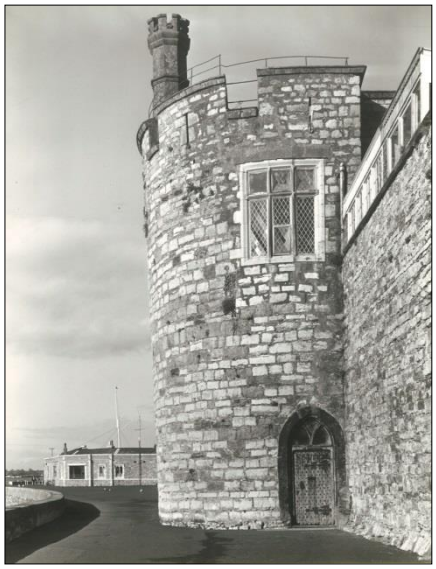
The Landmark Trust

BATH TOWER



History Album

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KEY FACTS

Built late thirteenth-century

The Public Bath House built behind the Bath Tower in 1823

Mid 1850s used as an annex by North Wales Training College and partly, from 1871, as a chapel

Became a private house in 1894

Bought by the Landmark Trust 1967

Architect for restoration: L. Beddall Smith 1967.

External and remedial work undertaken by TACP Architects of Wrexham, Clwyd in 1983.

Further restoration work by the architects Adam and Frances Voelcker of Gwynedd in 1991.

External remedial work carried out in 2010.

Contents

An aerial view of Caernarfon Castle and Town Walls Showing the Position of the Bath Tower – Aerofilms Ltd (c. 1960s)

Summary

With the castles of Beaumaris, Conwy and Harlech, Caernarfon and its fortified town are recognised as 'the finest examples of late 13th century and early 14th century military architecture in Europe for their completeness, pristine state, evidence for organised domestic space, and the extraordinary repertory of their medieval architectural form.'[1]

The Bath Tower is one of the eight towers of the medieval walled town of Caernarfon, built by the great warrior King, Edward I (1272-1307). It is a late thirteenth-century 'D' ended tower, built of local stone, on two floors with battlements. As a section of the Caernarfon town wall it is a singular, yet integrated defensive element of this medieval fortification. Caernarfon Castle and its town walls (begun 1283) were designed as part of Edward I's strategic plan or 'iron ring' of castles, built in north and mid-Wales to secure, and subject the Welsh to English rule. He made sure his son, the future Edward II and first Prince of Wales, was born in Caernarfon Castle in 1284. The Bath Tower is a art of the architectural representation of this monarchical campaign – 'an instrument of colonisation' – which was of monumental importance to the national history of both England and the principality of Wales. It was not until the late nineteenth-century that the full historical and architectural significance of the Caernarfon complex began to be acknowledged, and various programmes of repair and restoration were set in place. The castle and town walls were designated a World Heritage Site in 1986[i].

The Bath Tower stands near the north-west corner of the town wall, in between St Mary's church, with its three-quarter drum angle tower, and Porth-yr-Aur, the West or Golden Gate, facing the Menai Straits. The nineteenth century brought changes to both Caernarfon and the Bath Tower. In 1823 the Earl of Uxbridge (later the Marquis of Anglesey) built the Public Baths on Church Street, behind the Bath Tower. By the mid 1850s the Bath Tower became a part of the North Wales Training College, a newly established teacher-training college for the region. The tower was used first as a as a repository for the college, and later, in 1871, was partly converted into a chapel for their use. The stained-glass windows of the chapel can still be seen today in the tower's kitchen and bathroom. By 1894 the tower was sold to a Caernarfon surgeon, John Williams, whose family retained the building until 1967, when it was sold to the Landmark Trust.

As part of an overall military and architectural plan, the castle and walls are inextricably linked, and are best interpreted as a whole. The history of the Bath Tower, as a single entity, is integrated into the wider context of the building of

[1] *Statement of Significance* for the UNESCO World Heritage Site of Castles and Town Walls of King Edward in Gwynedd.

Caernarfon Castle and the town wall, the role of Edward I and the history of the town itself. The enrolled accounts for Caernarfon, and Edward's other castles - for example Conwy (1283-7) and Beaumaris (c. 1295) - provide important evidence of medieval building methods, including a unique account of a labour force, drawn from all over the country. They also detail, in part, the role of the Master James of St George (about 1235-1308), the greatest mason and military engineer of his day in supervising Edward's castle building in Wales.

The town of Caernarfon has, since early times, been recognised as being of strategic importance. It is sited on a narrow, lowland peninsula, protected to the east and north by the great mountain range of Snowdonia, with its large areas of forestry acting as a deterrent to invaders. The southern shore of the Menai Straits, and the two rivers surrounding the town - one now culverted - acted as further natural defences. Such an auspiciously defensive setting inevitably attracted settlers. The Romans built the fort of Segontium (c. AD 75) about a mile from the borough, as part of a chain of forts in the area. The Roman fort was known as 'Caer Saint' and featured in the legend of Macsen Wledig, the Welsh name for the Emperor Maximus, the Western Roman Emperor from AD 383-388. The 'Dream of Macsen Wledig', part of the twelfth century legend of the *Mabinogen*, tells of the Emperor's journey from Rome. Dr Arnold Taylor, responsible for the care of the Welsh castles from 1946-1972, writes that Edward's castle at Caernarfon, with its distinctive banded and coloured stone, and polygonal forts was plainly intended to give substance to this legend, and that its architectural precedent was the Theodosian wall of Constantinople, 'the first Constantine's own city.' [2] John Goodall's *English Castles* (2011) has recently suggested there may be stylistic links closer to home: at Caerwent, in Wales, where archaeological evidence has found a polygonal angle tower, in the Pharos at Dover Castle 'the tallest Roman structure in Britain,' and in the banded masonry in the lower ward at Windsor Castle.[3]

The imperial connection was enhanced by the finding of the body of Magnus Maximus 'father of Emperor Constantine, ' later reinterred by Edward I, astutely magnifying the importance of Caernarfon as an imperial stronghold. Edward entered Wales in 1277 with the intention of building ten new castles, five of which were to be integrated into the fortified towns of Aberystwyth, Flint, Rhuddlan, Conwy and Caernarfon. The role of the town wall in a medieval fortified town was diverse, protecting in both an urban and regional sense; it controlled people, traffic and taxes, and provided a civic and legal boundary to the town. At Caernarfon most of the buildings were situated within the town walls.

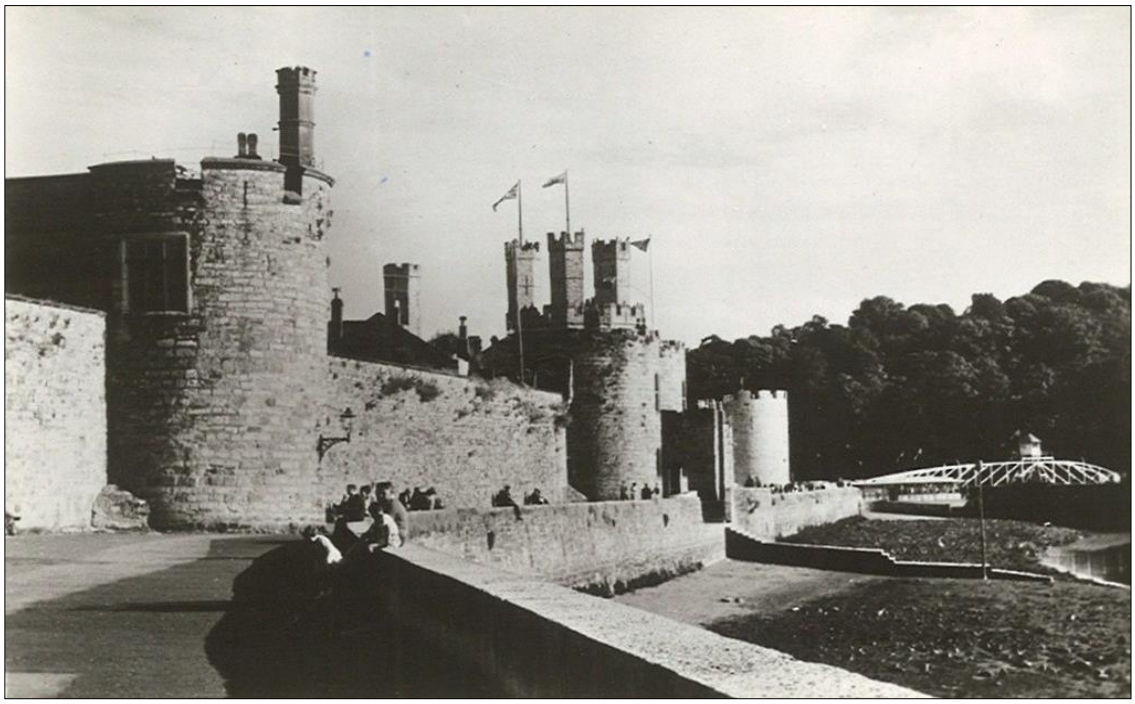
[2] Taylor, (1986) p. 78.

[3] John Goodall, (2011) *The English Castle.* p. 220. The Pharos were reputed to have been used as Julius Caesar's Treasury in the Middle Ages.

The building of the Caernarfon town walls began in 1283 and took roughly four years to complete, at a cost of £2100. They are still substantially intact today, with the majority of the eight towers, on the east and north side being without their interior facework. The town's principle entrance was at Porth Mawr, which became the base for the Exchequer, and it is believed, the Chancery of North Wales, in 1284. From here tolls were charged, and a curfew policed. A road ran directly through from East Gate to the West Gate, Porth-yr-Aur, on the sea-front. The Royal Welsh Yacht Club has occupied the twin-towered gatehouse at Porth-yr-Aur since the nineteenth century. The neighbouring tower to the south of Porth-yr-Aur was known as the Gallows Tower.

The town had a vibrant market and was much addicted to 'firing off salutes', from its gunnery. In the eighteenth century the passion for the Picturesque – the seeking out of ancient ruins for aesthetic appreciation - led to an increase of tourism in the town. The excavation of slate in the late eighteenth-century similarly resulted in an economic boom for the area; a railway was built to transport the slate in 1825. Later in the nineteenth century Caernarfon's importance as a resort for sea-bathing led a further boost to its economy. Today, as a world heritage site, both castle and town walls draw many to the area.

When Landmark bought the Bath Tower in 1967 it was leaning 16" out of true, exposing its medieval foundations. The architect L. Bedall-Smith was appointed to restore the fabric of the building, and to reconfigure the tower's interior to create suitable accommodation for the Trust. Two further programmes of interior and exterior improvements to stonework, windows, and services have resulted in a cosier and more comfortable interior, whilst retaining the essential character of this historic medieval tower, acknowledged to be a part of one of the outstanding works of medieval architecture in Europe.



The Bath Tower (before 1967)

The Bath Tower

The Bath Tower at Caernarfon is a late thirteenth-century 'D' ended tower, constructed of rough hewn lime and sandstone blocks, on two floors, with a battlemented terrace, and arrows slits to the upper storey.[4] It is one of eight towers of the Caernarfon town walls, which were built c. 1283-5, to protect this ancient city. The Bath Tower is an example of early British military architecture, a component part of the medieval defences of the walled town of Caernarfon.

The great warrior King Edward I (1272-1307) ordered the building of a castle at Caernarfon in 1283, to create a royal palace and fortification of awe-inspiring grandeur. The site skilfully used the natural defences of the Menai Straits, with the river Seiont to the south, and the Cadnant stream - now culverted - to its north and east. The fortress was protected by battlemented castle walls, alongside the protective ring of the town wall, creating a formidable combination of military deterrents to ward off Edward's Welsh aggressors. Caernarfon was designed as part of the King's strategic plan, or 'iron ring' of castles, built in north and mid Wales in order to secure, and subject the Welsh to English rule.

The building of the castle and the town walls at Caernarfon were part of an overall military and architectural plan; both castle and walls are inextricably linked, and are thus best interpreted as a whole. Interestingly the Latin word 'castellum' was understood to mean both a castle and its defended town walls. Dr Arnold Taylor, who was chief inspector of Ancient Monuments and responsible for the care of the Welsh castles from 1946-1972, noted that from concept 'the whole operation…was envisaged…as embracing the construction of the walled town as well as the castle.' [5] The history of the Bath Tower, as a

[4] A battlemented wall is constructed of higher and lower alternate parts. A crenellation is an alternative term for a battlement.

[5] Arnold Taylor *(*1963, 1986) *The Welsh Castles of Edward* 1 p.79.

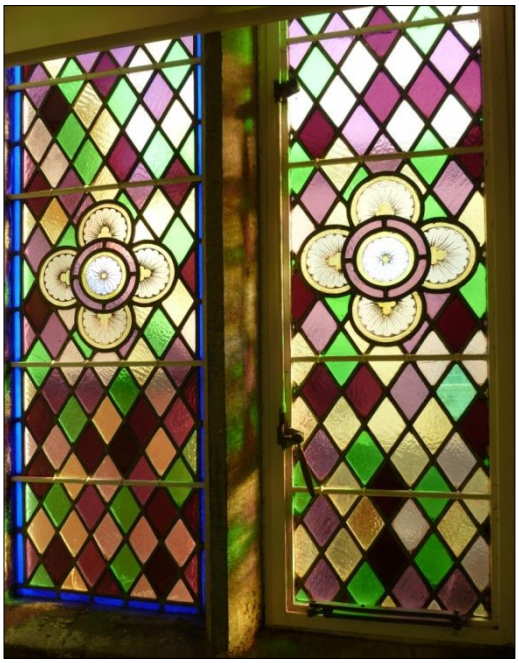
single entity, was therefore integrated into the wider context of the building of Caernarfon Castle, the town walls, Edward I's role and the history of the town itself. The seventeenth-century poet John Taylor (?1578-1653) was similarly struck by the unity of the fortification:

> '…to Caernarfon, where I thought to have seen a Town and a Castle, or a Castle and a Town; but I saw both to be one, and one to be both; for indeed a man can hardly divide them in judgement or apprehension: and I have seen many gallant fabrics and fortifications, for compactness and completeness of Caernarfon, I never yet saw a parallel.' [6]

The castle and the town walls have, over the centuries, been subject to periods of both ruin and restoration. A major clearance of buildings around the walls was undertaken in the nineteenth century, when clusters of buildings had begun to detract from the appearance of the fortification. The State funded repairs in 1911, for the Investiture as Prince of Wales of Edward who became briefly, Edward VIII (1894-1972) before his abdication in 1936. By 1963, when the last major repairs were undertaken, the importance of the site and its construction were recognised for their historical and architectural importance. The remaining buildings on the exterior of the town walls were cleared, giving clarity to the structure. In 1986 the castle and town wall were designated a World Heritage Site.

The Bath Tower (c.1970)

[6] John Taylor, (16[illegible], *A Short Relation of a Long Journey, Made Round the Whole World by Encompassing the Principalitie of Wales, Etc.*



The Stained-Glass Chapel Windows (2011)

Caernarfon: Geography, History and Imperial Legends

The town of Caernarfon has, since early times, been recognised as having a position of strategic importance. This fertile area overlooking the Menai Straits was known as 'Arfon', which was later incorporated into the name of Caern 'arfon.' Caernarfon is sited on this narrow lowland peninsula, protected to the east and north by the great mountain range of Snowdonia, with its large areas of forestry acting as a natural deterrent to invaders. The southern shore of the Menai Straits, and the two rivers surrounding the town provided additional defence. Caernarfon's importance throughout the centuries owes much to its geography and habitat.

