

THE FINDS FROM LA TÈNE IN THE BRITISH MUSEUM

LA TÈNE, UN SITE, UN MYTHE 6

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Discovered in 1857, the site of La Tène played an important role in the rapid development of European prehistory in the mid-nineteenth century including the adoption of the three-age system in which it was named as the type site for the later Iron Age. The finds from it are now scattered across museums in Europe and America and those in London are published here as part of a project to locate and publish all the finds from the site. The discovery of the site and the dispersal of its finds are discussed in the context of contemporary understandings of the past and collecting practices. Usually seen as votive offerings placed in a river, the finds have been reinterpreted recently as the remains of a trophy that displayed the bodies and equipment of an army defeated in c. 220–200 BC.

INTRODUCTION

'J'ai idée que la station de La Tène est destinée à acquérir une certaine célébrité'

Henri Beauval in Louis Favre's 1875 novel *Le Robinson de La Tène*.

Louis Favre was correct. For over 150 years, La Tène which lies on Lake Neuchâtel in western Switzerland, has been at the heart of the study of the European Iron Age. Discovered in 1857, it gave its name to the later part of the Iron Age. The site is best known for the numerous weapons found there, mainly iron swords in their decorated scabbards and spears. Many were found close to an Iron Age bridge that crossed the mouth of an old arm of the River Thielle, the northern outflow of the lake (fig 1).

La Tène has been interpreted variously as a settlement, an armoury, a customs post, a battlefield, a votive site, and a flood scene¹ but since 1952 there has been a consensus that the

¹ Eg Wyss *et al* 2002, 20–30; Kaenel 2006.

site was votive and that the weapons were gifts to the gods that were placed directly in the Thielle or displayed on Pont Vouga.²

Today the finds are, like those from many prehistoric sites found in the lakes of west Switzerland in the nineteenth century, widely dispersed between 'museums, which extend from Vienna to Wisconsin'³ including the British Museum.

2007 saw the 150th anniversary of the discovery of La Tène⁴ and the sad recognition that only a few hundred of the thousands of finds from it had ever been published.⁵ This was the stimulus for a project to reassess the earlier work at the site and to locate and publish the surviving finds with each collection to be published linked by the subtitle 'La Tène, un site, un mythe.'⁶

THE FISHING DAYS

In 1854/5 an extraordinarily cold and dry winter caused Lake Zurich to fall to an unusually low level and led to the discovery of the Neolithic lake side settlement at Meilen. Interpreted by Ferdinand Keller (1800–81) as a pile dwelling by analogy with contemporary examples in New Guinea, the discovery sparked the start of what has been called 'Lake Dwelling Fever' (fig 2).⁷

These *Pfahlbauten* or *Palafittes* yielded well-preserved and well-dated evidence for daily life at a time when the foundations of modern archaeology were being laid. They provided the materials to create interpretations of the past that, while romantic and nationalist, were accessible, immensely popular and well-portrayed in the paintings of the *Pfahlbauromantik*. They also provided the stimulus for some of the first scholarly syntheses of what became the later prehistory of western and central Europe.⁸ Although some Swiss lake dwellings were already known⁹ it was Keller who brought them to public attention and he was described as 'the new Christopher Columbus', who discovered a whole new world

² Raddatz 1952 was decisive in this change of view' Müller 2007a

³ de Navarro 1972, 7.

⁴ Eg Kaenel 2007; Betschart 2007; Hummler 2007; Kaenel and Reginelli Servais 2008

⁵ Vouga 1885; Gross 1886; Vouga 1923; De Navarro 1972; 1977.

⁶ Eg Lejars 2013a; Müller and Stapfer 2013.

⁷ Flüeler-Grauwliler and Gisler 2004.

⁸ Eg Troyon 1860; Desor 1865; Keller 1866a; Munro 1888.

⁹ Kaeser 2013a, 24–5.

beyond history.¹⁰ Lake dwellings were soon found in southern Germany, eastern France and northern Italy.¹¹

Most of these early finds entered the collections of archaeologists.¹² Two of the archaeologists who collected finds from Lake Neuchâtel were Colonel Friedrich Schwab and Edouard Desor (figs 3–4). Schwab (1803–69) was a prominent businessman and local politician whose collection from west Switzerland was widely acknowledged as preeminent.¹³ Desor (1811–82) was a German political exile, a geologist and palaeontologist who became Professor of Geology at the Neuchâtel Academy. He knew some of the leading proponents of the three-age System and played an important role in the development of European prehistory.¹⁴ The two shared a common interest and enjoyed a certain local rivalry in acquiring finds from the lakes.¹⁵ At the time it was common to employ men to procure objects and those from *palafittes* were often acquired by – quite literally – fishing for them.

The discovery of La Tène fell, indirectly, to Schwab. In November 1857 his collector Hans Kopp fished about 40 iron objects from what was presumed to be a settlement covered by just 'four feet' of water. According to Desor the name *Tène* was a local term meaning shallow water.¹⁶

The scene was captured in Louis Favre's popular novel *Le Robinson de la Tène*;

The morning, was it good?' said Beauval, while resting his oar on one of the boats.

'We have only found iron, always iron' said Hans Kopp in Bernese dialect. I think that we have fallen upon one of the most remarkable sites... bronze is completely absent.¹⁷

A drawing by Oscar Huguenin of these *pêcheurs*, as they were known, adorned the cover of the book, echoing the engraving by Favre himself of Kopp fishing at La Tène in Desor's 1865 book *Les palafittes* (fig 5).

¹⁰ Trachsel 2004.

¹¹ The houses were actually built on the shore and while there were buildings on piles in lakes, there were no large communal platforms as envisaged by Keller (Menotti 2004).

¹² Following Rowley-Conwy (2007, 4-5) 'archaeologist' refers to antiquarians and archaeologists.

¹³ Kaeser 2013a, 28.

¹⁴ Kaeser 2004.

¹⁵ Kaeser 2013a, 34.

¹⁶ Desor 1865, 77.

¹⁷ Favre 1875, 173–4.

With his small boat held in place by stakes, Kopp used a hand dredge and a pair of metal tongs to retrieve the objects (fig 6). On 17 November 1857 Schwab wrote to the Keller with an illustrated list;

Two swords, twelve sheath fragments, eight spear heads, two knives, three axes, one big sickle, three javelins, three rings, one ring with two rings, two pieces of flat iron with rivet holes, one perforated stone, one big handle of a pot and half a small arm-ring of dark blue glass.

La Tène was different from other *palafittes*; all the metal objects were iron. But the date and significance of this was uncertain; Schwab thought the finds were Roman.

Desor heard by chance. His cook, Marie Kopp, was Hans' sister and Desor promptly engaged Hans to prospect for him too. Unlike most archaeologists, Desor was not overly interested in attributing finds to ethnic groups. Instead he saw the significance of the finds in the context of the three-age system; La Tène was Iron Age and he soon published an account.¹⁸

Keller was also quick to publish his views. (fig 7)¹⁹ Keller was the long-time President of the Zurich Antiquarian Society which he helped found in 1832 on his return from England where he had worked as a tutor. Keller had visited Colt Hoare's collection at Stourhead and it has been said that the Zurich Society was modelled on English antiquarian societies. As more lake-dwellings were found, Keller wrote regular reports on them and these *Pfahlbauten Berichte* were published by the Society. In 1866 the first six were translated by John Lee FSA.²⁰

Keller and Schwab corresponded regularly and Schwab was happy for Keller to publish his latest acquisitions. For Keller La Tène was a puzzle. The few comparable finds had been attributed variously to Kelto-Helvetic, Roman and Alemannic peoples.²¹ Keller saw that the decoration on the scabbards from La Tène was neither Bronze Age (which he described as *keltisch*) nor Roman in style and he noted similarities with the decoration on some jewellery and neck rings published by Bonstetten.²² The most similar finds were from Berne-Tiefenau, c 35km away. Found in 1849, this *Massenfund* was said to have contained

¹⁸ Desor 1858.

¹⁹ Keller 1858.

²⁰ Trachsel 2004, 60, n. 174; cf Kauz 2004, 155; Keller 1866a.

²¹ Keller 1858, 151–3, Taf iii; 1866a, 248.

²² Bonstetten 1855, pl vii, fig 4.

over one hundred swords. Although correctly identified as *keltisch-helvetisch* by Albert Jahn in 1850, Gustave de Bonstetten later attributed it to the third century AD Alemanni.²³ Keller's caution prevailed and he left the matter open, hoping that further discoveries would clarify matters.

