organs, including the brain, causing non-essential activities to close down while, at the same time, causing the survival functions to become enhanced. People in the grip of an extreme adrenal response report the time-phasing in the brain slowing down so that external events appear to be happening slower, and their ability to collect and process data (cause and effect) and to determine what actions to take is speeded up, that their sight was clearer and that they were more aware of their surroundings. The adrenal response effect is well understood and this description will come as no surprise, but what Coates also found **was that this physiological response was occurring before the cognitive response**. In other words, the body was sensing the threat and taking action before the mind could start processing it.

But perhaps the most interesting result of this response is to the memory. Subsequently, investigation was made into what research subjects could actually recall of the events in which they participated

and found that their short-term memory could recall very little and that their medium-to-long-term memory could recall even less. Indeed, the recalled memory seldom included the stimulus (the events that created the response), and the actual elements of the event itself and the order in which they occurred were retained only in the short-to-medium-term memory. As time passed, their ability to recall accurately diminished significantly, leaving a set of memories that had been processed and often bore very little relationship to the actual event. In other words, **what is recalled from memory is what the mind believes happened rather than what actually happened.** This effect is often referred to as 'false memory'.

False memory (rather than the cause of false memory) has also been recognised for some time and is often **compounded by the mind recording memories of what it thinks ought to have happened:** and this occurs even if the subject is not contaminated by other sources of data about the event – reading or hearing a report of the event from someone else, for example. This is the reason why the police take statements immediately from as many eye-witnesses as possible without allowing the eye-witnesses to hear what others are saying. They then tease out the facts from this jumble of data.

As time passes between the event and the recollection of it by participants who were there, the degree of cognitive processing distorts the memories even further and various biases creep in, the main one being that people come to believe that the version of events that they recall is actually correct because they recall it. This becomes self-reinforcing until they are unable to accept their original recall was incorrect ("We come to believe our own myths," as one academic put it recently). But the biggest issue with memory recall after time is almost always that the person recalling the event has been influenced by other memories (their own and from other people) which have combined to create a new version of the event. When challenged on this, the person then becomes subject to the 'loss aversion' concept which Daniel Kahneman, an eminent clinical psychologist, talks about in his 2011 book *Thinking, Fast and Slow*. He concludes that people will irrationally **adhere to what they believe rather than risk changing to an alternative position, even when what they believe is demonstrably wrong and the alternative position is in their best interests.** This is one factor behind how incorrect versions of events become embedded in the collective human cognitive memory.

This point has been discussed at some length simply because historians routinely use eye-witness memoirs as though they were a categorical truth rather than a 'version of the truth'; to build a theory of what happened based on one or even a few stated sources often results in an incorrect interpretation of events. This is where archaeology is of major importance as another unbiased source of data, although interpretation of that data is subject to similar biases to those afflicting interpretation of documentary data. Let's take an example: in the heat of battle, the participants will be subject to an extreme adrenal

response and this limits their ability to register and subsequently recall the situation other than in terms of what actually happens to them. If they then attempt to record down those events and the order in which they occur, the result is likely to be inaccurate **and the memory is likely to become focused on what they believe should have happened**. If their memoir is not written until 15 or more years later then the veracity of the report must be considered as being very low. So, looking at Matthew Clay's memoir³⁷, his descriptions of events and the landscape prior to military action are likely to be more accurate than his description of events during the heat of battle, but both are likely to contain false memories (especially about time and order of events) given that his account appears to have been written in 1853, some 38 years after the events described.

Other examples abound and it is essential that, to fully understand the events, it is necessary to cross-reference the memoirs with other data, and to re-interpret rather than to accept their rather romanticised and editorialised content as being correct. This is not to say that the memoirs are valueless or wrong, but a more careful analysis needs to be undertaken. Memoirs written immediately after the battle by participants are likely to be more accurate than those written 15 or more years after the event. It should be noted here that the vast majority of memoirs concerning Waterloo were written in the early 1830s in response to the creation of the Siborne model which was completed in 1838. Also, most of the written material was eventually published in 1891 (76 years after the events) and has been ruthlessly exploited as 'accurate' by generations of historians ever since.

Finally, cross-contamination is a very real issue the further from the events the creation of the documentary evidence takes place. Many authors discussed their work with other authors who then wrote memoirs and books which incorporated information gleaned from others, and so often inadvertently contaminating their own understanding of events. This causes the creation of a group-think or 'authorised' version, an official history, which often bears little resemblance to the facts. This is a very real problem when interpreting the documentary evidence concerning the Battle of Waterloo and particularly as it relates to Hougoumont.

Hougoumont at war: 1794 ...

The château-ferme d'Hougoumont is of primary interest to historians as an icon and survivor of **two** military battles that took place there: 6-7 July 1794 and 18 June 1815.

³⁷ Matthew Clay, *A Narrative of The Battles of Quatre-Bras And Waterloo; With the Defence of Hougoumont*, edited by Gareth Glover, Ken Trotman Publishing, 2006.

The battle of Mont-Saint-Jean on 6-7 July 1794³⁸ is part of the War of the First Coalition against the army of the (Revolutionary) French Republic. The two armies involved were the 60,000+ strong French *Armée de Sambre-et-Meuse* under the command of General Jean-Baptiste Jourdan, and the 46,000 strong *Armée Impériale Coalisée* under the command of Field Marshal Frederick, Prince of Saxe-Cobourg. The imperial coalition army included the *Corps Hollandais* (Dutch Corps) under the command of William V, Prince of Nassau-Orange, father of the future King William I of the Netherlands in 1815, and this Corps included three battalions of the royalist *Légion émigrés français*, one each from the *Légion de Damas*, *Légion de Béon* and *Légion de Mathieu*.

In the evening of 6 July 1794, the Prince of Nassau-Orange ordered the Brigade commanded by his son, Prince Frederick of Nassau-Orange, into a defensive position astride the *Chaussée de Nivelles*, just south of Lillois, having been pushed back from Nivelles itself by the 12,000 strong French Division under Lefebvre. At this point, the Dutch position was 4.5 kms southwest from Hougomont. During the early morning of 7 July 1794, Prince Frederick re-deployed to the Mont-Saint-Jean/Waterloo battlefield and the men of the *Légions Béon* and *Damas* were ordered to take possession of Hougomont and be ready to defend it. Bernard de Corbehem of the *Légion Damas* wrote³⁹

En arrivant au château-ferme d'Hougoumont, qui n'était proprement qu'une vaste et magnifique ferme, nous eûmes à essuyer le feu d'une pièce d'artillerie légère que l'ennemi avait placé sur la hauteur qui le domine du côté du midi. Je courus, à cette occasion, un fort grand danger. Comme nous défilions, sur deux de front, devant le mur de face du corps de logis, et que nous présentions le côté droit à la pièce dont j'ai parlé, un boulet, lancé à hauteur de ma ceinture, et passant à environ un pied devant moi et derrière la file qui me précédait, vint percer le mur qui était à ma gauche... Aussitôt que la troupe eut défilé, nous embusquâmes le long de la haie qui règne autour de ce domaine, et nous attendîmes l'ennemi qui ne jugea pas à propos de venir nous y trouver. Il se retira même quand la nuit fut venue. Plusieurs jours se passèrent dans cette position où la cavalerie légère nous inquiétait continuellement par le feu de son artillerie volante, sans cependant nous attaquer sérieusement ou nous faire beaucoup souffrir... Le château-ferme d'Hougoumont renfermait un attirail immense d'agriculture et une qualité considérable de bestiaux, de volailles, de chevaux, de fourrages, enfin d'approvisionnements de toute espèce, tels que l'exigeait une exploitation de premier ordre dans un pays extrêmement fertile et bien cultivé....

