

## **PENLLERGAER (PENLLERGARE)**

<b>Ref number</b>	<b>PGW (Gm) 54 (SWA)</b>
<b>OS Map</b>	159
<b>Grid ref</b>	SS 623 991
<b>Former county</b>	West Glamorgan
<b>Unitary authority</b>	City and County of Swansea
<b>Community council</b>	Llangyfelach
<b>Designations</b>	Observatory: Scheduled Ancient Monument (Gm 410)
<b>Site evaluation</b>	<b>Grade II</b>

**Primary reasons for grading** The partial survival of a very important picturesque and romantic landscape of the mid nineteenth century, the creation of John Dillwyn Llewelyn, a nationally important figure in horticulture. The site is unusual in that there are numerous contemporary photographs of it, taken by Llewelyn, who was also a pioneer of photography. Although much of his exotic planting has gone the structure of his landscaping remains, as do the ruins of his pioneering orchideous house in the walled kitchen garden.

**Type of site** A large-scale picturesque layout of formerly wooded park and grounds, including lakes and an artificial waterfall. Large walled kitchen garden which includes the ruins of a pioneering orchideous house.

**Main phases of construction** 1833-1882

### **Site description**

Penllergaer (or Penllergare) is a former important estate lying in the Afon Llan valley to the north of Swansea. During its heyday in the nineteenth century the ornamented grounds occupied a large area, between Melin-llan, a woollen mill, at the north end and the small hamlet and mill of Cadle at the south end. Now the M4 motorway slices off the northern tip of the grounds and the house is gone, replaced by the modern offices of Neath Port Talbot unitary authority.

Although the main period of interest at Penllergaer is the nineteenth century, from 1835 onwards, the site has an older history. From *c.* 1500 until 1787 it was the seat of the Price family, who built a three-storey, five-bay house in *c.* 1710. In 1787 Griffith Price died without an heir and the house and part of the estate went to his cousin John Llewelyn of Ynysygerwn, in the Vale of Neath. In *c.* 1800, his son, also John (died 1817) added a two-storey block with canted bows, possibly by the Swansea architect William Jernegan and this was incorporated into the later house. On Llewelyn's death the property passed to his son-in-law, Lewis Weston Dillwyn, a keen

naturalist, who occupied the house until his heir John Dillwyn (who assumed the name Llewelyn) came of age.

John Dillwyn Llewelyn (died 1882) was a polymath of great stature who left his mark not only on Penllergaer but on the world of horticulture, photography and science. John rebuilt Penllergare (as it was then spelt) in 1835-36, using the architect Edward Haycock. The Price house was demolished and the remainder enlarged to form a substantial two-storey classical house. A large, two-storey portico was built at the main entrance on the south front, its ground floor later glazed. A large, slightly curved conservatory projected south-westwards from the south-west corner of the house. In the centre was a fountain and it housed a great variety of exotic plants. John's son, Sir John Talbot Dillwyn Llewelyn, took over the estate in 1882. He continued in his father's tradition of distinction in the world of horticulture, becoming a member of the Council of the Royal Horticultural Society, Chairman of the National Auricula Society and Chairman of the Horticultural Club. On the death of Sir John in 1927 his daughter Gwendoline remained at the house for a few years before it was abandoned. The family seat became Llysdim, Powys, through the marriage of Charles Dillwyn Venables Llewelyn to the Llysdim heiress Katherine Venables. The contents of the house were sold in the 1940s and it went into institutional use until 1961, when it was blown up. Council offices were subsequently built on the site and much of the immediately surrounding garden turned into a car park.

The park was created by landscaping in picturesque style *c.* 3 km of the valley of the Afon Llan, where it runs southwards from the Melin-llan to Cadle. The house lay at the northern end of the park, on the west side of the river, with a steep drop below it to the valley and lake below. The river takes a winding but generally southerly route; at the north end of the park the valley is relatively narrow and the slopes wooded. Further south, where the river runs south-eastwards, the valley widens out and its sides are more gently sloping. The river then turns south-westwards and runs into a wide swampy area that was originally a lake before turning south again through a sparsely wooded area.

