

‘A solitary cromlech – The rude memorial of forgotten deeds’: the excavation and restoration of Carwynnen Quoit, Troon, Cornwall, 2009–2014

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A community archaeology project by The Sustainable Trust excavated and restored the ruinous Carwynnen Quoit between 2009 and 2014. Despite restoration in the nineteenth century, the footprint of this megalithic monument had survived. A composite stone floor built upon a stone platform upon which the tripod-form megalithic open stone chamber had been erected, was discovered. A curved area of the stone pavement projected beyond the cover of the capstone on one side at the ‘front’ end of the open chamber indicating a north-west – south-east alignment. Stone holes were located for the three supporters of the capstone: all three were re-erected in their original positions prior to the reinstatement of the capstone in 2014. Small deposits of burnt bone were discovered, buried into the rear chamber floor: scientific dating confirmed deposition in the Middle to Late Neolithic period, 3025–2916 cal BC. Neolithic pottery and flintwork revealed significant activity in the fourth and third millennia BC. Bronze Age and later prehistoric pottery and flintwork were also found. Carwynnen Quoit had been a significant landmark and possible place of pilgrimage throughout prehistory as well as into the modern era.

For over 60 years the megalithic monument known as Carwynnen Quoit, or the Giant’s Quoit, lay as a forlorn pile of stones in a field. The field, locally known as *Frying Pan Field*, lies on the western edge of the village of Troon near Camborne, Cornwall (SW 65014 37213) (Figs 1, 2). Historical surveys and photographs revealed that this monument had once been an open chamber of tripod-form: three uprights supported a massive, tilted capstone (Fig 3). The Quoit had collapsed on two occasions: first in the 1830s, after which it was restored, and then it fell again in 1967 (Nowakowski and Gossip 2025). Despite its ruinous state it is a scheduled monument first designated in 1955 as ‘Portal dolmen called The Giant’s Quoit at Carwynnen’

(National Heritage List for England (NHLE) 1004458).

Welsh antiquary Edward Lhuyd, who travelled around Cornwall in about 1700, mentioned ‘A cromlech in the parish’ of ‘CAMBRON’ (Thomas 1967, appendix A, 171), and a symbol of the cromlech appeared on Thomas Martyn’s 1748 map of Cornwall. Cornish antiquary William Borlase produced the first measured survey and plan of the monument in c 1750 (cited in Thomas 1967, appendix B, 173). But despite these passing interests Carwynnen has largely been overlooked, in C S Gilbert’s words ‘a solitary cromlech – the rude memorial of forgotten deeds’ (Gilbert 1817, 694–5). The monument lies sequestered in a

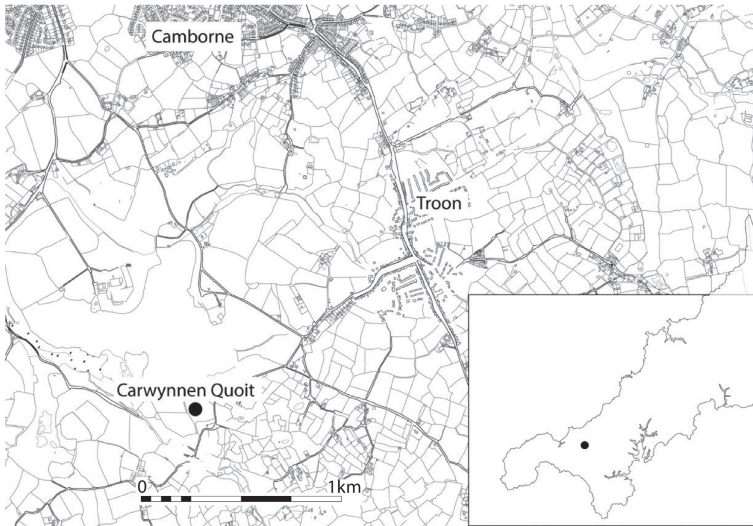


Fig 1 Location map (© J Gossip for CAU. Reproduced from Nowakowski and Gossip 2025.)



Fig 2 Ruinous megalith Carwynnen Quoit, a forlorn pile of stones in a field 16 April 2009. (Photograph © J Nowakowski.)

hidden valley in splendid isolation away from the better-known chambered tombs and dolmens, such as Zennor, Mulfra, Chun and Lanyon quoits, which all lie high up on the moors of the Land's End peninsula (Barnatt 1982; cf Jones 2016, 112–37). These are Cornwall's oldest upstanding ancient monuments.

In 2009 The Sustainable Trust, a local charity based in Clowance, purchased the field and made plans to restore the monument. The Sustainable Trust's principal objective was to restore the

monument as authentically as possible through a community project which was inclusive as well as educational. The overall aim was to rescue the monument from obscurity so that it could stand again in a green public space to be visited and enjoyed by everyone in Troon (Richards *et al* 2015). A community archaeology project, designed and led by the Cornwall Archaeological Unit (CAU), helped The Sustainable Trust to achieve their vision of restoring life to the monument by bringing 'the Giant's Quoit back up on its feet'



Fig 3 A restored Carwynnen Quoit c 1879 taken by Captain Thomas of Polstrong. (Photograph reproduced with the kind permission of the Thomas family.)



Fig 4 Gently does it – James Gossip supervises as the capstone moves onto the supporters midsummer 2014 watched on by a large crowd. (Photograph: © J Nowakowski 2014.)

www.thegiantsquoit.org. Over five-years, from 2009 to 2014, surveys and set-piece excavations took place. The quoit was fully restored in its original location in midsummer 2014 (Fig 16) and the pavement was reburied intact protected by geotextile.

The archaeological project developed through several stages: historical research, measured, geophysical, topographical, GIS and laser-scan surveys, test-pitting as well as open area excavations. Public open days during the

excavations attracted tremendous and widespread interest. Hundreds of people visited, and many workshops attended by local schools were held. On midsummer day, 21 June 2014, over 600 people gathered in the field to experience the awesome spectacle of the capstone being reinstated (Fig 4). Celebrations included blessing the monument and music, dance and songs rang out as the quoit was welcomed back into the community. The day was very memorable and the event has now become another chapter in the Carwynnen story. Immense

local pride and a sense of collective ownership of the entire venture has been an enduring legacy. It was a truly inclusive experience (*cf* Martin *et al* 2022). In 2015, when the monument had well bedded-in, members of the team gathered to witness the burial of a time capsule which was concealed beneath the monument. The full story is told in an illustrated booklet *A Monument Like No Other* (Richards *et al* 2015) and details of the project were shared on social media as well as the project website. A comprehensive excavation report on Carwynnen with supporting specialist analyses of key datasets is published elsewhere (Nowakowski and Gossip, 2025). This synthesis presents principal results and highlights key outcomes and lessons learnt from this ambitious venture. This is the first modern investigation and restoration of a monument of this class in Cornwall.

