

Oak Archaeology Wales CIC

Ruperra Home Farm Roman Military–Funerary Complex

University Outreach & Research Engagement Pack

Dedicated to the land and people of Ruperra, whose stories lie beneath the earth and within the heart of Wales.

Cyflwynwyd i dir a phobl Ruperra, y mae eu straeon yn gorwedd o dan y ddaear ac yng nghalon Cymru.



Cymraeg

1. Cyflwyniad

Datblygwyd y Pecyn Ymgysylltu Prifysgol hwn gan Oak Archaeology Wales CIC, dan gyfarwyddiaeth Daryn Groves, i gryfhau cydweithrediad rhwng prifysgolion, corffau treftadaeth ac ymchwilwyr sy'n archwilio'r Cyfaddilad Milwrol–Angladdol Rufeinig yn Fferm Gartref Ruperra, Draethen, Caerffili. Rhwng Awst a Hydref 2025 cynhaliwyd arolygon anffewnthiol — LiDAR, Radar Treiddio i'r Ddaear (GPR) a

English

1. Introduction

This University Outreach and Research Engagement Pack was developed by Oak Archaeology Wales CIC, directed by Daryn Groves, to strengthen collaboration between universities, heritage bodies, and researchers investigating the Ruperra Home Farm Roman Military–Funerary Complex, Draethen, Caerphilly. Between August and October 2025, non-intrusive surveys — LiDAR, Ground-Penetrating Radar (GPR), and field dowsing

Cymraeg

chysylltiad dowsio maes — a nododd batrymau tanddaearol sy'n cyfateb i safle Rhufeinig trefnus sy'n rhan o rwydwaith milwrol–angladdol Caerllion–Caerdydd. Mae'r pecyn hwn yn cysylltu ymchwil, dehongli digidol ac ymchwil drawsddisgyblaethol.

2. Nodau Academaidd

Mae prosiect Ruperra yn archwilio:

- Arferion milwrol ac angladdol Rhufeinig yng Nghymru
- Ailddefnyddio cerrig Rhufeinig mewn pensaernïaeth ddiweddarach
- Dulliau anffewnthiol (LiDAR, GPR, dowsio, GIS)
- Creu archif ymchwil ddigidol.

Mae'r amcanion hyn yn cyd-fynd â blaenoriaethau NLHF a Llywodraeth Cymru ar gyfer datblygu sgiliau dwyieithog a chynaliadwyedd treftadaeth.

3. Fframwaith Ymchwil

- a) **Integreiddio Dulliau** – cyfuno synhwyro pell, arolwg geoffisegol, DBA, GIS a dowsio.
- b) **Dilysu** – gwirio trwy gydweithio â CBHC, GGAT, a chydweithredwyr prifysgol.
- c) **Hyfforddiant** – cyfleoedd i fyfyrwyr mewn dadansoddi data, dulliau maes a chyhoeddi dwyieithog.

English

correlation — identified large subsurface anomalies consistent with an organised Roman site forming part of the Caerleon–Cardiff military–funerary network. This resource links research, digital interpretation, and interdisciplinary enquiry.

2. Academic Aims

The Ruperra project explores:

- Roman military and funerary practices in Wales
- Reuse of Roman masonry in later architecture
- Non-invasive methods (LiDAR, GPR, dowsing, GIS)
- Creation of a digital research archive.

These aims align with NLHF and Welsh Government priorities for bilingual skills development and heritage sustainability.

3. Research Framework

- a) **Methodological Integration** – combining remote sensing, geophysical survey, DBA, GIS and dowsing.
- b) **Validation** – verification through collaboration with RCAHMW, GGAT, and university researchers.
- c) **Training** – opportunities for students in data analysis, field methodology and bilingual publication.

Cymraeg

4. Meysydd Ymchwil Thematig

1. Pensaerniaeth Tanddaearol
2. Ailddefnyddio Deunyddiau
3. Tirwedd Angladdol
4. Parhad Ôl-Rufeinig

5. Cyfleoedd Dysgu Cydweithredol

Gall prifysgolion gyd-oruchwylio traethodau, cymryd rhan mewn dilysu data, neu integreiddio data Ruperra i brosiectau ymchwil. Gall myfyrwyr dadansoddi setiau data, creu modelau 3D, neu gyfrannu at astudiaethau lles Cwmwl Clyd (Cosy Cloud). Rhennir canlyniadau drwy Casgliad y Werin Cymru ar gyfer mynediad dwyieithog agored.