³⁸ Lucien Cecille, Philippe Charlet and Jean-Jacques Pattyn, *Mont-Saint-Jean 6-7 Juillet 1794: La victoire française à Waterloo*, Historic'one Editions, Fontain-L'Évêque, 2015.

³⁹ Bernard de Corbehem of the *Légion de Damas* "Dix ans de ma vie ou histoire de mon émigration", Paris, chez Delaunay libraire au Palais-Royal, 1829, pp. 126-127 quoted in MSJ by Cecille et al., 2015, *ibid*, pp. 54-55.

The re-deploying troops were being harassed by the French under Lefebvre who actively deployed the *artillerie légère* (8lb cannon) attached to Sulzmann's Brigade on the western side of the 'ravine' less than 500 metres from the Hougoumont farm buildings as can be seen from this translation of Corbehem:

Upon arriving [from the direction of Braine-l'Alleud and the Brussels to Nivelles road] at the castle-farm of Hougoumont, which was itself a vast and beautiful farm, we received fire from a light artillery piece that the enemy had placed on the height that dominates the south side. I suffered, on this occasion, a very great danger. As we marched along, two abreast, before the [west] wall in front of the farm, presenting our right to the cannon which I mentioned, a [cannon] ball, launched at the height of my belt, and passing about a foot in front of me and behind the troops who preceded me, drilled into the wall on my left ... as soon as the troop had assembled, we took cover along the hedge which surrounds this area [parcel 5], and we waited for the enemy who decided not to attack: they even withdrew when night fell. Some time was spent in this position, disturbed continuously by their light cavalry and the fire from their artillery, without however being seriously attacked nor them making us suffer much. The castle-farm of Hougoumont contained all the paraphernalia of agriculture and a considerable quality of cattle, poultry, horses, fodder, indeed a supply of all species, such as is required for exploiting a country that is extremely fertile and well cultivated.

(author's translation)

On taking possession of Hougoumont, the French *émigrés* immediately started to fortify the place and seeing that the property was "*protégée par une forte muraille dans laquelle les hommes de Béon et de Damas ont pratiqué des meurtrières pour la défendre*"⁴⁰ [clearly the 1815 loopholes were not the first to appear in Hougoumont's walls]. From the available material, it appears that the battle around Hougoumont was primarily a cavalry and artillery action, and that the French *artillerie à pied* was used extensively against Hougoumont from the southwest, west and north, whilst the cavalry seems to have attacked mainly from the south and east. No material has yet come to light describing the infantry actions around Hougoumont. The arrival of Dubois's Division forced Frederick, Prince of Nassau-Orange, to retire to Braine-l'Alleud. Meanwhile, around Genappe, Chastre and Gembloux, General Jourdan and the main body

⁴⁰...the property was "protected by a strong high wall in which the men of the Béon and Damas created loopholes for the defence" – author's translation. *Les émigrés à cocarde noire* by Bittard des Portes mentioned in *La bataille de Mont-Saint-Jean* by Lucien Laudry, *Revue des ambassadeurs*, 1938 and quoted in MSJ, Cecille et al., op. cit., p. 56.

of the French army was slowly pushing Saxe-Cobourg's troops back and by nightfall on 6 July they were in retreat.

Late on 7 July 1794, the imperial coalition was losing ground steadily and William V, Prince of Nassau-Orange, and the Dutch Corps, together with the remaining Austrian troops at Halle were forced to abandon the field to the French and retreat to cover Brussels and to perhaps stop the detachments of the French *Armée du Nord* from getting there first. Over to the east, Cobourg had been pushed back to Corroy-le-Grand, Ramillies and Hottomont but his troops could not stand.

On 8 July 1794, the French armies were before Brussels and the imperial coalition army was in retreat towards Leuven. By 24 July 1794, Antwerp had fallen and on 24 January 1795, Amsterdam was in French hands. The Duke of York, with the future Duke of Wellington under his command, abandoned the Austrian Lowlands and the French Revolutionary Empire had been created.

As for Hougoumont, it did not seem to suffer too much structural damage although it was heavily pillaged and damaged, first by the Austrians under Cobourg, and then by the Coalition's Croate Chasseurs⁴¹ and various brigands and refugees from Braine-l'Alleud⁴² – no doubt the owner, Chevalier de Louville-Gomont, being an officer of the Austrian Empire, submitted a claim for war damages and received some restitution. It seems inevitable that the French Revolutionary troops also pillaged the property but the evidence from claims for the pillage of the farms of La Caillou at Vieux Genappe and Neuve Cour at Lillois makes French reparations unlikely. The buildings at Hougoumont were repaired and most of the personal property recovered, only for the whole process to be repeated 20 years later!

An interesting and ironic side note: Arthur Wellesley, the future Duke of Wellington and the Anglo-Dutch commander at Waterloo in 1815; Jean-de-Dieu Soult, the future Duke of Dalmatia, Marshal of France and Napoleon's Chief of Staff at Waterloo in 1815; Michel Ney, the future Prince of the Moskowa, Marshal of France, and the field commander at Waterloo in 1815; and Philibert-Guillaume Duhesme, the Imperial Guard commander defending Plancenoit in 1815, were all present at or involved in the 1794 campaign and the last three may even have been at the battle of Mont-Saint-Jean.

... 1815

The Battle of Waterloo on Sunday, 18 June 1815 was part of the War of the Seventh Coalition against Napoleon and the French Empire. Factoring in the

⁴¹ [This is the French term for the Austrian Grenz light infantry.](#)

⁴² [Lucien Cecille, Philippe Charlet and Jean-Jacques Pattyn, *Mont-Saint-Jean 6-7Juillet 1794: La victoire française à Waterloo*, Historc'one Editions, Fontain-L'Evêque, 2015.](#)

starting muster numbers and the losses incurred between 14 June and 18 June, at the Battle of Waterloo the French had 55,750 men on the field, the Anglo-Dutch had 62,225 and the Prussians later arrived with 34,950.⁴³ The troops started to arrive at the Mont-Saint-Jean/Waterloo battlefield in the afternoon and early evening of 17 June at about the time that a major thunderstorm broke over the site. Matthew Clay⁴⁴ reports that his regiment, the 3rd Foot Guards, were instructed to bivouac on the end of the ridge above Hougoumont but they came under artillery attack and the Anglo-Dutch artillery responded.⁴⁵ Clay continues by reporting that the 3rd Foot Guards descended the slope to the 'sunken way' (*Rue aux Loups*), scrambled through the hedge and advanced through 'a large orchard' to the shallow ditch that was, according to Clay, "sheltered by a high bushy hedge-row, which separated us from the enemy, who were close at hand". Clay goes on to state that a Field Officer, whom he identifies as Lord Saltoun of the 1st Foot Guards, visited them frequently throughout the night. The 1st Foot Guards later clashed with a French patrol here at around 02h00 on 18 June.

Here we have an example of the risk incurred in relying on a source recorded many years after the event: Clay, in the 3rd Foot Guards, presents a strong case for being in the great orchard and spending the night at the southern hedge and ditch, and yet the vast majority of accounts have this position held by the 1st Foot Guards under Saltoun with the 3rd Foot Guards being to the west of the farm. Certainly, Clay then provides a reasonable description of re-deploying in the morning to the west gardens, which gets him back to where his company was and this begs the question of whether Clay's account of being in the orchard is a false memory or a case of becoming separated from his company in the dark and inadvertently becoming attached to a company of the 1st Foot Guards.