The area is rich and diversified, with the great land mass of Snowdonia providing pastureland for sheep, alongside the fertile plains of Anglesey, which produced crops and food. Three mountain passes from the north, south and

west meet at Caernarfon, creating a natural focal point, uniting highland, lowland, land and sea.
Such an auspicious site inevitably attracted settlers; the Romans built the fort of Segontium, a settlement about a mile away from the later borough, as part of a chain of forts, in about AD 75. By the early part of the third century Segontium may have been a major administrative centre for North Wales, served by road connections to Chester, St. David's, the Isle of Anglesey, and importantly to Londinium (London) in the south-east. The Roman fort was known as 'Caer Saint' by the Welsh, and featured in the legend of Macsen Wledig, the Welsh name for the Emperor Maximus, the Western Roman Emperor from AD 383-388.

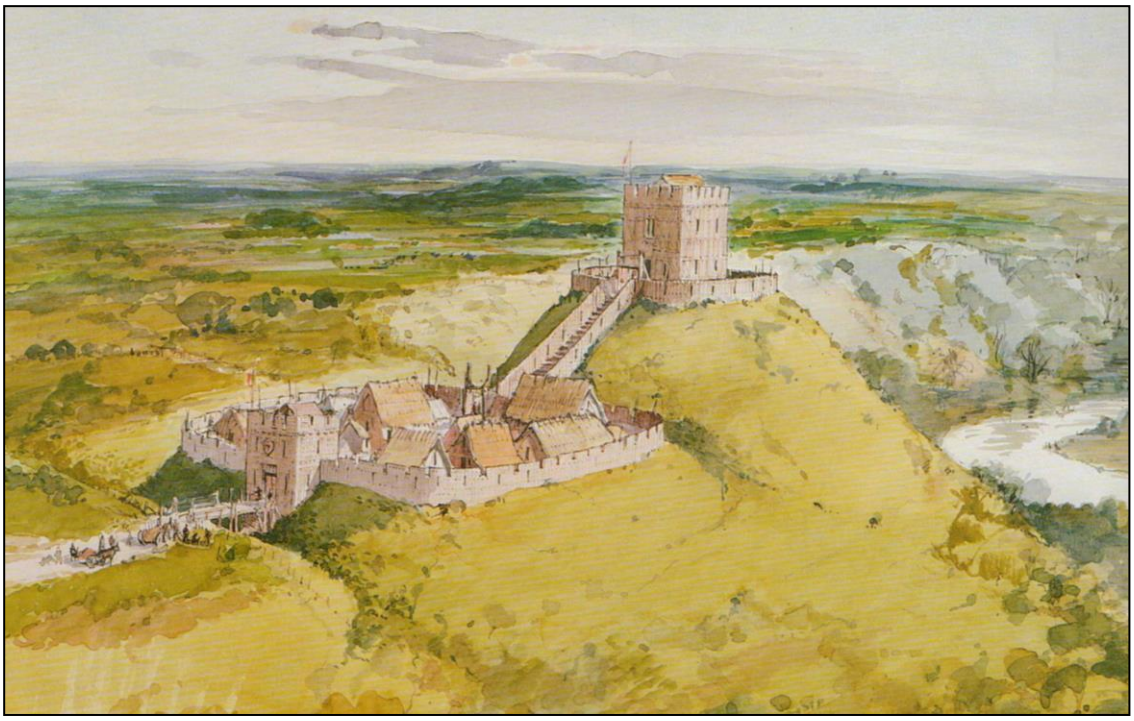
The 'Dream of Macsen Wledig', recounted in the 12th C legend of the *Mabinogion*, recounts the Emperor 'journeying from Rome to a land of high mountains, and coming to a river flowing into the sea… [with] a great fortified city at the mouth of the river, and a great fort in the city… and great towers of many colours on the fort.' [7] The legend, although probably based on elements of truth, is acknowledged essentially as fiction. Partly as a result of this, Caernarfon from earliest times, has been associated with imperial legend, an attribute which was astutely magnified by Edward I in the building of his castle at Caernarfon.

Both the name and spelling of Caernarfon has changed throughout the centuries. The ancient writers referred to it as 'Minmanton' meaning 'near the places where the waves dash.' In the sixth century it was known as 'Caer Segont' in reference to the river Seiont. W.H. Jones' late nineteenth-century history of the town suggests that the early spelling of 'Caer-yn Arfon' can be translated as 'Caer' signifying a castle, fortress or stronghold, 'yn' meaning 'in', 'ar' being 'opposite, to or beyond and 'fon' or 'von' being the Welsh name for

[7] Taylor (1985) p. 78.

Anglesey – Caernarfon therefore translates as 'the fortress opposite Anglesey.'[8] The name dates to the building of Edward I's castle. Giraldus Cambrensis, who accompanied Archibishop Baldwin on a journey through Wales in 1188, described the town of 'Kaer-yn-arfon.' Twelfth century variations of the name are recorded as 'Kairarvon' and later 'Kaerinarfon.'

The earliest connection of the site as a castle fortification is found in the late eleventh-century when Hugh of Avranches, the Earl of Chester, and the nephew of William the Conqueror, built himself a motte-and-bailey castle at Caernarfon.[9] An artist's interpretation of the motte-and-bailey castle at Rhuddlan (c. 1073) shows the defensive high ground, where the habitable structures were sited, with the ditch below.



An artist's impression of a motte and bailey castle at Rhuddlan c. 1073 (*Caernarfon Castle* 2008)

[8] W.H. Jones (undated, late nineteenth-century) *Old Karnarvon – A Historical Account of the Town of Caernarfon* p. 5.

[9] Carter (1969) p. 2.

Motte-and-bailey castles were early examples of organised fortification. Typically the motte-and-baileys had enormous earth ramparts surrounded by deep ditches, whilst the earliest construction consisted of wooden palisades, walkways, a gate or entrance, and the buildings within.

From the thirteenth century stone walls began to supersede timber palisades, with mural (wall) towers and gatehouses being built in order to enclose the more substantial towns, which were often military bases. Later stone fortifications were specifically constructed for strength, whilst also acting as a psychological deterrent.

The system of levying a 'murage' tax to pay for the building of these walls was inaugurated in 1220. Granted by the monarch, this enabled towns to levy taxes on certain goods brought within the walls, in order to pay for the building and maintenance of their walls.

The building of town walls involves four categories of construction: the ramparts and walls: the gateways; the mural towers, and the ditches. The lesson of the Welsh wars seems to be that 'walls were considered a useful if not indispensable element of protection' but that the jury is out on how far they 'could ever act as a useful and effective barrier against attack.' [10] Invaders would attack the walls with portable towers of a height enabling them to scale the walls, or use long ladders to gain access. 'Springalds,' mechanical devices used to discharge bolts and sometimes stones, along with canons and arrows, were all part of the battery of medieval warfare.

By the mid-twelfth century Caernarfon was established as a small trading centre, with an active port, like many small towns along the Welsh coast. The harbour

[10] Hilary L. Turner (1971) *Town Defences in England and* Wales p. 76.

at Caernarfon, although of no importance in modern times, was the only one between Conwy to the north-east, and Pwllheli to the south-west

Edward I rides into battle

Edward's Welsh Campaign

By 1115, the bellicose Welsh princes held Caernarfon, using it as their royal residence and centre of administration for Gwynedd, the north-west region of Wales.

Edward I was actively seeking to settle the problem of the Welsh insurgents, and secure the region. The English army gathered at Chester in 1277 and with it large numbers of craftsmen pressed into royal service with armed guards to prevent their desertion. The death of the Welsh prince, Llywelyn ap Gruffudd, enabled Edward to enter Wales, and instigate the monumental building programme of ten new castles to establish his supremacy in the region. Builth, Aberystwyth, Flint, Rhuddlan, Ruthin, Hope, Conwy, Harlech, Caernarfon, and Beaumaris make up this formidable chain and five of them integrated into fortified towns (Aberystwyth, Flint, Rhuddlan, Conwy and Caernarfon). Conwy, Caernarfon, Beaumaris and Harlech represent the culmination of the English castle-building tradition, 'the moment at which the needs of defence were perfectly balanced with…an understanding of architectural effect.' [11] These Welsh fortifications represent the extraordinary energy, foresight and wealth of Edward I.

Conwy (1283-7) to the north of Caernarfon is similarly built on a rocky promontory, guarding the entrance to the river Conwy. The castles' rubble stone construction was originally rendered and whitewashed, making them all the more intimidating. Such impregnable and terrifying defences would have represented a considerable psychological deterrent to any prospective intruder. Like Caernarfon Conwy had an encircling town wall, though of greater scale, with twenty-one towers covering one thousand four hundred yards (1280 m) in length. Conwy Castle itself has eight towers, but unlike Caernarfon has no

[11] Goodall (2011) p. 211.

dominant gatehouse; otherwise there are many similarities in the arrangement of the two castles.

Caernarfon Castle (undated)

Conwy Castle, 1923

Beaumaris (c.1295) a moated castle across the Menai Straits in Anglesey is undoubtedly the most romantic of Edward's castles. It was started after Caernarfon, built on a smaller scale, but also with a secondary ring of towered walls (visible in the photograph) to protect the inner wards, the dividing courts inside the castle.

These castles were constructed in the direct tradition of the European bastides. The bastides of south-west France were planned towns, with straight streets intersecting at right angles, often with a central marketplace, and sometimes an integrated castle. The bastides were not necessarily fortified towns, but were built often as a means of controlling territory.

Conwy Castle and Walls (2011)

Beaumaris Castle and Walls (2011)

Medieval Building Techniques

Medieval work practice can be gleaned from the castle building records, archaeological evidence, and other sources such as woodcuts of the period. Arnold Taylor's *The Welsh Castles of Edward I* provides a detailed account of the building records – including the enrolled accounts of the Chamberlains of North Wales in August 1284. The earliest reference to the building works at Caernarfon is recorded in June 1283.[12]

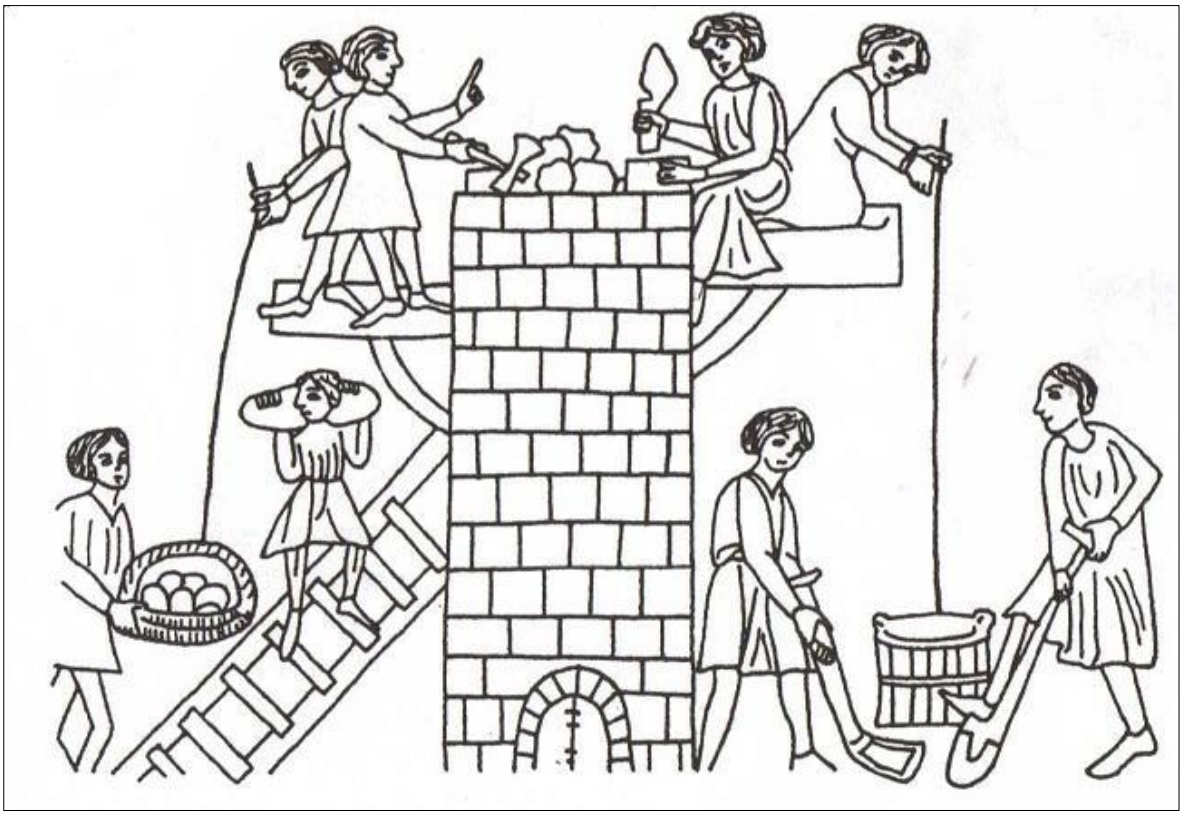
Essential for a project of such scale was the proximity of local building materials and ease of transport. A new quay was built in the town and stone was transported from three local quarries: one outside the town, one near Bangor and the third from Anglesey. Enormous shiploads of timber, many coming from the port of Liverpool, docked at Caernarfon. Lead, coal, stone, lime, sand, iron, nails and glass were all brought in by barge and cart. Many ships were employed during the building, their masters coming from northern France, Ireland and southern England.

Over the entire project, legions of quarrymen, diggers, specialist ditchers known as 'fossatores', stone-layers, masons, carpenters, joiners, glaziers, tilers, smiths, plumbers and painters were employed as contract labour. Masons working in the medieval period specialised in either carving, new-build or restoration work. The records note that hundreds of diggers levelled platforms in the rock base of the castle to cut the enormous foundation trenches, which are at their base some 20' (6 m) deep. Building work would have been harsh and extremely dangerous, with none of the safety regulations that we know today.

[12] *The Welsh Castles of Edward I*, Arnold Taylor (1986) pp. 82 & 79.

Quarriers stopped work only at Christmas and Whitsun, and were laid off for roughly ten weeks from February to early May. Mason-layers similarly were not employed during the harshest winter months, from mid-November to mid-April,

The Huntingfield Psalter image, from a thirteenth-century English illumination, clearly shows the stone-hammer, trowel, scaffolding, basket, ladder, mortar shovel, spade, and hod-carrier.



Huntingfield Psalter, c. 1200 Illumination. Pierpont Morgan Library, New York. Medieval Building Techniques (2001)

coinciding with the likelihood of frost damage to lime mortar before it had hardened ('gone off'). The workers would have had to find alternative winter employment, if it was available. Most laboured seven days a week.