The main entrance was from the south, at Cadle Mill. A picturesque drive *c.* 2 km long was built from here to the house in 1833 and a lodge, the Lower Lodge, was built at the entrance in 1834 by Haycock. This has recently been restored from a near ruinous state and is now a private dwelling. It is a two-storey stone house with pitched roofs and a semi-octagonal porch. There are no surviving entrance gates and the drive is now a track. It runs northwards along the west side of the valley through a lightly wooded area of mixed deciduous trees and scrub. In the valley floor to the east is a large swampy area which was formerly a large, informal lake. The lake had two islands and a boathouse at the head of an inlet on the north shore, now gone. To the north-west of the lake the drive crosses an open grass field, at either end of which are small ruined lodges. These were built in the 1830s by John Dillwyn Llewelyn to accompany his new drive. The southern one, Middle Lodge, stands on the west side of the drive and has ruinous stone and brick walls, partly rendered, built into the back of the hill. The northern one, Upper Lodge, also on the west side of the drive, has ruinous, overgrown stone walls.

The drive, following the valley, then swings round to the north-west, running past a large quarry on its south side. This has high rock faces and on its sides and top are rhododendrons. Next to the quarry the drive passes over a high round-arched bridge of roughly coursed stone. The parapet has been rebuilt. The archway would have allowed stone to be transported from the quarry down to the river. North of the

quarry the drive runs northwards, cut into a steep slope and supported by a high stone revetment wall. It passes the kitchen garden, above it to the west, and then runs below a rock-cut cliff before swinging westwards to the site of the forecourt on the south side of the house. A former drive runs north from here to the modern A48. This was another nineteenth-century drive. It led to the old A48, which was further north and ran to Melin-llan. This part of the road has been obliterated by the M4 motorway and the nineteenth-century lodge has gone. The modern drive is now the main entrance, with modern entrance gates, to the council offices and car park. There were originally two further drives leading westwards from the house to the church and hamlet at what was formerly Gorseinon, now Penllergaer. The lodge and old school house, at this end, are now a private residence. The greater part of these drives has been destroyed by the new A483 road and by housing development.

The north end of the valley is reached from the house site by a newly gravelled track which winds down through woodland and rhododendrons to the north of the car park to the north end of a long, narrow lake. Above the lake is the modern embankment of the A48 and M4. The lake is reed fringed, with a low promontory extending into it on which some oaks are growing and two islands with birch and rhododendrons on them. The banks are planted with rhododendrons, above which is mixed deciduous woodland. On the east side there is some exposed rock on the slope. A gravelled track runs along the west side of the lake. Halfway along is a ruined structure consisting of L-shaped walling, backed by rhododendrons.

Below the house site the ground slopes steeply to the lake and is heavily planted with conifers and rhododendrons. Curving flagstone steps lead down the upper slope below the car park and a large Monkey Puzzle tree. The bank is revetted here with a coursed dry-stone wall on which a large yew is growing and beside which are five fine conifers (*Cryptomeria japonica*). Below the wall is a circular covered well built of stone with a large lintel stone. Above and to the south is an area of ornamental rockwork roughly terracing the slope. The steps lead to a sloping path which runs along the slope. Below is a second, similar revetment wall from which a steep flight of stone steps leads straight down to the valley floor.

The lake is dammed at its southern end with a substantial rockwork dam. On its west bank is a large beech tree and a stone-edged gravel path runs from the track to a stone platform where the waterfalls which cascade over the dam can be viewed. The dam has rhododendrons growing on it. There are three waterfalls, a central main one and two smaller side ones, separated from the main one by projections of stone slabs. The rockwork extends east and west on either side of the waterfalls. The whole was artificially built of large flat stones, laid horizontally, arranged to look like a natural rock outcrop or cliff. The slabs at the top of the falls are flat-topped and clamped with iron bars. The falls are stepped in order to create maximum noise. The water falls into a roughly circular pool slightly dammed by large flat stones. At the east end of the dam, on the upper side, there are two recesses for overflow sluices in a section of built wall topped with flagstone slabs. At the foot of the lower side are two short round arched tunnels with pipes in the bottom. A stone revetted overflow channel leads from them to the stream.

The hillside to the east of the dam is bracken covered. Burnt tree stumps are all that remain of the former woodland here. On the west side of the valley the bank of rhododendrons continues. Below the dam the stream is flanked by trees and scrub, including rhododendrons. A footbridge, rebuilt on concrete abutments, with stone revetment walls below and on either side of it, crosses the stream just below the dam

and leads to tracks on the east side of the valley. Further south, opposite the quarry, is an area of slightly more ornamental planting, with wellingtonias and yews in a grove. A stone-lined culvert runs down the slope into the stream here. On the east side of the valley the bracken gives way to larch woodland, while on the west the rhododendrons thin out and give way to sparse birch. Rhododendrons continue in the valley floor.