This redeployment of the 3rd Foot Guards was part of a general garrisoning of Hougoumont and all four Light Companies from the Coldstream Guards, plus others from the 1st and the 3rd Guards were in and around Hougoumont during the evening of 17 June. A picket was placed at the southern end of the southern wood and these were reinforced by the 1st company of the Field Jäger Corps (Brunswick) and 50 men from each of the Light Battalions of the *Det Lüneburg* and *Det Grubenhagen* Hanoverians. Some reports suggest that Lt.

⁴³ Alasdair White, *The Road to Waterloo, a concise history of the 1815 campaign*, White & MacLean, Hoeilaart, 2014.

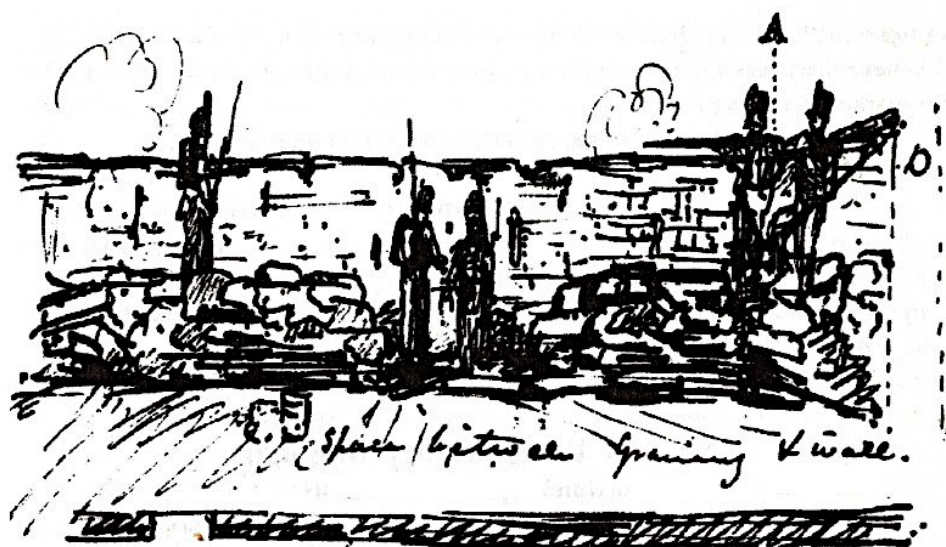
⁴⁴ Matthew Clay, *A Narrative of The Battles of Quatre-Bras And Waterloo; With the Defence of Hougoumont*, edited by Gareth Glover, Ken Trotman Publishing, 2006. Clay notes that the end of the ridge was clover and no mention of woodland is made – other descriptions of this area also fail to mention a wooded area, leading many historians to assume that the *Bois d'Hougoumont* had actually been cleared prior to 1815.

⁴⁵ Clay is emphatic on this point and it is partly corroborated by Lt. Col. Home who talks of alarms in the night but evidence of an artillery skirmish here on 17 June is scarce and most historians do not record it. The troops most likely affected are the King's German Legion but nothing has come to light yet. This could be a case of inaccurate analysis of sources, but it could equally reflect inaccurate reportage by Clay who is, unaccountably, often taken as being a reliable eyewitness to the events.

Col. Macdonnell, commanding the Light Companies of the Coldstream Guards, ordered the loopholing of the walls of the farm in preparation for its defence.

After an early morning visit by Wellington, an 800-man contingent of the 1/2 Nassau Regiment was sent from the centre of the Anglo-Dutch line down to Hougoumont under the command of Captain Moritz Büsgen with orders to garrison the farm and policies. Orders were also sent for the Guards under Macdonnell to re-position to the gardens to the west of the buildings (parcels 4 & 5) and those under Saltoun to withdraw to the ridge.

Captain Büsgen deployed two companies of Nassau troops, a total of 270 men, into the southern wood to assist the 100 Brunswick Field Jäger troops and the 100 Hanoverians, bringing the total number of allied troops in the wood to 470. He also placed one company of 135 troops in the great orchard allowing Saltoun to withdraw, and a further two companies, a total of 270 troops, in the formal garden, immediately setting them to loopholing the walls as this had not been done. A firing platform was also constructed by dismantling the wall between the southern courtyard and the formal garden and using it for the troops to stand on. Finally, he allocated his Grenadier Company of 135 men to



A firing platform within the walls of Hougoumont
British Library

Fig. 26: A sketch, probably by Charles Southey who visited Hougoumont with Edward Nash in October 1815, of the firing platform with representative figures. Lt. Fairfield in his 1836 letter (PHCR, Vol. II, p. 48) thought the rubble came from the demolition of the wall between the garden and the buildings. The two figures in the middle are at a loophole. This sketch is in the British Library and the image is 'quoted' in the PHCR, Vol. III, p. 226.

garrisoning the buildings, thus allowing Macdonnell's 200 Guards to take up a position in the gardens to the west. The area was, therefore, garrisoned by approximately 1,210 troops: 1,010 mainly German-speaking Nassau, Brunswick

and Hanoverian troops, with the English presence restricted to the 200 troops under Macdonnell in the gardens to the west of the farm. The entire position was supported by Webber-Smith's artillery in the trees at the west end of the ridge and Ramsey's battery at the top of the *Chemin de Braine l'alleud à Plancenoit*.

Across the valley to the south stood the troops of Baudin's and Soye's Brigades of Jérôme Bonaparte's 6th Division supported by horse artillery, while further to the east were troops of Foy's 9th Division. For the numbers involved, many historians have adopted the position taken by Adkin⁴⁶, based on Siborne, which uses the pre-campaign muster roll with no allowance for losses incurred between 14 and 18 June – this would give exaggerated numbers for Baudin: 4,146, Soye: 3,500 and Foy: 5,200 for a total of 12,846.

But Paul Lindsey Dawson in analysing the French returns, found that factoring in the losses radically changes this as the French had already lost around 25% of their strength as a result of four days of fighting, including two major battles at Ligny and Quatre-Bras. Dawson concludes that the most probable maximum French numbers were 6th Division (Jérôme) (Baudin: 3,090 & Soye: 3,010) a total of 6,100 and 9th Division (Foy) 3,863 for a total of 9,963.⁴⁷ This is still a very significant number and represents a 8:1 advantage which should still have resulted in a French victory at Hougoumont. That it did not means that we must look for the circumstances that caused the French to fail in their endeavour.

From the French position at an elevation of just under 130 metres above sea level, the trees along the west wall and in the south wood almost certainly made it impossible to clearly see the farm buildings themselves as the buildings would have been at an elevation of 120 metres and the trees standing may have been 10-15 metres high. So, as far as the French were concerned, they were confronted by a valley with land rising to the ridge and the entire position thickly covered in trees. Their maps would have informed them that in the wood was a walled farm but without being able to see it, there was no way their officers could assess its strength. Additionally, the artillery, which aimed by line-of-sight, would have been unable to accurately target the position. It is possible, however, that the two companies (batteries) of horse artillery positioned to the west of the farm did have sight of their target and they certainly started an early bombardment of the farm and engaged in counter-battery fire with Webber-Smith's battery on the ridge.