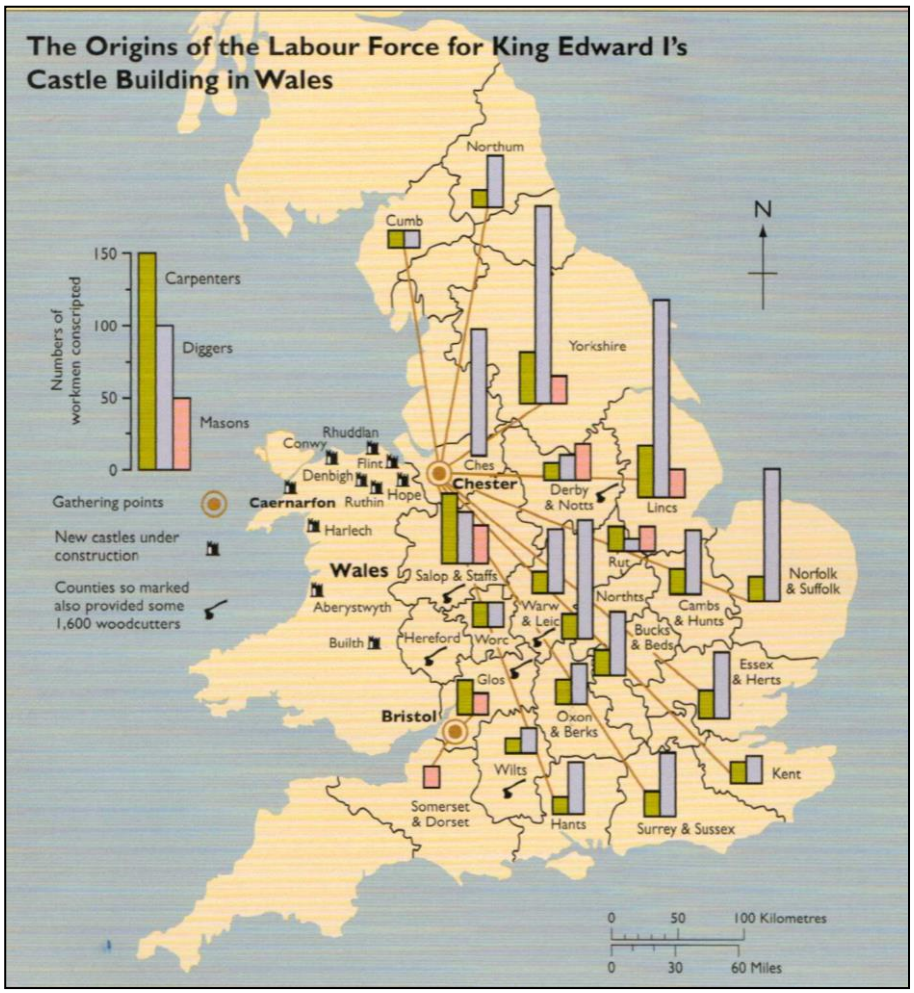
Building tools were simply made of natural materials. Cranes, pulleys and hoists, made of timber and rope, were used for lifting heavy goods. Handcarts, sledges for transporting over wet and muddy ground, and brick-carrying hods, constructed of wood, were used to carry materials. Panniers, consisting of two parallel pieces of wood with a leather truss, were used to carry stone. 'Outrigger' wooden scaffolding was fastened into the wall using a series of horizontal timbers, supported by diagonal struts. Hanging platforms were often suspended from loops of rope on the building, and wooden ladders were used for access.

Builders' stone layers and carpenters' implements included axes made with a wooden handle and iron head, saws made of wood and iron, mallets, chisels, hammers, trowels and other implements. Measurements for the Welsh castle building were defined by the standard English perch of the time - sixteen and a half feet (5.02m) – rather than the local measurement of twenty five feet (7.62m). String was used for setting out a course and stone layers were paid a penny for six feet. A horn was used to sound the hours of work.

Various details come down to us concerning the building of Caernarfon: for example one Matthew of Silkstone, a carpenter, was paid twenty shillings for making a crane to hoist the timbers, and needed 8lbs of grease to lubricate it. Although the records for Caernarfon are scant compared to those of Conwy, such details provide a rare and illuminating source for scholars of medieval buildings.

In order to enrol this massive workforce, knights from Edward's court were despatched to counties across Britain - from Leicestershire to Cornwall - to seek

out and engage large numbers of skilled men. The records reveal a remarkably mobile workforce. In 1284 forty carpenters are recorded as being hired from Nottinghamshire. Three Yorkshire labourers, sent to the King at Rhuddlan in 1283, were sent on to Caernarfon: John de Cotyngwk (from Cottingwith, East Yorkshire), Hugh de Crauene (from Craven, West Yorkshire) and Henry de Elreton (from Ellerton, East Yorkshire). Such records of the names of thirteenth-century workmen add a human dimension to the project's history. A map showing the geography of this hired labour gives an idea of the scale and complexity of organisation needed for the building of the Welsh castles.



The Origins of the Labour Force for the Building of Edward I's Welsh Castles - *Caernarfon Castle* (2008)

Labour was also drawn from the continent. Individual craftsmen came from Savoyard, the western French Alps are also known to have worked on the Welsh castles.[13] Philip of Ewyas from Sente, in France, was the principal carpenter at Caernarfon, and

Master Mannasser de Vaucouleurs, from Champagne, was employed as 'master and director of the diggers' at Caernarfon and later became a burgess and town bailiff in the town.

Supervising the monumental building programme of Caernarfon was a builder of international renown, Master James of St. George (about 1235-1308) a mason and military engineer, whom Edward I has requisitioned from Count Philip of Savoy (1268-85). Master James of St George had been responsible for castle building and other works in the Alpine region of Savoy, for at least sixteen years prior to his arrival in Wales. He brought with him masons and engineers from the continent. Edward's extensive travels during his crusades to the Holy Land would no doubt have enabled him to see many fortifications.

Master James of St George oversaw construction of the whole group of Welsh castles, including Beaumaris, Conwy and Harlech. For a long time it was believed that Master Walter of Hereford was the architect of Caernarfon, but it seems inconceivable a Master as important as St George would not have been directly involved with the design of Caernarfon. It is now generally thought that St George oversaw the building of Caernarfon from about 1284, and was granted a pension for life as a reward for his work.

Master Richard the 'Engineer' of Chester was probably Master George's right hand man in the building of Caernarfon. Other accounts state that Master James of St George was responsible for the 'plan and form' from the outset, but that

[13] The region of Savoyard was in the Western Alps, between Lake Geneva to the north and Dauphiné to the south.

when operations resumed in 1295 Master Walter of Hereford took over responsibility for the building works. John Goodall has suggested recently however that a 'more satisfactory explanation for Master James of St George's role is that there would have already existed in England a group of castle designers who were working before James came to England.' Goodall has no doubt that James oversaw the building operations, but suggests that the role of the King's works and masons must not be underestimated in their design. However 'the exceptional castle-building opportunities [Master James] enjoyed made him exceptional too; and by the time of his death James of St George may well have been…one of the greatest military architects in English history.[14]

The importance of these master builders as masons and engineers cannot be underestimated – their skills were in essence those of architect and engineer combined. The scale of the works achieved was simply stupendous; particularly so when the constraints of medieval transport and communication – boat, horse or messenger – are taken into account. That these medieval builders overcame such difficulties can only intensify our appreciation of their achievement in building these monumental structures.

[14] Goodall (2011).p. 227.

Caernarfon: Castle, Walls and Town

> 'I did not think there had been such buildings; it surpassed my ideas' – Samuel Johnson (1774) [15]

At Caernarfon Edward intended to create a setting that was unparalleled in English military architecture. Building on the imperial connections of the town, Edward ordered the body of Magnus Maximus 'father of the Emperor Constantine,' allegedly found at Caernarfon, to be reburied in the church there in 1283. To further enhance the Roman connection it has been suggested that Edward deliberately copied the design of the Theodosian wall of the city of Constantinople, the first Constantine's home city. Caernarfon castle's distinctive bands of coloured stone, and its polygonal towers were not common in English castle architecture. The principle stone used for the castle was a carboniferous limestone, probably quarried from Penmon on Anglesey, whilst the bands of brown sandstone were quarried at Aberpwll on the Menai Strait. [16]

The debate on the architectural influences found at Caernarfon has recently been opened up by John Goodall, whose work *The English Castle* (2011) concedes that the polygonal plan of the Caernarfon towers are probably a reference to Roman design, hence the famous comparison to Constantinople. 'It is much more likely, however, that the design combines Roman example in Britain with south-eastern English architectural practice.'[17] Goodall explains that polygonal towers are not common features of Roman fort architecture, although there are similar features on some Welsh structures, such as at Caerwent, which has some of the best preserved Roman remains in Europe, including a polygonal angle tower. He also cites a possible link with the Pharos at Dover

[15] Samuel Johnson (1774*) Diary of a Journey into North Wales*, p. 106.The poet and essayist Samuel Johnson visited Caernarfon in 1774, and stayed in one of the towers, possibly on the town wall.

[16] R. Haslam, R. J. Orbach, J. and A. Voelcker, (2009) *The Buildings of Wales: Gwynedd*. p. 292. This 2009 edition of *The Buildings of Wales* is dedicated to Charlotte Haslam, the wife of Richard Haslam, 'whose writing career began at Plas Brondanw then flowered at the Landmark Trust.'

[17] Goodall (2011) p. 219.

Castle - a pair of Roman lighthouses flanking the entrance to the port of Dover - believed to have been Julius Caesar's treasury in the Middle Ages, and the tallest standing Roman structure in Britain. Goodall also suggests Henry III's additions to the lower ward at Windsor Castle as another possible source for the banded masonry. [18]

Work began on the castle at Caernarfon in June 1283, when temporary wooden buildings were put up in anticipation for the King's visit in July, and the first stages of digging the 'new moat' were instigated. Twenty shiploads of timber arrived as a part shipment before June, used to erect temporary housing and a wooden stockade for protection. All Edward's major castles in Wales were built with direct access to the sea, or with the intention to make them easily accessible. Timber was floated down the coast to be used for palisades; a series of quays were constructed along the sea-wall at Caernarfon to receive such goods.

The City Walls of Constantinople (undated)

[18] Goodall (2011) p. 220.

The Walls of Caernarfon Castle – (2011)

By 1285 work on the walls and removal of houses in the vicinity was well underway. The castle itself stood in an area of roughly three acres, with an upper and lower ward, and nine towers, including the famous Eagle Tower, designed to house the first Constable of the Castle. Although the building work went on for over half a century the castle itself was never completed. Many of the labourers who had worked on the castle were later transferred to the construction of the town walls.

The Town Walls

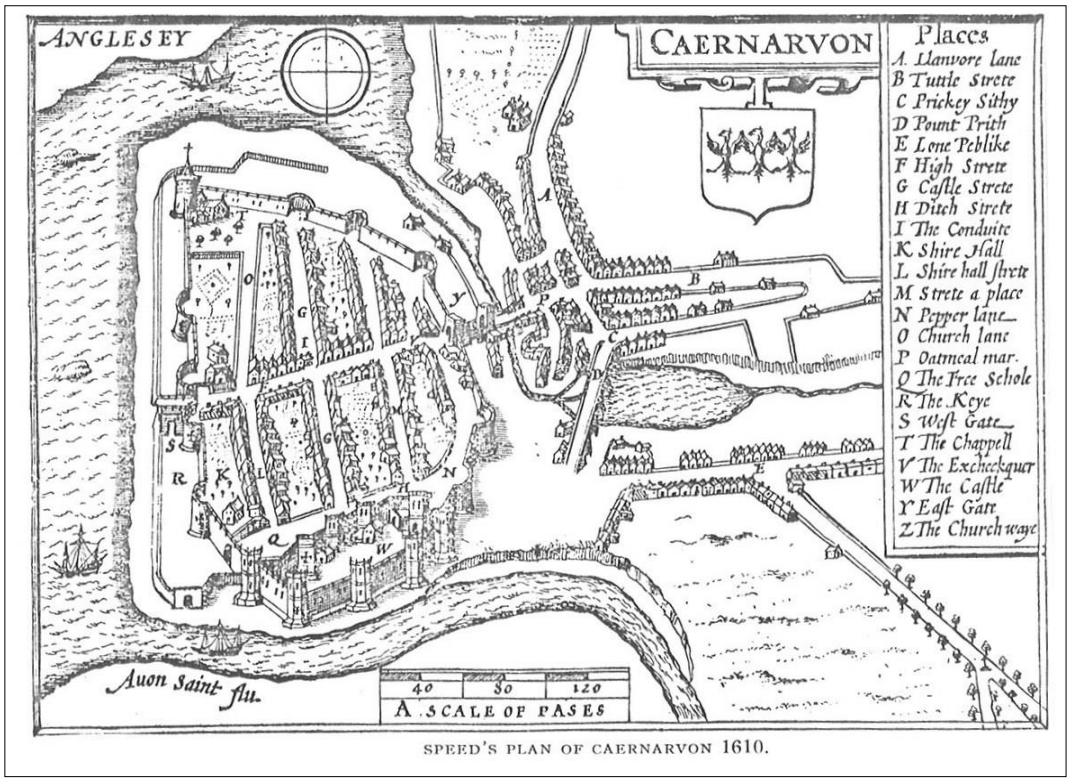
Few historians have charted the history of Britain's town walls; perhaps not surprisingly, the more glamorous branch of military architecture - the castle - has received more attention. The study of town walls falls 'somewhere in between archaeology and architecture' which may provide another reason for the lack of scholarly attention. The role of the town wall was diverse: it offered protection in an urban, and sometimes in a regional or national, sense: it controlled traffic and people, and it administered taxes at its gates. Its symbolism portrayed civic, and in Caernarfon's case also judicial, importance, since the town wall often determined the boundary of law for the borough. Town walls were therefore both defensive and commercial structures. They were also important as an amenity – walls were often used by the inhabitants to escape the fetid smells of the medieval town; the ditches being used as refuse dumps. The exterior of the town wall – viewed by attacker or traveller – was military and fierce, whereas the interior aesthetic, viewed by the townspeople, would more likely to be thought of as protective. The open-backed nature of the wall-towers, reflect this. The town wall therefore is a social, economic and protective entity, the interface between community and defence.

From the eleventh to the sixteenth century there was an enormous growth in urbanism in England, although walled towns, in the medieval period, are thought to number only around 211 in England, and around 55 in Wales. Although the Caernarfon town walls are contemporary with the castle they are on a smaller scale and more simply designed. They are of the

> 'same kind of limestone…as the castle, with an admixture of red sandstone blocks perhaps from the Roman fort. The towers are of large stones, well coursed like the castle, and generally built better than the curtains.
>
> The *walls* [sic] generally are…6' [1.82] thick, although the facing has been removed in places. They stand…*ca.* 28' [8.53m] high on an earth bank, the towers rising up to 12' [3.66m] higher. The wall-walk, 22' [6.70m]

> above the interior ground level was reached by flights of stone steps beside the towers…It crossed the open gorges of the towers by bridges, originally built of timber… The embattled parapet, now much ruined, consisted of embrasures *ca.* 3'6" [.091m)] long alternating with merlons *ca.* 9' [2.14m] long. [19]

The walled area covered ten and a half acres, with only a few houses outside the battlements. Cartographer John Speed's map of Caernarfon (1610), done in more peaceful years, shows development spreading outside the walls. Note too the formal garden apparently behind the Bath Tower, perhaps belonging to the large house shown beside the West Gate.



SPEED'S PLAN OF CAERNARVON 1610.

John Speed's Map of Caernarfon (1610)

Preparatory work began on the town walls in 1283, and took roughly four years to complete; the circuit or 'enceinte' 'which forms a half-circle, completed by the castle, encloses the medieval borough and is described today as 'substantially intact.' At the Castle Square end of the Castle Ditch, the wall now terminates

[19] *RCAM* (1960) p. 151.

