An argument for the systematic use of GIS in finds recording: its potential for detailed analysis and theoretical modelling

A case study at Tremough, Cornwall

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### An argument for the systematic use of GIS in finds recording: its potential for detailed analysis and theoretical modelling. Case study at Tremough, Cornwall.

I have done my own spatial analysis with GIS over a 3.2 hectare Romano British site in the UK. Through plotting every piece of pottery found, adding data from my own abrasion scale and refit work on an assemblage of around 1600 stratified sherds. I was able to see clear trends in deposition over different phases and look at phases within features such as ditches. I have also found some interesting cases which go against the general trend and have highlighted to be specific cases of structured deposition and fragmentation. My main focus of this work is to retrieve more data from the sites I am finds officer on and to highlight possible instances of enchainment and socially important acts of fragmentation and deposition, thereby using hard data to highlight possibly subtle elements of social life. As a pottery specialist I believe we are only get a small amount of data out of our assemblages and I would like to work towards changing field practise so that artefacts are used to their full extent, this a subject I am quite passionate about.

# **Required Display Attributes**

- Distribution
- Abrasion
- Quantity
- 3D Location



# The application of GIS in answering theoretical questions



Aims of application

- Investigate fragmentation theory
- Identify overall trends in deposition
- Display deviations from trend if present.
- Use GIS images to Interpret spatial and deposition trends

### Tremough, Cornwall Developer funded 2.6 hectare site



# **Romano British phase**



# On site methodology for retrieving data

- Record each sherd by context
- Clusters of co-joining sherds were drawn at 1:1 scale and numbered to aid post excavation reconstruction
- All sherds 3D recorded with the EDM



# Post excavation analysis and quantification

- Assigned an abrasion stage based on the abrasion of the 1.Surfaces
  2.Broken edges
  3.Decoration
- Refit analysis was also included
- Finally all data was digitised and added to the GIS programme

# **Abrasion stages**

- 1) Unabraded new break
- 2) Unabraded
- 3) Minor abrasion
- 4) Fairly abraded
- 5) Abraded
- 6) Overly abraded
- 7) Highly abraded
- 8) Totally abraded
- 9) Undiagnostic

Group A = stage 2

Group B = stage 3

Group C = stages 4,5,6

Group D = stages 7,8,9

# **Plotted locations of all abraded sherds**

All abrasion stages indicated by colour, shapes indicating pot clusters



# **Abrasion Group C**



## **Abrasion Group B**



## **Abrasion Group A**



# Exceptions to the depositional trend focused in and around the enclosure



#### **Co-joining vessels found in clusters**

- 89% slack profiled domestic jar
- 36% Large cordon ware storage vessel
- 28% Slack profiled jar
- 23.5% Upper body of slack profiled jar



# Potential for detailed data analysis in theoretical modelling

- The tool to investigate wider theoretical questions in studies of material culture.
- The precise nature of deposition provides evidence with which to uncover mechanisms of enchainment, accumulation and consumption performed by agents involved in this process.
- Evidence which enabled me to interpret the actions of agents and their interaction within the settlement domain at Tremough.