The consensus opinion is that the first shot of the battle was from English artillery against a column of French infantry of Jérôme Bonaparte's 6th Division and that this took place around 11h30. It certainly initiated the first and most powerful French attack against Hougoumont. The lead troops were the 3,090 men of Baudin's 1st Brigade, the *1e Légère* and *3e de Ligne*, preceded by skirmishers (*tirailleurs*). The French artillery opened up an undirected barrage

⁴⁶ Mark Adkin, *The Waterloo Companion*, Aurum, London, 2001.

⁴⁷ French regimental returns analysed by Paul Lindsey Dawson late 2015 and early 2016, unpublished.

and Baudin's men engaged with the wood's 470 defenders, advancing along the north-south track that ran up almost dead straight uphill to the south gate of the farm (see *Fig. 8* on page 14). The broken and uneven ground in the wood, the drainage gullies, together with the density of the trees and the undergrowth must have restricted the speed of the advance and the defenders fighting in loose order as skirmishers forced the French into fighting for every tree. The English artillery then opened up with both shot and shell so that the rear of the French formation was subjected to cannonade, thus further slowing the advance. Many historians consider that the leading French troops would have reached the northern edge of the wood in about 30 minutes, whereas experienced modern-day soldiers feel that this is too optimistic and that 45 minutes to an hour is more likely.

As soon as they reached the northern edge of the wood, the defenders (the two Nassau companies, the two Hanoverian half companies and the Brunswick Field Jägers) made a rapid retreat with some entering the south gate of the farm, some spilling around the west wall and the rest retreating eastwards into the great orchard. As the French reached the edge of the wood they were faced with



Fig. 27: "...a high, dense, quickset, hawthorn hedge...", this one is close to the Butte de Lion.

the massive walls of the farm and a high, dense, quickset, hawthorn hedge which French accounts claim as completely obscuring the garden wall behind it. This brought the entire French advance to a stop with the only way forward being a frontal assault against the buildings held by the Nassau grenadiers, a westward flanking movement against the Coldstream Guards and the light company of the 3rd

Guards, or to force a passage through the hedge and try and take the wall that was now defended by around 350 Nassau infantry.

Many of the French, using the hedge for protection, headed east and using the entrance at the junction of the hedges (see *Fig. 9* on page 13) forced their way into the great orchard where they were faced by the 135 Nassau troops stationed there together with the remnants of those that had retreated that way. The French received enfilading fire from the garden wall on their left and took heavy casualties, whilst the defenders fought in loose order from tree to tree but were rapidly pushed back to the sunken way (*Rue aux Loups*) where they took up a defensive position. Two companies of the 1st Foot Guards then joined them and together they pushed the French back and retook the orchard.

To the west, Macdonnell and the Coldstream Guards launched a counter-attack and drove the French back deep into the wood but were unable to expel them completely. Büsgen reports that "*The Brunswick company, after bravely helping repel the enemy and suffering heavily, rejoined its corps on the main position*", thus taking no further part in the defence of Hougoumont.

The distribution of forces at this point is interesting: the 1st Foot Guards held the great orchard, the Nassau regiment held the garden and farm with the assistance of the remaining Hanoverians, and the Coldstream and 3rd Guards held the garden outside the west wall. Opposing them were three times their number of Baudin's 1st Brigade 6th Division who were mainly pinned down behind the hedge between the south wall and the wood.

Attacking the wall was complex. Firstly, the French would have to force the hedge: this was probably around 70 cms thick, may be two metres high and was very probably of stock-proof hawthorn making it almost impossible to breach. Secondly, there was a 30-metre-wide stretch of open ground between the hedge and the wall which the French would enter slowly (because of the hedge) and then have to cross in full sight of the defenders firing from behind the two-metre-high wall or through loopholes. Thirdly, the wall was too high to escalate easily without a breach. Finally, the south wall was approximately 200 metres in length and the east wall about 100 metres: if the Nassau troops – now reinforced by the defenders from the woods – working in pairs all took a position along the wall then there would be a musket firing every 1.5 metres. Not for nothing has this stretch of land been rather aptly called the 'killing zone' by many historians. **The obstacle presented by the hedge, the open ground and the well-defended wall is almost certainly the most significant element in the defence of Hougomont and which led directly to the failure of the French to take the farm.**

At around 12h30, the second French attack was in motion with Soye's 2nd Brigade 6th Division (*1^e* and *2^e* de Ligne) attacking from the west and entering the wood obliquely behind Baudin's brigade. This allowed Col. Cubieres from Baudin's brigade to lead an attack down the west side of the farm driving the Guards under Macdonnell back to the north where they entered the lower courtyard through the north gate, closely pursued by around 30 Frenchmen under the leadership of a sapper officer.⁴⁸ This resulted in a fierce skirmish in which all the attackers were killed and the north gates forced shut and barred by a small group of officers and men led by Lt. Col. Macdonnell himself. That this incident took place, there seems little doubt: it is well recorded and noted, including by Wellington himself, who attributed the success of the defence of Hougomont to the closing of the gate. However, the incident has become highly mythologised and the 'facts' have become blurred by anecdote and romanticised *post hoc* description.

During the *mêlée* that took place around the north gate, French skirmishers took up position in the *Pré aux (Deux) Etangs* to the north of the *Rue aux Loups* (sunken way) and fired on Webber-Smith's battery in the trees on the end of the ridge above them. Meanwhile, Clay wrote of being pushed back into the meadow and taking a position behind a stack of clover. By any standard, this was a point of extreme danger for the Hougomont position and three

⁴⁸ [Sous-Lieut Legros, *le enfoncer*, described as a huge man, is the name normally associated with this incident which forms an essential element of the mythology of Hougomont. There was a 2nd Lt Legros in the 1^e Légère but there is no reliable evidence he was involved in the attack – it is possible, therefore, that he is a composite figure created by mythology and false memory.](#)

companies of Coldstream Guards under Mackinnon and Acheson were sent down to relieve the pressure. A short time afterwards Woodford brought down a further four companies in reinforcement. Clay reported that he and his companion then entered the farmyard to take up position in the manor house.

This is the first time in the battle for Hougomont that the farm contained British troops. At this stage they were in the farm buildings in the lower courtyard, while the upper courtyard and garden were still held by the Nassau with the remnants of the Hanoverians. The arrival of nearly 700 Coldstream guardsmen enabled Büsgen to pull all the Nassau and Hanoverian troops into the defence of the garden wall where he could be reinforced by the Coldstream guardsmen, while the main body of Coldstream reinforcements would take over the defence of the buildings. But before this tactical redeployment could occur, the south gate was attacked, as a sergeant of No. 1 company 2nd battalion of the Nassau Regiment wrote in a report to Lt. General Perponcher (2nd Netherlands Division)⁴⁹:

The enemy eventually renewed his attack, and even though every one of us shot down an enemy, the remainder stormed forward to the gate, quickly chopped down some trees and crashed the gate by force. As they stormed into the courtyard, we had to take refuge in the house, and fired at them from windows, doors and roof [so] that they toppled over each other; the rest were chased outside with the bayonet.

This seems to be the same story offered by Clay⁵⁰ except that he reports that it was artillery that broke down the door. In this matter, it appears that the report by the Nassau sergeant is more likely to be accurate as it was written in October 1815 (rather than in October 1853) and there is no supporting evidence that the French brought artillery close to the southwest corner of the building, although we do know that they continued bombarding the building from afar.