Meanwhile Desor developed his view of the significance of La Tène. Between 1860–64 he argued in lectures and local publications that the site was pre-Roman and in 1865 he set this out in his book *Les palafittes ou constructions lacustres du lac de Neuchâtel*.²⁴

The wider significance of La Tène was also quickly noted by Frédéric Troyon (1815–66), the curator of Lausanne museum. In 1847 Troyon had seen the similarities between iron swords found in west Switzerland and those described by Roman writers²⁵ and in 1854 he assisted in the first underwater exploration of a lake dwelling, at Morges in Lake Geneva (fig 8). Troyon correlated the swords from La Tène and Berne-Tiefenau with Livy's description of those used by Gauls when sacking Rome in 387/6 BC. Troyon was inclined to see the decoration on the scabbards as Scandinavian in origin albeit influenced by the Helvetii, the tribe who occupied west Switzerland in the Iron Age, rather than as the work of the indigenous 'Celtic' people.²⁶

From 1857 until c. 1864–6 La Tène continued to be fished for its iron finds, mostly for Schwab but after a flurry of work in 1864 interest waned. In 1866 Schwab wrote to Keller saying that there was nothing more to be found at La Tène.²⁷

Schwab was soon shown to be wrong. During 1868–81 the water levels of the lakes of the Jura were systematically lowered (or 'corrected') by building locks and canals in order to reduce flooding. In 1879 Lake Neuchâtel was lowered by more than 2 m resulting in La Tène being exposed regularly. Uncontrolled and unrecorded investigations soon followed (fig. 9)²⁸ and Munro gave a contemporary account of these works in his 1890 *The Lake-dwellings of Europe*.²⁹ Borel, the *concierge* of Neuchâtel Museum sold many of the finds from his explorations to other Swiss museums, while in 1884 the Swiss Confederation bought the

²³ Keller 1858, 151; Müller 1990, 11–13, 25, 36–7 where over 80 swords are accounted for.

²⁴ Desor 1860; 1865.

²⁵ Troyon 1847, 44; 1854, 170.

²⁶ Troyon 1860, 191–7, 347–51, pl xiv; Kaenel 1991, 21–3.

²⁷ Kaeser 2013a.

²⁸ Reginelli Servais 2007, 40.

²⁹ Munro 1890, 277–82.

large collection of Victor Gross.³⁰ The many finds that are probably are from La Tène but have lost their provenances have been described by de Navarro as 'apocrypha'.³¹

The damage to La Tène was such that it was thought to have been destroyed; its finds plundered and sold. Only Émile Vouga made detailed records of his investigations. Between 1880 and 1885 he identified two bridges across an old channel of the Thielle and traces of wooden buildings on its banks. The channel itself contained many objects, mostly weapons. Vouga published the first systematic account of La Tène which was soon followed by a synthetic review by Gross.³²

The impact of these monographs, the increasing international fame of La Tène, and a developing sense of *patrimoine* –in 1886 it became a legal requirement to protect antiquities from leaving the country with foreign buyers –³³ eventually saw the formation of the *Commission des fouilles de La Tène*. Its excavations of 1907–1917 were directed firstly by William Wavre and then by Vouga's son, Paul. Much of the old channel of the Thielle was excavated and in 1923 Vouga published this work as *La Tène. Monographie de la station*. It summarised the early investigations and for many years it was the definitive statement on La Tène. The bridge closest to Lake Neuchâtel was named Pont Vouga. The other bridge, c. hundred metres downstream, was named Pont Desor and thought to be Roman (figs 10–11).³⁴

Lamenting the motives and quality of earlier investigations, Vouga documented the widespread dispersal of the finds.³⁵ However, Schwab's and Desor's collections remained largely intact. Schwab donated his to the town of Biel with an endowment for a new museum which opened in 1873. Desor bequeathed his collection to Neuchâtel Museum and in 2001 it was transferred to the new Laténium centre.³⁶

AUGUSTUS FRANKS: NETWORKS, TRAVELS AND ACQUISITIONS

³⁰ Vouga 1885, 12 ; Gross 1886.

³¹ de Navarro 1972, 8, 13. The naming of La Tène as the type site for the Later Iron Age in 1874 ascribed a particular cachet that also resulted in finds from other sites being attributed to it.

³² Vouga 1885; Gross 1886.

³³ Cf Arnold 2012.

³⁴ Kaenel 2006.

³⁵ Vouga 1923, 11. This did not stop Vouga selling objects from La Tène in the collections of Neuchâtel Museum to at least three American Museums!

³⁶ Vouga 1923, 11.

Among the finds from La Tène in foreign museums noted by Vouga was a group in the British Museum.³⁷ Like many objects acquired by the British Museum in the nineteenth century, they were acquired by Augustus Franks (1826–97) (fig 12).³⁸ In his *History of the British Museum* David Wilson eulogised Franks as a hero in the development of the antiquities departments of the British Museum, 'as innovative in his scholarship as he was aggressive in his collecting and generous in his giving'.³⁹

Coincidentally, Franks was born in Geneva in 1826, and after being brought up in Rome, Franks was educated at Eton and Cambridge where he developed his interests in medieval history and archaeology. Appointed to the staff of the British Museum in 1851 as Assistant in the Department of Antiquities, Franks was given special charge of the British and medieval collections. Until then the museum had resolutely opposed collecting archaeological finds from Britain.⁴⁰

As Franks' personal papers do not survive, much less is known about him than his contemporaries, most notably John Evans and John Lubbock⁴¹ but Franks was a member of the small group who championed deep human antiquity and the study of prehistory in the 1850s and 1860s. Evans, Franks and Lubbock were all rich, well-connected, and eventually knighted. All were Fellows of the Royal Society and Presidents of the Society of Antiquaries of London.⁴² On occasions they travelled abroad; in 1866 they visited Paris before going on to Munich, Salzburg and Hallstatt.

Such travels were common⁴³ and alongside correspondence they played an important role in exchanging knowledge. For example Frédéric Troyon corresponded regularly with the Society of Antiquaries and his letters were often read out at meetings. In May 1854 he was the first to give the Society news of the discoveries at Meilen. He also corresponded with William Wilde in Dublin and published papers on Swiss lake dwellings in the *Ulster Journal of Archaeology*.⁴⁴

³⁷ Vouga 1923, 9–10, 28.

³⁸ Wilson 1984; 2002; Caygill 1997; Cook 1997.

³⁹ Wilson 2002, 10.

⁴⁰ MacGregor 1998.

⁴¹ MacGregor 2008; Owen 2013; Pettit and White 2014.

⁴² Wilson 1984; 2002, 155–77, 192–4.

⁴³ Eg Westwood 1858.

⁴⁴ *Proceedings of the Society of Antiquaries of London* 3, 1856, 102, 169–70; eg Troyon 1859; 1860; Kaenel 1991; 2009.

These networks saw scholars elected to overseas academies. Franks was elected to several ⁴⁵ and honours were reciprocated. For example Ludwig Lindenschmit the Elder of Mainz was elected an Honorary Member [Note to editor: and not an Hon. Fellow. Not sure when and why the distinction was made] of the Society of Antiquaries in 1864, ⁴⁶ while Desor was elected an Honorary Fellow alongside the classicist Theodor Mommsen in 1868.⁴⁷

In common with curators across Europe, Franks also collected personally, a pursuit afforded by his considerable inheritance and he was famous for his voracious acquisition of antiquities of all ages from across Europe. To assist this he acquired British and Irish material to use in exchanges. Many exchanges and purchases were made in a personal capacity and then gifted to the British Museum. The museum could not make exchanges from its collection as it holds material in trust rather than owning it.⁴⁸

The buying and selling of objects between archaeologists and museums to develop comparative collections was routine and international. For example, Jens Worsaae, Christian Thomsen's assistant in Copenhagen, compiled a collection of Irish antiquities during an extended visit there in 1846–7, part of which was given to him by the Royal Irish Academy and there were also exchanges with the Society of Antiquaries of Scotland.⁴⁹ The nonchalant way in which Thomsen and Lindenschmit discussed purchases and prices shows that the practice was commonplace.⁵⁰ Alongside it there was a trade in plaster casts, initially for classical statues but Lindenschmit later developed a trade in casts of portable archaeological objects.

By 1860 the Neolithic and Bronze Age lake-dwellings of Switzerland were so well-known that their finds were widely collected by foreign archaeologists and given as gifts⁵¹ and a thriving domestic market also catered for tourists.⁵² Visits to lake-dwellings were promoted as tourist attractions and John Morell's 1867 *Scientific Guide to Switzerland* stated that;

⁴⁵ Caygill 1997, 80–9; Wilson 2002, 163.

⁴⁶ *Proceedings of the Society of Antiquaries of London* 2 ser, 2, 1864, 418.

⁴⁷ *Proceedings of the Society of Antiquaries of London* 2 ser, 4, 1870, 73. Frank's hand as Director of the Society is evident; he knew the honorands.

⁴⁸ Caygill 1997, 78.

⁴⁹ Eogan 1991, 133–6; Stevenson 1981, 79.

⁵⁰ Street-Jensen 1985.

⁵¹ Eg Wylie 1860; Lubbock 1862; Leckie 2011.

⁵² Altorfer 2004a.

