



Oak Archaeology Wales CIC

ATODIAD DBA: SEILWAITH HARBWR A RHEOLI DŴR ARFAETHEDIG

DBA ADDENDUM: PROPOSED HARBOUR / WATER-MANAGED INFRASTRUCTURE

Plas Machen – Afon Rhymni

Plas Machen – River Rumney

1. Cyflwyniad

Mae'r atodiad hwn yn cyflwyno tystiolaeth newydd a gofnodwyd ar dir ger Afon Rhymni ym Mhlas Machen, a ddehonglir fel rhan o barth logistaidd a reolir gan ddŵr, a all gynnwys harbwr, cyfleuster glanio â ramp, iard gyflenwi, a strwythurau cefnogol cysylltiedig. Mae'r arsylwadau a gofnodir yma'n deillio o gerdded cae systematig, archwiliad arwynebol, aliniadau gofodol wedi'u mesur, ac adfer arteffactau.

Mae'r ardal wedi'i lleoli i'r gogledd-ddwyrain o brif gyfadeilad Rhufeinig Ruperra/Machen, ac mae hyn yn gyson â rhagdybiaethau blaenorol sy'n awgrymu croesfan afon neu gyfleuster harbwr a reolir, yn hytrach na strwythur pont sefydlog.

1. Introduction

This addendum presents newly recorded evidence identified within land adjacent to the River Rumney at Plas Machen, interpreted as forming part of a water-managed logistical zone, potentially including a harbour, ramped landing facility, supply yard and associated structural supports. The observations documented here derive from systematic fieldwalking, surface inspection, measured spatial alignment, and artefact recovery.

The area lies to the north-east of the main Roman complex at Ruperra/Machen, consistent with previous hypotheses proposing a managed riverine crossing or harbour facility rather than a fixed bridge structure.

2. Tystiolaeth Arteffactau

Cynhyrchodd cerdded cae o fewn y cae dan sylw nifer o ddarnau o grochenwaith Rhufeinig, gan gynnwys crochenwaith llwyd (greyware) a samian, a adferwyd o'r pridd â'r chyd-destunau arwynebol.

- **Ffigur 1** yn dangos darnau o grochenwaith llwyd a samian a adferwyd o'r cae, gyda lleoliadau'r darganfyddiadau i'w plotio ar wahân.
- **Ffigur 2** yn cyflwyno'r un casgliad wedi'i osod ar ei ymyl i amlygu ffurfiau ymyl diagnostig.

Mae presenoldeb samian, yn arbennig, yn awgrymu meddiannaeth neu weithgarwch o gyfnod Rhufeinig sydd o leiaf o bwysigrwydd rhanbarthol, ac mae'n gyson â gweithgareddau cyflenwi, gweinyddol neu filwrol yn hytrach na defnydd amaethyddol pur.

2. Artefactual Evidence

Fieldwalking within the subject field produced multiple fragments of Roman pottery, including greyware and samian ware, recovered from ploughsoil and surface contexts.

- **Figure 1** illustrates greyware and samian fragments recovered from the field, with findspots to be plotted separately.
- **Figure 2** presents the same assemblage positioned on edge to highlight diagnostic rim forms.

The presence of samian ware, in particular, is indicative of Roman-period occupation or activity of at least regional importance, and is consistent with supply, administrative, or military logistics rather than purely rural use.

3. Aliniadau Strwythurol a Thystiolaeth Sylfeini Colofnau

Nodwyd patrwm arwyddocaol a hynod reolaidd o anghysonderau tanddaearol, a ddehonglir fel sylfeini pyst neu golofnau sy'n gysylltiedig â strwythur sylweddol sy'n cynnal pwysau, o bosibl ramp mynediad at yr afon neu lwyfan glanio.

- **Ffigur 3** yn dangos aliniad marciau sy'n nodi safle chwe cholofn ar echel hydredol DO-GDd, gyda thair rhes ledredol, gan ffurfio grid o 18 o sylfeini i golofnau.
- **Ffigurau 4 a 5** yn dangos cylchedd arsylwedig o byllau post unigol, tua 2 fetr mewn diamedr (1 metr radiws).
- **Ffigurau 11 a 12** yn dangos ymhellach y bylchau rheolaidd rhwng y nodweddion hyn, tua 9 metr o'r canol i'r canol, mesuriad sy'n gyson â safonau peirianeg Rhufeinig ar gyfer seilwaith trwm.