The time now appears to be about 14h00 and the 3,863 troops of Foy's 9th Division under Jamin and Tissot attacked the great orchard. They brought up a howitzer, which they placed in parcel 2 (*l'étoile*) near the southeast corner of the garden wall and used it to fire at the farm buildings to the west, setting them alight.⁵¹ Saltoun and the 1st Foot Guards attempted to dislodge the howitzer but were driven back by the French troops of the *93e de Ligne*. Lt. Puvis of the *93e de Ligne* illustrates the problem created by the southern hedge which bounded the orchard and was blocking access to the southern wall when he writes: "*We tried in vain to pass through the hedge. We suffered enormous*

⁴⁹ PHCR, Vol. II, p. 24.

⁵⁰ Clay op. cit., p. 26.

⁵¹ The artillery bombardment from the southwest, which had been going on for nearly three hours, failed to do much damage but when this howitzer was brought into play from the southeast the farm buildings were quickly ablaze.

losses...”⁵². As Clay also describes this hedge as impassable, as do other writers, and none seem to contradict this, it might be safe to conclude the hedge was as surmised.

On the west side of the farm, the men of the *2e de Ligne*, part of Soye’s Brigade, attacked the west door that led into the stables of the upper courtyard as described by the commander of the *2e de Ligne*, Jean Louis Sarrand⁵³, who tells what happened as they emerged from the wood and advanced:

... through rolling fire up to the loop-holed walls, and broke open a small side door on the side of the buildings with the blows from musket butts. I gave the order to the intrepid Lieutenant Toulouse to enter with sixty men while I advanced further with my own men to attempt to find a second entry point.

Shortly afterwards Sarrand was incapacitated by a broken left thigh and was eventually taken prisoner. Meanwhile, Toulouse⁵⁴ and his men had apparently entered the stables and engaged in a firefight with the defenders in the upper courtyard and surrounding buildings. Büsgen, writing some 15 years later, claims as follows⁵⁵:

The enemy now for the third time made a rash attack, which was mainly directed at the buildings. Aided by the smoke and flames, his grenadiers forced their way into the upper courtyard through a small side door; they were, however, driven out again by the fire from the building windows and the advance through the lower gate and courtyard of a detachment of the already mentioned English battalion. Some intruders were taken prisoner, but seven of our grenadiers were also captured by the enemy during this action. This action, which ended about half past three o’clock, was the enemy’s last serious attempt on the Hougomont position; the skirmish fire, however, lasted with hardly an interruption until the end of the battle.

⁵² Extrait des *Souvenirs historiques de Théobald Puvis*, paru dans la *Revue historique des Armées*, 1997, n° 3, pp. 101-129, quoted by Paul Dawson in a 2015 unpublished paper entitled *Hougoumont – Topography of Defeat*.

⁵³ Molieres and Plainville (2004) *Dictionnaire des Braves des Napoléon*. Paris: Livre Chez Vous, Vol. 2, p. 894, quoted by Paul Dawson in a 2015 unpublished paper entitled *Hougoumont – Topography of Defeat*.

⁵⁴ Lieutenant Sylvian Toulouse, b. 7 July 1786 in Bordeaux, served in the 3rd fusilier company of the 2nd battalion of the *2e de Ligne* which he had joined on 28 June 1814, discharged 26 November 1815.

⁵⁵ Büsgen in Siborne (WL 106) quoted in PHCR, Vol. II, p. 67.

The problem encountered here by historians is one of selection from a limited number of sources all of which probably did contain false memories. These of Büsgen, Clay, et al, from the Allied side, are supported by the Nassau sergeant writing earlier and their accounts match those of Purvis and Serrand from the French side in all major respects and so it might be safe to conclude that events were broadly as described.

As exhaustion and low levels of ammunition amongst the French brought the battle around Hougoumont to a close, the action elsewhere on the battlefield now focused on the cavalry attacks launched by Marshal Ney and the subsequent arrival of the Prussians.

By the time the general advance was signalled around 19h00-19h30, the 3rd Foot Guards had replaced the 1st Foot Guards and were successfully holding the great orchard by counter-attacking any incursions. The Guards were then reinforced by King's German Legion, Brunswick and Hanoverian units who helped clear the orchard and the wood and 1411 prisoners were taken. Ensign Henry Montague, later Colonel-in-Chief of the Scots Guards, claimed that

... suddenly a shout arose on all sides, when, we passed out of the ditch [the 'sunken way' or *Rue aux Loups*] and charged across the orchard driving the French before us, and passed another road by the gap at the left corner of the garden wall. [the junction of the hedges, *Fig. 9*, page 13] The ditch had been cut deep, and had been full of water, but when I reached it, was completely filled with killed and wounded so as to form a complete bridge.

The battle for Hougoumont and the greater battle of Waterloo was over.

All in all, the mythology that now surrounds Hougoumont has created a very incomplete picture of the events of 18 June 1815 and has led earlier historians to create and maintain a distorted account, one that downplays the contribution of the Nassau and Hanoverian troops, provides an unrealistic and unbalanced version of the contribution of the English guard regiments, and underplays the effectiveness of the French. A more careful and detailed analysis suggests that:

- initially the defenders numbered around 1,200, of which 1,000 were either Nassau or Hanoverian, and that rose to around 2,500 when the position was reinforced by the Guards in the mid-afternoon;
- the 1,000+ troops of the Nassau regiment, together with the remnants of the Hanoverian detachment, garrisoned and held the farm, walled garden and orchard throughout the attack by Baudin and the 1st brigade of the 6th Division;
- the Coldstream Guards (Macdonnell) and 3rd Foot Guards (Wyndham) countered the French advance in the west and the 1st Foot Guards (Saltoun) recovered the orchard;

- Cubières (*le Légère*) with Soye and the 2nd brigade of the 6th Division attacked the farm and other buildings, forcing no less than three entries which were successfully defended against by the Foot Guards (north gate), Nassau Regiment (south gate) and in combination (west gate);
- the walled garden was defended by the Nassau and Hanoverian troops until around 13h30 - 14h00 when the Coldstream reinforcements arrived;
- the French artillery to the south and west did little real damage and the farm was set on fire by the howitzer brought down by Foy to the southeast corner of the walled garden;
- the loopholing of the garden wall was first done by the French emigres in the Coalition forces in 1794 and subsequently by the Nassau troops in 1815.

Where are the bodies?

Historians tell us that the Battle of Waterloo was a particularly bloody battle with a high casualty and death rate. Recent research and calculations⁵⁶ give a total of 9,386 dead and 32,192 wounded with the French suffering the most. Adkin⁵⁷, having accessed the Guards' post-battle muster rolls and having made some educated guesses about the Nassau and Hanoverian losses, concludes that at Hougoumont the losses (dead, wounded, prisoner and deserted) were 847 and of these perhaps one in four were killed in the field. This would give an estimated 210 dead on the Anglo-Dutch side.

Using Paul Dawson's unpublished research into the French regimental returns, it can be argued that around 30% of the attackers were either killed or wounded beyond further duty, which suggests losses at Hougoumont of about 3,000. Again, taking one in four being killed, this would give perhaps around 640 French killed but Dawson's research shows only 387 positively identified as such

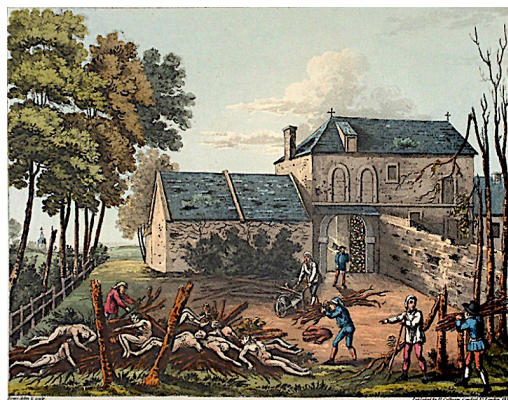


Fig. 28: This rather 'romantic' and stylised 1816 watercolour by James Rouse, published by H. Coburn, Conduit St, London in 1816 shows bodies being prepared for cremation outside the south gate. Basically, the bodies were placed on wood, covered with more and the whole lot ignited.