As this guide is specially intended to aid the traveller in quickly and readily picking out the most scientific interest in Switzerland, we refer him first to Zurich Museum, with its numerous specimens, arranged under the care of Dr. Keller, and other antiquarians. Secondly, let him visit the pile work on the Lake of Moosseedorf, near Berne (two hours' walk), because it affords the most perfect example of a regular lake dwelling of the Stone period, no implement of metal having been found in it. | Thirdly, let him go to the settlement of Robenhausen, on lake Pfäffikon, near that of Zurich, and forming a tarn in a peat district on the borders of St. Gall. We learn more from this settlement than all the others. We can here walk on the flooring of dwellings abandoned thousands of years ago, and see before us the hearths, utensils and food of their people.⁵³

A Visitor Book was kept at Robenhausen between 1858–90 and in the mid-1860s it was signed by more foreigners than Swiss, with the Germans and British (including Charles Lyell) being most common.⁵⁴ Albert Way, Secretary of the Archaeological Institute, could write to Keller '...with the greatest sincerity that we do not things in Old England with such spirit and success'.⁵⁵

Things were not always so harmonious. In a letter Keller wrote about the difficulties of deciding which artefacts to keep or sell and, while saying he had nothing but respect for the English, he complained that they did not hesitate to use their money to rob public museums, as it were, and then to boast that they had made people on the Continent their slaves with their gold coins.⁵⁶

ACQUISITION

Franks first saw the finds from La Tène when he visited Switzerland in 1860. He met several archaeologists, including Schwab who wrote to Keller saying that Franks was 'a quite wonderful, kind and educated man', describing him as the Director of the Society of Antiquaries. Franks was reported to have been particularly interested in the finds from La Tène, making drawings of the swords 'together with a few other things' and some

⁵³ Morell 1867, 354–5.

⁵⁴ Altorfer 2004b, 91–6, Abb 1–4.

⁵⁵ Trachsel 2004, 61.

⁵⁶ Kauz 2004, 159.

'impressions' of them.⁵⁷ Schwab stated that Franks intended to give the drawings and impressions of the scabbards to the Society of Antiquaries. Frank's notebooks for these years do not survive but it seems certain that he visited Troyon⁵⁸ and so it is likely that he visited Desor *en route*. Franks also went to Zurich where he must have met Keller.

One reason for Franks' interest in La Tène was his work on Celtic art. In 1860 he was either finishing or had recently completed his contribution to *Horae Ferales*, the posthumous publication of John Kemble's archaeological work.⁵⁹ In it Franks brought together his observations on what is now called the Celtic art of the pre-Roman Iron Age. Franks was arguably the first person to correctly identify and date this art and to see its European scope.⁶⁰ As a result he was the first person to correctly date La Tène to the Iron Age and his conclusions in *Horae Ferales*, which did not appear until 1863, were quickly accepted by Swiss archaeologists.⁶¹ Troyon and Desor, both of whom had met Franks, also reached the same conclusion shortly afterwards.⁶²

In 1863 Franks visited Schwab again, and also Keller.⁶³ Schwab records that afterwards he and Keller both presented Franks with objects from the Swiss lakes, with Schwab later sending two separate parcels of finds. The second was sent after Franks had inadvertently offended Schwab by describing him as the excavator of La Tène, something Schwab considered to be of lowly status. By sending another parcel, Schwab had the opportunity to correct this misapprehension.⁶⁴ The Neolithic and Bronze Age objects sent by Schwab were accessioned into the museum's collections 1863 but the first from La Tène were not registered until 1867; four from Desor and two from Schwab. In 1880 a further nine objects from La Tène were accessioned as a gift from Franks. The museum also has plaster casts of seven decorated scabbards from La Tène and it seems likely that these were also acquired *c.* 1867.⁶⁵

The first objects and casts may all have been acquired in 1867 at the *Exposition Universelle* in Paris. One of the most important exhibitions of prehistory was displayed at the

⁵⁷ Schwab's letter is in the archive of the *Antiquarische Gesellschaft*; StAZH, W I 3 174.18/172; Lejars 2013a, doc 126–7.

⁵⁸ Troyon 1860, 474–5 mentions receiving drawings from Franks, probably copies of those for *Horae Ferales*.

⁵⁹ Franks 1863; Kemble 1863.

⁶⁰ Fitzpatrick in preparation a.

⁶¹ Eg Keller 1866a, 257; 1866b, 303.

⁶² Lejars 2013b, 31–2.

⁶³ StAZH, W I 3 174.23/165 and 168; Lejars 2013a, doc 128–9.

⁶⁴ Kaeser 2013a, 33.

⁶⁵ Fitzpatrick in preparation b.

Exposition as part of the *musée de l'histoire du travail* having been organised by the *Congrès international de préhistoire*, the forerunner of the modern UISPP. This Congress was established by Desor and Gabriel de Mortillet in 1865 as the *Congrès international d'anthropologie et d'archéologie préhistorique* with the aim of facilitating a large archaeological display at the *Exposition* and inaugurating a major international meeting of prehistorians. De Mortillet was the Secretary General of the Organising Committee and set out this wider significance in his *Promenades préhistoriques*.⁶⁶ Many nations contributed displays and the exhibition has been held to symbolise the 'coming of age of archaeology' reflecting the idea of prehistory, its great antiquity and also the importance of ethnology.⁶⁷

The prominence afforded to archaeology in the *Exposition* benefitted directly from Emperor Napoléon's III patronage. During his research into Julius Caesar's *Battle for Gaul* Napoléon III cultivated links with archaeologists across Europe and the discovery in 1861 of Caesar's siege works of 52 BC at Alésia led in 1864 to the unambiguous dating of the finds from La Tène and the Berne-*Massenfund* to the pre-Roman Iron Age. With his dating of the La Tène vindicated, Desor was able to develop his idea of a first and second Iron Ages which Hans Hildebrand soon named 'Hallstatt' and 'La Tène'.⁶⁸

Napoléon III and his officers took an especial interest in La Tène, attempting to buy Desor's collection from it and also to instigate new excavations. Those attempts were unsuccessful but plaster casts were made of weapons in Desor's and Schwab's collections and also of other weapons from central and western Europe. Some of the casts were made by Lindenschmit who also trained the imperial mould makers, who had previously specialised in making casts of statues, to make casts of archaeological objects. This was paid for from Napoleon's personal treasury and his imperial largesse also included bestowing the *Légion d'honneur* on Desor and Lindenschmit.⁶⁹

The Swiss lake dwellings were afforded a particular prominence in the *Exposition*. The Swiss government paid for six collectors to send displays, including Desor, Schwab and Gustave Clément. Coordinated by Clément and Desor, the displays were organised according to the three-age system and accompanied by a painting by Auguste Bachelin (fig 13).⁷⁰ The Iron Age was represented almost exclusively by finds from La Tène that were mounted on

⁶⁶ de Mortillet 1867.

⁶⁷ Eg Daniel 1950, 116; Müller-Scheessel 2001.

⁶⁸ Desor 1868; Hildebrand 1876; Delley and Kaeser 2007; Kaeser 2004, 317 ; Kaeser 2013a, 42.

⁶⁹ Verchère de Reffye 1864; Kaeser 2013a, 33–5; Fitzpatrick in preparation a.

⁷⁰ Who was recommended by Desor. Rückert 2004, 170–4, Abb 1–3.

display boards. The six boards sent by Schwab were insured for 200,000 Swiss Francs and photographed before their departure (fig 14).⁷¹

The finds from La Tène acquired by the British Museum in 1867 were, in Franks' words, 'presented by' Desor and Schwab'. Their receipt is recorded in Franks' report to the Society of Antiquaries on 'Additions made to the collections of British antiquities in the British Museum during the year 1867'. Franks initially gave these accounts to the Archaeological Institute, which published them in the *Archaeological Journal* and subsequently to the Society, which included them in their *Proceedings*.

Franks reported that

A few valuable objects of the iron period have been added from the Swiss Lakes. Professor E. Desor, Hon. FSA, very liberally presented a sword and sheath, both of iron from the lakes of Neufchatel [sic]. These are fine and well preserved specimens; he has added a large spearhead and a fibula of the same material.⁷² Colonel Schwab of Bienne, well known for his valuable collection, has presented a fine iron spear-head [sic]; two other objects and pottery from the lake dwellings at Morges were given by M. Henri Carrard.⁷³

Although the phrase 'presented by' seems to imply that the objects were gifted to the museum, a list in Neuchâtel of the finds in the British Museum written by Franks between 1880–96 describes the 1867 acquisitions as purchases (fig online 1).⁷⁴

As both Desor and Franks were at the *Exposition* (Franks was one of the seven Vice-Presidents of the *Congrès*), and Schwab probably visited it, it seems likely that the 'presentations' were arranged at it.

In 1867 the Department of British Antiquities also acquired material from Austria (from excavations by Evans and Lubbock at Hallstatt), Denmark, France, Germany, Hungary, Ireland, Italy Sweden, Switzerland and casts of objects from Russia, as well as finds from America, China, Ecuador, Siberia, and Syria. This list correlates closely with the nations that exhibited antiquities in Paris and many of the finds must have been acquired there.

⁷¹ Häuselmann 1867; Reginelli Servais 2007, 22, 28–9; Kaeser 2013b, 471.