6. Safonau Moesegol a Phroffesiynol

Cynhelir gwaith yn unol â Safonau ClfA, gan ddilyn canllawiau adneuo CBHC a GGAT HER, egwyddorion amgylcheddol NLHF, a Safonau'r Gymraeg (2016). Mae'r holl ymchwiliadau yn anfewnwithiol ac â chaniatâd gan y tirlfeddiannwr.

English

4. Thematic Research Areas

1. Subsurface Architecture
2. Material Reuse
3. Funerary Landscape
4. Post-Roman Continuity

5. Collaborative Learning Opportunities

Universities may co-supervise dissertations, join data validation, or integrate Ruperra data into research projects. Students can analyse datasets, create 3D models, or contribute to Cwmwl Clyd (Cosy Cloud) wellbeing case studies. Outputs will be shared through People's Collection Wales for open bilingual access.

6. Ethical and Professional Standards

Work is conducted to ClfA Standards, following RCAHMW and GGAT HER deposition guidance, NLHF environmental principles, and Welsh Language Standards (2016). All investigations are non-intrusive and authorised by the landowner.

Cymraeg

7. Canlyniadau Ymchwil Posibl

- Cyhoeddiadau adolygwyd gan gymheiriaid
- Archif digidol agored
- Delweddau 3D LiDAR a GPR
- Gweithdai a seminarau dwyieithog
- Astudiaethau achos ar dreftadaeth meddwlgar (Cwmwl Clyd)

8. Buddion i Addysg Uwch

- Data maes ar gyfer ymchwil traethodau
- Partneriaethau cryfach rhwng prifysgolion a chymunedau
- Yn dangos Pedair Egwyddor Buddsoddi NLHF:
 1. Achub Treftadaeth
 2. Cynnwys Pobl
 3. Cryfhau Sefydliadau
 4. Cynaliadwyedd Amgylcheddol

9. Diolchiadau

Gyda gwerthfawrogiad i CBHC, GGAT, Heneb, Casgliad y Werin Cymru, Cwmwl Clyd, a Ystad Ruperra am eu cydweithrediad parhaus, eu harweiniad a'u cefnogaeth yn rhannu treftadaeth ddigidol.

English

7. Potential Research Outputs

- Peer-reviewed publications
- Open-access digital archive
- 3D LiDAR & GPR visualisations
- Bilingual workshops and seminars
- Case studies on mindful heritage (Cwmwl Clyd)

8. Benefits to Higher Education

- Field data for dissertation research
- Stronger university–community partnerships
- Demonstrates NLHF's Four Investment Principles:
 1. Saving Heritage
 2. Involving People
 3. Strengthening Organisations
 4. Environmental Sustainability

9. Acknowledgements


With appreciation to RCAHMW, GGAT, Heneb, People's Collection Wales, Cwmwl Clyd, and the Ruperra Estate for their continuing collaboration, guidance, and support in digital heritage sharing.

Cymraeg

10. Cyswllt

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English

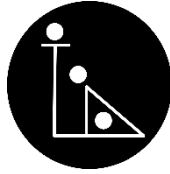
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University Research Worksheet & Study Framework

Aims

To explore advanced non-invasive archaeological methods and interpret evidence for a potential Roman military–funerary complex in South Wales.

To evaluate data integration techniques (LiDAR, GPR, and DBA) and their implications for landscape archaeology and cultural heritage management.

Learning Outcomes

By completing this activity, participants will be able to:

- Critically assess multi-sensor survey data (LiDAR & GPR).
- Correlate material reuse evidence with subsurface mapping.
- Understand the ethical and conservation principles behind non-intrusive heritage study.
- Design an interpretive model linking physical evidence, archival sources, and local oral history.

Research Tasks

Task 1 – Spatial Correlation Study

Review the provided LiDAR and GPR overlays (Figures 2–4).

- Identify zones of rectilinear, linear, or circular anomaly.
- Assess whether these correlate with known landscape features (paths, enclosures, buildings).
- Prepare a short interpretive sketch plan (digital or hand-drawn).

Task 2 – Material Reuse and Architectural Continuity

Using the DBA Addendum images (Plates 1–8), analyse evidence for Roman masonry reuse within later estate structures (Ruperra Castle, Plas Machen, etc.).

- Compare block dimensions, tooling, and coursing patterns.
- Suggest reasons for systematic reuse and discuss its heritage implications.

Task 3 – Landscape Narrative and Interpretation

Develop a 500–800 word summary explaining:

- How dowsing, LiDAR, and GPR together reveal the Ruperra complex.
- What the potential military–funerary interpretation suggests about regional Roman infrastructure.
- How this case study informs current debates on Romanisation, reuse, and post-Roman landscape transformation.