Where the valley opens out, approximately opposite Middle Lodge, there are few trees and a covering of low scrub. A modern bridge on concrete abutments crosses the stream in the position of an old wooden bridge. To the south of it is a bamboo grove. A number of paths run down and across the valley, one leading to the west side of the former lake which once occupied a large part of the southern end of the valley floor. At the southern end of this former lake is a massive stone dam, now breached. It has an elaborate system of tunnels, designed to prevent the lake from flooding. The sluice gate has gone, as has a lower fall below the dam.

The park was largely the creation of John Dillwyn Llewelyn from 1833 onwards. Before that date there is known to have been a park but there is no evidence as to its appearance. John Dillwyn Llewelyn transformed the landscape with great imagination. The combination of the creation of lakes, waterfalls and profuse and exotic planting produced a romantic and almost alien landscape. Mid nineteenth-century photographs by Llewelyn give a good idea of the landscape in its heyday and also of the outdoor and make-believe activities enjoyed within it.

Llewelyn moved swiftly to create this paradise. First, he built the Cadle drive in 1833. The quarry, which the drive passes, was regarded as a picturesque feature and a photograph shows that it was gardened and had a waterfall in the north-west corner. This now only flows after heavy rain. At the top of the waterfall there was a log cabin, now gone, reached by paths from the walled garden. The northern end of the drive was, and is, dramatic, with a cliff above and a precipitous drop below. In 1886 this section was described as having only 'a frail rustic wooden rail' between the road and the precipice. The view across the tops of the trees to the valley was 'charming'. Many paths were threaded through the park, all the creation of Llewelyn, and many can be traced. The terracing, steps, rockwork and well below the house site were also probably contemporary.

The lakes and waterfalls were also constructed in the 1830s and finished in 1839. Both had boathouses. That for the upper lake was situated on the west shore on an inlet near the north end. That for the lower lake was on an inlet on the north side of the lake. Both were reached by paths and both have gone, only footings remaining. Llewelyn conducted experiments with 'a small electric galvanic apparatus' to propel boats. It worked well but was rather slow; the British Association for the Advancement of Science visited on 19 August 1848 to have a demonstration. Otter hunts were conducted and waterfowl and trout introduced.

An enormous amount of tree and shrub planting took place from 1833 onwards. There are numerous accounts, letters and contemporary descriptions which refer to this. Various nurseries were used, including Millers, which also supplied Sketty Hall, Loddiges, Knights and Lees. Planting reached a peak during the mid 1850s and many exotics were grown. A visitor referred to 'hundreds of different kinds of semi-tropical trees' and 'a profusion of rhododendrons and azaleas' ('William', 1890). The 1876 Ordnance Survey map shows the completed landscape, indicating clearly that it was almost completely wooded - the only open area was the field between the Middle and Upper lodges, which ran in a narrow tongue down to the north end of the lower lake. Pettigrew, in his article of 1886, described the park as

well wooded with 'heavy timber, principally Oaks ... whilst here and there large trees of Hemlock Spruce (*Abies canadensis*), *Taxodium sempervirens*, *Wellingtonia gigantea*, and *Cryptomeria japonica* stand out in bold relief, lit up in many places by a glorious undergrowth of the best species and varieties of Rhododendrons and hardy Azaleas'. The banks of the stream were covered in various native ferns, including *Osmunda regalis*. The southern end of the park is now almost denuded of trees and shrubs. The main area where they survive is the steep bank on the west side of the upper lake.

The gardens lie around the site of the former house, now occupied by the council offices building. The ground is level, sloping slightly to the north, with a steep drop on the east side to the valley. The garden is now much altered from its nineteenth-century appearance and much of the ornamental planting and layout has been lost. To the north of the council offices a large car park occupies an area of former outbuildings and woodland. The north drive enters this area at the west end of the car park. Trees and shrubs growing around the car park are remnants of the gardens. These include oak, yew, a monkey puzzle (*Araucaria araucana*) and some ornamental shrubs. To the east of the house is a narrow lawn backed by a bank of rhododendrons and two monkey puzzle trees. Beyond, on the edge of the valley is seedling birch woodland.