⁷² Desor also presented two other iron objects from other sites (Appendix 2).

⁷³ Franks 1868, 129–30.

⁷⁴ Reginelli Servais *et al.* 2011, Laténium, LAT-A-MAR-LT-A-0065-4662. Francesca Hillier, British Museum, identified Franks' hand writing.

It is not known how Franks acquired the objects from La Tène that he donated in 1880. De Navarro suggested that he obtained them, and also the casts of the swords, when he visited Schwab in 1860 and 1863 but Schwab's letters to Keller do not mention any gifts or sales.⁷⁵ While the acquisition of large collections could be complicated,⁷⁶ it is hard to explain why Franks would have waited for almost 20 years before donating this small group, particularly as Schwab's 1863 gifts of Neolithic and Bronze Age objects were accessioned the same year.

It seems more likely that the 1880 acquisitions were bought on the open market, perhaps through a Swiss intermediary such as Desor, who is known to have been involved in the overseas sales of Swiss finds. Antiquities from La Tène began to appear regularly on the market after 1879 when the site was exposed regularly after the lowering of Lake Neuchâtel. In 1890 Robert Munro could observe that 'Like the fate of most lacustrine remains, those from La Tène have been widely scattered.'⁷⁷

COMPOSITION AND DATE OF THE ASSEMBLAGE

Despite this, the overall composition of the assemblage from La Tène is now relatively well-understood. At least 166 swords, 269 spears and 30 shields are represented and many of the c. 200 belt hooks and belts rings are probably from sword belts.⁷⁸ Approximately 70 per cent of the finds from the Schwab collection are from weapons⁷⁹ and while weaponry has attracted the most attention,⁸⁰ there is also a wide range of other finds. These include almost 400 brooches and a range of tools including knives, razors, scythes and sickles, c. 40 axes (which are not regarded as weapons), and a set of wood working tools. Fragments of 10 bronze cauldrons, 10 wooden vessels and 20 pots are recorded and horse riding and the driving of carts and/or chariots is represented by 32 bridle bits and 58 phalerae, 4 wheels and 2 yokes.

⁷⁵ de Navarro 1972, 425.

⁷⁶ Cf Orlínska 2001, 13–14.

⁷⁷ Munro 1890, 282.

⁷⁸ The actual number of finds recovered from La Tène is unknown because of false provenances and lost ones, and some finds have disintegrated. Almost 4500 objects survive in at least 28 public collections (Kaenel and Reginelli Servais 2011; Reginelli Servais et al. 2011). The difference between the 2497 given by Vouga (1923, 28) is largely due to how the objects are categorised.

⁷⁹ Lejars 2007, 359; 2013a, 60–1, fig 33.

⁸⁰ Eg Müller 1990; 2007a, 349, fig 3.

Rarer finds include coins,⁸¹ half a gold torque, and part of a carnyx.⁸² Bones from between 50 and 100 people are thought to have been found, and animal bone is also present.

The great majority of these finds date to late in the La Tène C1 phase or early in C2 and while there are some finds of La Tène A and B date, they may be old objects in use or available at this time. In his recent authoritative work Thierry Lejars' preferred date for the assemblage is 220–200 BC.⁸³

The independent dating is largely consistent with this. Some objects dated by dendrochronology in the 1970s have been resampled and some additional dates obtained.⁸⁴ A shield first dated to 229/228 BC has been re-dated to 225/>220 BC and new dates have been obtained on a plank; 386/240/>220 BC, and a rod: >242 BC. However, a plank supposedly from Pont Vouga that was dated originally to 251 ± 8 has been redated to 6/>26 AD. Pont Desor has been shown to date to the Early Iron Age; 660/655 BC rather than the Roman period.⁸⁵ Eight radiocarbon determinations on human bone apparently span the fifth to first centuries BC, though only two have been published in full. These determinations fall in the fourth–second century BC calibration plateau but are consistent with a late third century date; 400–200 cal BC @ 95.4% (2245 ± 45 BP: ETH-32943) and 390–150 BC cal BC @ 95.4% (2190 ± 45 BP: ETH-32944).⁸⁶

THE FINDS IN THE BRITISH MUSEUM

The sixteen finds from La Tène in London comprise two swords and scabbards, a belt hook and a ring probably from a sword belt, four spear heads, three brooches, an axe, and a sickle. All are of iron (Appendix 1; **figs 15-17**). There are also seven casts of decorated scabbards, whose originals are still in Switzerland.⁸⁷

Metallurgical and chemical analyses of the two swords (nos 2 and 4) have shown that both swords were effective weapons. The mouth of one scabbards (no. 3) is decorated with

⁸¹ There are *c* 10 third century coins. The large number of later coins (*c.* 200) and brooches sometimes attributed to La Tène (Allen 1973; Geiser 2005, 290–1) are from Lake Neuchâtel but are thought to have been found close to Préfargier *c* 300 m to the west (Lejars 2007; Müller 2007a.).

⁸² Hunter 2009.

⁸³ Lejars 2013a, 340.

⁸⁴ Hollstein 1980; Gassmann 2007; Gassmann 2009.

⁸⁵ Reginelli 2007, 380; Gassmann 2009; Lejars 2013a, 333, fig 256.

⁸⁶ Lejars 2013a, 233–4, fig. 257; Alt and Jud 2013, 288.

⁸⁷ Fitzpatrick in preparation a.

two opposed beasts, either dragons or birds. Although dragon pairs are common at La Tène, these beasts may be birds.⁸⁸ The front of scabbard 1 and the blade of sword 4 are decorated with punch marks (*chagrinage*). Part of a scabbard chape (no. 5) was once fixed to scabbard no. 3 but this may have been added after its discovery. The belt ring (no. 6) and the ring (no. 7) are probably from sword belts, though these objects do occur in the graves of females in west Switzerland (fig 00). The four spear heads in London (8–11) are of different types and including one (no. 11) of the asymmetrical types that are relatively common at La Tène (fig 00).

Émile Vouga stated that over half of the swords that could be removed from their scabbards were unused but that the blades of many swords found on their own had edge damage and were bent, as were some spears. Many of these weapons were straightened after their discovery. However, Lejars found only a few swords with deliberate edge damage in the Schwab Collection. The incomplete but otherwise undamaged condition of many of those scabbards and swords, whose organic handles are missing, may be due simply to them having disintegrated slowly. Many of the shields are also fragmentary.⁸⁹ One of the scabbards in London (no. 1) is broken and the other sword and scabbard (nos 3–4) is slightly bent but in the light of this evidence it is uncertain if the damage was deliberate.

Although weaponry comprises the largest category of finds, there are slightly more examples of other types overall. The largest group comprises the *c.* 200 brooches. Most of these are La Tène C types many of which were apparently damaged deliberately.⁹⁰ The three examples in London (nos 13–15) are all typical La Tène C types that are common in the Schwab collection (fig 00).⁹¹ When brooch no. 14 was illustrated in the 1905 *Guide to the Antiquities of the Iron Age* the chord was shown as being slightly bent but it has since been straightened.⁹²

The axe (no. 16) and the sickle (no. 17) are representative examples of the large tools from the site (fig 00), though sickles are not particularly common.⁹³

The martial, and male, component of the La Tène assemblage has attracted much comment as has the fact that there is no certain female counterpart. Although the brooches and some of the belt hooks and belt rings could be seen as symbolising a female element, and

⁸⁸ de Navarro 1959; 1972, 216–38; Ginoux 2007; Kruta 2009, 232, fig 2.

⁸⁹ Lejars 2007, 359; 2013a, 421; Müller 2007a, 350; 2009, 88.

⁹⁰ Briner 2007.

⁹¹ Briner 2007; Lejars 2013a, 185–202.

⁹² Smith 1905, fig 38.

⁹³ Vouga 1923, 29–30, knew of only 11.

many of the tools could have been used by females, almost no objects associated exclusively associated with females are known. In particular, the belt chains and glass bangles that are found commonly in the graves of females in cemeteries in western Switzerland such as Münsingen-Rain are absent.⁹⁴

However, female remains are present in the human bone. Remains from between 50–100 people are estimated to have been found but as bone was rarely retained, remains from only 26 individuals can now be identified. The sex of 12 of them has been determined; 4 female and 8 male. Two bodies were identified as female at the time of discovery because they wore iron arm rings and one had two brooches by their chest. However, while arm rings are found frequently in contemporary graves of females in west Switzerland, they are sometimes found with males where they are commonly of iron. Brooches are found in graves of both sexes.