Optional Extension

Design a **digital interpretive tool or exhibition concept** (e.g. interactive web map, VR walkthrough, or Cwmwl Clyd wellbeing story module) that visualises the findings for public audiences.

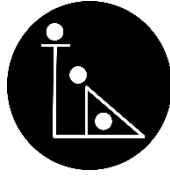
Reflection

1. How does this case demonstrate the value of interdisciplinary archaeology?
2. What challenges arise when interpreting non-intrusive datasets without excavation?
3. How can researchers balance scientific accuracy with community storytelling?

Submission Options

- Academic coursework report (1000–2000 words)
- Poster or visual interpretation project
- Multimedia presentation for Oak Archaeology Wales CIC or partner institutions

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Ffeil Ymchwil Prifysgol a Fframwaith Astudio

Amcanion

- Archwilio dulliau archaeolegol datblygedig, anfewnwthiol, ac egluro tystiolaeth ar gyfer cyfadeilad milwrol-angladdol Rhufeinig posib yn ne Cymru.
- Gwerthuso technegau integreiddio data (**LiDAR**, **GPR**, a **DBA**) a'u goblygiadau ar gyfer archaeoleg tirlun a rheolaeth treftadaeth ddiwylliannol.

Canlyniadau Dysgu

Drwy gwblhau'r gweithgaredd hwn, bydd cyfranogwyr yn gallu:

- Asesu'n feirniadol data arolwg aml-synhwyrol (**LiDAR** a **GPR**).
- Cysylltu tystiolaeth o ail-ddefnyddio deunyddiau gyda mapio tanddaearol.
- Deall yr egwyddorion moesegol a chadwraethol sy'n sail i astudiaeth anfewnwthiol o dreftadaeth.
- Dylunio model dehongli sy'n cysylltu tystiolaeth corfforol, ffynonellau archifol, a hanes llafar lleol.

Tasgau Ymchwil

Tasg 1 – Astudiaeth Cydberthyniad Gofodol

Adolygwch y gorgyweiriadau **LiDAR** a **GPR** a ddarperir (Ffigurau 2–4).

- Nodwch ardaloedd sy'n dangos annormaleddau hirsgwar, llinol neu gylchdro.
- Aseswch a yw'r rhain yn cyd-fynd â nodweddion tirlun hysbys (llwybrau, caeadau, adeiladau).
- Paratowch gynllun bras dehongliadol (digidol neu law-luniwyd).

Tasg 2 – Ail-ddefnyddio Deunyddiau ac Esblygiad Pensaernïol

Gan ddefnyddio'r delweddau atodol **DBA** (Platiau 1–8), dadansoddwch dystiolaeth o ail-ddefnyddio cerrig Rhufeinig mewn strwythurau ystâd diweddarach (**Castell Ruperra, Plas Machen**, ayyb).

- Cymharwch dimensiynau blociau, patrwm offeru, a chysiau adeiladu.
- Awgrymwch resymau dros ail-ddefnyddio systematig a thrafodwch ei oblygiadau treftadaethol.

Tasg 3 – Naratif Tirlun a Dehongli

Datblygwch grynodedb o **500–800 o eiriau** sy'n egluro:

- Sut mae dowsio, **LiDAR**, a **GPR** gyda'i gilydd yn datgelu cyfadeilad Ruperra.
- Beth mae'r dehongliad milwrol–angladdol posib yn ei awgrymu am seilwaith Rhufeinig rhanbarthol.
- Sut mae'r astudiaeth achos hon yn cyfrannu at drafodaethau cyfoes am Rufeineiddio, ail-ddefnyddio, a thrawsnewid tirlun ar ôl y cyfnod Rhufeinig.

Estyniad Dewisol

Dylunio offeryn dehongli digidol neu gysyniad arddangosfa (e.e. map rhyngweithiol ar y we, taith realiti rhithwir, neu fodiwl llesiant *Cwmwl Clyd*) sy'n delweddu'r canfyddiadau ar gyfer cynulleidfaoedd cyhoeddus.

Adlewyrchu

1. Sut mae'r achos hwn yn dangos gwerth archaeoleg rhyngddisgyblaethol?
2. Pa heriau sy'n codi wrth ddehongli setiau data anfewnwithiol heb gloddio?
3. Sut gall ymchwilwyr gydbwyso cywirdeb gwyddonol gyda'r broses o adrodd straeon cymunedol?

Dulliau Cyflwyno

- Adroddiad cwrs academaidd (**1000–2000 o eiriau**)
- Prosiect poster neu ddehongliad gweledol
- Cyflwyniad amlgyfrwng ar gyfer Oak Archaeology Wales CIC neu sefydliadau partner

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