⁵⁶ Alasdair White, *The Road to Waterloo*, White & MacLean, 2014, pp. 82-86.

⁵⁷ Mark Adkin, *The Waterloo Companion*, Aurum, 2001, pp. 342-343.

although a further 882 were ‘missing’, a significant number of which may have been killed on the battlefield. Care should be taken when considering the number of dead as recent research has shown that eyewitnesses experienced enormous trouble in accurately estimating the ‘body count’ of either dead or wounded, and tended to err on the side of over-estimation. A total combined death toll of 600-850 would, however, appear appropriate with the vast majority falling victim to musketry.

Initially, the dead were buried where they fell but over the following days and months, the bodies were brought together for communal burial and the documentary record, together with the work of Denis Dighton, the official war artist, and others, indicate that many of the bodies were burned at two main sites: one to the south of the south gate, (Fig. 28 above), and the other just north of the large pond in the *houblonnière* (the hop field) outside the north gate (Fig. 29 below).



Denis Dighton. *Farm and Orchard of Hougoumont, Field of Waterloo, 1815.*
Royal Collection

It is very possible that a burial site is also located near the junction of the hedges outside the southeast corner of the garden wall as a significant number of French fell there as mentioned by Montague (see above)

Fig. 29: This watercolour is by Denis Dighton. The north wall of the farm is shown in the image with the surviving stables against the east (garden) wall. The depression in the middle of the image behind the tree is the large pond in the houblonnière or hop field and the brick entrance in the near slope is probably an overflow drain for it. The figure on the extreme front left appears to be holding up a uniform recovered from a body and the dark mound that is smoking in the bottom left has bones protruding from it and represents a pyre for the bodies collected from the north of the farm. The other figures are recovering more bodies.

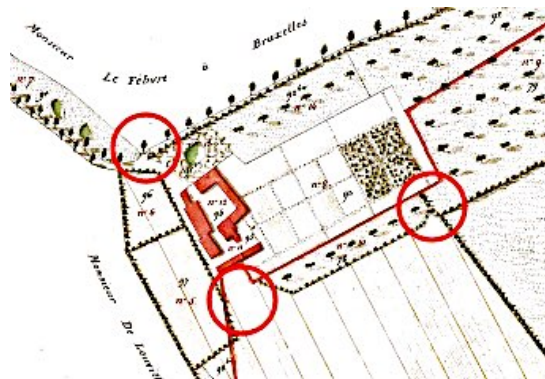


Fig. 30: The two red circles on the left are sites known to have had cremation pyres as illustrated in Figs. 28 & 29, whereas the one on the right is a matter of logical deduction but no archaeological evidence has yet been uncovered to support this.

Hougoumont in an uneasy peace – 1815-2015

Chevalier de Louville-Gomont sought war reparations but whatever he was offered was insufficient to allow for repair or rebuilding. Unable to restore the property, the 86-year-old de Louville-Gomont decided to sell and on 7 May 1816 the formal conclusion of the sale to Count François Xavier Jean-Marie de Robiano was recorded and the extract from the cadastral (*Map 1* on page 7) dated 12 July 1816 shows that the land records had been updated. The sale price was 40,000 francs, which is estimated as being worth 385,000 euros⁵⁸ today.

Another event in 1815 was to have a huge impact on Hougoumont after the battle. In April 1815, the volcanic Mt Tambora in Indonesia had erupted in one of the largest eruptions in the last 10,000 years, initiating a catastrophic global climate deterioration with worldwide temperatures falling by 0.4-0.7°C, creating what became known as the 'Year without a Summer' in 1816 and ushering in what Gillian D'Arcy Wood⁵⁹ called a

... three-year period of severe climate deterioration of global scope ... With plummeting temperatures, and disruption to major weather systems, human communities across the globe faced crop failures, epidemic disease, and civil unrest on a catastrophic scale.

Wood goes on to explain that with up to 130 days of rain in 1816, the crops failed across Europe, resulting in major food shortages, and the rural poor flocked to the towns and cities in desperation. In Belgium, cool summer temperatures and heavy winter rain caused the 1816 and 1817 harvests of potatoes, wheat and oats to fail and the worst famine of the 19th century was only just averted. Riots broke out, often brutally repressed, across the whole of Europe. Typhus, a disease closely correlated with famine and poverty, became epidemic from 1816-1819 and it is estimated that 200,000 people across the continent died, either of starvation or typhus. Conditions and harvests did not return to 'normality' until after 1818. It is interesting to note that, despite the deteriorating weather, some memoirs by visitors recorded that the piles of ash from the burning of the bodies still existed in 1816 and even later.⁶⁰

⁵⁸ According to the Banque de France, one gold franc in 1800 contained 290.32 mg of fine gold. On 22 October 2015 gold was valued at €33.17/g making a one-franc gold piece worth €9.63.

⁵⁹ Gillian D'Arcy Wood, *1816, The Year without a Summer*, BRANCH: Britain, Representation and Nineteenth-Century History, Ed. Dino Franco Felluga, Extension of Romanticism and Victorianism on the Net. Web. [accessed 22/10/2015]

⁶⁰ For example, the Edinburgh Horticultural Society visiting in the summer of 1816 reported that locals "...pointing to a circular heap of earth mixed with ashes, resembling the remains of a great bonfire, called to us, "Voyez, Messieurs les Anglais, là, six cents Français furent brûlés tous ensemble". PHCR Vol. III.

In this catastrophic economic and agricultural crisis, de Robiano, having written in January 1817 to his monarch, Willem I of the Netherlands, requesting 59,000 francs (568,170 euros today) in war reparations and receiving nothing, started the clear felling of the south wood. The entire wood had been felled, cleared and ploughed into arable land by 1820 with a formal change of usage from woodland to arable land recorded by the cadastral (see *Map 2* on page 8). With no reparations forthcoming from the state, de Robiano then made no attempt to re-build or restore any of the buildings along the north and east walls of the farm complex, nor did he attempt to rebuild the destroyed manor house. He simply repaired the other farm buildings, including the great barn and the buildings around the upper courtyard, and roofed them mainly in cheap local terracotta tiles rather than expensive Ardenne slate.

In 1819, once the impact of the Mt Tambora eruption had waned, harvests returned to some form of normality and there are reports that potatoes, wheat, oats and rye grew abundantly in the land that now contained so much animal matter and fertile deposit in the form of blood and dead bodies. But the return to rural fecundity and tranquillity was not to last.

In 1830, the mainly Catholic United Belgian Province of the Netherlands rebelled against their Protestant overlords and what they saw as the despotic rule of Willem I of the Netherlands. On 25 August 1830, bloody riots erupted and Brussels became ungovernable, forcing the Crown Prince, Willem of Orange (later Willem II of the Netherlands), to leave the city. The Crown Prince negotiated with the burghers of Brussels and recognised the need for a major reform but his father rejected this and sent in troops to retake the city – this resulted in bloody street fighting from 23-26 September with the burghers in the ascendant, forcing the army to withdraw northwards. On 4 October 1830, a declaration of independence was made and, on 20 December 1830, a conference in London brought together the five major European powers of Austria, Great Britain, France, Russia and Prussia, each of whom recognised the outcome of the revolution and ‘permanently guaranteed Belgian independence’.⁶¹ On 4 June 1831, Prince Leopold of Saxe-Coburg was chosen as the new state’s ruler and he took the oath of office on 21 July 1831.⁶²

King Willem I of the Netherlands refused to accept the situation and invaded Belgium in August 1831. The Dutch had some initial success before France stepped in and a French army under Marshal Gérard brought order to the country, finally forcing the Dutch out in December 1832. The Dutch formally accepted the situation seven years later and signed the London Treaty in 1839.

