



Marine graveyard, Landévennec, Finistère

The seven communes of the Crozon peninsula occupy a narrow outcrop of land in westernmost Brittany. Nestled in the bay of Brest, Landévennec, the smallest of them, enjoys a more congenial climate than its neighbours. It is also sheltered by a bend in the Aulne, the coastal river of Finistère, which flows into the ocean after a last meander where the waters are deep enough to accommodate larger vessels.

The idea of berthing ships there was first mooted in the 17th century, but no action was taken until 1858, when Napoleon III opened a naval base. In the mid-20th century, the naval reserve ships gave way to those awaiting decommissioning. Tighter environmental legislation now obliges shipowners to respect certain regulations for vessels at the end of their working life.

Before mooring, they must first be decontaminated. They are then coated with a layer of antifouling paint to preserve them while in storage. This stage is indispensable as the bay is classified as a Natura 2000 EU nature protection zone. All these operations are banned during the birdnesting season.

The hulls are moored in the bay until being towed to a ship-breaking yard.

While the ships' graveyard at Landévennec has acquired a certain notoriety – an observation viewpoint has even been set up at the entrance to the village – the approach to this military site (which is under surveillance by the navy) remains off limits.

In early 2017, two frigates and an Antarctic patrol boat were waiting to be stripped down at Landévennec. Others will soon be joining them.





Château d'Ilbarritz, Hayange

Baron Albert de l'Epée, born on 17 September 1852, was a Wendel, the dynasty of forge owners from Hayange in north-eastern France over six generations. The advent of the industrial era had greatly enriched the family at the head of one of the country's largest iron and steel empires.

Albert suffered from chronic bronchitis that undermined his health, so he was unable to undertake any serious studies or follow a career. As a shareholder in the family group, however, he could live on his dividends.

He was an eccentric – passionate about music, new ideas and hunting. He travelled in pursuit of his passions, but with the constant obsessive fear of aggravating his medical condition. Jura, Brittany, Alpes-Maritimes ... whenever a destination attracted him, he built a beautiful residence for occasional visits.

One of his trips took him to the Basque coast, its climate reputedly beneficial for respiratory troubles. He was captivated by the region and bought 60 hectares of land south of Biarritz on the hill of Handia, a remote promontory overlooking the Atlantic. Then he commissioned Gustave Huguenin, a local architect responsible for several eclectic buildings, to design a chateau.

Construction began in 1894. For four years, forty men worked secretly behind high barriers to create a residence with a personality as idiosyncratic as that of its owner.

The first requirement was to install a monumental organ designed by the Parisian organ-maker, Aristide Cavaillé-Coll. This two-storey instrument, the largest ever owned by a private individual, and a galleried organ room was built with a 12-metre ceiling.

One of the baron's residences had lost its roof, carried away by a gust of wind. To avoid a similar incident at Ilbarritz, he and Huguenin