Mae'r aliniad yn rhedeg yn uniongyrchol tuag at Afon Rhymni ac ymddengys ei fod yn terfynu wrth, neu'n integreiddio â, llinell amddiffyn yr afon.

3. Structural Alignments and Column Base Evidence

A significant and highly regular pattern of subsurface anomalies was identified, interpreted as post or column bases associated with a substantial load-bearing structure, possibly a ramped river access or landing stage.

- **Figure 3** shows marker alignment indicating six column positions on a longitudinal SW–NE axis, with three latitudinal rows, forming a grid of 18 column bases.
- **Figures 4 and 5** demonstrate the observed circumference of individual post holes, measuring approximately 2 m in diameter (1 m radius).

- **Figures 11 and 12** further illustrate the regular spacing of these features at approximately 9 m centre-to-centre, a measurement consistent with Roman engineering standards for heavy infrastructure.

The alignment runs directly toward the River Rumney and appears to terminate at, or integrate with, the river defence line.

4. Perthynas â Mur yr Afon ac Aliniad y Terfynell

Mae sawl delwedd yn cofnodi'r berthynas ofodol a gweledol rhwng aliniad arfaethedig y ramp, sylfeini y colofnau, a'r amddiffynfeydd afon:

- **Ffigur 6** yn dangos yr agwedd tuag at wal yr afon o safle'r bumed golofn, gan alinio tuag at bwynt terfynol gogledd-ddwyreiniol.
- **Ffigur 7** yn cofnodi bloc sylfaen mawr ger ymyl yr afon, wedi'i adeiladu gyda morter sy'n gyson o ran cyfansoddiad â mur amddiffyn hysbys yr afon, ond yn nodedig o ran dwysedd y deunydd.
- **Ffigur 8** yn dangos golwg fanwl o'r bloc sylfaen hwn.
- **Ffigurau 9 a 10** yn dangos y bloc sylfaen yn ei le a manylion o'r matrices morter sydd wedi goroesi.

Mae'r pellter o wal yr afon i safle'r golofn derfynol tua 80 metr, tra bod y ffordd gyfagos tua 18 metr o led, gan awgrymu llwybr mynediad peirianyddol sylweddol yn hytrach na thrac bach.

4. Relationship to River Wall and Terminal Alignment

Several images document the spatial and visual relationship between the proposed ramp alignment, column bases, and river defences:

- **Figure 6** shows the approach toward the river wall from the fifth column position, aligning toward a north-east terminal point.
- **Figure 7** records a large foundation block near the river edge, constructed with mortar consistent in composition with the known river defence wall, though notably denser in fabric.
- **Figure 8** provides a close-up of this foundation block.
- **Figures 9 and 10** show the foundation block in situ and detail the surviving mortar matrix.

The distance from the river wall to the terminal column position measures approximately 80 m, while the adjacent roadway appears to be approximately 18 m wide, suggesting a substantial engineered access route rather than a minor trackway.

5. Deunydd Sylfaen Ychwanegol ar Hyd Llinell Arfaethedig y Ramp

Cofnodwyd gweddillion ychwanegol o gerrig a mortar ar hyd aliniad arfaethedig DO-GDd y ramp:

- **Ffigurau 13, 14, 15 a 16** yn dangos deunydd sylfaen ychwanegol ar hyd yr echel hon.
- Mae'r gweddillion hyn wedi'u gwreiddio'n gadarn, yn sylweddol eu maint, ac yn gyson o ran cyfansoddiad, gan gefnogi dehongliad o strwythur peirianyddol parhaus yn hytrach na rwbel gwasgaredig.