Preparation for excavation: measured surveys and recording the stones

Prior to archaeological excavations a plan of the stone pile was created by members of Cornwall Archaeological Society (CAS) in 2009 (Preston-Jones *et al* 2011). The survey identified and numbered the principal stones – that is the three supporters and the capstone. These lay at the base of a pile under other large stones which had been cleared from the field since the 1970s (Fig 5). This was the first time in over 100 years that the stones were available for detailed study: the last measured survey had been carried out by G Lukis and W C Borlase in 1879 (Lukis and Borlase 1885, plate XXIV).

Under archaeological supervision a giant crane carefully unpicked each stone from the pile on 10 September 2012. The entire process was recorded. The principal stones, numbered 1 to 4, were individually weighed and then set aside from other stones which were not part of the monument. In May 2013 the Carwynnen team recorded each of the principal stones and geologist Colin Bristow kindly commented on their lithology (Fig 6; Table 1; Bristow 2013).

The four stones which made up the monument were all granite. The massive capstone (stone 1) weighed just under 10 tonnes: it is a large squared tabular slab (9.24 sq m) and was of average size

in comparison to other Cornish quoits (*cf* Barnatt 1982, 246). It contains a high density of quartz (xenoliths) and has rough upper and lower surfaces (see below). Three small shallow cup marks could be seen on the upper surface of the capstone (A Norfolk, pers comm). Three amorphous dimples were recorded on its underside in the places where the tips of the supporters had once touched the lower surface of the capstone. These were recorded and gave accurate measurements for the wooden template which was used in planning the restoration.

The three supporters (stones 2 to 4) were similar in weight and size, but each had their own distinctive character. Each, on average, weighed just under 2 tonnes. Stone 2, the front supporter, had a very pronounced pointed top, a flat outward face and a squared base. Rear supporter, stone 4, was a distinctive lanceolate shape with a pointed base and top (Fig 7), and its neighbour, stone 3, was tabular and a great deal stouter. A 3D visualization of the monument produced by laser-scan neatly captured the rough and smooth textures of each individual stone (Fig 8).

Carwynnen Quoit lies at 100m OD, right on the north-western edge of the Carmenellis uplands on the contact point between the granite and the killas. As discussed, these principal stones are a coarse-grained granite with abundant randomly orientated feldspar. Colin Bristow observed that a distinctive feature of the capstone is the presence of xenoliths (up to about 100mm in diameter). Xenoliths are fragments of killas which have dropped into the molten granite. Their presence indicates that the capstone had originally lain not far from the edge of the granite close to the contact point. Furthermore its markedly quartzite composition means that the capstone is eminently visible, particularly on very sunny days when the light bounces off the capstone as it shimmers in very bright light. Bristow concluded that these individual stones had once littered the local hillside as surface moorstone. The most conspicuous feature of the supporters are their tabular and well-rounded forms which suggested long exposure to weathering. The principal stones had therefore not been quarried, and they are probably core stones formed from a mass of near-surface granite with well-developed sub-horizontal pressure relief jointing (Bristow 2025). So, the stones which made up the monument lay close to hand, were selected for their respective purposes, and had not been dragged any great distance to be

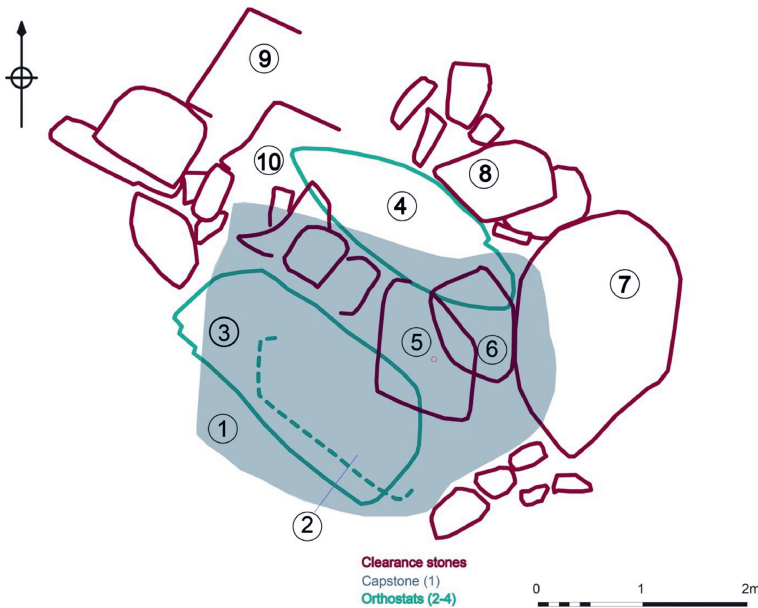


Fig 5 Plan of the stone pile at 1:50. Principal stones numbered 1 to 4 and the smaller stones 5 to 9 are modern field clearance. (© J Gossip redrawn from P Rose, K Kahn for CAU. Reproduced from Nowakowski and Gossip 2025.)

Table 1 Details of the principal stones from measured surveys in May 2013. Geological comments provided by Colin Bristow.

Stone number	Brief lithological description	Weight	Length	Width	Depth
Capstone 1	A flattish sub-squared tabular large granite stone with a high percentage of quartz and patches of biotype mica (xenoliths). The west end of the stone is squared. Three shallow cup marks on upper surface.	9.8 tonnes	3.30m	2.80m	280–400mm
Front supporter stone 2	A sub-rectangular large granite slab with a pointed top. One edge is flat with a slight shelving sloping towards the edge. Possibly dressed.	1.5 tonnes	2.20m	0.93m	0.30m
Rear supporter stone 3	A large sub-rectangular granite slab with high quartz content. No obvious tool or dressing marks. With large areas of biotype mica and patches of white lichen.	2.8 tonnes	2.63m	1.19m	0.30m–0.50m
Rear Supporter stone 4	A fine granite slab with a distinctive lanceolate shape. With quartz and mica inclusions.	2 tonnes	2.64m	1.040m	0.50m

used in the construction of the quoit during the Early Neolithic period.

Geophysical and topographical surveys 2009 and test-pitting in 2012

In 2009 CAS members carried out a geophysical survey of the area adjacent to the stone pile as well as a topographical survey (Preston-Jones

et al 2011). The geophysical survey results were largely disappointing. Nothing major was detected, but nonetheless they gave useful background data which helped guide fieldwork in 2012 (Nowakowski and Gossip 2012). The topographical survey showed that the monument had been sited on the edge of a major break in slope and was located at the head of a hidden valley. Three broad breaks in slope were mapped. At the turn of the nineteenth century this land had been rough ground but by time of the 1840 Tithe Map the area had



Fig 6 Carwynnen team measuring the stones in May 2013. (Photograph © J Nowakowski for CAU.)