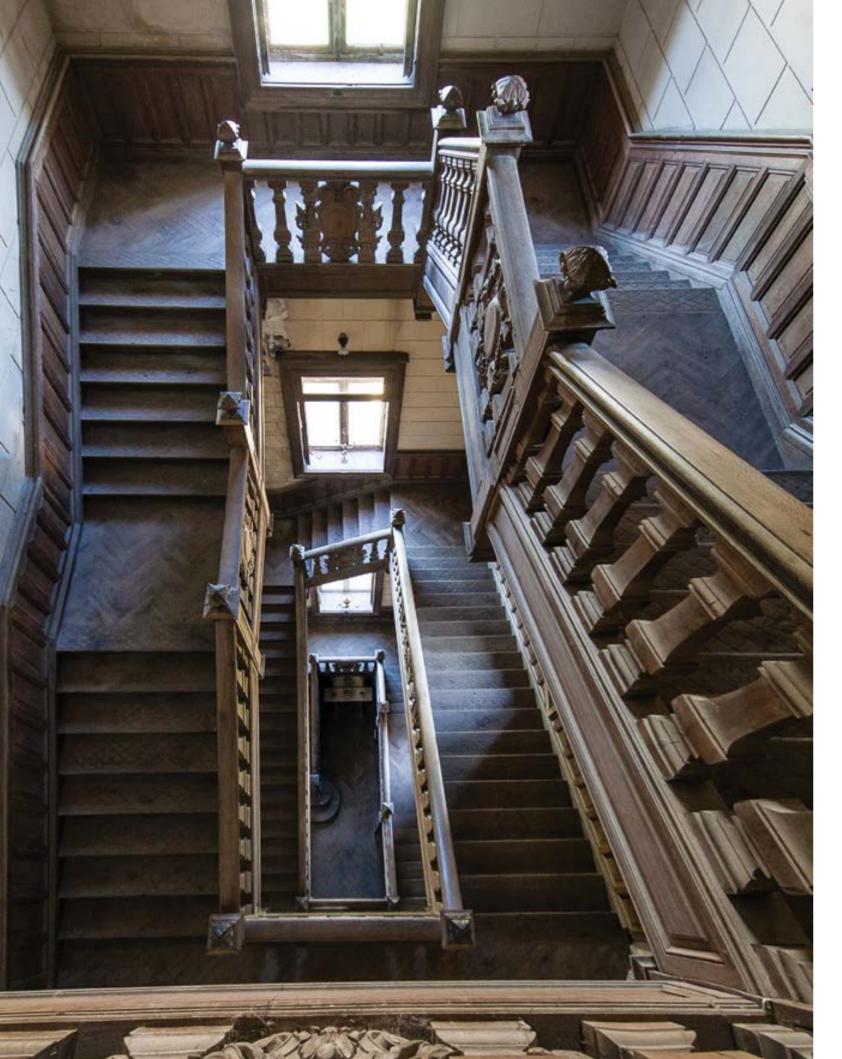
planned an incredible roof composed of five superimposed layers. They stacked oak, welded zinc sheets, vitrified and sealed sandstone plates, asbestos and flat tiles – all riveted to an iron frame that was securely fastened to the balconies and bristling with lightning rods. The balconies and terraces are all tarred and covered with a lead screed and then ceramic tiles.

The hypochondriac baron, who was obsessed with hygiene, paid particular attention to health and safety: the solid oak doors are double thickness, the windows have double or triple glazing. Rainwater was collected and filtered for distribution to all floors via a sophisticated system of electric pumps. It ran from silver-plated taps. The heating was by electric lamps and radiators. The basements were paved with stone. All curtains, carpets and other textiles likely to attract dust were banned. Interior decoration was reduced to large mirrors and features made from precious wood or marble.

The exterior appearance of this 3,000-square-metre building is an incarnation of this quest for sobriety. Huguenin borrowed from the "hygienist" architecture of a sanatorium to conceive the chateau, which is designed over three floors in the form of a T. The longest bar is the main building housing the organ room. Two towers of unequal height are linked at right angles.

Some fifteen buildings connected by 4 kilometres of covered galleries make up this enormous property. There are numerous kitchens, a bakery, a hydroelectric plant, a bathing hut, several heated swimming pools, a medieval castle, a Chinese-style kennel and a look-out tower 40 metres in height.





In 1897, Albert de l'Epée finally settled in his Biarritz domain with his mistress and her mother. Both were accommodated in the luxury villa the baron had built by the sands at the foot of Handia hill. A year later the idyll ended, along with their affair, and he abandoned Ilbarritz.

The organ was dismantled in 1903 and eventually relocated to the Basilica of the Sacred Heart in Montmartre.

Two years later, the baron reinvested in his chateau. A smaller organ was commissioned from Cavaillé-Coll's successor for the main hall. This new craze was to be of short duration, however, as the chateau was sold on 24 December 1911. It was acquired by Pierre-Barthélemy Gheusi, director of the Parisian Opéra Comique, who wanted to turn it into a theatre. War broke out and Ilbarritz was used as a hospital.