The Belgian Revolution had an immediate impact on the fortunes of Hougoumont as its owner, François Xavier Jean-Marie de Robiano, took the opportunity to advance his position and became a member of the revolutionary

⁶¹ It was the German Kaiser’s breach of the final 1839 version of this declaration and guarantee that was the reason why WWI started when the Germans invaded Belgium in 1914.

⁶² 21 July is, as a result, Belgium’s National Day on which there are parades, a military display and a public holiday.

1830-1831 National Congress. Then, with the formation of the new Belgian State, he became the Provincial Governor of Antwerp before becoming a Senator, a post he held until his death in 1836. As a full-time politician in a new state, de Robiano devoted almost all of his time to his new career, thereby enriching himself, and establishing his relatives as one of the leading families of the post-revolutionary Belgium.

It seems that de Robiano, having got a farm tenancy agreement in place, simply allowed the Hougoumont buildings to deteriorate and the ruins of the manor house to collapse over time. In 1835, only the lower parts of the manor house walls remained standing and even these had gone by 1838 with only the lower section of the tower, which had stood on the southeast side of the house and abutting the chapel, remaining along with the chapel itself. In 1860, the farm was again subject to fire but there is little evidence of what was burnt. Photographs published in 1905 show that very little of the tower remained and only the bottom two to three metres of the dovecot over the farmyard well were visible.

All in all, a vast quantity of burnt wood and a huge volume of brick and stone were removed from the farm complex, possibly as much as 40% of the construction materials of the entire place. The wood would have been used for fuel, initially to burn the bodies but afterwards for heating. The masonry, on the other hand, was almost certainly 'recycled' into the building of homes as the nearby towns of Braine-l'Alleud and Mont-Saint-Jean were expanded. However, that which was not utilised in either of these ways would have been buried on the property and this has been confirmed by the excavations carried out by Waterloo Uncovered in 2015.⁶³

With the beginnings of the Industrial Revolution taking the money and attention away from agriculture and the benign indifference of its absentee landlord, Hougoumont reverted to being a small farm of declining importance. With Belgian GDP (gross domestic product) rising by 1.1% in the period 1820-1850⁶⁴ compared to 1% for Britain, 1.1% for France and <1% for the rest of the region, the country had a rapidly industrialising and urbanising population that created a food supply crisis in which supply was barely matching demand. Agriculture was of growing importance but investment into agricultural development was low and, lacking evidence to the contrary, it seemed that Hougoumont was no exception. The formal garden had now become overgrown and heavily wooded by the late 1840s and it seems probable that the orchards became less productive with ageing trees and reduced demand.

What was in demand were cereals, for bread, and potatoes, which by the beginning of the 1840s accounted for some 14% of Belgian arable land. Then, in 1845, came the first wave of *phytophthora infestans* or potato blight.

⁶³ Just as the detritus of the 2013-2015 renovation was similarly buried where the pond in the hop field had been.

⁶⁴ Eric Vanhaute et al., *The European subsistence crisis of 1845-1850: a comparative perspective*, University of Ghent, 2006.

This infection reduced the potato yield by 87%, a devastating amount that led to an estimated 40-50,000 deaths in Flanders and northern Wallonia. This was coupled with a dramatic drop in rye yield (-50%) and a less severe drop in wheat yield (-10%). In other northern European countries, notably Ireland where one million deaths occurred and over two million people emigrated, famine and severe food shortages occurred and this continued until 1849 and later.

By 1870, the Hougoumont formal garden had been cleared and turned into pasture but photographic images of the period show the wall still in place, although in a severely degraded condition externally, with much of its height gone – one photograph shows the wall barely taller than 1.75 metres. The loopholes, a prominent feature of earlier watercolours, paintings, sketches and early photographs, do not appear in photographs from the turn of the century, suggesting that the wall had, by this time, been rebuilt.

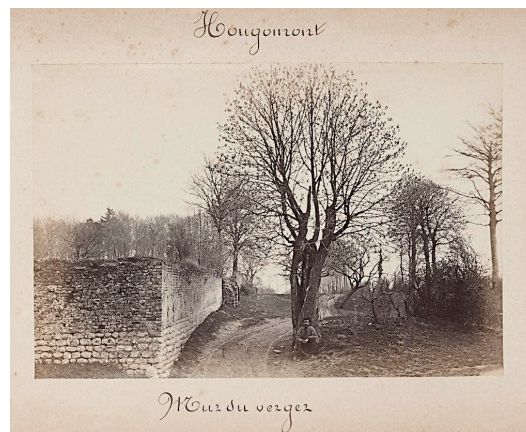


Fig. 31: Hougoumont's south wall looking up into the 'killing zone' – the remnants of the hedge are on the right. This picture is from a collection from around 1904, many of which became postcards.

An examination of the wall in 2015, which included measuring the height, the width and the distance above the ground of each loophole, together with a survey of their position in the wall suggests that the current loopholes had not been constructed for defensive purposes as was commonly thought; the spacing would have been more regular and the height above the inside ground would have been more similar (they range from 77 cms to 162 cms with an average height above the inside surface of 114 cms).

Figure 31 shows the south wall from the southeast corner (great orchard) and appears from its type, graininess and colour to date from the immediate post WWII era; it can be seen that all the trees inside the garden have been felled. This is indicative of the 1939-1945 period when firewood was in short supply, especially at the end of war – replacement planting was generally

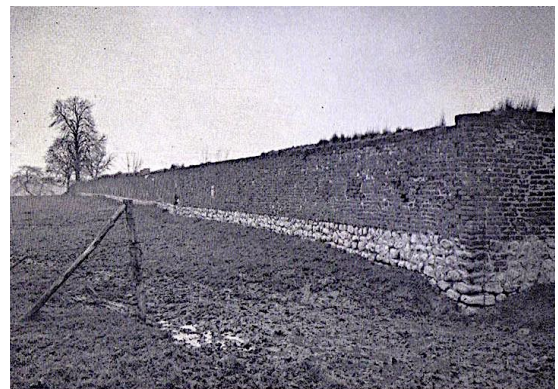


Fig. 32: The south wall circa 1950s. Photo © Ian Knight

restricted to the 1950s and in the case of the Hougomont garden, it was 1965 before this happened.

Notice should be taken of the fact that there are no distinctive loopholes framed by white stone, except for perhaps one, and that the three dark rectangular areas near the corner may be re-filled loopholes.

Figure 32, below, taken around 2010, shows that the trees in the garden have grown and the dark patches in the wall, which broadly match those in the black & white photograph in Fig. 14 and could well be bricked-up loopholes, do not



Fig. 32 but around 60 years later. Photo © Wade Krawczyk

seem to accord with the current loopholes. Neither photograph shows much evidence of loopholes and yet there are 17 in this wall today.