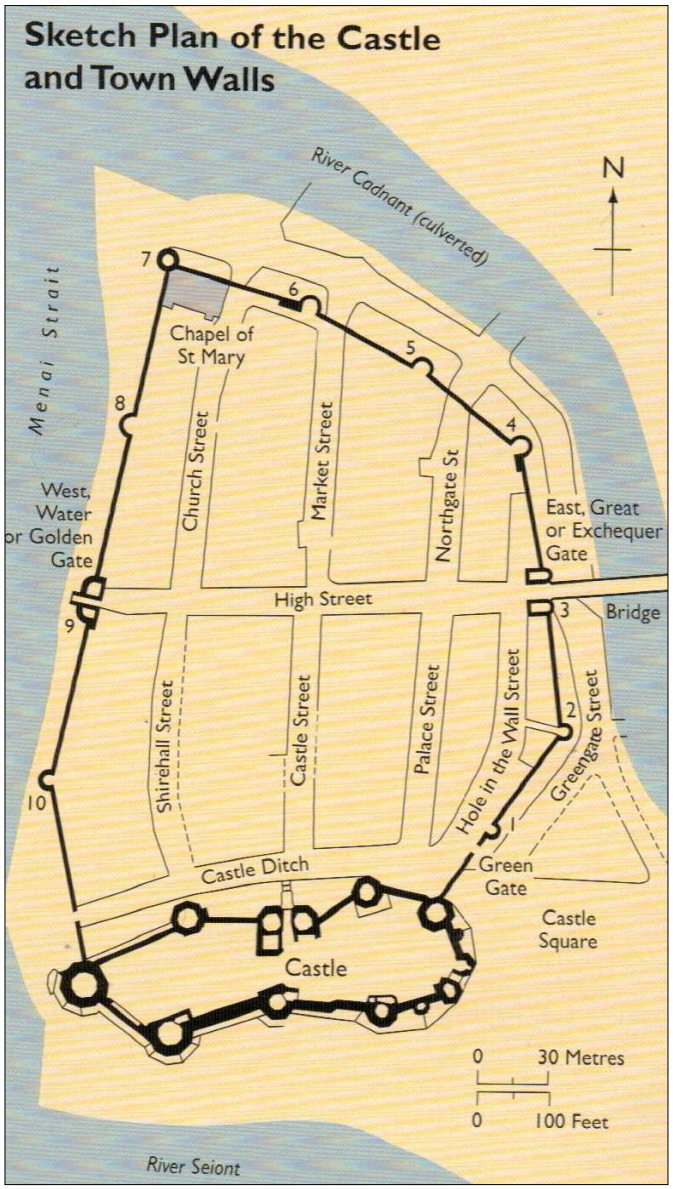
abruptly in front of the road, and does not join up to the castle as it was designed

The Town Wall and the Castle (2011)

to do. Originally there was a lower wall which crossed the ditch to bond the north-east tower of the castle.

The subsoil on which the walls were built, facing the Menai Straits, was soft in places; during the building of the Public Baths in the nineteenth century, the workmen came across massive wooden oak piles, set on a framework of oak, with supporting arches of masonry above; this underground structure was built to form the foundation on this seaward section of the wall.

A sketch plan of the castle and town walls shows the wall, the numbered towers, and the grid street pattern, with the east/west route from Porth Mawr, the Exchequer Gate, down the High Street to Porth-yr-Aur, the Golden Gate, on the seaward side. The latter is thought to emulate the Golden Gate of Constantinople, taking its name from its position, facing the setting sun. St Mary's Church (no.7) is visible to the top left hand corner (north-west) with the Bath Tower (no. 8) positioned in between Porth-yr-Aur and the Church. Other towers on the circuit are maintained in terms of structure (for example nos. 1, 2, 4, 5 and 6) and are in varying states, many without their interior facework. They clearly show their three-quarter drum construction.



Sketch Plan of the Castle and Town Walls
***Caernarfon Castle* (2008)**

The eight round towers 'seven of which are semi-circular' [20] were erected within the curtilage of the town walls, roughly seventy yards apart, with open backs or 'gorges' constructed of local stone, with wooden floors. They consisted of two storeys with battlements; it is believed that they probably had timber-framed rear walls. The upper storeys had arrowslits for defence, and the remains of finials can be seen on some crenellations.

[20] Haslam et al (2009) p. 300.

Both the Exchequer Gate, Porth Mawr, on the east, being the main entrance to the town and Porth-yr-Aur, the Golden Gate - the commercial access to the quay - on the seaward side, had twin-towered single-arched gateways. On the opposite side of the moat, close to Porth Mawr, builders in the late nineteenth-century discovered the foundations of two huge bastion towers, with walls of prodigious thickness.

Porth Mawr, as the principle entrance, was guarded by the Porter of the Gate. Its importance was magnified by its role as the location of the Exchequer for north Wales (c. 1284) which collected debts and revenues due to the King, and where ' all causes relating to the rights of the Crown were also heard.'[21] In the 1280s the bridge was wooden, but by 1302, was rebuilt in stone, with five arches and a barbican. Originally Porth Mawr had a timber drawbridge. By the mid eighteenth-century the old Exchequer had been remodelled into a new Town Guild Hall, situated on the first-floor and taking the full width of the two drum towers; a contemporary criticism somewhat dryly described it as 'convenient.' The renovated space was also used for court sittings, and as an assembly room.

The town's curfew bell originally was housed at the gate; anyone not within the gates by 8pm was locked out until the following morning. The walls were similarly used to control aspects of trade with the town: before 1311 a Toll Booth stood outside the Eastern Gate to enable an entrance levy to be taken for the town. The town walls also ensured that all bakers and brewers could brew within the walls, and all granges and granaries were also inside the town.

The tower to the north of Porth Mawr is the Penne Tower (number 4) , which was also known as the Culver Tower – culver meaning a wood pigeon – due to the carvings on the machiolations (openings on the top of the parapet for the purpose of defence).

[21] Jones (late nineteenth-century) p. 103.

Porth Mawr (1809)

Towers 5 and 6 are intact but without their inner facework. Tower 7 on the plan at the north-west corner is a three-quarter drum tower, an angle tower (c. 1316) which is incorporated into the walls of St Mary's Church. It was given to the church as a belfry and vestry room, access being through the church. St Mary's, known as the Garrison Chapel, dates back to the early fourteenth-century, and was originally a chapel of ease to the church at Llanbeblig. It is inaccurately shown on Speed's map of the town (1610) as standing independently from the wall. The seaward section of the wall, with the Bath Tower shown as number 8 on the plan, is generally acknowledged to have maintained its medieval atmosphere more than other sections in the town.

Porth-yr-Aur – tower 9 on the plan – next to the Bath Tower is home to the Royal Welsh Yacht Club, who run their regattas from its battlements. It was originally defended by its two round towers, a portcullis and a battery of seven guns. These were used to protect the town from invasion by Napoleonic forces in the late 18th-century.

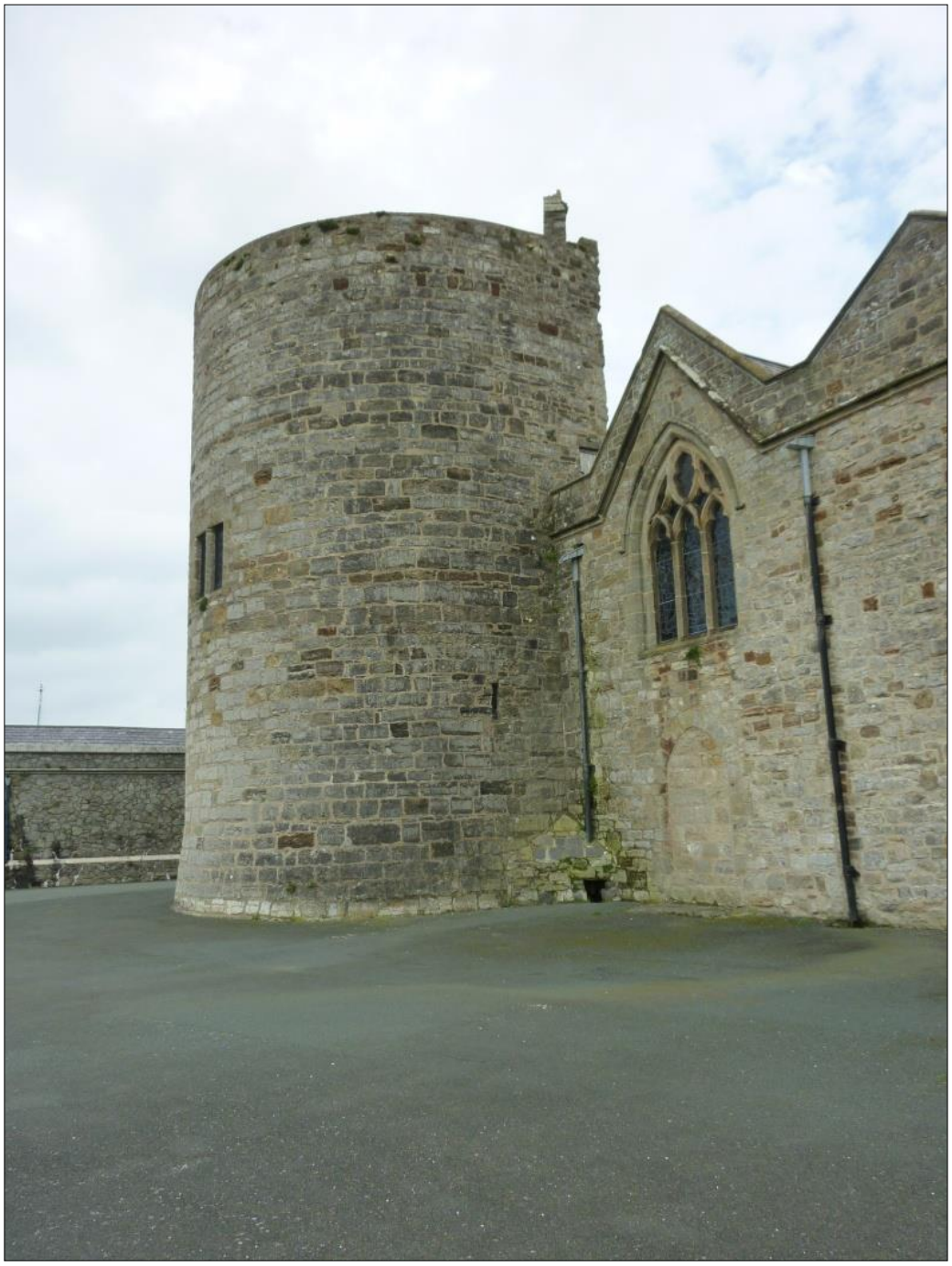
Tower 10 was known as the Gallows Tower, located to the rear of the County Offices and near the site of the old County Gaol. The tower was used variously as a store room, lock-up prison, hospital and also as a site of execution. Only the Bath Tower, St Mary's Church Tower, Porth Mawr and Porth-yr-Aur are in use today and the Bath Tower is the only one used for residential purposes.

There were at least two other medieval entrances or postern gates – smaller entrances – within the walls. Green Gate on the south-eastern corner of the wall was formerly guarded by a portcullis and wooden doors, and the Water Gate (c.1305-6) on the south-west range. Another postern was possibly integrated into St. Mary's Church on the north-west corner.

The enrolled accounts of the Chamberlains of North Wales, dating from August 1284-November 1285, show that £1818 was spent on the construction of the town wall. Additionally a high proportion of £440 spent between January and October 1285, on 'stone, freestone, coal and timber to Caernarfon by water' was material for the wall, bringing the total cost to around £2100.

Both walls and castle were subjected to a ferocious attack by the Welsh in 1294. So serious was the damage that two hundred and eighty eight men were employed that year to help rebuild the walls. On June 16th 1295 Edmund of Lancaster further requested 'One hundred stonecutters to come to Caernarfon to Master Watier de Ambresbury, who is there to repair the castle and walls of the

town.' [22] The numbers involved reflect the importance of the town walls in the defence of the castle. The recorded cost for repairs was £1024, around half the original construction costs for the wall.



St Mary's Church with the incorporated Three-Quarter Drum Tower (2011)

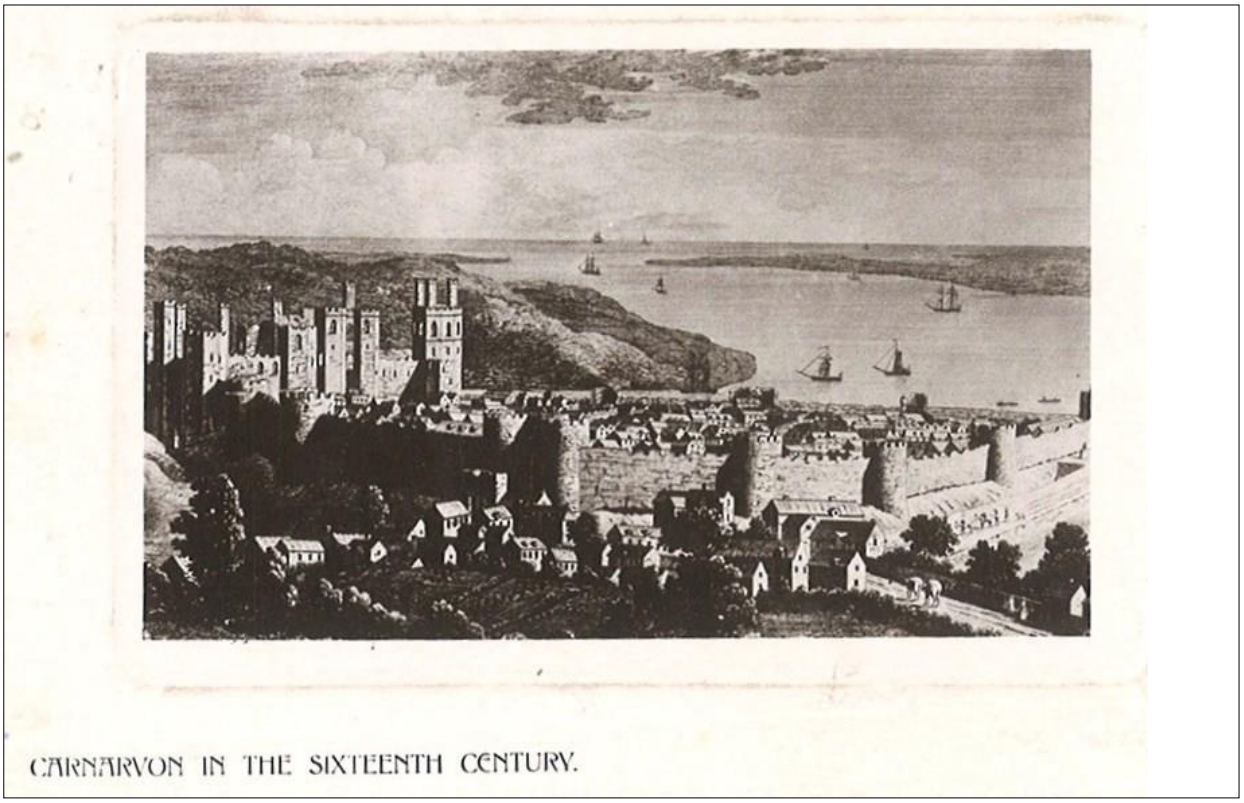
[22] Taylor (1986) p. 86.

