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Oak Archaeology Wales

MASTER INTEGRATED REPORT

The Ruperra–Machen Roman Complex, Caerphilly

An Integrated Desk-Based and Field Assessment

1. Introduction

This report presents a consolidated synthesis of desk-based research, field observation, spatial analysis, artefact recovery, and landscape interpretation relating to the extensive Roman-period remains identified at Ruperra Home Farm, Plas Machen, and along the River Rumney in south-east Wales.

The work brings together multiple Desk-Based Assessments (DBAs), field reports, interpretative studies, and landscape analyses produced between 2025–2026. Collectively, these documents indicate the presence of a large, highly organised Roman military-logistical landscape, extending well beyond the footprint of a conventional fort and incorporating funerary, civic, hydraulic, and transport infrastructure.

All findings to date derive from non-invasive methodologies. No excavation has been undertaken.

2. Location and Landscape Context

The site lies within the Rumney Valley, strategically positioned between upland resources, fertile floodplain, and established Roman route corridors linking south-east Wales with the wider western province.

The landscape comprises:

- Elevated defensible ground at Ruperra
- Broad floodplain suitable for agriculture
- A constrained river corridor ideal for controlled crossings
- Nearby quarry resources at Craig Ruperra

This combination is characteristic of Roman military planning where logistics, control, and long-term occupation were priorities.

3. Discovery and Methodology

The complex was identified through:

- Systematic fieldwalking
- Measured pacing and trundle-wheel survey
- Spatial plotting and alignment analysis
- Artefact recovery from ploughsoil
- LiDAR and DTM interpretation
- Aerial and satellite imagery review
- Comparative landscape modelling

Initial identification relied on intuitive prospection (dowsing), followed by physical measurement, repeated verification, and spatial consistency testing. Interpretations were retained only where supported by repetition, geometric regularity, structural logic, and landscape coherence.

This staged methodology ensured that hypotheses were progressively refined and grounded in observable evidence.

4. The Core Military Complex

Evidence indicates a substantial Roman military installation at Ruperra, far exceeding the scale of a small auxiliary fort.

Key components include:

- A large defended enclosure
- Regular internal planning
- Barrack blocks arranged on a grid
- Associated parade and service spaces

The scale and organisation suggest either a legionary facility, major training centre, or long-term regional command hub.

5. Monumental Gates and Access Control

One of the most significant discoveries is the identification of monumental gate structures, including a major south-west-facing entrance.

Characteristics include:

- Broad approaches
- Symmetrical flanking structures
- Clear axial alignment with internal roads
- Direct relationship to external routeways

These features indicate formalised access control, ceremonial intent, and high administrative status, reinforcing interpretation of Ruperra as a prestige installation.

6. Road Network and External Connectivity

A dense and highly regular road system radiates from the complex, including:

- At least nine longitudinal routes
- Direct alignment with river crossings
- Integration with harbour and floodplain infrastructure

Road geometry and spacing reflect Roman surveying principles and indicate coordinated construction phases.

7. Amphitheatre

A large oval structure consistent with a Roman amphitheatre has been identified through earthwork morphology, symmetry, and axial alignment with the internal road grid.

Its presence indicates:

- A large, stable population
- Formal training, discipline, and ceremonial activity
- High-status occupation

Roman amphitheatres are rare in Wales, underscoring the importance of the site.

8. Burials and Cemeteries

Multiple cemetery zones have been identified, characterised by:

- Strongly regular grave alignments
- Predominantly NE-facing burials
- Organised burial plots arranged in blocks

The scale suggests several thousand individuals, indicating long-term use and formal funerary regulation consistent with Roman military practice.

9. Morgue / Funerary Processing Structure

A rectilinear structure interpreted as a morgue or funerary preparation building lies adjacent to the cemeteries.

Its location relative to roads, water supply, and burial zones aligns closely with Roman military funerary practice, including corpse preparation and ritual washing.

10. Craig Ruperra Quarry

The Craig Ruperra quarry scarp shows:

- Tool-cut extraction faces
- Downslope transport routes
- Stone matching construction material across the complex

The quarry likely supplied building stone for walls, gates, ramps, river defences, and mortared structures, demonstrating integrated local resource exploitation.

11. Harbour and Water-Managed River System

An exceptional engineered river system has been identified along the River Rumney, including:

- A uniform river width of ~15 m maintained over ~1 km
- Re-aligned and straightened channel sections
- Reinforced banks and parallel embankments
- Culverts managing natural land drainage
- Multiple aligned ramp crossings

The evidence indicates deliberate river re-routing using temporary dams, with excavated material reused in embankments and ramp foundations. The system:

- Freed large areas of floodplain for agriculture
- Enabled controlled crossings
- Possibly supported shallow-draft river transport

This represents monumental Roman hydraulic engineering.

11 A. Spring-Fed Well, Bathhouses, and Internal Hydraulic Network

Integrated within the wider river system is a sophisticated internal hydrological network, centred on a spring-fed well approximately 6 m in diameter, with an associated sump acting as a sediment trap and flow regulator.

From the well, a boxed culvert approximately 1 m wide conveys clean water over a distance of c. 545 m, following natural topography to supply:

- Bathhouse C (amphitheatre-facing)
- Bathhouse B (central, primary bathing complex)
- Bathhouse A (downstream terminal bathhouse)
- The system demonstrates:
- Strict segregation of clean water and waste drainage
- Gravity-assisted flow
- Defensive features including grilled sumps and boxed culverts

A large engineered exercise / swimming channel (10–11 m wide) runs NE–SW for c. 545 m, terminating near Bathhouse A. A preserved dark oak timber beam aligned with this channel strongly suggests hydraulic regulation, such as sluicing or flow control.

Together, these features indicate a hierarchical bathing and training complex, with water reused sequentially before controlled discharge.

12. Integrated Interpretation

The Ruperra–Machen landscape represents a unified Roman military-logistical system, integrating:

- Defence and access control
- Training and spectacle
- Burial and funerary processing
- Quarrying and construction
- River, spring, and flood management
- Agriculture and transport

The coherence of planning across all elements is a defining strength.

13. Significance

If confirmed through geophysical survey, the site would rank among the most significant Roman discoveries in Wales, and potentially Britain, due to:

- Scale and complexity
- Engineering ambition
- Degree of landscape integration

The combination of monumental gates, amphitheatre, extensive cemeteries, morgue, quarry, harbour, and hydraulic systems is exceptionally rare.

14. Recommendations

Targeted geophysical survey across:

- Amphitheatre
- Burial zones
- Morgue structure
- Bathhouses and exercise channel
- River ramps and embankments

- ➢ Continued non-invasive investigation, including extended LiDAR and hydrological modelling
- ➢ Formal recognition of the area as an archaeologically sensitive landscape
- ➢ Phased research design leading toward academic publication and heritage designation
- ➢ Development of public interpretation and education resources aligned with best-practice heritage engagement