Fig 7 Stone 4 being carefully moved into position for re-erection in 2014. (Photograph: © J Nowakowski.)

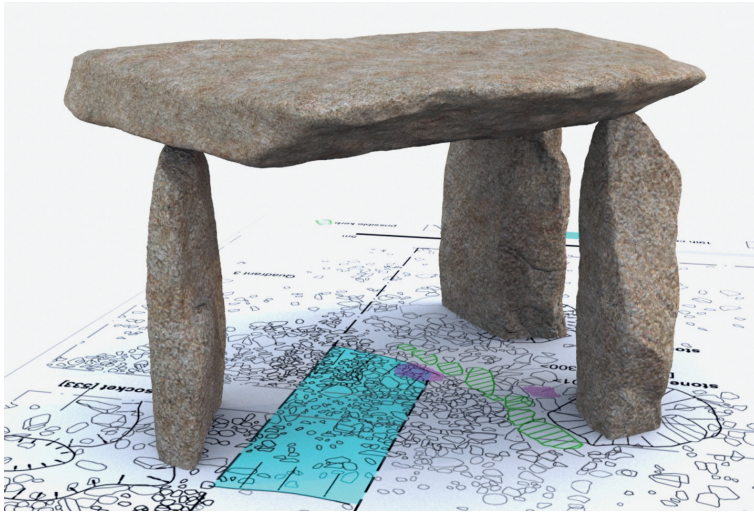


Fig 8 Visualization of Carwynnen Quoit by Tom Goskar based upon a laser scan and photogrammetry. Three uprights are positioned in their socket holes and the light blue area highlights the robber pit. Green shows the kerb stones in situ.

been enclosed by small stone-walled fields which fringed the small hamlet of Carwynnen. By the 1880s a mosaic pattern of small fields had simply disappeared during a radical re-landscaping scheme carried out by the wealthy Pendarves family who also established woodland plantations close by and created a series of ornamental lakes.

Once Scheduled Monument Consent was in place the first stage of archaeological investigations involved test pitting (Fig 9). Prior to 2009 the field had been in commercial production (for daffodils) and had been ploughed. The aims of test pitting were twofold: i) test sub-surface preservation around the immediate periphery of the stone pile to assess potential for intact buried archaeology and determine whether the pile sat on the original location of the quoit and ii) sample and examine other areas across the entire field to assess evidence for any related activities in prehistory.

Twenty-four 1 sq m test pits were hand dug by the team during a week in July 2012. Ten were positioned within the immediate curtilage of the stone pile, and the rest scattered across the entire field. Test pits close to the stone pile revealed dense layers of stones and soil, interpreted as remains of a stony mound, which had survived to a depth of 0.5m below the ploughsoil (Fig 9). Excavation later that year revealed that 0.35m to 0.50m of soil lay beneath the sunken hollow left by the weight of the stone pile and blanketed the footprint of the monument. This showed great promise as well as the prospect of good preservation. It also revealed modern ploughing around the immediate curtilage

of the stone pile had created an accumulation of ploughsoil around its outer perimeter and so had protected sub-surface layers.

A member of the family who once owned the land told us that this field had always been known as a ‘rocky’ field and so had not been intensively ploughed in the 1960s and 70s (J Powning, pers comm). When local archaeologist Stanley Opie visited the monument in 1925 the field was in pasture and he drew a sketch which showed a stony surface visible under the capstone (Fig 10).

From the outset it was clear that far more of the original footprint of the chamber had survived. Finds from top and subsoil layers around the stone pile were very mixed: sherds of early and later medieval pottery, bits of glazed Victorian patterned chinaware, clay pipe stems and bowls, fragments of Georgian drinking glass vessels, a George II halfpenny (1727–1760), as well as broken bits of Bakelite were found. But also found were a handful of flint tools including a notched awl, a snapped blade of Neolithic date and a sherd of Neolithic pottery. A rounded worked piece of granite, a likely dressing stone, was found in a pit just downslope from the monument. Upslope and at some distance to the south east of the monument in another part of the field the mouth of a mining adit was exposed. Here a fine transverse Neolithic arrowhead and several sherds of Bronze Age, Iron Age and Romano-British pottery were found (Nowakowski and Gossip 2012). Most of the test pits produced finds, 653 in total with a date range spanning prehistory to modern times. A curious



Fig 9. Test pitting in progress
8 July 2012. (Photograph:
© J Nowakowski for CAU.)



Fig 10 Stanley Opie sketch
drawing of Carwynnen during
a visit in 1929. (Reproduced
with kind permission of the
Courtney Library archive,
Royal Institution of Cornwall,
Truro.)

find was a 15-bore lead musket ball: perhaps it had been fired at the monument as a pot-shot, as had indeed the clay pigeons (shattered Bakelite fragments). Such a lot of finds showed that the field had been surprisingly busy and while some of the finds may have been dumped into the field as ‘nightsoil’ manuring in the last 200 years, the discoveries of prehistoric and medieval finds reveal that the monument had been an enduring visible landmark long after its construction in the Neolithic period.

The Big Dig 2012: discovery of the chamber floor, pavement, socket holes and prehistoric artefacts

Following the dismantlement and temporary removal of the stone pile an open area excavation trench was dug to reveal the footprint of the monument. This became *The Big Dig* in September 2012. A large trapezoidal trench, 25m long by

16.5m and 12.2m wide, was opened up. This included a large area to the south of the stone chamber to test the idea whether the stone chamber had originally been built into a long mound. No evidence for any such earthwork was found. This also included the core area, 11m by 9m, under the stone pile. Massive stone-lined socket holes for the three large granite supporters were located and an intact and well-preserved artificial stone pavement, that is the chamber floor, a stone platform and what has been interpreted as the projecting arm of the pavement which extended beyond the cover of the capstone were found (Fig 11).

The surviving floor surface of the chamber covered an area of 5.5 sq m. It comprised tightly packed roughly-shaped small stones of a variety of rocks: the majority were tourmalinised and greisen granite pieces (200–300mm in size). Colin Bristow concluded that these had not naturally formed. Rounded cobbles identified as Polcrebo gravels, fragments of elvan, quartzite, and chunks and flakes of greenstone and diorite were also identified. The chamber floor clearly had a composite make-up: some of the materials had been sourced from some distance away.

The stone pavement, 517, comprised two elements: a narrow, compacted strip of small stones forming a hard-core surface which wrapped around the central area of the floor (Fig 13). Approximately three-quarters of this circuit survived (its northern, western and southern sides), the eastern side was absent and we concluded that this must have been removed when the monument was restored in the nineteenth century. An apparently intact segment had survived at the ‘front’ end of the monument: this originally would have projected well beyond stone 2 and the shade of the overhead capstone.