To the west of the offices is an area of informal garden with trees and shrubs, including yews and rhododendrons, set in lawn. Beyond is a scrubby wilderness. The former drive runs southwards through this area to a car park to the south of the offices. At the northern end of this section of drive, to its east, is a small single-storey building. At the west end is a drum-shaped stone section with a flat-roofed wooden upper part. Attached, to the east is a lower brick section with a door on the south side and window on the north. Its roofline is ornamented with scalloped pediments. This is John Dillwyn Llewelyn's equatorial observatory, built in 1851/2 and restored in 1981 by Lliw Valley Borough Council. The brick section was added as a laboratory. To the south is a small pool with a low dressed stone wall on the south side forming a flowerbed revetment.

On the south side of the offices is a tarmac car park with scrubby seedling woodland to the south, fringed with rhododendrons. This woodland continues southwards to the walled garden, occupying an area that was originally ornamental, laid out with a belt of planting, through which ran a walk, around an informal central open area planted with a few trees. The walk, here sunken, can just be traced running westwards along the south side of the area and there are a few ornamental trees, such as yews, and rhododendrons left in this section, which is otherwise dominated by seedling birch. Towards its eastern end, just west of the kitchen garden area, is a low stone platform with a step up to it on the south side. This is probably the base of the summerhouse known to have been erected in this part of the garden in the mid nineteenth century.

The gardens were also created by John Dillwyn Llewelyn at the time when he rebuilt the house in the mid 1830s. The 1876 Ordnance Survey map shows their completed layout. Immediately to the east of the house was a terrace with formal flowerbeds on it. This has gone. To the north were the outbuildings and a woodland area, the north drive skirting the west side of the gardens. To the west was an informal area planted with trees and shrubs, while to the south was the drive and forecourt and the conservatory in which were grown many exotic plants, including tea, coffee and bananas. To the south was a belt of woodland and then the open informal area

surrounded by a belt of trees and shrubs. The small formal garden to the west of the walled garden was in place and included a glasshouse, now gone.

The garden was described by Pettigrew in 1886. Around the house the garden was 'neatly laid out in shrubberies, flower beds and plots of well-kept short grass'. Rhododendrons of the choicest kind were everywhere in the grounds, in the shrubberies, woods and in clumps on the lawns. To the west of the house the 'observatory garden' was laid out in small oblong beds planted with rare florists' flowers, rockeries and pits and frames in which to grow rare and tender plants. Most of this has disappeared and only the observatory, the pool and a few trees and shrubs remain. The area to the south and south-west Pettigrew calls the 'new garden', suggesting that it was created later than the rest of the garden. It was laid out with winding walks, specimen conifers, banks of rhododendrons and azaleas, a pine plantation, a tennis court and a summerhouse. This has now almost entirely disappeared under seedling woodland and scrub.

From the 1920s, when the family left Penllergaer, the grounds deteriorated. When the house was demolished in 1961 and the council offices were built the character of the gardens was changed irrevocably. The areas immediately around the house site were simplified or turned into car parks and the outer areas were left to revert to seedling woodland.

The kitchen garden complex lies to the south of the house on elevated ground on the west side of the valley. To its east there is a steep drop to the south drive; to the south are open fields and the ruins of the kennels building; to the west is a further open field and to the north is seedling woodland.

There are several components to the gardens, the main one of which is a large, walled, trapezoidal garden, its wider side at the south end. It is bounded by high rubble stone walls mostly standing to their full height. The west wall is *c.* 3.5 m high and is built of very well coursed stone. The south wall is *c.* 3.5-4 m high and its stone is more random. In the middle is an entrance gap with fine coursing on the outside. A wall extends south from here, enclosing the east side of an area formerly containing glasshouses. The east wall stands to *c.* 3.5 m, is well coursed and retains its coping stone. In the middle is a doorway gap. The north wall is similar and ivy covered, with a gap in the middle. Outside the wall is a bank, probably the remains of a wall. The northern end of the garden is separated from the rest by a similar stone wall, enclosing a relatively narrow area. Along the north side of the dividing wall are ruined lean-to buildings with low stone walls. The second from the east has a boiler in it and holes in the wall. A bank parallel with the wall probably represents a former wall. There is a partly blocked archway in the east wall and a blocked pointed arched doorway in the north wall. The interior of this area is filled with bamboos (*Sasa veitchii*) and seedling trees. Against its inner side are the remains of a long glasshouse that was ranged along most of its length. The remains consist of low, ivy-covered brick footings, a stone bench in the centre and raised benches against its back, brick wall. To its west is a wide entrance flanked by ruined walls.