5. Additional Foundation Material Along Proposed Ramp Line

Further stone and mortar remains were recorded along the projected SW–NE alignment of the proposed ramp:

- **Figures 13, 14, 15 and 16** document additional foundation material positioned along this axis.
- *These remains are embedded, substantial, and consistent in composition, supporting the interpretation of a continuous engineered structure rather than isolated rubble.*

6. Cyd-destun Tirwedd a Chydlyniant Gofodol

Mae golygfeydd ehangach o'r tirwedd yn dangos sut mae'r nodweddion a nodwyd yn eistedd yn gydlynol o fewn teras yr afon a'r gorlifdir:

- **Ffigurau 17 a 18** yn dangos yr aliniad o wal yr afon ar yr ochr ogledd-ddwyreiniol tuag at lan dde-orllewinol yr afon a'r rhediad ramp disgwylidig, gan atgyfnerthu'r dehongliad o ddull afon a reolir yn hytrach na chroesfan bont.

Mae'r bylchau rheolaidd, graddfa'r adeiladu, a'r berthynas â'r aliniadau ffyrdd Rhufeinig hysbys yn cefnogi'n gryf ddehongliad o seilwaith ar ochr harbwr, o bosibl yn cynnwys dociau neu iard gyflenwi sy'n gwasanaethu'r cyfadeilad Rhufeinig ehangach.

6. Landscape Context and Spatial Coherence

Wider landscape views demonstrate how the identified features sit coherently within the river terrace and floodplain environment:

- **Figures 17 and 18** show alignment from the north-east river wall toward the south-west bank and anticipated ramp run, reinforcing the interpretation of a managed river approach rather than a bridge crossing.

The regular spacing, scale of construction, and relationship to known Roman road alignments strongly support an interpretation of harbour-side infrastructure, potentially comprising a dockyard or supply base servicing the wider Roman complex.

7. Dehongliad ac Arwyddocâd

O'u hystyried gyda'i gilydd, mae'r dystiolaeth arteffactau, yr aliniadau strwythurol ailadroddus, y gweddillion sylfaen sylweddol, a'r berthynas ofodol glir â'r amddiffynfeydd afon yn awgrymu presenoldeb cyfleuster a reolir gan ddŵr o gyfnod Rhufeinig. Gallai hyn fod wedi gweithredu fel:

- harbwr neu fan glanio afon,
- strwythur llwytho a dadlwytho â ramp,
- iard gyflenwi a logisteg,
- pwynt croesi afon a reolir, yn debygol o gynnwys fferïau neu bontynau yn hytrach na phont barhaol.

Mae graddfa a threfniadaeth y nodweddion yn awgrymu pwysigrwydd strategol, o bosibl yn cefnogi gweithgareddau milwrol, gweinyddol ac economaidd sy'n gysylltiedig â chyfadeilad ehangach Ruperra/Machen.

7. Interpretation and Significance

Taken together, the artefactual evidence, repeated structural alignments, substantial foundation remains, and clear spatial relationship to the river defences suggest the presence of a Roman-period water-managed facility. This may have functioned as:

- *A harbour or river landing point*
- *A ramped loading and unloading structure*
- *A supply and logistics yard*
- *A controlled river crossing point, likely involving ferries or pontoons rather than a permanent bridge*

The scale and organisation of the features imply strategic importance, potentially supporting military, administrative, and economic activity associated with the wider Ruperra/Machen complex.

8. Argymhellion

Argymhellir bod:

1. Arolwg geoffisegol wedi'i dargedu yn cael ei gynnal ar draws grid sylfeini'r colofnau a'r aliniad ramp a nodwyd.
2. Canlyniadau'n cael eu hintegreiddio â data LiDAR a thopograffig presennol.