Some observers have suggested that the antiquity and nature of 517 are not clear-cut and could relate to more modern field clearance. However, on the basis of its intact well-sealed stratigraphic position, carefully constructed nature and association with only prehistoric finds excavated during four seasons of fieldwork, the authors of this paper do not consider this likely (for a full account of structure and stratigraphy see Nowakowski and Gossip 2025).

At the ‘rear’ end of the monument just inside the area defined by the two supporter stones 3 and 4, the ragged mouth of a robber trench dug in the nineteenth century was discovered. This was confined to this part of the chamber floor. Much

to our surprise this trench had been cut through a deep intact stony platform. Here at the rear of the monument the chamber floor had clearly been laid upon this stone platform presumably created to provide a more solid foundation for the erection of the two supporters as well as level the surface. This foundation mound was not evident at the front end of the chamber.

A small stone kerb contained the rear edge of the chamber floor and this lay between supporters Stones 3 and 4. Here two small deposits of cremated bone were found in two shallow pits. A radiocarbon date from one calibrated to the Middle or Late Neolithic period: 3025–2916 cal BC (93 per cent probability using OxCal v4.1), 4371±19 BP (SUERC-55957). Numerous flint tools, prehistoric pot sherds and some worked stone objects were found spread across the surface area of the floor chamber, some were embedded into the floor. Their distribution and wide date range indicated sporadic visits over thousands of years. A particularly spectacular find was an (unfinished) greenstone axe which had been embedded into the surface of 517. This item may have travelled here from a source 10 to 15 km away: perhaps Viaduct Farm on the edge of Camborne. This was one of three greenstone axes found at Carwynnen: the other two were broken fragments.

Socket holes for all three supporters were discovered. One [533] (for stone 2) was very disturbed and at 0.80m deep had likely been recut during the nineteenth century restoration. Stone-lining was *in situ* for the socket hole [530] which housed stone 3 (at the ‘rear’ of the monument, Fig 12). Fills at the base of this massive hole (1.5m diameter and 0.70m deep) were sampled but were surprisingly clean. A radiocarbon determination from the lower fill showed some modern contamination (Nowakowski and Gossip 2013). Socket hole [106] for stone 4 lay 0.8m to the south of the hole for stone 3 and was 0.8m in diameter and 0.5m deep. It was partially lined with stone packing which had been disturbed and which had been repacked by being reset at an angle. This must have taken place when the stone was reset in the nineteenth century and may explain the acute angle of this major supporter (seen in historic photographs, for example Figure 3). The original vertical edges of the socket hole were, however, remarkably intact and easy to define as the fills just peeled away.

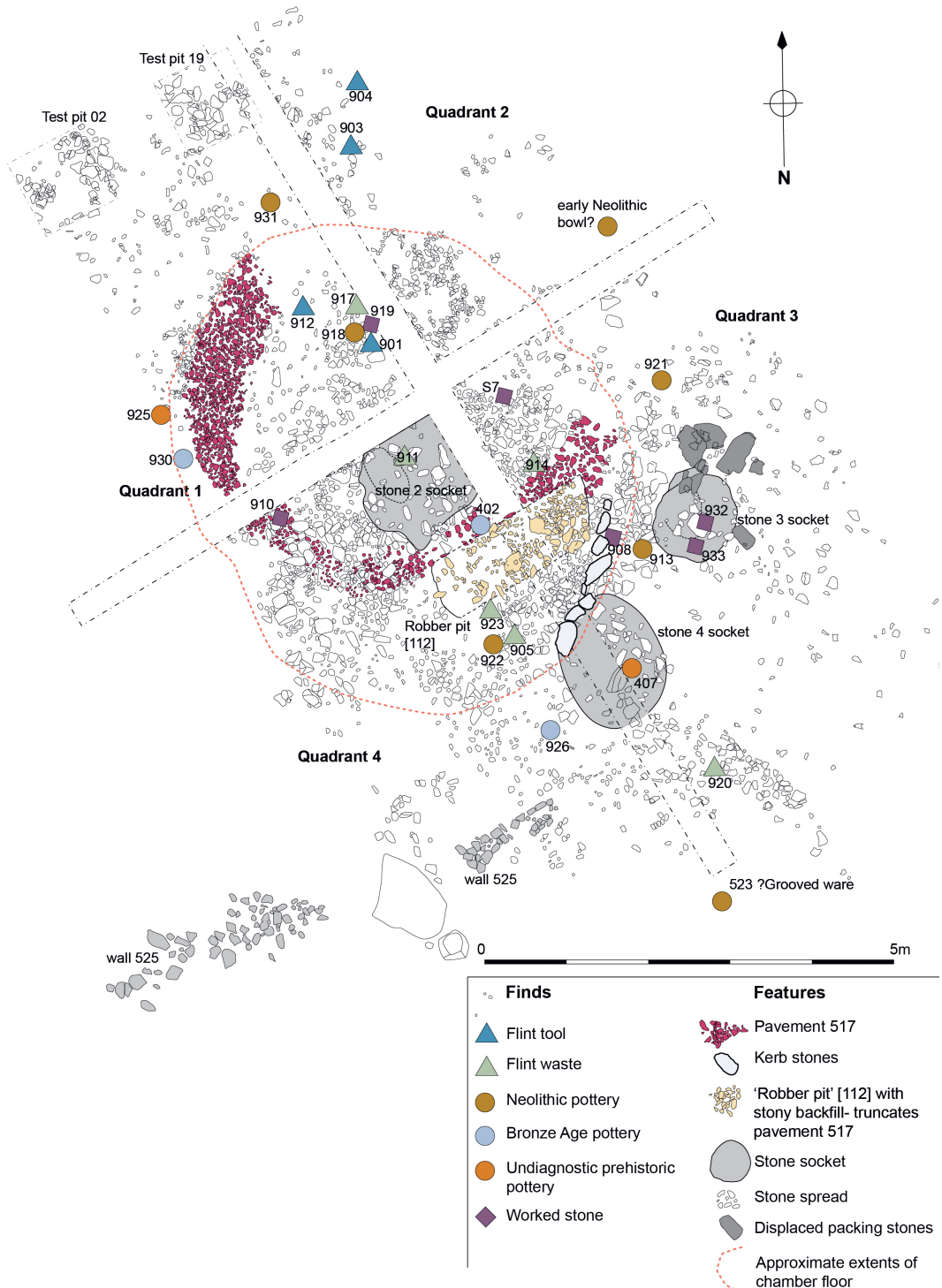


Fig 11 Excavated plan of footprint of Carwynnen Quoit showing socket holes, pavement and finds distribution. (© J Gossip, reproduced from Nowakowski and Gossip 2025.)