During the early part of the fourteenth century the towers and the wall walk were repaired twice. In 1347 the walls were repaired again 'so that it may be possible to walk safely on the walls and defend the town in case of peril.' [23]

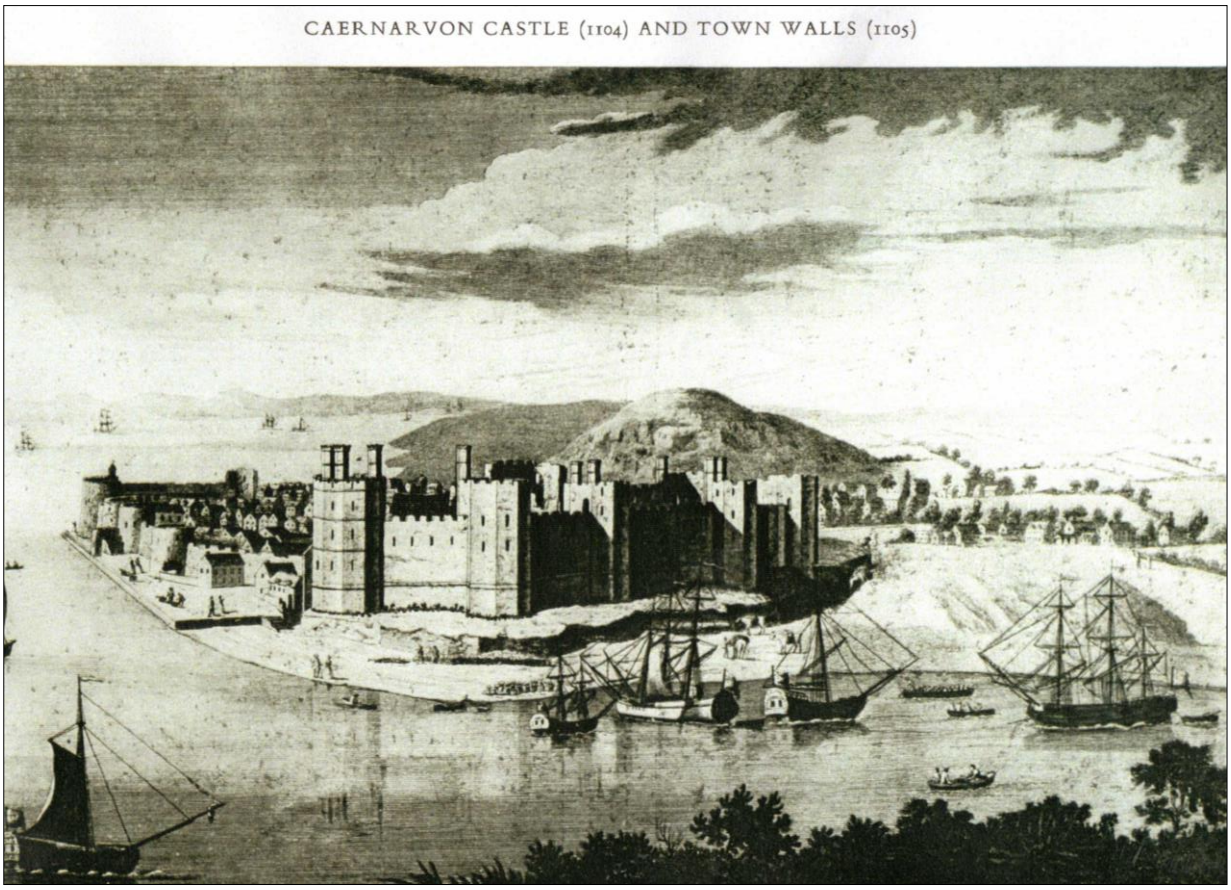
After the Civil War (1642-8) there was talk of the town walls and castle being demolished, but common sense prevailed. Today, backed by the heritage industry, they are acknowledged as an integral part of this late thirteenth-century military townscape.

[23] *RCAM* (1960) p. 151.

The Town



The Statute of Rhuddlan (1284) established Caernarfon as the main town of the Principality of North Wales, which at the time included Anglesey, Caernarfonshire and Merioneth. It was then that the Exchequer and the Chancery were installed over the East Gate, establishing the administration for the area. The King's court sat in Caernarfon; this was held to the north of the castle, and presided over by the 'Justiciar.' The town had its own gaol within the walls, and both the Justiciar, and the Chamberlain or Treasurer, had lodgings within the castle. Thus administration, town walls and castle were integrally linked. Caernarfon remained the centre of government in north Wales until the seventeenth century, but despite the scale of the settlement there was little commercial or economic activity in the town.



J. Boydell's print the 'Prospect of Caernarfon' (1750) shows the walls of the castle, still almost complete at this date, with the embrasures for the canon, or arrows, and turrets.

In the nineteenth century Jones described the 'barbarous…shingling' of part of the roads in the town, and on the parapets – the shingling was made up of round stones which made walking around the town a 'great discomfort…and hardship.'[24] A *Caernarfon Town Guide* of the same period complains of 'undue encroachment on the walls (bordering on vandalism) through the erection of unsightly tenements and sheds….despoiling the view.'[25] The town was known for its rich heritage of timber-framed housing.

[24] Jones (late nineteenth century) p. 139.

[25] *Caernarfon Official Guide* (undated).

Caernarfon was also a vibrant market town; and 17th C trade have been discovered in the town. Jones tells how most of the town's inhabitants were known by nicknames, generally associated with their occupation, such 'Shop Jack y saddler' or 'Dic y devil' or a public officer of the town, who can't have been too popular, being known as 'Robyn y mul' - Robert the Mule. When an inhabitant died the local custom was to ring the funeral bell through the streets.

The Caernarfon History Society Transactions describes how Caernarfon was 'much addicted to firing of salutes, on every possible occasion… [even for] the departure of the Marquis of Anglesey to and from Caernarfon.' [26] The guns were fired from the quay, probably from the gunnery on Porth-yr-Aur. The town apparently celebrated most events in this way.

There are stories of idlers gathering on the promenade and of an 'eccentric swimmer' in 1824 who swam from Caernarfon to Anglesey three times. On his third attempt he took brandy, bread and cheese, which he stopped to eat and drink mid-swim. He apparently spent the night in the ruins of the castle, terrifying many of the locals.[27]

Various developments in later centuries changed the economy of Caernarfon. In the eighteenth century the passion for the Picturesque established Caernarfon as a tourist resort. The Romantic Revival in the late eighteenth-century made the search for the Picturesque - the aesthetic search for emotional response from landscape and architecture - a quest amongst discerning travellers. Ancient ruins, like those of Caernarfon, were essential fashion hotspots to visit for such seekers of the Picturesque. A visitor typically noted in 1769 that the castle 'must strike a considerate observer with astonishment' and that the situation, magnificence and strength were 'worthy of admiration of travellers.'

[26] *Caernarfon History Society* 'Transactions' (1972) vol. 33. p. 130.

[27] Jones (late nineteenth century) p. 138.

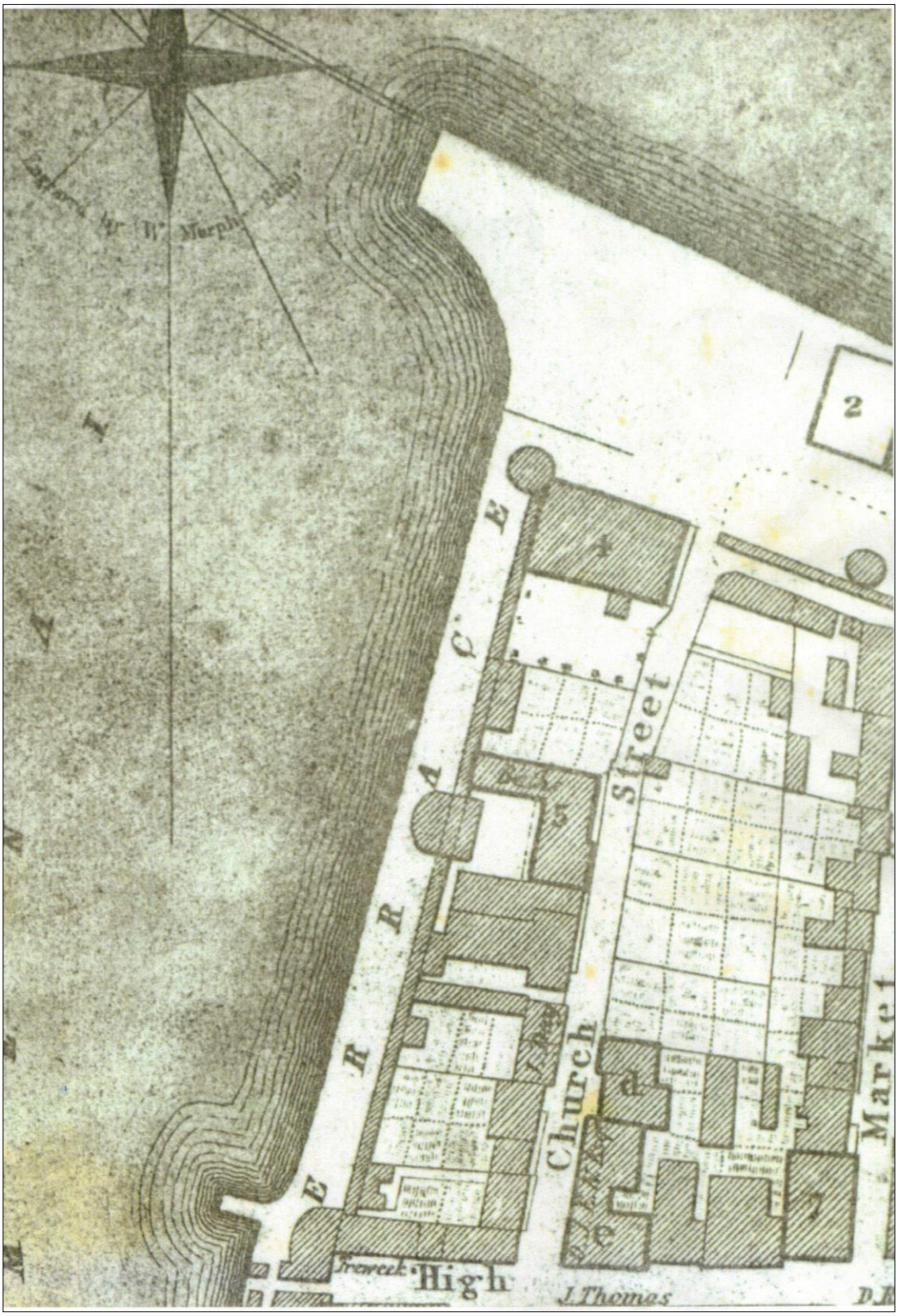
More importantly, after 1750, the large-scale slate excavation in Snowdonia provided a vital economic boom for the area, which led to the subsequent building of a railway line in 1825 to support the industry. The rise of tourism in the nineteenth century, and the development of Caernarfon as a resort for sea-bathing, further boosted the economic development for the town.

In the nineteenth century 'the salubrity of the air, the convenience of the town's situation for sea-bathing, and the beautiful scenery in the neighbourhood' made the town a fashionable place to visit.[28] In the summer of 1811 a bathing place 'with several machines in the best style, carefully attended by proper persons' were built within a quarter of a mile of the town.[29] Sea-bathing, and the later establishment of the town baths, were both important factors in Caernarfon's development.

Sea Bathing in Caernarfon (undated)
Caernarfon – The Gateway to Snowdonia

[28] Carter (1969) p. 7.

[29] Jones (late nineteenth-century) p. 139.



The John Wood Map of Caernarfon 1834 – Gwynedd Archives

The Bath Tower in the Nineteenth Century

The nineteenth century similarly redefined the purpose of the Bath Tower. In the early 1800s the area from the Church-yard [St Mary's] to Porth-yr-Aur was a long open space, without any houses or buildings known locally as Plas Isaf Yard. The space remained open until the Marquis of Anglesey built the Public Baths there in 1823; during the building process the foundations of the town wall were partially uncovered. The Public Baths were situated on the ground floor of the new building, with billiard room overhead, and a concert room and theatre on the second floor, making an important new social provision for the town. Church Street became commonly known as Bath Street during this time. It is probable too, but not recorded, that the Bath Tower first acquired its current name during this period. The John Wood map of 1834 clearly shows the Baths building with frontage on Church Street, and the Bath Tower as a separate entity behind on the town wall.

The Baths building was converted in the mid1850s to house The North Wales Training College, for the training of teachers in the region. The Bath Tower later became an annex for the facility.

The 1840s was a period of innovation in the provision of national education, witnessing the start of a system of teacher-training in Britain. Caernarfon was fortunate in hiring an enthusiastic young school master, James Foster, who taught at their first National School. Foster was however typical of most teachers of the time in that he was self-taught. Caernarfon had some innovative instigators in its midst, and in 1848 it is recorded that they set up a 'Training Department for the Education of National Schoolmasters attached to the National School at Caernarfon.'

However at the same time The National Society – the board responsible for such matters - appointed the Welsh Education Committee to look into providing

recognised training facilities for the region; the Carmarthen College was opened in 1848 specifically for this purpose. The Caernarfon enterprise carried on, despite funding difficulties. Eventually a grant of £200 enabled them to appoint a Principal; by 1849 the Caernarfon Training Institution was recognised in its own right.[30]

At Caernarfon the trainee pupils' regime was strict: 8am prayers with lessons until midday, then an hour for lunch, which the students had to provide themselves. Afternoon lectures were taken until 4pm, followed by two hours leisure, and often more study. Saturday was a half-holiday. The students lived in digs in the town, which were generally small and ill-ventilated, sometimes sharing a bed.

North Wales Training College (c. 1850s) Gwynedd Archives

[30] *Caernarfonshire History Society Transactions* (1946) vol.. 7, p. 71.

In 1855 the college ceased to be a local institution run by the people of Caernarfon, and was incorporated under the auspices of the National Society, and then became known as the North Wales Training College accommodating forty-three students. A print of this period shows the long elevation of the college on Church Street, adjacent to St Mary's Church.

The Bath Tower was to play a role in the history of the Training College. The Caernarfon History Society records that

> 'Included in the premises[of the North Wales Training College] was the Bath Tower, which was used by the college for various odd purposes, such as cleaning knives and shoes, before part of it became a College Chapel in 1871' [31]

The stained-glass windows in the kitchen and bathroom of the Bath Tower today remain as evidence of the chapel. The 1888 Ordnance Survey Map of Church Street shows the North Wales Training College, and the Bath Tower seemingly incorporated within it. In December 1891 fire destroyed most of the college, and it was forced to move to new premises in Bangor.

In 1856-57 an indenture showed that 'the premises formerly known by the name of the Baths,' and this included the Bath Tower, had been conveyed to the Right Rev. Bishop of Bangor and the Right Rev. Bishop of St. Asaph. The Bishops sold the Bath Tower to a Caernarfon surgeon, John Williams, who converted it into a dwelling. Williams died soon after, but his wife lived in the Bath Tower until 1907, when the property passed to her sons. The Landmark Trust acquired the Bath Tower in April 1967 from the Williams family, with an accompanying covenant to pay a yearly ground rent of four pence, with a further rent of one shilling and four pence to the Corporation, or to their 'assigns.'