3. Unrhyw ymchwiliad ymyrrol yn y dyfodol yn cael ei reoli'n ofalus ac yn seiliedig ar y model gofodol a gyflwynir yma.

8. Recommendations

It is recommended that:

1. *Targeted geophysical survey be undertaken across the identified column base grid and ramp alignment.*
2. *Results be integrated with existing LiDAR and topographic data.*
3. *Any future intrusive investigation be tightly controlled and informed by the spatial model presented here.*



Figur 1 / Figure 1. Cymraeg: Darnau o grochenwaith wedi'u casglu o wyneb y cae ger yr ardal glan afon dan sylw. Mae'r casgliad yn cynnwys darnau o grochenwaith llwyd (greyware) a darnau coch wedi'u gwysgu, yn gyson â chrochenwaith Samiaidd Rhufeinig. Mae presenoldeb y deunydd hwn yn awgrymu gweithgarwch domestig neu logistaidd yn y cyffiniau, o bosibl yn gysylltiedig â seilwaith cludo neu gyflenwi ger yr afon. **English:** Pottery fragments recovered from the surface of the field adjacent to the riverine area under investigation. The assemblage includes greyware sherds and red-gloss fragments consistent with Roman samian ware. The presence of this material suggests domestic or logistical activity in the vicinity, potentially associated with transport or supply infrastructure near the river.



Ffigur 2 / Figure 2. Cymraeg: Yr un darnau o grochenwaith a ddangosir yn Ffigur 1, wedi'u gosod ar eu hymylon er mwyn tynnu sylw at siapiau'r ochr a thrwch y waliau. Mae'r ffurfiau hyn yn nodweddiadol o lestri Rhufeinig safonol, gan gefnogi dehongliad dyddiad o oes Rhufeinig ar gyfer y deunydd a gasglwyd. **English:** The same pottery fragments shown in Figure 1, arranged on edge to highlight rim profiles and wall thicknesses. These forms are characteristic of standard Roman vessel types, supporting a Roman-period attribution for the recovered material.



Ffigur 3 / Figure 3. Cymraeg: Golygfa gyffredinol o'r cae yn dangos cyfres o farcwyr wedi'u gosod i nodi safleoedd colofnau neu byst arfaethedig. Mae'r marcwyr yn ffurfio aliniad rheolaidd o chwe safle ar hyd echelin de-orllewin i ogledd-ddwyrain, gyda thair rhes draws-llledredol, gan awgrymu strwythur peirianyddol bwriadol, o bosibl ar gyfer ramp neu lwyfan llwytho cysylltiedig â'r afon. **English:** General view of the field showing a series of markers indicating proposed column or post locations. The markers form a regular alignment of six positions along a south-west to north-east axis, with three transverse rows, suggesting a deliberately engineered structure, possibly relating to a ramp or loading platform associated with the river.



Ffigur 4 / Figure 4. Cymraeg: Manyllyn o un safle colofn arfaethedig, gyda'r amgylchedd wedi'i farcio i ddangos cylchedd tua 2 m mewn diamedr (radiws o oddeutu 1 m). Mae'r dimensiynau hyn yn gyson â sylfeini colfnau neu byst cynhaliol mawr. **English:** *Detail of an individual proposed column location, with markings indicating an approximate diameter of 2 m (c. 1 m radius). These dimensions are consistent with substantial column or post foundations intended to bear significant structural load.*



Ffigur 5 / Figure 5. Cymraeg: Enghraifft ychwanegol o gylchedd safle colofn arfaethedig, yn dangos cysondeb o ran maint a ffurf ar draws y safleoedd a nodwyd. Mae'r unffurfiaeth hwn yn cefnogi dehongliad o gynllun adeiladu safonol yn hytrach na nodweddion naturiol ar hap. **English:** *Further example of a proposed column footprint, showing consistency in size and form across the identified locations. This uniformity supports interpretation as a planned construction layout rather than random natural features.*



Ffigur 6 / Figure 6. Cymraeg: Golygfa o'r bumed safle colofn arfaethedig wrth edrych tuag at wal amddiffynnol yr afon ar yr ochr ogleddol-ddwyreiniol. Mae'r aliniad gweledol rhwng y safle hwn a'r terfyn afonol yn awgrymu cysylltiad uniongyrchol rhwng y strwythur arfaethedig a seilwaith rheoli neu fynediad i'r afon. **English:** View from the fifth proposed column position looking towards the river defence wall on the north-eastern side. The visual alignment between this point and the river boundary suggests a direct relationship between the proposed structure and river management or access infrastructure.