Fig 12 Stone-lined socket hole [530] for stone 3.
(Photograph: © J Gossip for CAU.)

Immediately to the south, traces of stone footings of walls, perhaps the remnant edges of ancient field walls, were found. These included some ‘natural’ grounders (moorstones) which respected the edges of the megalithic monument (*ibid*, fig 9).

Overview: Prehistoric pottery, worked stone and flint tools

Thirty-nine prehistoric artefacts: pottery, flint tools and worked stone, were recorded. Some were found on and embedded into the stone pavement, some on its edges, some from the socket holes and some from the stony layers immediately sealing the chamber floor. Some finds (mainly flints) were found higher up in the subsoil which had sealed the pavement and the footprint of the monument. A greenstone axe S1 <SF910> lay embedded in the surface of the floor.

Flintwork included tools of early and late Neolithic date, many burnt and many deliberately snapped. Pot sherds dating from the Early Neolithic through to the Late Neolithic, Early/Middle Bronze Age and Late Bronze Age/Early Iron Age were also found.

The variety of finds suggests that the stone chamber remained accessible and open for a long period of time in prehistory.

Neolithic and later prehistoric pottery

Twenty-five sherds of Early Neolithic pottery dating to c 3900–3300 BC were found, 10 were embedded into the chamber floor. Twenty-two were identified by Henrietta Quinnell as ‘fine gabbroic ware’ similar to the material excavated at the Neolithic settlement on Carn Brea, Illogan. Five sherds of Late Neolithic Grooved ware dating c 2900–2300 BC were also identified from the chamber floor. Nine sherds of early and Middle Bronze pottery, four sherds of late Bronze Age and Early Iron Age pottery and four sherds of Later Iron Age pottery were also found. None were complete vessels, all were fragments (Quinnell 2025). In total 51 sherds of prehistoric pottery were found during the project.

Stonework and flint tools

In addition to an unfinished greenstone axe (Fig 14), axe fragments, whetstones, broken fragments of saddle querns and mullers, rubbing and hammerstones and waterworn pebbles were also found. The greenstone axes are of Neolithic date while the whetstones, quern fragments and hammerstones are likely to broadly date from the Neolithic into the medieval period (Quinnell 2025). One hundred and thirty-eight pieces of flint, both tools and waste material, were found (Fig 15). Diagnostic tools showed two distinct horizons: Early Neolithic with a late Mesolithic element and



Fig 13 Detail of the preserved stone pavement, 517, excavated in quadrant 1. This is interpreted as an integral design feature of the 'front' of the monument and did not lay directly under the capstone. The 'living pavement' created in September 2014 lies directly above this feature which was reburied sealed by terram and 350mm of topsoil and protected for future generations, 29 September 2012. (Photograph © J Gossip, CAU)

a Late Neolithic horizon with an Early Bronze Age overlap. The flint is principally beach pebble flint but some nodular flint and Portland Chert were also recorded. The assemblage comprises a variety of tools: arrowheads, awls, engravers, piercers, blades, knives, scrapers, cores and an unusual adze. Many items were found in the ploughsoil from across the field. Seventeen were recorded in and around the chamber floor (Lawson-Jones 2025). Intriguingly much of the flintwork was snapped and burnt. The destruction of the flint tools is a feature of Late Neolithic sites elsewhere in the Britain where usable tools have been intentionally

'killed' by being rendered useless (see Pannett 2011, 252; Anderson-Whymark 2011, 16–21).

The quoit's setting at the head of a valley ensured it was a landmark and focus for gatherings across a long period of time throughout prehistory and all these objects, the pots, worked stones and flints, mark such events. The Neolithic pottery and prehistoric flintwork found at Carwynnen is a considerable collection for a Cornish megalith and their discovery reveals active pathways to and from the monument from places located within the wider hinterland. The nearest and largest collection of comparative objects was found at the Neolithic settlement on Carn Brea (Mercer 1981).

First steps to restoration – milestone event – re-erection of Stone 4

In the autumn of 2013, a major milestone was reached when stone 4 was re-erected into its original socket hole. This took place on 31 October – Halloween, Allantide (in Cornish, *Kalan Gwav*). Over 40 people gathered to watch this elegant stone gently lifted by machine under the guidance of stone mason Tim Marsh. To witness it suspended for the very first time was quite a revelation as the stone revealed its distinctive diamond shape (Fig 7). Once in position as it hovered over the original socket hole, it was clear that the hole, while perfect in width, was shallow. This suggested that part of the level surface at the rear of the monument must have lost some ground when the stone had been reset in the nineteenth century. Once stone 4 was in position, quick-drying concrete was poured into the socket and around its base, and three large stones were positioned around it to help stabilise the upright. By the spring 2014 stone 4 was well and truly bedded in. The re-erection of stone 4 not only tested the method of restoration but was a dress-rehearsal for the completion of the restoration the following year.

Full restoration 2014

The re-erection of stones 3 and 2 took place the following spring. The team used a wooden template to help position and level the tops of the three uprights. This had been constructed by accurate measurements taken from the three



Fig 14. James holding the greenstone axe with Pam McNally and Suzy Sharpe. (Photograph: © J Nowakowski for CAU.)



Fig 15 Burnt and snapped flints. (Photograph © J Gossip, CAU.)

dimpled depressions noted on the under surface of the capstone (see above), that is the contact points of each individual stone supporter. Once positioned in their holes, quick-drying concrete and additional stone packing were added to give greater stabilisation and so stones 3 and 2 were set erect once again. It was essential that the stones were erected vertically as opposed to leaning. The capstone had to be placed back on level supports to secure its long-term safe guarding and complete restoration. Once the three uprights were in position and had time to bed in, the site was

ready to receive the final piece of the quoit – the 9.8 tonne capstone.

The repositioning of the capstone on midsummer day 2014 took 12 minutes by crane. But imagine the spectacle when the capstone was moved into position over 5,000 years ago when there would have been the need for a great deal of equipment (wooden rollers, ropes), many, many hands, much muscle power, and not least, a soil ramp in order to pull the capstone up onto the three stone supporters. Such an enterprise, fraught with the risk of catastrophic failure, fatal injury or even

death, would have required a great deal of planning and, very likely, appeals to the ancestors for help and guidance (see below). Our modern experience brought alive the realities and potential risks of such a monumental undertaking. Everyone held their breath as we watched the capstone placed on the tips of the supporting stones, followed by a huge collective sigh and rapturous applause.