After the Armistice, the estate was broken up and the ancillary buildings demolished. The chateau was converted into a sanctuary for refugees from the Spanish Civil War before being requisitioned by the German army. After years of postwar neglect and vandalism the building was in a derelict state, but it was finally renovated in 1958 as an up-market hotel. Further modifications were then made, with the addition of a chapel. In April 1960, it hosted the first French tests for colour television broadcasts to the general public. Registration as a historical monument on 30 May 1990 put an end to the conversion projects. In 2014, abandoned, Ilbarritz was bought by businessman Bruno Ledoux, who plans to invest the 12 million euros needed for its restoration. The new project: another luxury hotel following the plans of French designer Ora-ïto. By 2017, negotiations between the architects and Bâtiments de France were under way.



Gandrage, Lorraine

When Kaiser Wilhelm I proclaimed the German Empire on 18 January 1871, Alsace-Lorraine became German territory. Ten years later, a German built the first iron and steel plant in the Moselle commune of Gandrage (German Gandringen). In 1918, when Lorraine was returned to France, the steel industry was taken over by French companies.

The sector experienced uninterrupted growth for fifty years. At the turn of the 1970s, three-quarters of French tin and more than a quarter of the Common Market's production came from Lorraine.

Yet the golden age of the Lorraine steel industry was already over. The major reconstruction projects launched after the Second World

War was drawing to a close and the demand for steel was falling.

On the other hand, the increasing globalisation of trade favoured maritime over land transport routes. Finally, surface mines were becoming more competitive than their underground counterparts. All these parameters stacked up against the Lorraine production.

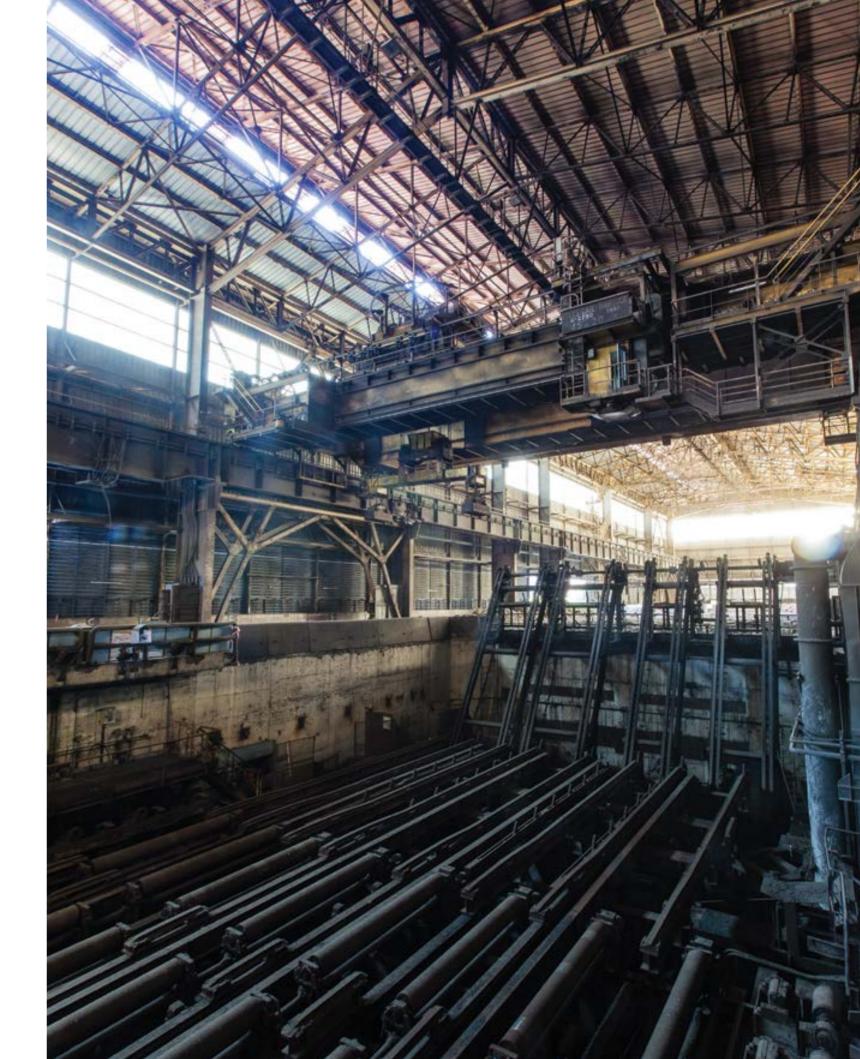
Despite this uncertain context, the Société des Aciéries de Lorraine, founded by the SIDELOR group and Wendel, built a new oxygen-based steel manufacturing plant in Gandrange between 1964 and 1969. The integration of this steelworks, then the most modern in Europe, on the