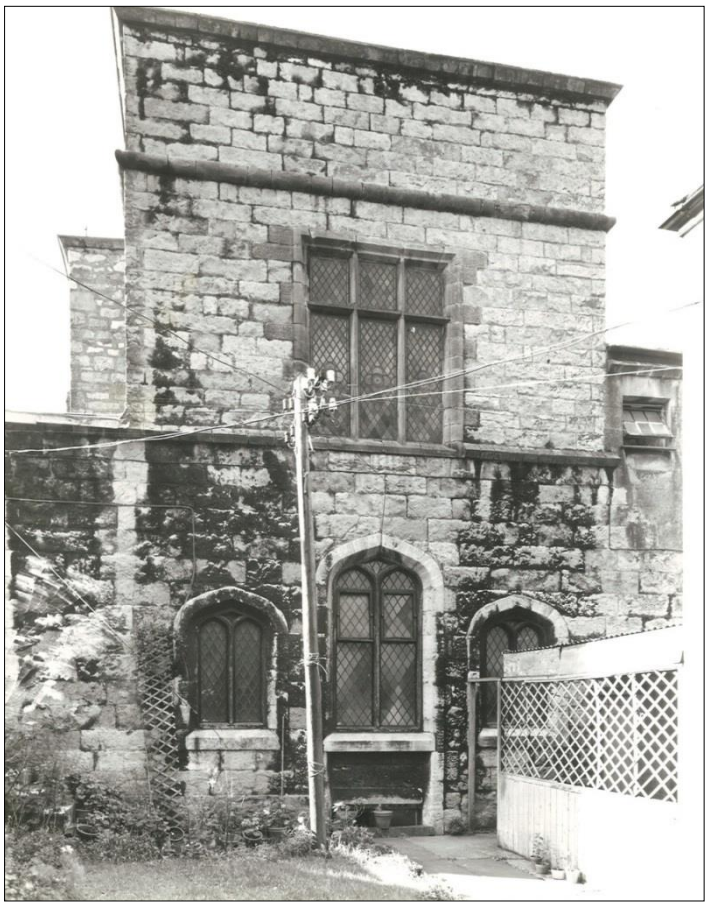
[31] *Caernarfon History Society Transactions* (1946) vol. 7, p. 83.

1888 Ordnance Survey Map of Caernarfon – Gwynedd Archives

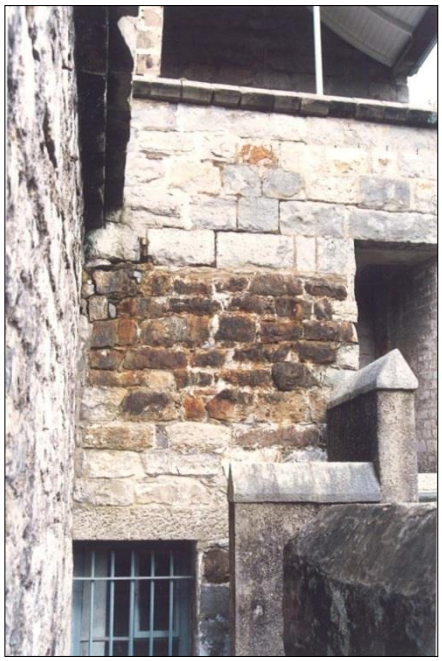
Restoring the Bath Tower

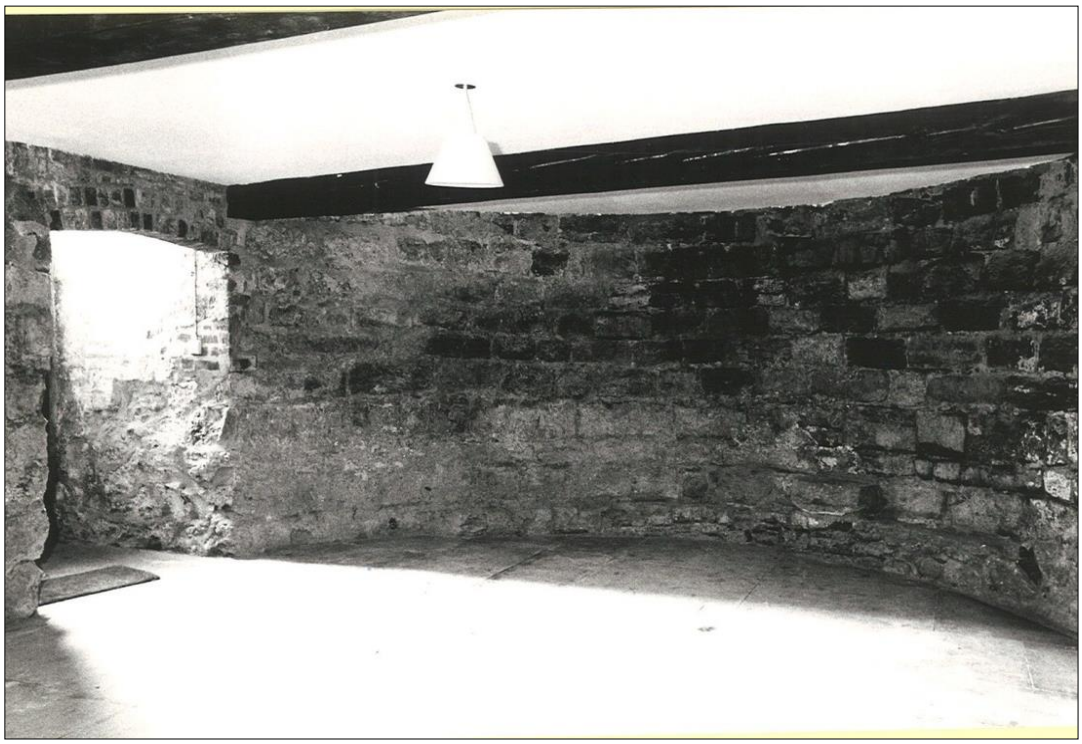
When the Landmark Trust bought the Bath Tower from John Willliams' descendants in 1967 the building had been unoccupied for some time, and was in a serious state, with evidence of severe subsidence. Landmark appointed the architect L. Bedall Smith to inspect the building; he reported that the tower was leaning 16" [40.6 cms] out of true. The core of the medieval construction was separating from the Victorian additions, so much so that underneath the tower was a cavity big enough for a man to crouch in. To stabilise the foundations, and the tower, cement was inserted to a depth of twenty feet [6.09m].

As part of the underpinning works the original red quarry tiles on the ground-floor were taken up and were replaced by slate slabs, made from disused slate cisterns.



The Bath Tower c. 1967 Prior to Restoration





The Entrance Hall to the Bath Tower c. 1989

Charlotte Haslam, the historian to the Landmark Trust for many years, reported on the restoration, and the work involved. 'The entrance from the back at ground floor level was replaced with a window' and the Victorian door on the promenade entrance was restored.'[32]

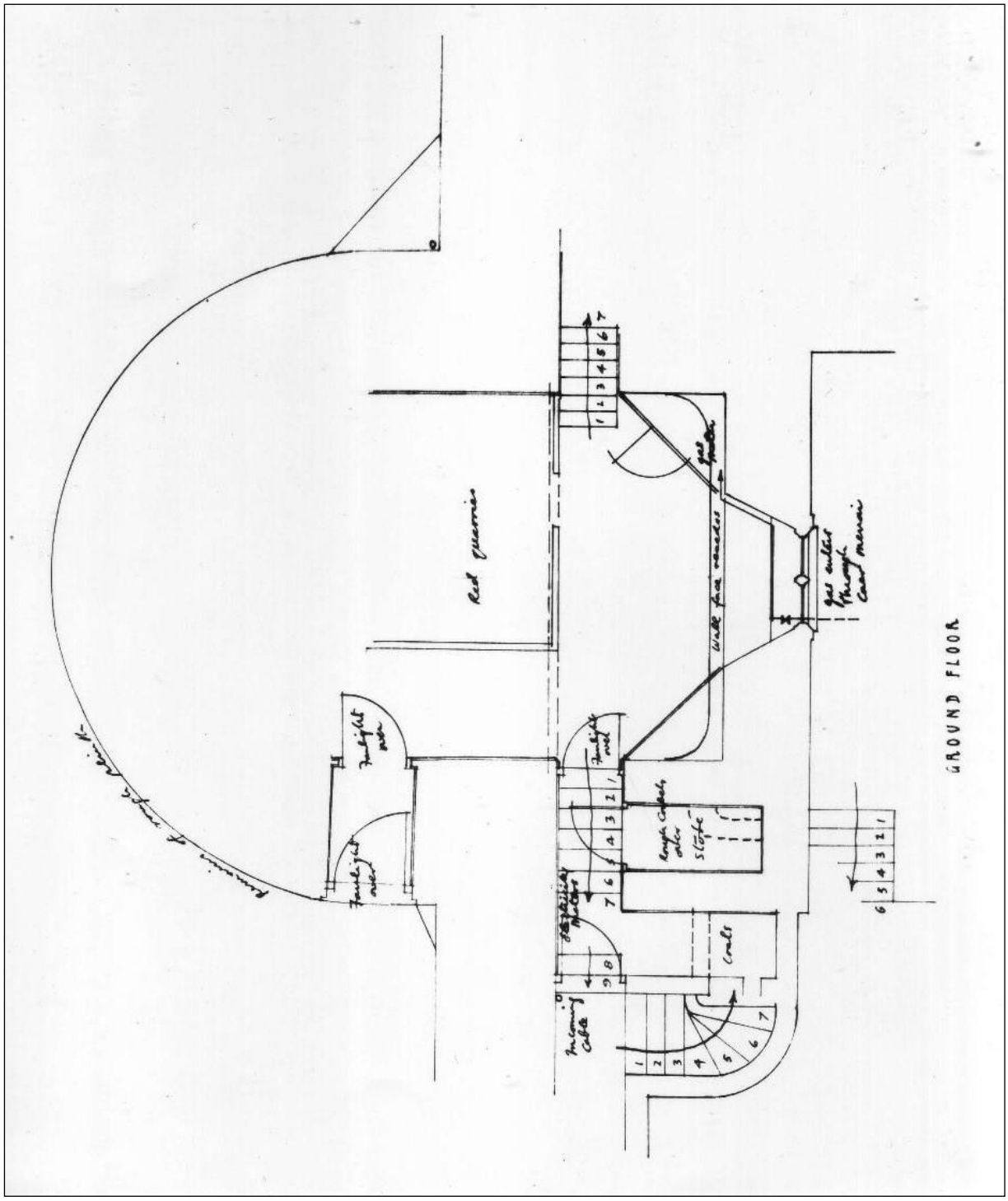
The masonry on the first and second floor was cleaned and re-pointed, and lead flashings replaced. A bathroom on the first floor was removed to create the open bastion 'dormitory.'

On the second floor the kitchen and bathroom were installed into the Victorian rear section of the building, both incorporating the stained-glass windows of the earlier chapel. This necessitated the removal of the staircase from the north to the south side. The tower's earlier kitchen, which was in an adjoining building on the north side, was removed and replaced by the terrace. New oak boards were laid in the sitting room.

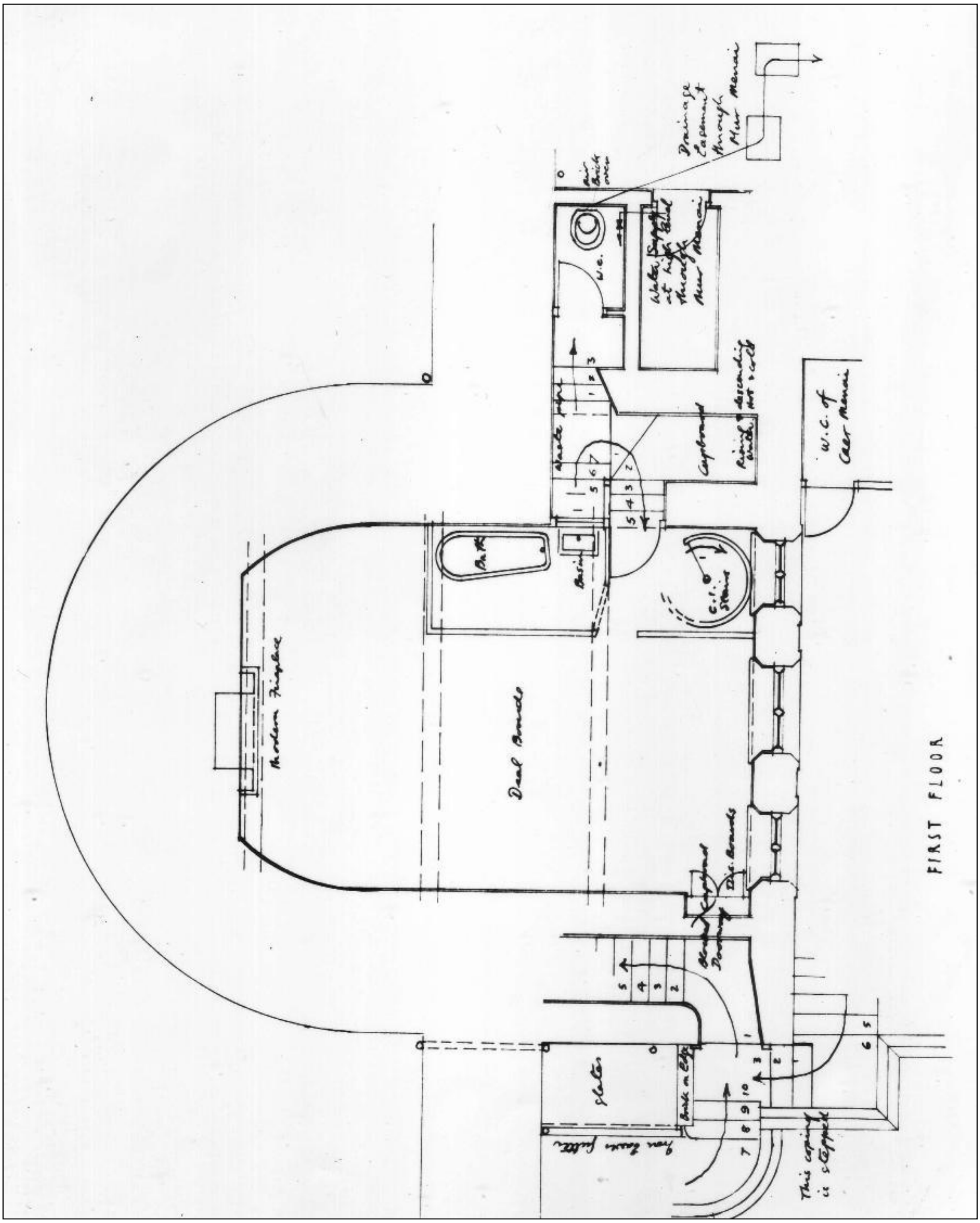
The most significant alterations were to the top floor, which was radically altered and rebuilt. In the 1960s it had a pitched roof, which leaked badly. The rather exuberant crenellated chimney (shown on the cover photograph) was removed, along with the railings. Slates from the roof were re-used on the roof of another Landmark property, Ty Coch, at Rhiwddolion, near Betws-y-coed, which was undergoing repair at the same time.