Overall conclusions from the restoration of Carwynnen Quoit

Architectural form – intention and design

In Britain Neolithic megalithic monuments are widespread across the western Atlantic seaboard: south-west Wales, Ireland, Scotland as well as Cornwall (see Cummings and Fowler 2015). They encompass a broad variety but their typical architectural design is the deployment of massive stone slabs finely balanced upon stone supporters. In form they may comprise open and/or closed chambers, and may include forecourts, antechambers, portal (blind) entrances, porticos, platforms, kerbed cairns, and/or even earth and stone long mounds (*cf* Cummings *et al* 2015). Our excavation confirmed that Carwynnen Quoit simply comprised an open stone chamber of tripod-form, made of three supporters which upheld a massive covering capstone. Of all the upstanding quoits in Cornwall it is similar in form to Lanyon Quoit, Madron, but, unlike Lanyon, has no evidence for a mound.

The monument stood erect upon a stone pavement which in turn had been laid upon a raised stone platform. Platforms are associated with chambered tombs in West Wales and the Irish sea zone (Cummings 2009). The edge of an artificial raised platform of chunks of greenstone has been recorded at Trethvey Quoit, St Cleer (Jones 2020, 68). Clearly preparatory groundworks are as an important part of the tombs' construction story as well as the choice of the right location. At Penfre-Ifan in Pembrokeshire for example, the massive capstone was raised from a pit below the chamber floor where it was found in its 'natural' state (Lynch 2014, 180). Vicky Cummings has suggested that the 'natural' stones recorded at many megalithic monuments in the Irish Sea zone became incorporated into monuments because

these were known locales replete with ancestral stories written into a wider mythologised landscape (*cf* Cummings 2009, 94–100).

The partial survival of an outer stone circuit of the chamber floor, interpreted by the authors as a curved extension of the pavement which may have served as a forecourt at the 'front end' of the monument, meant that Carwynnen Quoit was aligned north-west to south-east. This curved segment of a compacted stone pavement would have guided access towards the interior of the quoit, see for example Clettraval (Henley 2015). This curved arm of the pavement may originally have been part of a larger circuit which had once wrapped around the entire inner chamber floor. Some chambers may originally have been covered by mounds such as Lanyon Quoit (Thomas 1990) and Pawton, St Breock (Barnatt 1982, 128–31). Both have surface traces of mounds. No such evidence was however found at Carwynnen and so the monument's open design made the monumental space eminently accessible and so offered countless opportunities for engagement, reuse and flexibility. The projecting arm of the pavement suggests that physical access was guided from the north-west so that visitors entered the chamber from this side and any objects left behind may have been placed in the more hidden part of the monument at the rear of the pavement and close to the paired supporters. It was in this part of the chamber that two small deposits of burnt (human?) bone were discovered. Well-defined façades can be seen at some Cornish quoits. A series of orthostats (upright stones) define a 'forecourt' at Chun Quoit, an antechamber at Zennor Quoit (West Penwith) and at Trethvey (Barnatt 1982, 119–21, 124–6, fig 7.6). All the upstanding Cornish sites have clearly been carefully designed, even if their orientations vary: Zennor and Trethvey face approximately east (Barnatt 1982, 51, fig 2.6). So Carwynnen is no exception.

How old is Carwynnen Quoit?

Artefacts found in and around the chamber area and pavement confirm Neolithic activities. Pot sherds of Early Neolithic date (*c* 3900–3300 BC), a few sherds of Late Neolithic Grooved Ware (*c* 2900–2300 BC), a Neolithic greenstone axe (S1) and fragments of two others, and flint tools also Neolithic in date have all been found. Four spheroid pebbles also found have later Neolithic parallels. Other stonework items such as quern

fragments, mullers and rubbing stones are less closely datable but small querns have occasionally been found on Neolithic sites in Cornwall such as Carn Brea and Tregarrick Farm, Roche (Quinnell 2002/3, 121–3). Some of the Carwynnen flintwork shows earlier Late Mesolithic traits and so it is entirely possible that this location was frequented well before the monument was built.

A scientific (radiocarbon) date from one of the intact burnt bone deposits found just inside the chamber floor was obtained. While calibrated to the Middle to Late Neolithic period this does not date the monument's construction event but it does provide a *terminus ante quem* derived from a time the monument was in active use. It is therefore possible that Carwynnen was built in the Early Neolithic period.

Modern radiocarbon dates taken from samples from older investigations of two megalithic sites in West Penwith helpfully situate Carwynnen firmly within a megalithic tradition. These are from Sperris and Zennor Quoits, Zennor (Kytmanow 2008). Both sites lie high up on Zennor moors within sight of one another. The date from Sperris Quoit, 3633–3347 cal BC (95.4 per cent), 4712±39 BP (UB-6754) updates an event during the earlier part of the Middle Neolithic (Kytmanow 2008 105–6). The date from Zennor Quoit 3342–3024 cal BC (95.4 per cent), 4471±38BP (UB-6755) is linked to a later event in the Middle Neolithic (*ibid*, table 7.1). They confirm activities at these megaliths during the fourth millennium BC. Of the two, Zennor Quoit is contemporary with Carwynnen. A mixed collection of objects including fragments of least eight pots, Early Neolithic to the Early Bronze Age in date, were found at Zennor and so reveal a similar long history of engagement to Carwynnen (*ibid*).

The nearest major Neolithic site to Carwynnen Quoit is the hilltop settlement on Carn Brea, located some 6 km to the north-east of Troon on the edge of Redruth. A scheduled monument first designated in 1928 (NHLE 1006704), this enclosed settlement was established by the thirty-seventh century cal BC (Mercer 1981: Whittle *et al* 2011). There may have been an overlap with Carwynnen: both sites have produced sherds of black-painted Early Neolithic pottery (Quinnell 2025). Alison Sheridan has suggested that the distinctive surface black-paint treatment identified on some examples of fine Early Neolithic carinated bowls found at Carn Brea, Tregarrick Farm, Helman Tor, Lanivet,

and, at Penhale Round, Fraddon, may be part of a regional ceramic tradition (Sheridan 2011, 24–7). We do not know where the pots found at Carwynnen were made but it is likely that they were brought as whole objects to the quoit by communities who lived in the wider locality. It is tempting to suggest, at least, a link between Carwynnen and the Early Neolithic community based at the hilltop settlement at Carn Brea. These are new and exciting discoveries as this is first time that such early pottery has been confidently associated with the Cornish quoits and potential settlement. Their discovery suggests they were being brought to the monument during at early stage of its history – perhaps a few even date to the time of the construction of the monument.

Stone axes are another indicator of Early Neolithic activities: stone axes and megaliths have strong associations in the western Atlantic zone (*cf* Patton 1993; Burrow 2006; Sheridan 2011, 29–31). The discovery of an unfinished greenstone axe at Carwynnen (alongside the fragments of two others) is unlikely to be accidental. The butt end of another axe was found in topsoil and other fragments of unworked diorite and elvan were recorded during the excavations and the quoit is located close to a local diorite outcrop.