same site as the blast furnaces, was meant to streamline the production line. Although the idea seemed good, success was less certain. Due to the choice of technology and the over-sized complex of 40,000 tonnes of steel and concrete over 500 hectares, the Gandrange steelworks struggled to turn a profit against a background of worsening crisis in the industry.

Modernisation, successive plans for state aid, the nationalisation of the sector in the early 1980s and its reprivatisation in the 1990s – everything was tried, unsuccessfully, to preserve the Lorraine coalfields. The sites closed one after the other. On 31 March 2009, it was the turn of the Gandrange steelworks. So decided the group owner ArcelorMittal, number one in the steel industry resulting from the merger between the European Arcelor and the Indian Mittal Steel.

The steelworks became a gigantic industrial wasteland except for a fully modernised rolling mill and a research centre. By 2016, only the activity of these two sectors seemed to be sustainable.

Dismantling the huge steelworks and converting the land into new housing, green spaces and activities is under negotiation – an operation that could take another twenty years.





Hôpital de la Marine, Rochefort, Charente-Maritime

In 1666, Jean-Baptiste Colbert, controller-general of finance and secretary of state for the French navy under King Louis XIV, chose the port of Rochefort to install a military arsenal for the navy. The city is both open to the Atlantic and protected by the neighbouring islands of Aix, Ré and Oléron. The rapid development of the arsenal, and the regular disembarkation of war wounded, led to the neighbouring commune of Tonnay-Charente's hospital being transferred there. When this became too overcrowded, the hospital was forced to move again. Pierre Toufaire, chief engineer of the navy's civilian buildings, was in charge of the project. The fire of 1772, which destroyed a large part of the Hôtel-Dieu district of Paris, drove him to seek a location beyond the city walls. Toufaire opted for the nearby headland known as "la Butte".

The Hôpital de la Marine was opened in 1788 after five years of building work. It had a capacity of 800 beds but could accommodate up to 1,200 if necessary. It was reserved for military personnel, sailors and shipyard workers.

Structurally, the building was inspired by the bungalow-style architecture of the British Royal Naval Hospital at Stonehouse, Plymouth. The H-shaped construction, which connects a main body with four wings designed to group patients according to their condition, was in use until the early 20th century. Wide openings in the frontages allowed fresh air and sunlight to penetrate and purify the atmosphere.

A round chapel with an octagonal dome overlooks the central entrance hall. The more mobile patients could celebrate Mass from a gallery on the second floor. Four other pavilions in the lateral wings, isolated from the rest, were reserved for contagious cases.

The world's first naval school of medicine, opened in 1722 in Rochefort, was later housed in one of these pavilions. At first it specialised in anatomy and surgery, but in 1890 it was turned into a medical college, a role that lasted until it closed down in 1964. The students had access to a vast library and a botanical garden planted in the 13,000 square metres of tree-lined courtyard surrounding the buildings.