The human remains have been interpreted as sacrifices⁹⁵ but it has been argued recently that they represent a 'special' way of disposing of the dead, some of whom were subjected to ritual post-mortem decapitation. Seven of the 16 surviving skulls have traces of cuts and lesions. One individual had been decapitated and another had wounds that were the cause of death.⁹⁶

Very little animal bone survives (*c.* 30 pieces) but it contains an unusually high proportion of horse. While this might be due to sample size, two of the horse skulls are perforated, suggesting that they had been displayed.⁹⁷

While most of the objects in London are typical examples, and might be regarded as 'doubles' from a collection, they include some fine examples. The decorated scabbard (no. 1) was illustrated in Keller's 1866 *Pfahlbauten Bericht* (fig 18) and one, perhaps two spears were illustrated shortly after their discovery. The wavy spear head (no. 11) was illustrated by Marie Favre-Guillarmod (fig 19) and another spear (no. 10) may be one shown in a water colour (fig 20).⁹⁸

THE INTERPRETATION OF LA TÈNE

⁹⁴ Eg Müller 1996.

⁹⁵ Eg Rolle 1970.

⁹⁶ Jud 2007; Alt and Jud 2007; Jud and Alt 2009.

⁹⁷ Méniel 2007; 2009.

⁹⁸ For other paintings by her see Reginelli Servais 2007, 34.

The re-examination of Schwab's and Desor's accounts has provided important insights into the context of the objects found in 1857–8 and 1863–5. Although the topographic changes caused by the Jura Water Correction of 1879 mean that it is now impossible to locate their exact findspots, it is clear that most of them were retrieved from deposits of peat and silt, though the ones found in 1857–8 were found on the top of a small mound of broken stones called *ténevière* that was covered by only 0.6m of water (Zone 1). That mound may be later, perhaps medieval, and waves breaking against it may have caused the erosion of the find-bearing sediments.⁹⁹

The 1863–5 finds came from a nearby but discrete area (Zone 2) that was covered by 1m to 1.5m of water. Most of the objects from this zone were found within a few square metres in which lower water occasionally exposed structural timbers.¹⁰⁰ In 1865 the *pêcheur* Friedrich Gerber recorded a depression in the lake bed and observed stakes, wattling and wooden beams that he thought were on the bank of an old course of the Thielle (fig 21).¹⁰¹ In contrast, the objects found in the 1907–17 excavations were from the old river channel.

In 1885 Émile Vouga thought that the 1857–8 and 1863–5 finds had been found close to Pont Desor. This was because he found that most the old channel of the Thielle was covered by a thick layer of gravel. As this gravel was absent close to Pont Desor he deduced that it was the location of the soft alluvial sediments.¹⁰²

Lejars has questioned Vouga's conclusion. When viewed as assemblages, the objects found by fishing in 1857–8 and 1863–5 and by excavation in 1884 and 1907–17 are almost identical. There are, however, some small differences that Lejars considers significant.

Half of the objects collected by the *pêcheurs* in 1857–8 and 1863–5 are less than 50mm long but objects of this size were rarely found in the channel of the Thielle. The preservation of organic materials on the weapons also differs. Wood survived only in the spear ferrules found by *pêcheurs* and Lejars suggests this was because the ferrules had been rammed into the ground but their shafts were exposed to the air and so decayed. The remains of wooden sword handles were also found occasionally in 1857–8 and 1863–5 but none were found in the 1907–17 excavations. Lejars deduces from these observations that, while the objects found by the *pêcheurs* had originally been in the open air, they were found close to

⁹⁹ The stones may have been used for fishing from (Lejars 2013a, 420).

¹⁰⁰ Kaeser 2013a, 38.

¹⁰¹ Keller 1866a, 116; 1866b, 293; Lejars 2013a, 418–20.

¹⁰² Vouga 1885, 8–9; Vouga 1923, 24.

their original location. In contrast, the larger and sometimes damaged objects without any organic remains found in the old river channel had been redeposited.¹⁰³

This conclusion challenges the popular view that the objects had been thrown into the river or were originally displayed on Pont Desor. This has been the interpretation presented in Britain when La Tène is used as a comparison for Iron Age finds from watery contexts.¹⁰⁴ Both Felix Müller and Thierry Lejars have proposed a more gruesome interpretation that is based on the results of recent excavations at Iron Age sanctuaries in northern France.¹⁰⁵

At Gournay-sur-Aronde, Oise, a temple stood in the centre of a rectilinear enclosure defined by a ditch, bank, and palisade. Different species of animals were placed in discrete locations in the ditch alongside hundreds of broken weapons, many of which had been systematically mutilated. These weapons are suggested to have been initially displayed on freestanding posts in the enclosure before being placed in the ditch. The sanctuary was used between the 4th and 2nd centuries BC with the principal activity dating to c. 280–150 BC (La Tène C1a-C2).¹⁰⁶

There was also a ditched and palisaded enclosure at Ribemont-sur-Ancre, Somme, and although many of the finds are similar to those at Gournay-sur-Aronde, the interpretation of their deposition is quite different. At Ribemont the decapitated remains of hundreds of males, mostly young men, were found along with thousands of weapons. Many of the bodies have evidence of wounds, some of which were the cause of death but others were inflicted post-mortem. Unlike Gournay, few of the weapons at Ribemont had been damaged deliberately. The human remains were found in two principal types of deposit; scatters of articulated but decapitated remains, and piles of long bones arranged around posts. There were at least four of such ossuaries. The site is interpreted as a trophy on which the slaughtered and decapitated remains of an army and their weapons were displayed on galleries inside the palisade. Their decomposing bodies eventually slumped to the ground to form the deposits of articulated bones from which long bones were later removed to create the ossuaries. The associated objects are a homogenous typological group that dates to 250–200 BC (La Tène C1b).¹⁰⁷

¹⁰³ Lejars 2013a, 419–24.

¹⁰⁴ Eg Bradley 1990, 55–89; Pryor 2001, 434–6, Field and Parker Pearson 2003, 179–81.

¹⁰⁵ Müller 2007b; Lejars 2007, 362; 2013a.

¹⁰⁶ Brunaux 1988.

¹⁰⁷ Brunaux 1999.

These discoveries led Müller to reinterpret the Berne-Tiefenau *Massenfund*, which largely comprises martial equipment including many deliberately destroyed swords, as the remains of a trophy,¹⁰⁸ and a comparable interpretation has been developed for La Tène.¹⁰⁹

Lejars has argued in detail that the similarities between the assemblages from La Tène and Ribemont-sur-Ancre, notably the presence of human remains and the rarity of the deliberate mutilation of arms seen at Gournay-sur-Aronde, are because La Tène was also a trophy. He suggests that the timbers seen in the lake in 1864–6 and those found on the banks of the channel by Émile Vouga in the 1880–5 and interpreted by him as buildings, may all be part of the structure. The exact form of the trophy and how Pont Vouga related to it are unknown but the objects, human remains and horses' heads are argued to have been displayed on it but objects such as the bronze cauldrons and the wooden vessels may have been used in ceremonies. The gold torque is suggested to have been displayed on a life-size wooden figure.

The finds recovered by the *pêcheurs* are suggested to have fallen from the trophy onto the river banks before slipping into the water and being covered by alluvial sediments. In contrast the finds found in the old river channel were in derived contexts having been washed downstream and may originally have been on different parts of the structure. Eventually the trophy collapsed into the Thielle which slowly silted-up, perhaps after Pont Desor went out of use.¹¹⁰

Although this interpretation draws on recent excavations in France, La Tène is one of a group of sites in west Switzerland where weapons have been found in watery contexts. These include Port, c. 20km to the north on the River Zihl, the outflow of Lake Biel. This assemblage is dominated by weaponry, including at least 60 swords and 60 spear heads, most of which are contemporary with La Tène. Many of these were found in during the First Jura Water Correction when the Zihl was dredged in 1868–75 but large groups were also retrieved in 1936–8.¹¹¹ Another assemblage that was also found during the First Jura Water Correction comes from Port-de-Joressant, 5km south-east of La Tène on the River Broye, which flows

¹⁰⁸ Initially this find was as famous as La Tène (von Morlot 1860; Smith 1905, 77; Müller 1990). In 1875 Franks acquired 25 objects from Berne Museum in exchange for stone and metal axe heads from Ireland (Müller 1990, 22).

¹⁰⁹ Müller 2007b; 2009; Lejars 2013a.

¹¹⁰ The possibility that the structure was destroyed by a storm or a tsunami, which have been recorded on the Lake, has been considered (Garcia and Petit 2009) but the 2003 excavation suggested the sediments were laid down in calm waters (Reginelli 2007). The overlying gravels are relatively recent.