A number of worked stone objects were also found. A few are notable: a cobble TP23 (161) displaying possible use as a stone hammer; a waterworn cobble SF932 (529), the fragment of a greenstone whetstone SF908 (515) (with grooves and two long sharpening facets) and the fragment of a saddle quern SF919 (518). Such variety is difficult to pin down but all comfortably fit into a wide span during prehistory spanning 3,000 or so years. Were greenstone axes, pots and tools left behind as votive offerings during repeated visits to the monument over 5,000 to 3,000 years ago? Neolithic axes of Cornish greenstone have been found across Britain and so objects made from Cornish greenstone were clearly highly valued.

The monument clearly had a long history of engagement beyond the time of its original construction. Many of the prehistoric artefacts were fragments and as we have seen flint tools were deliberately snapped and burnt. The monument and its location became the hub and repository for objects for generations over a long period of time. The finds to date amount to the largest collection of artefacts recorded at a megalithic site in Cornwall. Objects, in their broken form, appear as token

deposits left as reminders of visits by different communities across many generations. Organic burnt bone deposits found within the rear of the chamber fortuitously survived and may represent just a fraction of other material which had once been curated here. Part burial monument, part ancestral shrine, Carwynnen had clearly been the focus for gatherings and performances of rites and rituals. These engagements were not continuous but episodic over a very long period of time and so kept the memory of the monument alive. The flint tools, made from beach pebbles, and the pottery made from gabbroic clays on the Lizard show that people with their objects had travelled to the place. The variety of finds come from daily routine life and link the monument to the other domestic places in the wider landscape. Tim Ingold describes this accumulative process as a meshwork of the social relationships which link people with places and things (*cf* Ingold 2007). Continuous engagements, however uneven, are part of place-making processes through which locations become encultured as known landmarks.

Three miles downstream from Carwynnen lies Penponds valley where since the late 1970s dense flint scatters, many of Neolithic date, have been recorded by the Mitchell family and the late Charles Thomas, many in ploughed fields surrounding Viaduct Farm (sites VF/, Thomas 2005). There are massive greenstone outcrops in this area, suspected sources for the petrological Group XVI stone axes and implements (*ibid*). Greenstone outcrops clearly had an attraction for prehistoric groups living and moving around the area: over 40 bronze socketed axe heads were found in a pit close to a major outcrop, known as the *Giant's Rock*, in the late nineteenth century and an axe-hammer was also found in the area (Hencken 1932, fig 18E and seen today in the Museum of Cornish Life, Helston).

Materiality and agency – resources

The materials deliberately selected for the construction of monuments in the Neolithic and Bronze Age were clearly highly valued and may have carried origin stories which betray something of their intangible cultural (ancestral) power (*cf* Cummings 2011). Those resources may have been chosen because they were sourced from special places in the landscape and became incorporated in the make-up of ceremonial monuments (*cf* Bradley

2000; Scarre 2012). At Carwynnen the stone resources for the monument appear to derive from different places in the local and wider landscape. The capstone and its supporters were locally available but not quarried. The dense quartzite composition of the capstone is particularly striking, making it highly visible in bright sunlight and so the monument was probably easily spotted from some distance, particularly if one approaches towards the head of the valley from the north-east. This may well have been a deliberate device. The chamber floor was composite, containing small pieces of roughly-shaped elvan, tourmalinised greisen and granite pieces, quartzite, flakes of greenstone and diorite as well as some rounded cobbles from the Polcrebo gravels. Diorite can be found within the immediate hinterland (in Pendarves woods) but the Polcrebo cobbles lie as much as 4 km away. The variety of stone resources as well as the artefacts left at the site is revealing. These cultural choices highlight the significance of the *materiality* of Carwynnen as a megalithic monument beyond its utilitarian function. Recent research on stone circles in Britain reveals similar stories: megalithic monuments incorporate a variety of ‘natural’ materials with their selection purposely made and socially driven (*cf* Richards 2009). Making megalithic monuments was clearly a major enterprise and a significant community project, which set logistical challenges, involved planning, and alongside practicalities would have drawn on social networks, obligations and relationships. Once built all these processes continued in the form of the objects left behind: token fragments from domestic life and settlement. Colin Richards has argued that the whole process of construction from conception, resourcing materials to execution, may well have involved an epic journey fraught with risk (even danger) but one which was essential to the maintenance of individual and group identity (*ibid*). Monument building by and for the community was a way by which that social identity could be asserted. This resonates so strongly with the evolution of this particular modern-day restoration project: the spectacle of the restoration of the capstone in 2014 was a truly shared community event (Richards *et al* 2015). So, the making of a community monument becomes a multi-stranded enterprise: it served practical as well as symbolic needs, critical to the well-being of the community who wish to honour its past, celebrate its present and safeguard its future (*ibid*; Edmonds 1999).

Recent geological research on the standing stones of the three circles which make up The Hurlers, Linkinhorne, on south-east Bodmin Moor has shown how each circle is made of different types of granite sourced from three major hills in the wider hinterland of this upland area. These resources may well have been chosen because of the stories they contain, stories which may carry ancestral connections drawn from different parts of a wider landscape and which drew upon the potency and power of particular places (*cf* Nowakowski *et al* 2021; Nowakowski *et al* 2022). Perhaps each of the three circles at The Hurlers were built by different communities each keen to harness the power of the place.

Some archaeologists have suggested that the portal tombs and dolmens in West Cornwall imitate nearby outcrops and tors and that the prehistoric builders may have viewed natural tors and outcrops as the petrified shapes of their ancestral beings. By ‘elevating large stones, these people were emulating the work of the super ancestral past’ reassembled and put back together (Tilley and Bennett 2001, 360–2).

What is Carwynnen Quoit? Ongoing engagement

Popular knowledge tells us that the quoits are our earliest tombs where the dead are honoured in places where the ancestors reside. These monuments become permanent fixtures in the landscape to be revisited time and time again. Significant caches of human remains have not, to date, been found on Cornish sites. The discovery of burnt bone *in situ*, even as token deposits, as at Carwynnen, is quite unusual. The material was not identifiable as human, yet such presence along with artefacts reveals the significance of maintained engagement and the idea that these may have been places of pilgrimage.

The Grooved Ware fragments found at Carwynnen reveal a long and active history of use of the monument dating to at least 1,000 years after the monument was built. Fragments of cord-impressed Bronze Age pottery and a couple of Iron Age sherds show a continuing interaction several thousand years after the monument first appeared in the landscape. Where these small communities lived is unknown although a couple of roundhouses on nearby Copper Hill do suggest that some people were living close by. Iron Age

pottery (South West Decorated Ware) was found here in the 1950s (Thomas 1954, 48–53). Recent excavations at Laity Road in Troon have also discovered remains of a later prehistoric settlement on lower land (S Walls, pers comm). The potential date range represented by the prehistoric pottery found at Carwynnen Quoit is quite remarkable and highlights the lingering significance of the quoit across generations in prehistory.