The flat roof of the tower, not only gave a good terrace space, but provided enough room to build a top bedroom without it showing above the battlements. It remains one of the most special rooms of the building. New stone copings replaced the previous ones made of cement.

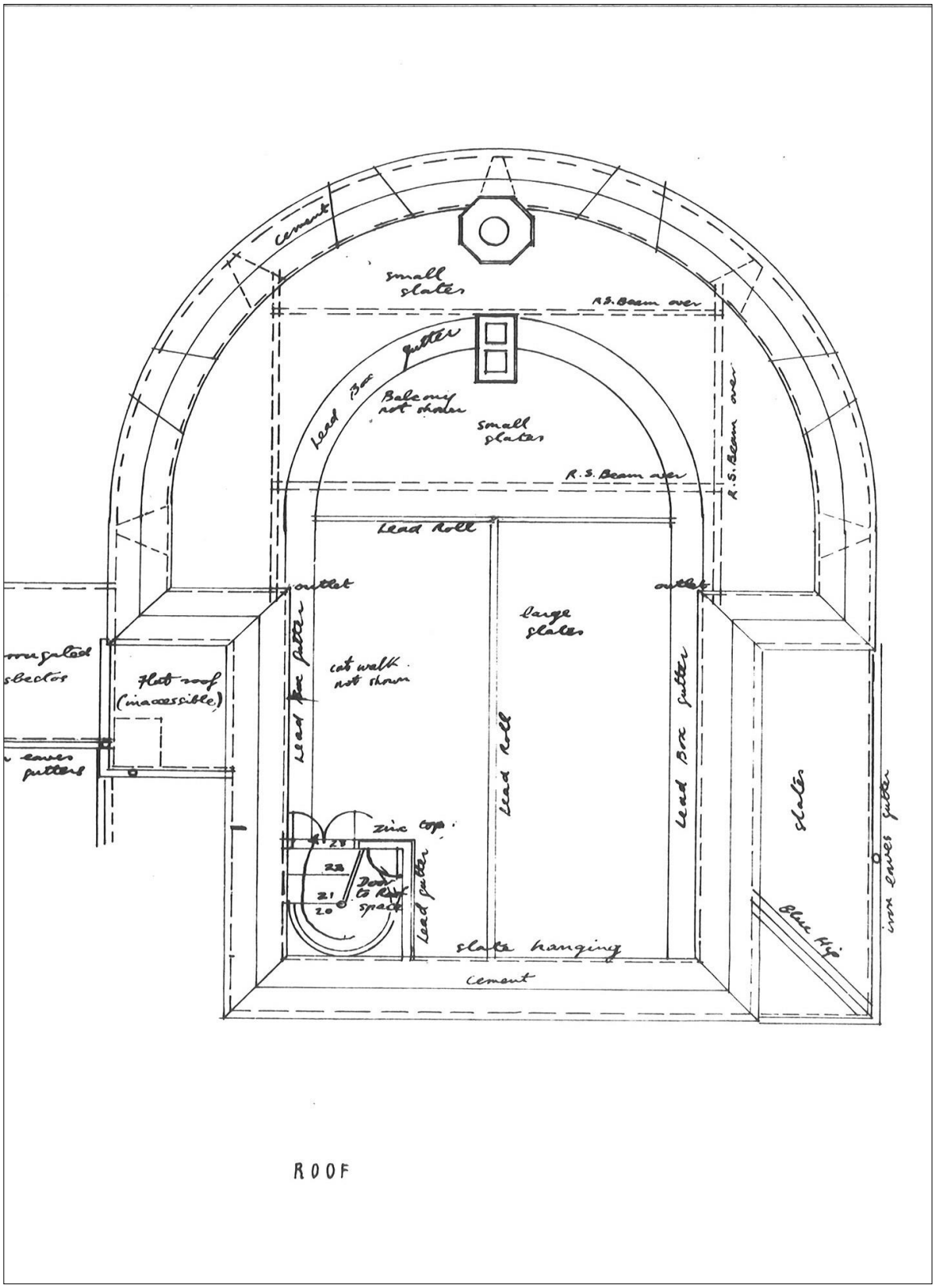
[32] Charlotte Haslam (1967) *Notes on the Bath Tower*.



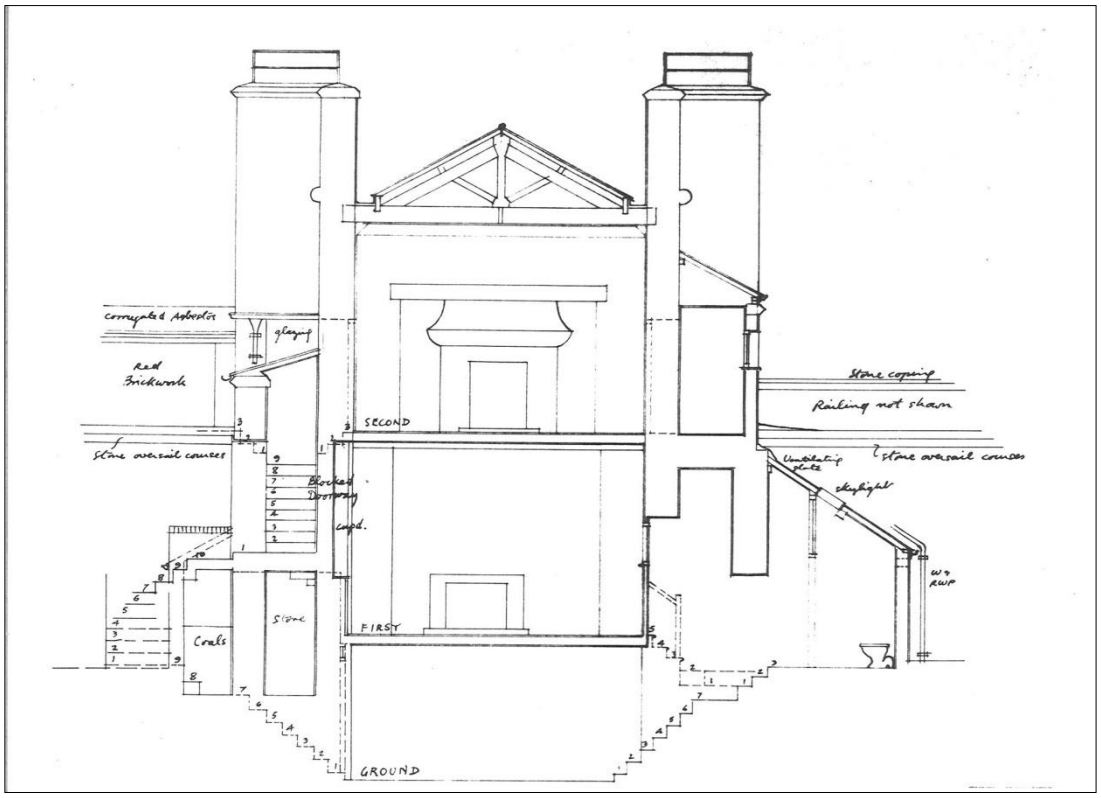
1967


FIRST FLOOR
Deal Boards
Modern Fireplace
Bath
Basin
W.C.
Cupboard
Slates

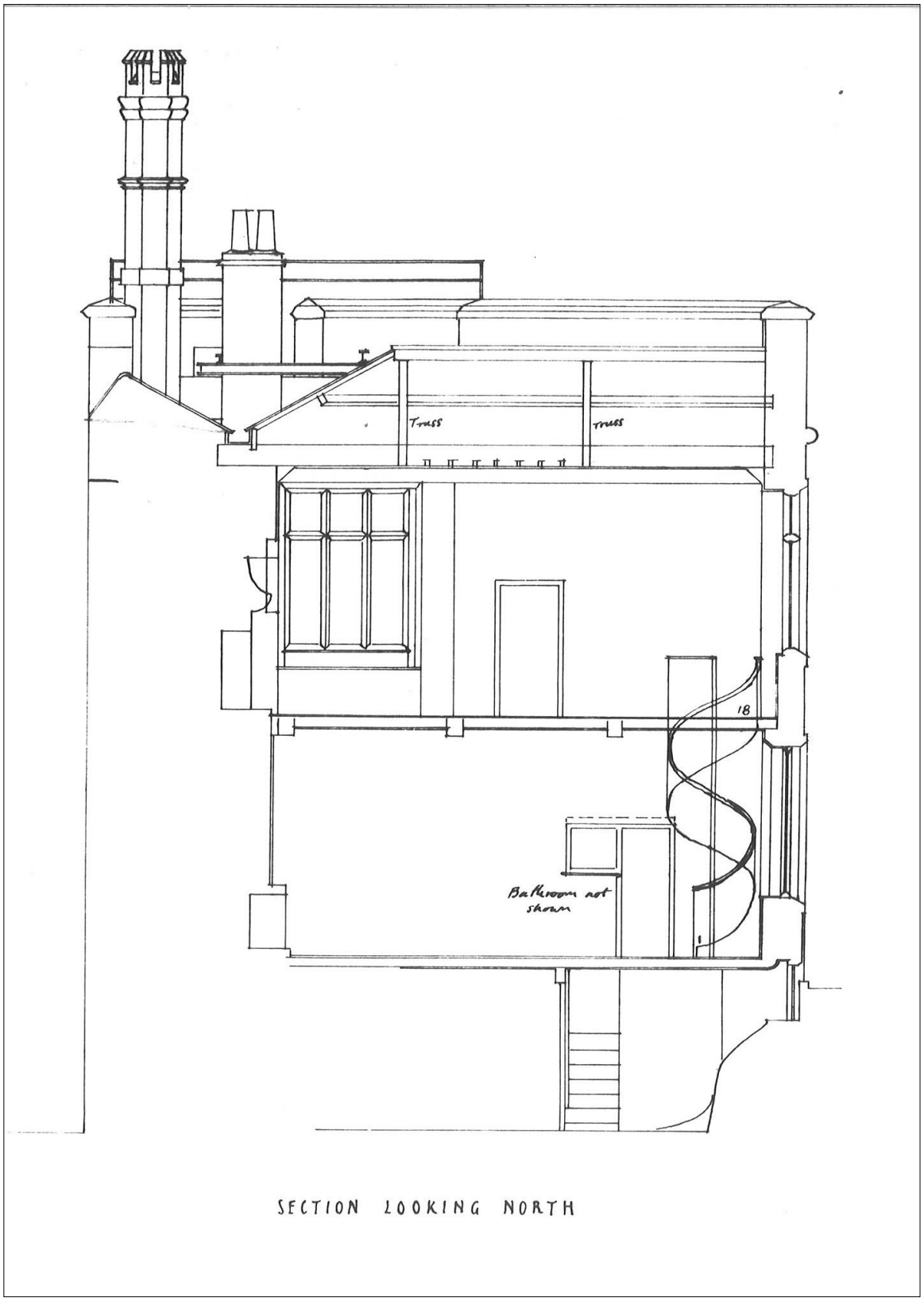
1967



Top Floor Plan of the Bath Tower (1967)



Section of the Bath Tower Looking West (c.1967)



Section of the Bath Tower Looking North (c.1967)

In 1983 TACP Architects of Wrexham were appointed to carry out a further programme of external remedial work. This included cleaning off and repointing old mortar and joints, replacing existing leadwork, flashings and soakers, with the 'best English milled leadwork', and installing new cast iron rainwater pipes. A greenhouse near the rear southern entrance was removed, and a new door and frame installed. Wooden windows were restored or replaced, and metal ones rubbed down and painted.

Restoration Work to the Masonry of the Bath Tower (c. 1983)

Work was also carried out to the roof of the tower; the felt roof was re-laid and covered in hot bitumen with chippings, and flashings and down pipes replaced. Further alterations were carried out in 1991 by the Gwynedd architects Adam & Frances Voelcker; the fixing of a damp-proof lining to certain walls, and a pigmented lime-washing of the walls, which resulted in a warmer and lighter building. An oak screen was introduced to the dormitory to separate it from the basement stairs. The kitchen was remodelled using second-hand fully seasoned pitch-pine, and the bathroom was re-tiled, and new fittings installed. Extensive decorating works were carried out.

In March 2009 the rear of the terrace parapets were lime-rendered and the living room windows worked on to try to reduce the water penetration; it is essential that lime mortar, with its breathable properties, is used on the tower. Then in April/May 2010 extensive pointing was completed to the whole of the outside face of the tower.

Work remains ongoing at the Bath Tower; a building of this age and construction, situated on the seafront and bombarded by the weather this brings, necessitates a vigorous ongoing maintenance programme.

Conclusion

The history of the Bath Tower adds an innovative dimension to the town wall at Caernarfon. Its origins are rooted in the historic castle-building campaign of Edward I. From the nineteenth century onwards the owners of the tower have managed successfully to adapt the building to the changes each century brings; from its use as an annex to the Training College, as a family home for the Williams, to its use today as a unique location for Landmarkers to enjoy the medieval castle complex of Caernarfon.

The Landmark Trust are privileged to be the custodians of the Bath Tower, one of the remaining examples of early military architecture in Britain, and a small but integral part of one of our major references for medieval history.

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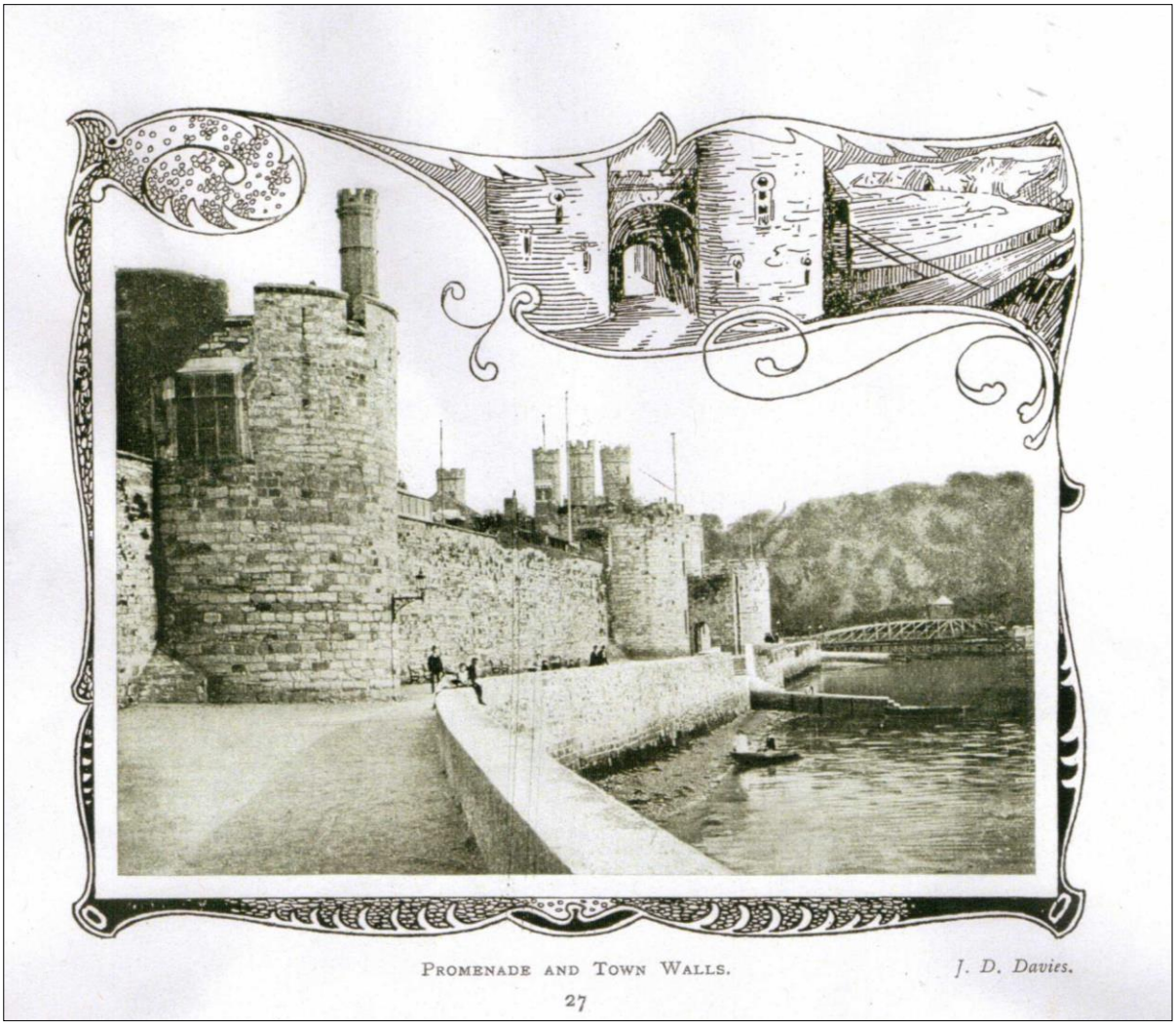

PROMENADE AND TOWN WALLS. *J. D. Davies.*

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The Bath Tower *Official Publication of the Corporation* (Undated)

Caernarfon Castle, with the Eagle Tower in the foreground, from across the river Seiont

Uncovering repairs at Caernarfon

Rare accounts and descriptions have helped uncover the history of repair work at one of Cadw's World Heritage Sites. Richard Avent tells the story.