¹¹¹ Wyss et al. 2002, 17.

between Lakes Morat and Neuchâtel. It included several swords, spears and sickles but the finds were dispersed and the site remains poorly understood.¹¹² Other sites have yielded small numbers of finds from watery contexts, often weapons, for example Lüscherz on Lake Biemme.¹¹³ However, not all finds from watery contexts need necessarily be votive offerings. The bridge at Cornaux/les Sauges, just 3km downstream of La Tène on the Thielle, was originally suggested by Hanni Schwab to have been destroyed by a flood that also destroyed La Tène but it is now known that Cornaux is later, dating to after 135 BC.¹¹⁴ Although sometimes interpreted as a votive site,¹¹⁵ the case for Cornaux being bridge that was destroyed by a flood has been carefully restated by Ramseyer. He observes that several of the bodies appear to have been crushed beneath collapsing bridge timbers and the finds appear to represent a domestic assemblage strewn around by flood water rather than a series of votive offerings.¹¹⁶

CONCLUSION

Discovered in 1857 in the early years of 'Lake Dwelling Fever', La Tène has played a key role in the development of European prehistory. Its discovery helped the pre-Roman Iron Age to be identified, correctly dated, and divided into earlier and later phases, within a decade. Augustus Franks, who bought the finds in the British Museum, was part of the European network of scholars that took those steps and his travels and personal connections helped him be the first person to correctly identify Celtic art. If, as seems likely, Franks bought objects from La Tène in Paris at the *Exposition Universelle* of 1867, it was at an event intended to use these personal networks to create a body that could establish the scientific basis of the three-age system on an international basis and define prehistory as a separate field of study. The latest interpretation of La Tène is not as a votive site but a *trophaeum* on which the bodies and weapons of a defeated army were displayed in c. 220-200 BC. This shows that the last word on the site has not been said but the finds from La Tène in the British Museum carry memories of some of the defining years in the development of European prehistory. They are entitled to have, as Louis Favre said, 'a certain celebrity'.

¹¹² de Navarro 1977, 128; Schwab 1990, 213–38, Lejars 2103a, 349.

¹¹³ Eg Lejars 2013a, 343–55, 428.

¹¹⁴ Schwab 1990; Gassmann 2007, 87, n 5.

¹¹⁵ Eg Müller 1990; 2007a; Wyss *et al.* 2002, 23–30.

¹¹⁶ Ramseyer 2009.

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Abbreviations

Laténium	Laténium, parc et musée d'archéologie de Neuchâtel, Hauterive.
StAZH	Staatsarchiv des Kantons Zürich, Zurich.

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[Comments in square brackets and highlighted in turquoise are notes to the editor on spelling etc.]

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Captions

Figure 1

Location of La Tène and sites mentioned in text.

Figure 2

Keller's reconstruction of the Meilen Lake Village based on a contemporary settlement in New Guinea.

Source: Keller 1854, Taf 1, 4.

Figure 3

Friedrich Schwab. Portrait by Aurèle Robert *c* 1860.

Reproduced by courtesy of the Kunstsammlung der Stadt Biel.

Figure 4

Édouard Desor in 1873.

Reproduced by courtesy of Laténium.

Figure 5

'Notre pêcheur pêchant à la pince dans une palafitte'. Woodcut by Louis Favre in Desor 1865, Frontspiece and fig C.

Figure 6

Tongs and scoop used in fishing for antiquities.

From Desor 1865, fig A & B.

Figure 7

Ferdinand Keller

Reproduced by courtesy of Laténium.

Figure 8

'Scene at Morges, 24th August 1854'. Watercolour by Adolphe Morlot (1859) from his unpublished 'Cours d'Archéologie à Moudon en Février 1859'.

Reproduced by courtesy of the Bernisches Historisches Museum and Laténium.

Figure 9

La Tène and the exposed timbers of Pont Vouga in 1879 by Rodolphe Auguste Bachelin.
Reproduced by courtesy of Laténium.

Figure 10

Pont Vouga under excavation in 1916.
From Vouga 1923, fig 5.

Figure 11

Plan of excavations at La Tène.
From Vouga 1923, Plan.

Figure 12

Augustus Franks. c 1865.
Reproduced by courtesy of the Trustees of the British Museum.

Figure 13

Neolithic Lake village by Auguste Bachelin (1867) for the *Exposition universelle*.
Reproduced by courtesy of the Schweizerisches Landesmuseum and Laténium.

Figure 14

Finds from La Tène from Schwab's collection mounted for display at the *Exposition universelle*.
From Häuselmann 1867, Taf. i-vi.

Figure 15

Finds from La Tène in the British Museum.

Figure 16

Finds from La Tène in the British Museum

Figure 17

Finds from La Tène in the British Museum

Figure 18

a) sword and scabbard no.1 as illustrated in a water colour by Louis Favre the 1850s and,
b) in Ferdinand Keller's *Pfäulbauten Bericht* of 1866, Taf. xi, 32. a)

Reproduced by courtesy of the Staatsarchiv des Kantons Zürich; b) after Keller 1866a.

Figure 19

Spear no. 11 illustrated by Marie Favre-Guillarmod c. 1860

Reproduced by courtesy of Laténium.

Figure 20

Spears from La Tène as illustrated in the 1850s. The spear in the middle of the watercolour may be spear no 10 in the British Museum.

Reproduced by courtesy of the Staatsarchiv des Kantons Zürich.

Figure 21

Location of finds made at La Tène in 1850s and 1860 and Pont Desor. From a map started by Emanuel Müller and completed by F. Schwab (c 1860.). The circle on the left below Pré Fargier indicates the location of the earliest finds.

Reproduced by courtesy of the Neues Museum Biel and Laténium.

Online Figure 1

List by Augustus Franks of the finds from La Tène in the British Museum.

Reproduced by courtesy of Laténium.

Appendix 1

Catalogue of the finds from La Tène in the British Museum

Introduction

There are at least 16 objects from La Tène in the museum. Vouga listed 15 objects in his summary listing that accompanied his account of the finds diaspora (1923, 28) and the difference is accounted for by the scabbard bridge fragment (no. 5) that was formerly attached to scabbard no 3 and which is now separate, being accessioned separately. Paul Vouga states that Reginald Smith sent information about the finds in the museum though he seems to have used a list prepared by Franks at some point between 1880-96, and which is now in Neuchâtel Museum (Reginelli-Servais *et al.* 2011, Laténium, LAT-A-MAR-LT-A-0065-4662; [fig online 1](#)) as Vouga's description of the sickle (no. 17), as a key repeats the phrase used by Franks.

De Navarro stated that there were 17 finds (1972, 10-11) and this was based on ascribing all six of the iron objects donated by Desor in 1867 to the site. However, only four of these objects were accessioned as being from La Tène (1867, 0701.1-4 = no 1-2, 11 and 13 here) and as Franks did not attribute them to the site in the list he sent to Neuchâtel it seems certain that they are not from the site (Appendix 2).

Weapons and armour

1 Scabbard (Department of Britain, Europe and Prehistory 67, 0701. 2)

[fig 00, 1](#)

Description

An iron scabbard whose front plate is now in two pieces. The decoration on its face was published by Keller in his sixth *Pfahlbauten* report (Keller 1866a, pl lxxv, 4; 1866b, Taf xi, 11) ([fig 18,b here](#)) and it has been published many times subsequently, most comprehensively by de Navarro (1959, 86, n 14, 102, 104, 106, Taf 4,1; 17, 1; 1972, 219-20, 223, 366-7, no 12; pl vii, 3a-3b; lxxvi, 1; xcv, 11).

The scabbard has a low campanulate mouth and a long, leaf-shaped chape. The clamps that fix the upper end of the chape to the scabbard on the back of the scabbard are of

the so-called bird-head variety. The loop plate for retaining the sword belt has round loop plates that are fixed by rivets and the bridge passes over the ferrule which strengthens the top of the scabbard. The ferrule has three scyphate discs on the front, each of which has a small hole for retaining either inlays, probably of enamel or coral, or ornamental rivets. The ferrule runs across a decorative panel containing what is probably a dragon pair between which there is a foliate motif, possibly a debased palmette. The upper and lower borders of the panel are decorated with wavy lines, the upper one of which is framed by two lines. These elements are all in tremolo lines. Below this panel the front of the scabbard is decorated with *chagrinage* (punched decoration).

If the opposed beasts are a dragon pair, and de Navarro initially did not think that they were (eg 1959, 102, 104, 106), they are of his Type II (1972, 219, 366) where he considers the creatures represented may be birds), though Ginoux omits the piece from her comprehensive survey (Ginoux 2007).

Length 682mm; Width 523mm. As well as the break, which is below the 180-90mm from the mouth, the scabbard is also bent *c* 60mm above the chape clamp. In Lejars' terminology it is a type 2.1b scabbard (2013, 92–112, fig 77–9).

Comments

Although de Navarro stated that this scabbard was given to Franks by Schwab (1972, 366–7, no 12), the museum's Accession Register (67, 7-1, 2) attributes the gift to Desor and this is consistent with Frank's account of Desor having given a fine and well preserved sword and scabbard to the museum (Franks 1868, 129–30). Keller stated that the swords he illustrated were chiefly, but not exclusively, in the collection of Schwab though he only mentions the one with the leaping stags as belonging to Desor and the source of the illustration seems to be a water colour, perhaps by Louis Favre, now in the StAZH; W I 3 400.2: no. 1336 (MVI, 36) (fig 18a, here).

2 Sword (1867, 0701.1)

fig 00, 2

Description

Iron sword with curving shoulders, a pronounced midrib and a rounded tip. There is a disc button on the end of the handle tang. The blade is damaged about three quarters of the way down and there are notches that may represent deliberate damage on the other site.