The afterlife of Carwynnen Quoit

Within the immediate footprint of the Carwynnen open chamber and from the field overall, just over 2,300 finds were recorded during this entire project. This large collection represents an extraordinary and impressive range of objects, from prehistoric pot sherds and flints to medieval pottery, modern day china, rusty iron nails, horseshoes, hooks, clay pipes, Victorian coins, glass and broken Bakelite clay pigeons (Nowakowski and Gossip 2013). As discussed, the monument clearly had a long history of engagement beyond the time of its original construction.

So Carwynnen Quoit was a repository for selective cultural tokens, betraying ritual practices and small acts of engagement. Such engagements would have awakened the latent power and potency within the stones, making the place a cult destination, perhaps even a sanctuary. It’s possible that Carwynnen lay on a recognised pathway and was visited by many different communities making pilgrimage. As an open monument objects may not only be left there but also taken away: what survived may just be a fraction of all the items left behind on waves of visits over many generations. The memory of the monument clearly lingered on as bits of objects of our more recent historic past were recorded: stems of Georgian drinking vessels, a musket ball, clay pipes and fragments of clay pigeons. And while we may not know what this place was called in prehistory, in more recent historic times, the local names which have stuck, the *Devil’s Quoit* or *Devil’s Frying Pan*, evoke the superstition which kept modernisation at bay. The quoit appears as a local landmark in 1813 (Ordnance Survey 1809–13) but not on the 1840 Tithe Map where the field is called *Frying Pan Field* (tithe apportionment number 3604). This landscape had been reclaimed from rough ground early in the nineteenth century and was radically transformed by wealthy landowner Edward

Stackhouse Pendarves in the mid-1840s to create the more parkland feel of the present landscape. The monument fell down (clearly the robber trench was an attempt to look for treasure) and was restored during Pendarves's ownership, and by the time of the 1st edition Ordnance Survey 25in: 1 mile (c 1880) stood in a large field. It had also, by then, acquired a new name: *Pendarves Quoit* (Nowakowski and Gossip 2025).

A special place and destination: location, location, location

As discussed above, Carwynnen Quoit lies right on edge of the Carmenellis granite massif and sits low down at the head of a valley on a narrow spit of alluvium with higher land rising to the south-west beyond to rocky Copper Hill and Carwynnen Carn, 1 km away. It is well nested into the landscape and looks up valley. A nearby source of diorite (greenstone), perhaps surfacing as an outcrop, may well have influenced the choice of location. Correspondences between the settings of early prehistoric monuments and particular geological sources such as elvan dykes and diorite outcrops has been noted for example at Trethevy Quoit, the Hurlers stone circles on Minions Moor and the two large barrows positioned on the western end of Stowe's Hill, St Cleer (cf Nowakowski *et al*, 2021). Lesquite Quoit, Lanivet, like Carwynnen, lies on the edge of the granite outcrop above the marshy head of two small streams near Helman Tor (Barnatt 1982, 136).

Research has shown how Poul nabrone, the earliest portal tomb in western Ireland, lay on

an important routeway into the central Burren area close to a water source. Rivers provide natural pathways linking different landscapes (cf Cummings 2004; Kytmanow 2008) and research elsewhere has emphasised that megaliths are rarely randomly placed (cf Tilley 2004; Pollard 2009; Scarre 2010). Water sources are still close by to Carwynnen – particularly at the bottom of the field and in the nearby nature reserve and in Stennack Woods. These have been much altered through tin streaming and estate management. In the nineteenth century the Pendarves estate created water channels which fed cascading ponds and a boating lake (Nowakowski and Gossip 2025). This is a tributary of the Red River which flows out to the Atlantic from Gwithian located 9.7 km upstream. Ancient pathways to Carwynnen which can just be traced in places today.

Carwynnen Quoit sits at the head of a valley and is aligned up the valley. The surviving remnant of the outer stone arm of the pavement was an interesting, unexpected discovery at the front end of the monument. It would support the idea that the monument had been deliberately positioned and faced up the valley and was aligned towards the north-west. On the evening of midsummer day in 2014 it was fascinating to watch the sun set on the horizon behind the distant hills of West Penwith as its dying rays penetrated through stone 2, the front upright, and shed light onto the “back” of the chamber and through the narrow gap between stones 3 and 4. That Carwynnen appeared to be deliberately aligned to the setting of the midsummer sun has left an indelible memory on an extremely memorable project.



Fig 16 Midsummer setting sun, 21 June 2014. (Photograph: © Colin Higgs.)

Monuments like Carwynnen make places but they do not exist on chartered maps. At a Sustainable Trust community archaeology event, *Gathering Stories*, held in Troon in June 2023, many local people remembered the day the capstone was replaced, just as much as they were keen to share childhood memories of trespassing in the field and playing in and around the monument (Williamson *et al* 2023). They were witnesses to the enduring power and appeal of Cornwall's most ancient sites – some, like Carwynnen, become touchstones weighted by stories and deep time. Before it was lost Carwynnen clearly had a long enduring appeal but now it has been re-found and welcomed back into community life it has gained another new chapter in its afterlife.

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The project to restore Carwynnen was multi-disciplinary in its approach, had multi-stranded outcomes and involved a great number of people. It provided a training opportunity for many 'aspiring' field archaeologists – some of whom have carried on digging and continue to work on community projects in Cornwall. The small professional CAU team, Jacky Nowakowski, James Gossip, Richard Mikulski and Laura Ratcliffe-Warren, worked with a large group of volunteers as well as builders, stone masons, artists, photographers, film-makers, poets, writers and experimental archaeologists. Tom Goskar and Adam Stringer did the laser-scan. Henrietta Quinnell, Anna Lawson-Jones and Colin Bristow all provided specialist support. Domenica Williamson, Andy Hughes, Jade Berry, Anna Tyacke, Sally Herriett and Jacqui Wood ran educational workshops. Joe Fenn and his team, aided by Norman Reed and Tim Marsh, carried out the precarious restoration of the monument. CAS members Peter Rose, Konstanze Kahn, the late Pete Nicholls, Les Dodd, Ann Preston-Jones

and the late Nigel Thomas carried out surveys in 2009. Chairperson of The Sustainable Trust, Andy Norfolk, blessed the restored monument and together with the late Pip Richards and Philip Hills championed the project throughout.

A selection of artefacts from the project are on display at King Edward Mine, Troon. The archive is currently held at the offices of Cornwall Archaeological Unit, Cornwall Council.

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