Ffigur 7 / Figure 7. Cymraeg: Bloc sylfaen carreg sylweddol wedi'i leoli ger lan yr afon, gyda mortar tebyg ei gyfansoddiad i'r mortar a welir yn wal amddiffynnol yr afon, ond gyda gwead mwy trwchus a chryno. Gellid dehongli'r bloc hwn fel rhan o sylfaen colofn neu strwythur cynhaliol, wedi'i leoli tua 80 m i'r de-orllewin o wal yr afon. **English:** Substantial stone foundation block located close to the riverbank, bonded with mortar similar in composition to that observed in the river defence wall, though denser in texture. This block may represent part of a column base or supporting structure, situated approximately 80 m south-west of the river wall.



Ffigur 8 / Figure 8. *Cymraeg:* Golygfa agos o'r bloc sylfaen a ddangosir yn Ffigur 7, yn dangos gwead y mortar a'r agregau. *English:* Close-up view of the foundation block shown in Figure 7, illustrating mortar texture and aggregate composition.



Ffigur 9 / Figure 9. *Cymraeg:* Golygfa o safle'r bloc sylfaen o ochr gyferbyn yr afon, gan roi cyd-destun gofodol o fewn y tirwedd afonol. *English:* View of the foundation block location from the opposite side of the river, providing spatial context within the fluvial landscape.



Ffigur 10 / Figure 10. **Cymraeg:** Morter yn ei le (in situ) o fewn strwythur y sylfaen, yn dangos cyflwr a chyfansoddiad. **English:** Mortar in situ within the foundation structure, showing condition and composition.



Ffigur 11 / Figure 11. **Cymraeg:** Nifer o farcwrwyr wedi'u gosod ar gyfnodau o tua 9m, yn nodi safleoedd tyllau post arfaethedig ar gyfer strwythur dwyn pwysau. **English:** Multiple markers spaced at approximately 9m intervals, indicating proposed post-hole locations for a load-bearing structure.



Ffigur 12 / Figure 12. Cymraeg: Marcwyr yn dangos safleoedd sylfeini colfnau arfaethedig, yn dilyn grid rheolaidd. **English:** *Markers showing proposed column base locations, following a regular grid pattern.*



Ffigur 13 / Figure 13. Cymraeg: Sylfaen garreg ychwanegol ar hyd yr aliniad hydredol SW–NE arfaethedig ar gyfer rhediad y ramp. **English:** *Additional foundation stone along the proposed SW–NE longitudinal alignment of the ramp.*



Figur 14 / Figure 14. Cymraeg: Golygfa arall o garreg sylfaen ar hyd rhediad arfaethedig y ramp, yn dangos cysondeb deunydd a lleoliad. **English:** Further view of foundation stone along the proposed ramp alignment, showing consistency of material and positioning.



Figur 15 / Figure 15. Cymraeg: Golwg ar linell y ramp arfaethedig yn rhedeg o'r lan dde-orllewinol tuag at wal reoli'r afon ar yr ochr ogleddol-ddwyreiniol, gan ddangos parhad yr aliniad strwythurol. **English:** View of the proposed ramp alignment running from the south-western bank toward the river control wall on the north-eastern side, showing continuity of the structural alignment.



Ffigur 16 / Figure 16. Cymraeg: Deunydd carreg a morter ychwanegol wedi'i nodi ar hyd rhediad y ramp arfaethedig, yn awgrymu sylfeini strwythurol trwm. **English:** Additional stone and mortar material identified along the proposed ramp run, suggesting heavy structural foundations.



Ffigur 17 / Figure 17. Cymraeg: Aliniad gweledol rhwng wal reoli'r afon ar yr ochr ogleddol-ddwyreiniol a rhediad arfaethedig y ramp tuag at y lan dde-orllewinol. **English:** Visual alignment between the river control wall on the north-eastern side and the proposed ramp run toward the south-western bank.



Figur 18 / Figure 18. Cymraeg: Golwg gyffredinol o’r dull arfaethedig at y ramp a’r parth llwytho ar hyd glan ogleddol-ddwyreiniol yr afon. **English:** General view of the proposed approach to the ramp and loading zone along the north-eastern riverbank.