Total length 773mm; blade 628mm; hilt 138 mm. Width 38.5mm.

Comments

De Navarro did not associate a sword with the scabbard as he believed that the scabbard had been given by Schwab (above) but as Franks stated that Desor gave a sword and scabbard, it must have been this one.

Metallurgical analysis

The sword was sectioned in the British Museum research laboratory by Janet Lang whose published text is given below;

This sword shows no signs of any welds and the structure is mainly fine grained with pearl and ferrite throughout most of the section, with the carbon content increasing towards the cutting edge, being concentrated in bands. Hot working took place after heating to above 800° C, but there was no cold working. The finished sword was probably not carburised. Hardness the cutting edge was hard (426 HV) while the rest of the section was above 210 HV, averaging 270 HV (Lang 1987, 71).

3 Scabbard (80, 1214. 3 & 80, 1214.3b)

fig 00, 3

Description

An iron scabbard, from which its sword (no 4) has been removed. The scabbard has a low curving mouth (sub-campanulate). Most of the chape is missing but enough survives to show that it would have been leaf-shaped. Traces of the clamps are preserved in the corrosion products and it is possible that they were of the bird-head variety. On the front, but on one side only, there is also a mark that might also be from a clamp, though it would be unusual, though not

unknown, for there to be clamps on both the front and back (de Navarro 1972, 30, 175, 214, 424, pl li). The loop plate pointed ends that are fixed by rivets. The reinforce on the front, which appears as if it is made of four conical elements, has two conical roundels at each end (de Navarro 1972, 424–5, no 109, pl xlviii, 1, a–c; li). A small fragment of the scabbard has become detached (80, 1214. 3b) (not illustrated).

De Navarro did not believe that the chape bridge (i.e. the top of the bridge) that was once fixed to the scabbard (no. 5 below; 1972, 424, pl xcix, 6) belonged to the scabbard as it is narrower than the scabbard at the point where there are marks of a clamp. As the impressions in the corrosion products were formed while the scabbard was in its archaeological context, this would suggest that the bridge was fixed to the scabbard after it was recovered rather than representing an ancient repair.

Length 658mm; Width 444mm. The scabbard is slightly bent about two thirds of the way down, though de Navarro did not think that this was intentional (1972, 424). As most of the chape is missing it cannot be categorised in Lejars' terminology more closely than as a type 2.1 (2013, 92–112, fig. 77–9).

Donated by Augustus Franks in 1880.

4 Sword (80, 1214. 2)

fig 00, 4

Description

Iron sword with stepped shoulders and a pronounced midrib. The tip of the blade is sharp. The disc button is missing from the end of the handle tang, which is slightly bent. The full lengths of both sides of the blade are decorated over on both sides with circular punch marks. Although de Navarro was uncertain whether this was due to corrosion such decoration has been noted subsequently on a small number of other swords from La Tène. It is slightly bent about two thirds of the way down and there is some blade edge damage on one side in the lower third (de Navarro 1972, 424–5, no 109a, pl xlviii; 1c-2).

Total length 756mm: blade 628mm; hilt 128mm. Width 43mm

Donated by Augustus Franks in 1880.

Metallurgical analysis

The sword was sectioned and chemically analysed in the British Museum research laboratory by Janet Lang whose published text is repeated below;

Analysis Ni 0,035%, Mn 0.025%, P 0.17%

The blade surface, on either side of the rib, was decorated with dots. The sword had an edge to edge structure with bands of phosphorous rich material running across the section. Grain size was large (1.2 mm average diameter of some of the larger grains). The structure was almost entirely ferritic with a little cementite at the grain boundaries. Hot working had taken place after heating to about 800° C, while Neumann bands showed that the sword had been finally cold worked.

Hardness: this was a maximum of 318 HV near the cutting edge, and the surfaces were 279 and 287 HV while the rest of the section was between 250-220 HV' (Lang 1987, 71).

5 Scabbard chape (80, 1214.3a)

fig 00, 5

Description

Part of a straight chape clamp of iron. The front is complete but only one ring is complete. At one time this was mounted on scabbard 3, to which it seems not to belong, though there is no reason to doubt that the object is from La Tène (de Navarro 1972, 424, pl xcix, 6). The clamp is from a type 2.1.b scabbard in Lejar's terminology (2013, 92–112, fig 77–9).

Width 40mm

Donated by Augustus Franks in 1880.

6 Belt hook (80, 1214.9)

fig 00, 6

Description

A simple angular-sectioned iron ring with a moulded arm which is slightly bent upwards. The upturned hook has a slightly domed terminal. Probably from a sword belt or baldric.

Length 53mm. Diameter of ring 32mm; Thickness of ring 6mm.

Donated by Augustus Franks in 1880.

Comments

There are many similar pieces from La Tène (eg Vouga 1923, 48, pl viii, 27; Lejars 2013, 122–7, form1A, pl 68 and 156, 3037–46; Müller and Stapfer 2013, 41–2, Taf 7, 20–2).

7 Ring (80, 1214.10)

fig 00, 7

Description

A plain iron ring with an angular section. Probably a scabbard suspension loop or similar. Diameter 41mm; Thickness 5mm.

Donated by Augustus Franks in 1880.

Comments

Cf Vouga 1923, 117, 168, pl xlvii, 16; Lejars 2013, 134–41, group 6, pl 64; Müller and Stapfer 2013, 44, Taf 8, 41–7).

8 Spear (80, 1214.5)

fig 00, 8

Description

Short angular iron spear head with a pronounced midrib. The fixing rivet still in place. A throwing spear or 'javelot' in Lejars terminology.

Overall length 198mm; Length of socket 58mm; Maximum width of blade 40mm.

Donated by Augustus Franks in 1880.

Comments

Comparable finds are illustrated by Vouga 1923, 53, pl xiii, 6 and 56, pl xiv, 7; Lejars 2013, 152, 155–6, group vi, a, eg pl 44 and 142, 2837.

9 Spear (80, 1214.4)

fig 00, 9

Description

Long iron spear head or lance with curving blades a pronounced midrib and a long socket that still has two rivets in place. This form is particularly well-represented at La Tène.

Overall length 319mm; Length of socket 95mm; Maximum width of blade 31mm.

Donated by Augustus Franks in 1880.

Comments

Very similar to one depicted in a watercolour; StAZH, W13 400.2: no 1318 (MVI, 12) (fig. 20 here). Comparable finds are illustrated by Vouga 1923, 50, pl x, 1-9. Lejars 2013, 152, groupe, ii, c, pl 35–6 and 138; Müller and Stapfer 2013, 45, Taf 9, 52–3.

10 Spear (67, 0702.1)

fig 00, 10

Description

Long iron leaf-shaped spear head with a biconvex blade and a pronounced midrib and a short socket. The rivet is missing from the socket.

Overall length 419mm; Length of socket 56mm; Maximum width of blade 83mm.

Donated by Friedrich Schwab in 1867.

Comments

The weapon is also very similar to one illustrated in a watercolour; StAZH, W13 400.2: no 1321 (MVI, 15) and ones that were in Schwab's collection and which were illustrated by Keller and which are now in Neuchâtel (Lejars 2013, 72, fig 49; Keller 1866a, 416, Taf lxxvii, 2; 1866b, Taf xii, 2). Comparable examples are in Lejars groupe v, c though these are not as curvilinear in profile (Lejars 2013, 154–5; cf also Vouga 1923, 49–50, pl ix, 10, 12).

11 Spear (67, 0701.3)

fig 00, 11

Description

Long asymmetrical or 'wavy' iron spear head or standard with a pronounced midrib and a short socket. The rivet is missing from the socket. There are two slight bends in the upper part of the blade and it is possible that the blade has been straightened at some time.

Overall length 426mm; Length of socket 51mm; Maximum width of blade 62mm.

Donated by Edouard Desor in 1867.

Comments

This weapon appears to be a genuine 'wavy' spearhead rather than a damaged symmetrical one. Its size suggests that it is a standard as much as a weapon. It was illustrated by M. Favre Guillardmod in one of her aquatints (Laténium, LAT-A-MAR-LT-D-0001.0116; [fig 19 here](#); Reginelli Servais 2007).

These distinctive objects are relatively common at La Tène (Vouga 1923, 51, pl xi, 2; xii, 3–5; Lejars 2013, 154, groupe v, c; pl 45, 2842; 46, 2843; pl 143, 2842–3).

12 Brooch (67, 0701.4)

[fig 00, 11](#)

Description

A pseudo La Tène II iron wire brooch with 6 springs and an external chord. The foot return is clasped to the bow high up by a collar. The tip of the pin is missing.

Length 87mm.

Donated by Edouard Desor in 1867.

Comments

For comparable finds see Vouga 1923, 65, 161, pl xx, 24 is related; Lejars 2013, 192, classe 1, variante 1321, pl 77 and 159, 3228; Müller and Stapfer 2013, 50–1, Taf 15, 85. The brooch belongs to Gebhard's group 17; 1991, 18, Gruppe 17, Abb 6, 17a.