Two other chapels, together with technical and administrative services, completed the property. Wells were bored on site, as the city depended on them for its supply of drinking water. Although no fresh water was found, the boreholes did reveal a thermal spring which is still flowing today.

A civilian hospital was built next door during the 19th century. The military hospital was in use until 1983; in 1965, its entrance and the main chapel, façades, pavilions and various other features were awarded protection under the historical monuments designation.

In 1989, a real-estate company acquired the property but left it standing empty except for the school, which was converted into a national museum for the former naval school of medicine, and another pavilion that was used for accommodation.

The following decade saw several rehabilitation proposals, but they all came to nothing. After endless complications, the city administration took over in 2015. Restoration is now on the cards, while preserving the historic character of the site. A spa complex including accommodation and a park, and offering a wide range of treatments, is scheduled to open around 2021.





Rodolphe mines, Alsace

When drought affected parts of Europe in 1893, Amélie Zurcher, owner of a farm in southern Alsace, watched her harvest shrivel. She sought an escape from impending ruin. She knew the wealth of coal buried underground in the neighbouring Vosges. In 1904, she convinced borehole specialist Joseph Vogt to use his equipment to try and detect the valuable ore. Instead of the expected grey-black colour, his samples had an orange-pink tint, typical of potash salts.

Subsequent surveys confirmed the extensive presence of potassium chloride, associated with sodium chloride, in two layers between 400m and 1,000m deep. The multiple uses for potash, both in chemistry and agriculture, make its mining a lucrative business.

The first mine was dug in 1906 and naturally it was named after Amélie. To manage his holdings, Vogt founded the Kali Sainte-Thérèse (KST) company, headed by his son Fernand. The Rodolphe mine that opened in 1913 belonged to him. The galleries descend 711 metres below the communes of Ungersheim and Pulversheim.

When war broke out the following year, there were already thirteen mines in operation. During the First World War, which temporarily halted any expansion, all the potassium mines came under German control.

A bomb dropped on Pulversheim hit an ammunition depot next to the plant and caused serious damage. Only the steel headframe above the main mineshaft was spared.

The mines were confiscated at the Armistice, but were reacquired by the French state in 1924. They were then nationalised under the authority of Mines Domaniales de Potasse d'Alsace (MDPA). The KST company, on the other hand, reverted to Fernand.

The prewar expansion restarted until a first crisis hit in the early 1930s. A wide-ranging social programme had accompanied the boom, to meet the medical, nutritional, educational, religious and cultural needs of the industry's 10,000-plus employees.

Demand for labour was such that many of the miners were recruited from abroad, especially Poland.

The Rodolphe II mine was dug around this time, about 100 metres from its predecessor. It was equipped with a concrete headframe, a first in the potash fields. Vast constructions arose to cater for the storage, crystallisation, mixing and preparation of chlorides.

The financial crisis of 1929 led to unemployment and cutbacks, despite which production had reached 3.5 million tonnes a year on the brink of the Second World War.

On 23 July 1940, a firedamp explosion in the Rodolphe galleries killed twenty-five workers. This incident was to be the deadliest in the history of the mines.

At Liberation, the occupied mines were returned to French control, and a year later production had risen to prewar levels. Despite modernisation and constant growth, however, the exhaustion of the deposits led to the gradual closure of the mines.

1976 saw the last days of the Rodolphe site. Over the following years, the mining superstructure disappeared from the landscape.

The MDPA was responsible for the conversion. Some sites were cleared for green spaces; others were turned into business parks.

In 1987, the Écomusée d'Alsace bought the Rodolphe mines in partnership with the Haut-Rhin regional council and decided to preserve all structures still standing. These consisted of the two headframes, the extraction machinery and several large buildings. Groupe Rodolphe, a former miners' association created in 1994, aims to restore the machines and rehabilitate the site.

Thanks to the association's efforts, a mining site in good condition can now be opened to the public – testimony to the powerful heritage of an industry that shaped the region for a century.