Other old photographs show signs of significant rebuilding of the wall and as recently as 2015 extensive lengths of wall have had to be completely rebuilt. **It is almost certain, therefore, that the entire wall**

has been rebuilt and the loopholes seen today are 20th and 21st-century additions for touristic purposes. Close inspection shows that the majority of the bricks used are of quite recent manufacture, although some from 1815 still exist. Anecdotal evidence from Comte Guibert d'Oultremont suggests that the southern half of the east wall (seen to the right of Fig. 32) was completely rebuilt by the Belgian military in the 1960s.

The year 1870 saw Belgium once again in the unfortunate position of being involved in a war between greater powers: in this case, the Franco-Prussian War. Fortunately, neither Germany nor France wished to risk involving Great Britain, which insisted that the 1839 London Treaty still held and that they would become involved to protect Belgian independence. The result was that although the Belgian Army stood to arms until 1871, no fighting occurred on Belgian soil.

In 1882, Charles Buls, Mayor of Brussels, proposed providing a site at the Evere Cemetery in Brussels in which to inter the British officers and NCOs (non-commissioned officers) whose graves were then in a variety of locations in and around Brussels and Waterloo. This revived interest in the events of 1815 and in 1888 a prestigious subscription fund was launched in Britain to raise the necessary money. The design of the monument was entrusted to a Belgian artist, Jacques de Lalaing, and the monument was unveiled on 26 August 1890. Seventeen corpses were transferred there and reinterred.⁶⁵

⁶⁵ See http://napoleon-monuments.eu/Napoleon1er/1815WaterlooEvere_EN.htm for a set of excellent photographs of the memorial and further information.

The dedication of the memorial acted as a spur to a general revival of interest in all things relating to the battle and, combined with the ease of travel with the spread of railways, greater discretionary disposable income, and the general, if illusionary, geopolitical calm, tourists began reappearing in significant numbers on the battlefield and at Hougoumont. The renewed interest in events 100 years previously resulted in Col. Edward J.P.F. Macartney-Filgate of the Royal Irish Rifles working closely with Comte Charles van der Burch and his wife Alix de Robiano, granddaughter of François Xavier de Robiano, the then owners, to place a plaque on the wall of the chapel at Hougoumont in 1907 to commemorate the Guards who fought there. The plaque was inaugurated in the presence of the British Ambassador, Sir Arthur (Henry) Hardinge.⁶⁶

Over the following 100 years, many other plaques and memorials have been erected and placed at Hougoumont. With the plaque erected by the Grand Duke of Luxembourg (Hereditary Duke of Nassau) in 2015, just about all the units that fought there (including the French) were now commemorated.

The story of Hougoumont in the 20th century is one of any other farm in the fertile region of Wallonia but with the added twist that it saw German and British troops in World War Two, Belgian troops at various times and is now the centre of a robust tourist industry based around the events of 1815. In this latter capacity it plays host to the bivouac for the volunteers who re-enact the Battle of Waterloo on frequent occasions.

Hougoumont remained a tenanted working farm into the 21st century but it had been in steady decline over a long period as a result of absentee landlords who had little interest in farming, a lack of investment for modernising the facilities or the farming techniques, and no interest from the Belgian authorities in the patrimony of the battlefield. When the last tenant farmer retired in 2002, he left behind an ineffective farm with decaying buildings that no one wanted to take over. Eventually the owner, Comte Guibert d'Oultremont, decided to sell it to the newly interested regional authority, which bought it and 11 hectares from him for €1.49 million and allowed it to deteriorate dangerously until it had to be fenced off as a matter of public safety. The farming rights were taken up by other local farmers and the farm complex became an eyesore.

In due course, with the bicentenary of the Battle of Waterloo on the horizon, a proper basis for Hougoumont, and the rest of the battlefield patrimony, was established, some €3.5 million was raised by Project Hougoumont⁶⁷ and the renovation carried out. The *château-ferme* d'Hougoumont, re-born, was officially opened to the public on 17 June 2015 in the presence of HRH Prince Charles, Prince of Wales, and The Duchess of Cornwall, Princess Astrid of Belgium, the Grand Duke and Duchess of Luxembourg, Prince Pieter-Christian of the Netherlands, the Duke of Wellington, Prince Blücher, Prince Charles Napoleon and many other dignitaries.

⁶⁶ There is an interesting article, in French, about this at http://www.freepub.be/doc/La_plaque_des_Foot_Guards.pdf

⁶⁷ www.projecthougoumont.com

Hougoumont uncovered

In late 2014, an agreement was established between the SPW⁶⁸, who are responsible for all archaeological investigations in Wallonia, and a group of British archaeologists seeking to conduct archaeological investigations on the Battlefield of Waterloo, which resulted in the formation of the Belgo-British ‘Waterloo Uncovered’ project⁶⁹. The Archaeological Directors for project are Prof. Tony Pollard, Director of the Centre for Battlefield Archaeology at the University of Glasgow, and Dominique Bosquet of the *Service public de Wallonie*.

It was decided that the initial focus would be on Hougoumont and the project, which now included the University of Ghent, used advanced geophysical investigative techniques, LIDAR, and detailed historical research before opening test trenches in April 2015. Having established the effectiveness of their approach, a major dig was conducted in July 2015 and again in 2016. The results can be found on the ‘Waterloo Uncovered’ website and in official publications⁷⁰.

⁶⁸ www.wallonie.be/fr/guide/guide-services/1133

⁶⁹ www.waterloouncovered.com

⁷⁰ See Bosquet D., Pollard T., De Smedt Ph., Evans M., Eve S., Foinette Ch., Mollo T., Van Meirvenne M & White A., 2015a. *Le projet “Waterloo Uncovered” : quand l’archéologie revisite l’histoire*, Namur, SPW Éditions, Les Cahiers Nouveaux, p.88-91 and Bosquet D., et al, 2015b. *Le projet “Waterloo Uncovered” : quand l’archéologie revisite l’histoire*, Namur, SPW Éditions, Pré-actes des Journées d’archéologie en Wallonie (Rochefort 18-20 novembre 2015), Série Rapports archéologie, 1, p. 151-154 together with www.waterloouncovered.com

Alasdair White

Alasdair White is a behavioural economist, business school professor and historian, a member of Project Hougoumont, a battlefield expert with 20 years of guiding experience, and the author of four books about the Battle of Waterloo and the 1815 Belgium Campaign. He is the historical consultant to the Belgo-British 'Waterloo Uncovered' archaeological project and lives a few hundred metres from the Battlefield of Waterloo itself. He is a Fellow of the Higher Education Academy in the UK and a Fellow of the International Napoleonic Society.

His publications include:

Managing for Performance – Piatkus Books, 1995

Continuous Quality Improvement – Piatkus Books, 1996

The Essential Guide to Developing Your Staff – Piatkus Books, 1998

From Comfort Zone to Performance Management – White & MacLean, 2008

Shadows (writing as Alex Hunter) – White & Maclean, 2009

Managing Academic Performance – White & MacLean, 2011

Retribution (writing as Alex Hunter) – White & MacLean, 2014

June 1815: The Belgium Campaign (with Marc Fasol) – Renaissance du Livre, 2014

The Road to Waterloo – White & MacLean, 2014

Dancing in the Time of War – White & MacLean, 2015

Napoleon and the Belgium Campaign – De Rouck, 2015

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Page 47	Fig. 31	Hougoumont's south wall looking up into the 'killing zone' - the remnants of the hedge is on the right. This picture is from a collection from around 1904, many of which became postcards.
Page 47	Fig. 32	The south wall circa 1950s. Photo © Ian Knight
Page 48	Fig. 33	The south wall from the same place as Fig. 32 but around 60 years later. Photo © Wade Krawczyk

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