13 Brooch (80, 1214.8)

[fig 00, 11](#)

Description

A pseudo La Tène II iron wire brooch with 4 springs and an external chord. On the foot there is a boss which is bordered by incised lines with simple mouldings either side of it. The foot

return is clasped to the bow high up by a collar. The pin is complete and is now in a closed position resting inside the catch plate. The illustration in the 1905 *Guide to the Antiquities of the Early Iron Age* shows the brooch open (Smith 1905, fig 38). The spring is damaged so that on one side one of the two springs has been pushed across to the opposite side and the other spring has been pulled outwards and out of shape. This damage has also been 'repaired' in relation to the 1905 illustration.

Lejars suggests (2013, fig 52) that this the brooch illustrated by Keller in 1858 (Taf iii, 28) but that has a bosses on the return and on the foot, whereas this example only has a boss on the bow.

Length 98mm.

Donated by Augustus Franks in 1880.

Comments

For comparable finds see Lejars 2013, classe 3, variante 3323, eg pl 81 and 161, 3263; Müller and Stapfer 2013, 53, Taf 17, 97. The brooch belongs to Gebhard's group 21 (1991, 21, Gruppe 21, Abb 7, 21a).

14 Brooch (67, 0702.2)

fig 00, 11

Description

A La Tène II iron wire brooch with 2 large springs and an external chord. The foot return is clasped to the bow high up by a collar. The pin is complete and in the catch plate.

Length 95mm.

Donated by Friedrich Schwab in 1867.

Comments

For comparable finds see Vouga 1923, 65, 161, pl xx, 9; Lejars 2013, 192, classe 1, var 1420, pl 78 and 160, 3236–9; Müller and Stapfer 2013, 49–50, Taf 15, 79. The brooch belongs to Gebhard's group 13a (1991, 15, Gruppe 13a, Abb 5, 13a).

15 Axe (80, 1214.6)

fig 00, 11

Description

An iron socketed axe, partly open on one side where it has been forged over. The socket for the wooden handle is square. There are mineral-replaced remains in the socket.

Length 112mm; Maximum width of blade 93mm. Width of socket 35mm.

Donated by Augustus Franks in 1880.

Comments

For similar finds see Vouga 1923, 110, 166, pl xliii, 3–4; Lejars 2013, 236–9, pl 48–9 and 145, 2855–8; Müller and Stapfer 2013, 55, Taf 19, 112–13.

16 Sickle (80, 1214.7)

fig 00, 11

Description

Complete iron sickle which would have had a handle of wood or horn. It is made from a rectangular-sectioned rod with a cutting edge. Well-preserved incised teeth survive in the lower part of the blade.

Length 445mm. Length of tang 102mm.

Donated by Augustus Franks in 1880.

Lejars suggest that this sickle is from Greng rather than La Tène (2013, 80, doc 53; StAZH, W13 400.2) but while the Greng example is similar, the stem between the handle and the blade is shorter and more curved and its tip is not as long as that on the example in the British Museum.

Comments

Vouga illustrates a very similar example from La Tène (1923, 75–6, 163, pl xxiv, 3; cf Jacobi 1974, 78–80, Abb 23) and there other similar examples are from Port de Joressant (Schwab 1990, 219–27, fig 13, c; 14, a). Somewhat contrarily, Nillesse and Buchsenschutz do not include the finds from La Tène (Lejars 2013, 235–6) in their assessment of Iron Age sickles (Nillesse and Buchsenschutz 2009, 164).

Objects from La Tène probably of later date

1 Chain mail (95, 0909.1)

A group of chain mail loops that have diameters of *c* 55mm. As the loops of Iron Age chain mail are much smaller (cf Hansen 2003, 30, Abb 9) this group is likely to be medieval or later in date.

Franks acquired the find from the well-known German collector Richard Zschille (1847–1903), who had amongst his many interest, a special one in arms and armour. It is possible that they were acquired after Zschille exhibited part of his collection at the World's Columbian Exhibition in Chicago in 1893.

No pieces of Iron Age body armour have certainly been found at La Tène, Although Paul Vouga illustrated three small diamond-shaped iron objects that he interpreted as scale armour and repeated a report by Robert Forrer that in March 1891 that '*un assez grande nombre de ces écailles*' had been found at La Tène (1923, 57, pl. 15, 2–4), and some of these were acquired by the museums in Neuchâtel and Zürich (de Navarro 1972, 14), the objects have been identified as the heads of small nails used in caulking Post-medieval boats (Arnold 1992, 90).

Iron Age chain mail is well attested in the nearby and broadly Bern-Tiefenau *Massenfund* (Müller 1990, 50, Taf 11, 83–4) and Franks was certainly aware of this (1863, 174).

Appendix 2

Other Iron Age objects from Switzerland in the British Museum

The two iron objects presented by Desor in 1867 along with the finds from La Tène are a small iron ring with ribs, *c* 20mm in diameter (Department of Britain, Europe and Prehistory 1867,0701.7) and a large iron ferrule or spike, *c* 200mm long (1867, 0701.5). Desor also presented a Late Bronze Age bronze pin (1867.0701.6.).

Although the accession register does not record a provenance for the spike, a label inside the socket says it is from 'Bevaix, Steinberg, Neuenberg' [or Neuchâtel] and that it was donated by Desor. The reference to Steinberg is not clear – the stones at Zone 1 at La Tène were described as a 'Steinberg' (Lejars 2013, 419) – but there seems no reason to doubt the Bevaix provenance. Bevaix is on Lake Neuchâtel and Colonel Schwab had Iron Age finds that were fished from there in his collection (Keller 1866, Taf vii, 14; x, 6; cf Lejars 2013, 343). A comparable spike is known from La Tène, its date is unknown (Müller and Stapfer 2013, 23, 57, Taf 8, 33–7; 21, G).

The British Museum Accession Register only gives the provenance of the ring and the pin as 'Switzerland' but it is probable that they are also from sites on Lake Neuchâtel. The ring is a sword ring of a type well known in west Switzerland, including La Tène (Lejars 2013, 136–7, group 2, pl 65; Müller and Stapfer 2013, 43, no. 33–7, Taf 8, 33–7). Although less well known in comparison to the mass deposits of weapons, small numbers of Iron Age weapons and other metal objects are known from watery contexts at several lake side sites (see above; eg Lejars 2013a, 343–55).

Prodigious numbers of Bronze Age pins are known from lake dwellings such as Auvernier, which is only a few kilometres south of La Tène.

For this reason there is no reason to attribute other Iron Age finds from Lake Neuchâtel to La Tène. These include a sickle, also from Auvernier donated by Franks in 1875 (1875, 1006.11), and a Nauheim brooch (94, 0727.29) which is provenanced as being from 'Lake Neuchâtel' and was donated by Augustus Franks in 1894 (Smith 1905, 44, fig 39, where it is described as being 'from a Swiss Lake-dwelling').

Other Iron Age objects from Switzerland in the British Museum include a representative sample of finds from the Bern-Tiefenau *Massenfund* that were acquired by Franks from the Bern Museum by exchange (Müller 1990), a sword and scabbard from the

watery deposit at Port, and a series of finds from the Giubiasco cemetery in Tessin in the south of the country (Smith 1905, 44–5; Tori *et al* 2004; Pernet *et al* 2007).

Photographs of most of these objects can be found using the accession number at: www.britishmuseum.org/research/collection_online/search.aspx

The weapon from Port is a La Tène II sword and scabbard with a boar-shaped stamp on the blade. The weapon is recorded as being from the 'River Thiéle, canton Vaud' and also 'Kanton Bern' (1915, 0503.1) was donated by Oscar Raphael in 1915 and published by Smith in 1925 in the second edition of *A Guide to the Antiquities of the Early Iron Age* but only with the provenance of 'Kanton Bern' (Smith 1925, 47–8, fig 47). The upper Zihl was called the Thiéle until c 1900. Drack (1955, 202, 228, Abb 7, 10, Taf 61, 10; 62, 10) wondered if the weapon was from the First Jura Water Correction and this has been confirmed. The British Museum Accession Register states it was 'found circ. 1890 at Port, Kt. Bern, where [...there...] is an ancient passage across the Thielle' (Wyss *et al* 2002, 55–6, no 69, Taf 21, 69; 22; 69; 31, 69; 34, 69; 38, 69). The weapon is one of the earlier examples from Port, dating to the end of La Tène C1 or the beginning of C2.

Oscar Charles Raphael (1874–1941) was a distinguished collector of oriental material who was Honorary Curator of Oriental Art at the Fitzwilliam Museum, Cambridge and also assisted the British Museum's Department of Oriental Antiquities. He donated objects regularly to the British Museum, including prehistoric ones, and the sword was donated along with a very corroded Anglo-Saxon pattern-welded one from Herringswell, Suffolk (1915, 0503.2).

Raphael bequeathed his collection to the two museums (*Transactions of the Oriental Ceramic Society* 18, 1940–1, 14; Gray 1945). Amongst the objects that the British Museum acquired were a few from the Swiss lake villages.