It all started with a reference to documents in the Public Record Office that I found in a biography of one of the pioneers of Gothic revival architecture during the nineteenth century. It ended with the discovery of rare descriptions of the conservation of one of Edward I's great castles.

I had turned to Jill Allibone's book about the architect, Anthony Salvin, to try to obtain information about the extent of his repairs to Caernarfon Castle and to gain a picture of the state of the castle before the extended period of consolidation and restoration that began in 1870.

The castle we see today is a combination of the work done then, under the direction of Sir Llewelyn Turner, and the subsequent comprehensive programme of masonry consolidation by the Office of Works from 1908 onwards. Turner's work involved the restoration of the gatehouses and some of the principal towers, along with the battlements between them and the interconnecting stairs.

As with most castles, there were plenty of illustrations dating to the later eighteenth and early nineteenth centuries but artistic licence limits the use of these as a reliable record of the overall condition of the monument. For this, one needs good written surveys, preferably accompanied by plans and, ideally, elevation drawings — just what I was seeking in my pursuit of Salvin.

So about a year ago, I found myself in the reading room at the Public Record Office in Kew, eagerly awaiting the arrival of what I imagined would be well-aged records dating to the middle of the nineteenth century. I was, therefore, somewhat taken aback to be faced with two, all too familiar, Ministry of Works' file covers of the 1950s. However, just as the bottles of great wine vintages need to be

Anthony Salvin

periodically recorked, so too aged government files have to be rejacketed and my disappointment was thrown to the wind by the first document I encountered.

I had landed not in the mid-1840s as I had expected, but at the eve of the battle of Waterloo, looking at the handwriting of one of its legendary heroes. This was a letter written on 20 February 1815 — just four months before he was to lose a leg in the heat of battle — by Henry William Paget, the earl of Uxbridge (later the first marquis of Anglesey). He was then constable of Caernarfon Castle, and wrote to the Prime Minister, the earl of Liverpool, expressing interest in purchasing the castle.

The letter prompted the Commissioners of Woods, Forests and Land Revenues to issue a warrant to Robert Jones, a Caernarfon surveyor and architect, to report on the condition of the castle and undertake a valuation. From his subsequent report, dated 9 November 1815, we learn that, 'The whole castle is in a most ruinous state … and great expence will be incured in putting the same into tolerable decent repair, the stairs and steps in the Towers and passages … are mostly broken down, and every part is in great delapidated State, without any roofing'.

I had landed not in the mid-1840s ... but at the eve of the Battle of Waterloo, looking at the handwriting of one of its legendary heroes.

Salvin's drawing of the interior of Caernarfon Castle made shortly after the completion of his conservation works in 1848

Six vaulted areas in the towers were in use; one by the harbour master, two for storing blasting powder, two for keeping ammunition and one as a guardroom for the local militia. There may also have been a separate occupant in the Eagle Tower. The thwarted ambitions of the parliamentarians to pull the castle down in 1660 would have been more than fulfilled had this explosive mix ever ignited.

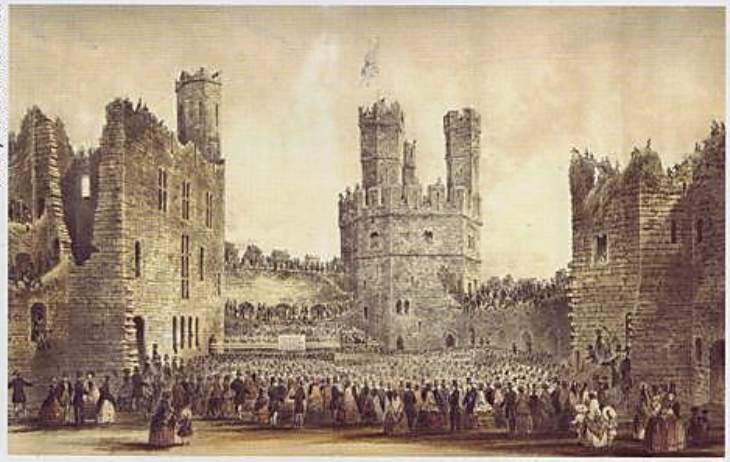
Jones concluded his survey by valuing the castle on the basis of several lease options or sale for £500. Whichever was adopted, it would include 'powers for Building thereupon or converting the same to any other purposes'. In the event, the Commissioners decided to retain the castle in Crown ownership and for the next thirty years the files are silent on its fate. However, from the next episode we can assume that there was little or no investment in its maintenance during this period.

In early January 1845, the Commissioners received a letter from Thomas Evans, the mayor of Caernarfon, drawing their attention to the recent collapse of the abutment of the arch of the Queen's Gate at the eastern end of the castle. Part of the masonry had been left hanging precariously over one of the main thoroughfares to the quay and railway and repairs were urgently required.

Three days later, the Commissioners, in the person of A. Milne Charles Gore, wrote to Anthony Salvin, who had supervised work for them at other ruinous castles elsewhere in the country, asking him to visit. In the meantime, emergency repairs to the Queen's Gate were put in hand and completed by the end of March.

Despite being delayed from visiting earlier by heavy snow, Salvin completed his report on 25 March. He estimated that it would cost £2,478 to make the castle safe, with the work concentrating on repairs to the battlements and other areas where the stonework was at risk of collapsing, such as the two major breaches in the Chamberlain's and Queen's towers and precarious windows and other openings. On 15 July, Gore put a submission up to the Treasury seeking authorization for the expenditure, which he received on 22 July.

Salvin's survey is really a schedule of works rather than a detailed record of the whole castle. Nevertheless, the overall impression is one of a monument in continuing decay that in places has reached the point where further collapse is imminent. The written survey is accompanied by a ground plan.



An engraving of the western end of the interior of Caernarfon Castle during the Jubilee meeting of the British and Foreign Bible Society in 1853 showing the unrestored Queen's (left) and Well (right) Towers

'The whole castle is in a most ruinous state … and great expence will be incured in putting the same into tolerable decent repair ...'

A series of drawings Salvin made at the same time are now in the Library Drawings Collection of the Royal Institute of British Architects. These are mainly of architectural details but include one external view from the south-east and an interior view looking east into the upper ward with the twelfth-century castle mound, later swept away by Turner, in the background.

Salvin appreciated that the priority at Caernarfon was one of repair and consolidation not restoration, although there is no reason to think that he would have been averse to the latter if asked. He sums up the situation at the beginning of his survey: '… there is sufficient detail to restore the whole of the external wall & Towers — these details are however in many instances fast disappearing, the quoin stones, never having had much bond, in many places have fallen out, and parts of the walls have followed them, the same occurs to jambs of windows, doors & loops; the tops of the turrets are also much dilapidated & must be rebuilt, as also the parapets and battlements'.

Using the same local builder who had carried out the emergency repairs to the Queen's Gate, Salvin was able to report in May 1847 that the work had been completed and the total cost came to £1,875 0s 5d.

Reading these papers, one is struck by the speed and efficiency of both the response to the mayor of Caernarfon's original appeal and the subsequent correspondence. Even allowing for the benefits brought to the postal system, through the recent change from road to rail, decisions were being made and instructions issued very promptly. Treasury approval within a week and without strings attached, to what was at the time very substantial expenditure, would be the envy of modern-day civil servants.

Treasury approval within a week and without strings attached ... would be the envy of modern-day civil servants.

Despite the passage of more than 150 years, there are familiar aspects in all of this for those of us working in this business today, both in the process and in the technical language of Salvin's report, for the skills required to work on medieval masonry are ageless.

Very little further work appears to have taken place at the castle for the next twenty years apart from Salvin being commissioned to design new gates for the main entrance. These were based on originals at either Alnwick or Carlisle castles but took little account of current fashions for, subsequently, they had to be modified 'to freely admit ladies with crinolines'.

Work resumed with a vengeance with the appointment in 1870 of Sir Llewelyn Turner as the castle's deputy constable. With enormous vigour, and the fourpence entry fees for funding, he set about applying his belief that 'our ancestors did not build ruins … a castle restored to its pristine state will afford this and future generations an infinitely better idea of the life of our early kings and rulers than can be guessed from inspecting a ruin, of which there are plenty so badly decayed that they hardly admit of reparation'.

The western end of the castle today, showing Llewelyn Turner's extensive restorations

In many parts of the castle restoration appears to have taken priority over consolidation — a survey undertaken in 1906, shortly before care of the castle passed to the Office of Works, concluded that £7,000 was needed to put the ruins in 'a fairly good state of repairs'. Within this cost 'no provision has been made for restoring; and suggestions to do so should … be discouraged'. From then on the emphasis was on 'conserve as found' and, by 1911, the castle was in a sufficiently sound state to host the investiture of the Prince of Wales.

[i] **Unesco Statement of Significance for the World Heritage site: Castle and Town Walls of King Edward I in Gwynedd**

fortified towns at Conwy and Caernarfon are the finest examples of late 13th century and early 14th century military architecture in Europe, as demonstrated through their completeness, pristine state, evidence for organized domestic space, and extraordinary repertory of their medieval architectural form.

The castles as a stylistically coherent groups are a supreme example of medieval military architecture designed and directed by James of St George, King Edward I of England's chief architect, and the greatest military architect of the age.

The extensive and detailed contemporary technical, social, and economic documentation of the castles, and the survival of adjacent fortified towns at Caernarfon and Conwy, makes them one of the major references of medieval history.

The castles of Beaumaris and Harlech are unique artistic achievements for the way they combine characteristic 13th century double-wall structures with a central plan, and for the beauty of their proportions and masonry.

Criterion (i): Beaumaris and Harlech represent a unique achievement in that they combine the double-wall structure which is characteristic of late 13th century military architecture with a highly concerted central plan and in terms of the beauty of their proportions and masonry. These are the masterpieces of James de St George who, in addition to being the king's chief architect, was constable of Harlech from 1290 to 1293.

Criterion (iii): The royal castles of the ancient principality of Gwynedd bear a unique testimony to construction in the Middle Ages in so far as this royal commission is fully documented. The accounts by Taylor in Colvin (ed.), The History of the King's Works, London (1963), specify the origin of the workmen, who were brought in from all regions of England, and describe the use of quarried stone on the site. They outline financing of the construction works and provide an understanding of the daily life of the workmen and population and thus constitute one of the major references of medieval history.

Criterion (iv): The castles and fortifications of Gwynedd are the finest examples of late 13th century and early 14th century military architecture in Europe. Their construction, begun in 1283 and at times hindered by the Welsh uprisings of Madog ap Llywelyn in 1294, continued until 1330 in Caernarfon and 1331 in Beaumaris. They have only undergone minimal restoration and provide, in their

pristine state, a veritable repertory of medieval architectural form: barbicans, drawbridges, fortified gates, chicanes, redoubts, dungeons, towers, and curtain walls.

The castles and fortified towns of Gwynedd are the finest examples of late 13th-century and early 14th-century military architecture in Europe. Their construction, begun in 1283 and at times hindered by the Welsh uprisings of Madoc ap Llewellyn in 1294, continued until 1330 in Caernarvon and 1331 in Beaumaris. They have only undergone minimal restoration and provide, in their pristine state, a veritable repertory of medieval architectural forms: barbicans, drawbridges, fortified gates, chicanes, redoubts, dungeons, towers and curtain walls.

The royal castles bear unique testimony of construction in the Middle Ages. The accounts that have survived specify the origin of the workmen, who were brought in from all regions of England, and describe the use of quarried stone on the site. They outline financing of the construction works and provide an understanding of the daily life of the workmen and population and thus constitute one of the major references of medieval history.

Throughout his reign (1272-1307) Edward I, King of England, worked to expand and defend his domain, implementing at the same time a military and settlement policy whose traces are still visible from the Pyrenees to Scotland. Above all in Wales, it is the major illustration of the great construction policy of his reign: a series of superb castles, which in some cases are combined with new towns surrounded by fortified walls, are the examples of the medieval urban planning.

From 1283 he undertook a castle-building programme of unprecedented scale. What he did was to station garrisons so as to quell any possible revolts, foster the settlement of castral towns by settlers and finally illustrate in a more symbolic than strategic fashion English power.

In 20 years, 10 fortresses were built, not to mention those restored after being wrested from the enemy. From among this series of constructions, located close together, are Beaumaris Castle, on the south-east coast of the island of Anglesey; the fortified structures of Caernarvon and Conway castles on the north-west coast of Wales; and Harlech Castle, north of Cardigan Bay.

The typological, technical and stylistic coherence of these constructions are explained by the fact that all were built by the same man, the king's chief architect in Wales. Beaumaris and Harlech, begun in 1283, are of virtually the same design (the massive square of the inner wall is surrounded by an octagonal wall flanked by towers) both being the work of the Savoyard architect James de Saint George, the greatest military engineer of his time.

Beaumaris and Harlech represent a unique artistic achievement in that they combine the double-wall structure which is characteristic of late 13th-century military architecture with a highly concerted central plan and in terms of the beauty of their proportions and masonry. These are the masterpieces of James de Saint George who, in addition to being the king's chief architect, was governor of Harlech from 1290 to 1293.

The Caernarvon and Conway ensembles, where the royal castle, the ordinary residence of the governor and garrison are the keystone of the military installation which also comprises an adjacent fortified town, are very instructive regarding Edward I's policy in Wales. The castral towns, of a regular layout, were inhabited by English settlers who were able to muster up a militia in times of revolt.