The interior of the main part of the garden is heavily overgrown with seedling trees, weeds and scrubby vegetation, including bamboo. Perimeter and cross path lines can be made out by their edging kerb stones and some drainage holes are visible. In the centre is the overgrown stone surround of a former small pool. Just to the north-east of this are the very overgrown remains of the orchideous house. This is a small, rectangular building, orientated east-west. Its stone walls stand up to *c.* 1.5 m; the north and south walls have small rectangular holes at intervals along their upper

sections. The east gable end, with a hole in the middle, is the highest part. In the centre is a large 'table', which was originally part of the artificial waterfall. To the west is a brick and stone lined boiler pit with steps at the south end, iron girders and a hole at the west end. Next to the north wall of the house are two ancient camellias.

Outside this main garden, to the south of the western half of the south wall, is a smaller walled compartment. Along its west side the wall, *c.* 3.5 m high, is flanked on both sides by ruined lean-to buildings with corner fireplaces and on the west side there are iron-edged flue holes suggesting the former presence of a boiler. In the south-west corner is a wide entrance with some dressed quoin stones remaining and with a curving wall to the east. The compartment has a sunken rectangular area in the middle, *c.* 1 m deep, lined with rendered brick walls on the long north and south sides, which project slightly above ground level. Immediately to the north is a brick wall in which is a row of five round-arched, shallow recesses.

Outside the south-east corner of the main garden is a ruined rectangular building containing two rectangular sunken areas. At the south end are the brick and slate slab remains of a former bench.

At the north end of the outside of the west wall of the main garden are the remains of a further, small glasshouse. This lay along the north side of a small rectangular compartment that appears to have combined the useful with the ornamental. The glasshouse remains consist of a stone benches, with one slate slab remaining, on either side of a narrow central path. At the east end is a pit for heating and a flue hole. The back wall stands to *c.* 2 m high. Along the south side a path runs along the top of a low stone revetment wall which bounds the north side of the small sunken garden. Its south side is bounded by a stone and brick wall *c.* 2 m high and along the west side is an iron fence. In the middle is a circular pool edged with dry-stone walling.

To the north of the glasshouse is a small garden area, which probably also combined the useful and the ornamental. The area is heavily overgrown and the exact layout is difficult to make out. A ruined wall extends westwards from the west end of the north wall of the main walled garden. In a cross wall is an archway and the ruins of a lean-to building. To the south-west of this, west of the glasshouse, is a small rectangular compartment surrounded by dry-stone walls. In the west wall is a rectangular alcove, probably originally containing a seat. A stone-edged path runs east-west down the centre of the compartment and another curving path runs southwards from it, leading around the sunken garden.

The kitchen garden complex was built by John Dillwyn Llewelyn and is probably contemporary with the house and grounds, dating to the 1830s. It was certainly in place by 1840, when it is shown on the tithe map. Although now ruinous it appears to have kept its original layout and most of the features shown on the 1876 Ordnance Survey map can be located, even if their remains are fragmentary. The most important feature of this area, the orchideous house, was built in two phases. First, an ordinary orchid house was built in the early 1830s (it was referred to in 1835). Then the house was turned into an epiphyte house for non-terrestrial orchids in 1843 by the addition of a hot water fall over rockwork. One of the orchids that Llewelyn wanted to grow was *Huntleya violacea*, found at the Essequibo rapids in Brazil. He succeeded in recreating the atmospheric conditions of the rapids in this glasshouse and this was the first time that an attempt was made in Britain to reproduce an exotic natural habitat. It was achieved by making hot water fall over a waterfall of three rock steps into a basin on the floor of the house. The water evaporated, creating a warm, moist atmosphere.

In the pool was a small island overgrown with orchids, ferns and lycopods. Water was brought to the house from a distance but it was an economical system and not much was used. Many species of orchids were grown here, some on rocks, some on blocks of wood, some in baskets. The house achieved the distinction of being described in the first issue (1846) of the *Journal of the Horticultural Society*.

## Sources

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