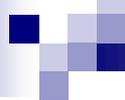


Using quantitative data in (Roman) archaeology

Dr Martin Pitts

Classics and Ancient History



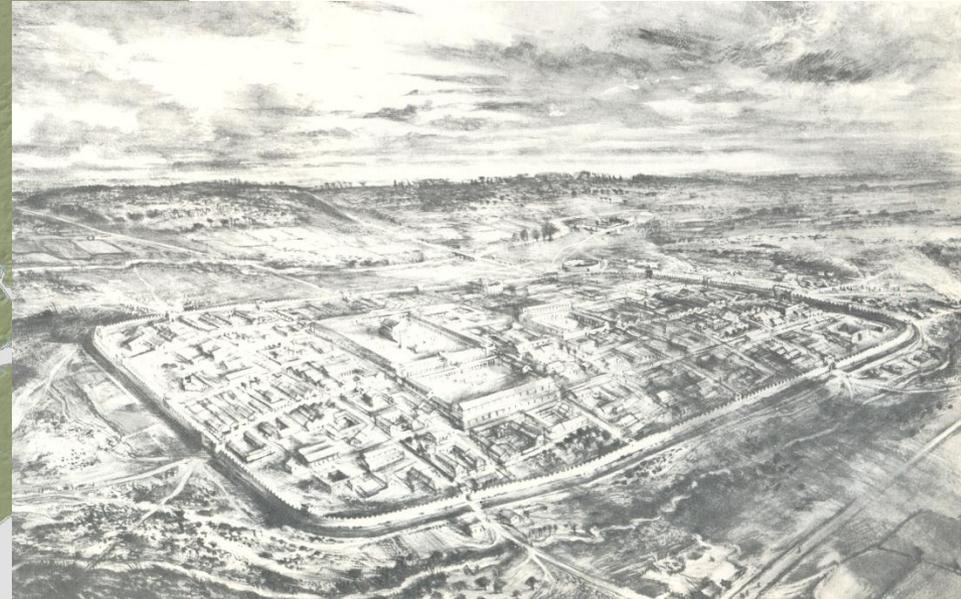
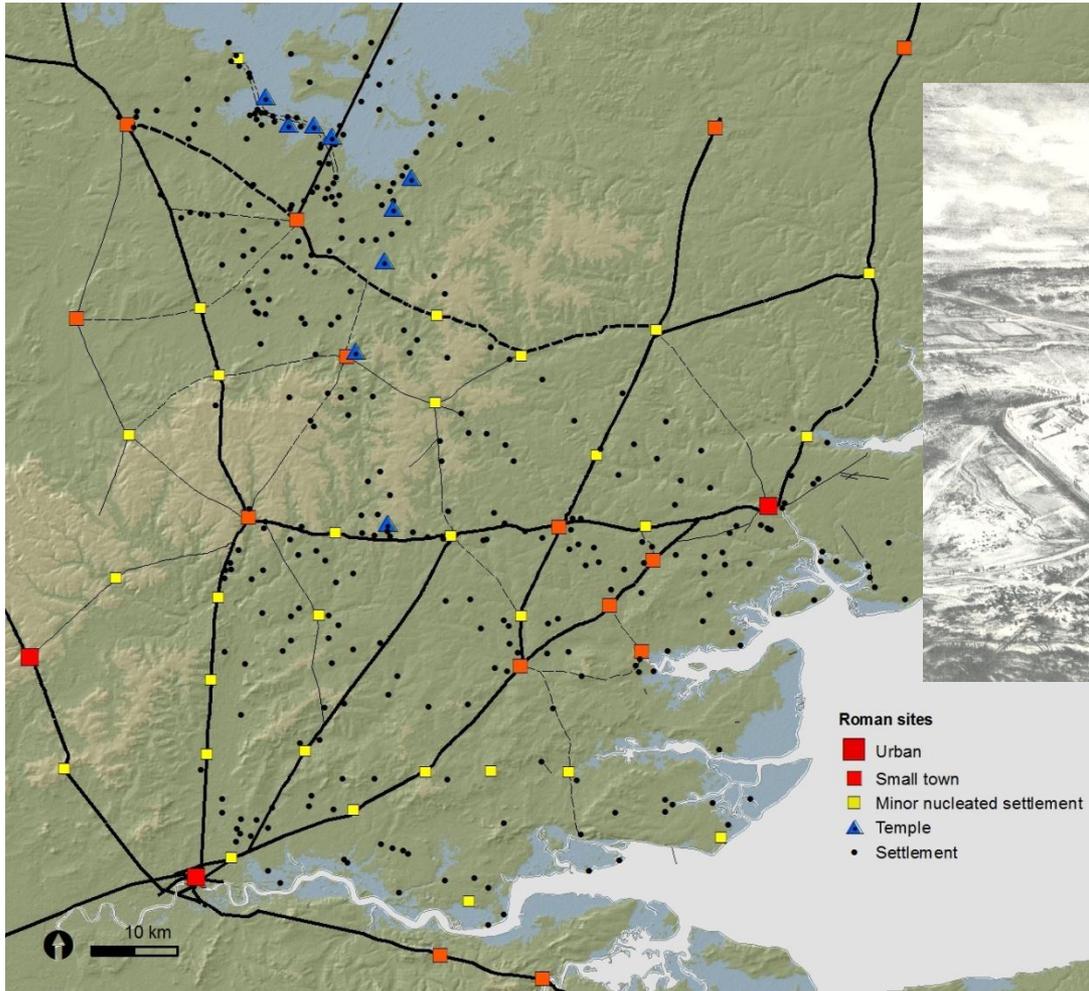
Quantitative data and Roman archaeology

- Decades of scientific excavation = lots of data
- Data rarely examined to full potential
- Problems:
 - Preservation bias
 - Incomplete excavation
 - Inconsistent recording & quantification

Alien cities: consumption and the origins of urbanism in Roman Britain (with D. Perring, UCL)



ENGLISH HERITAGE



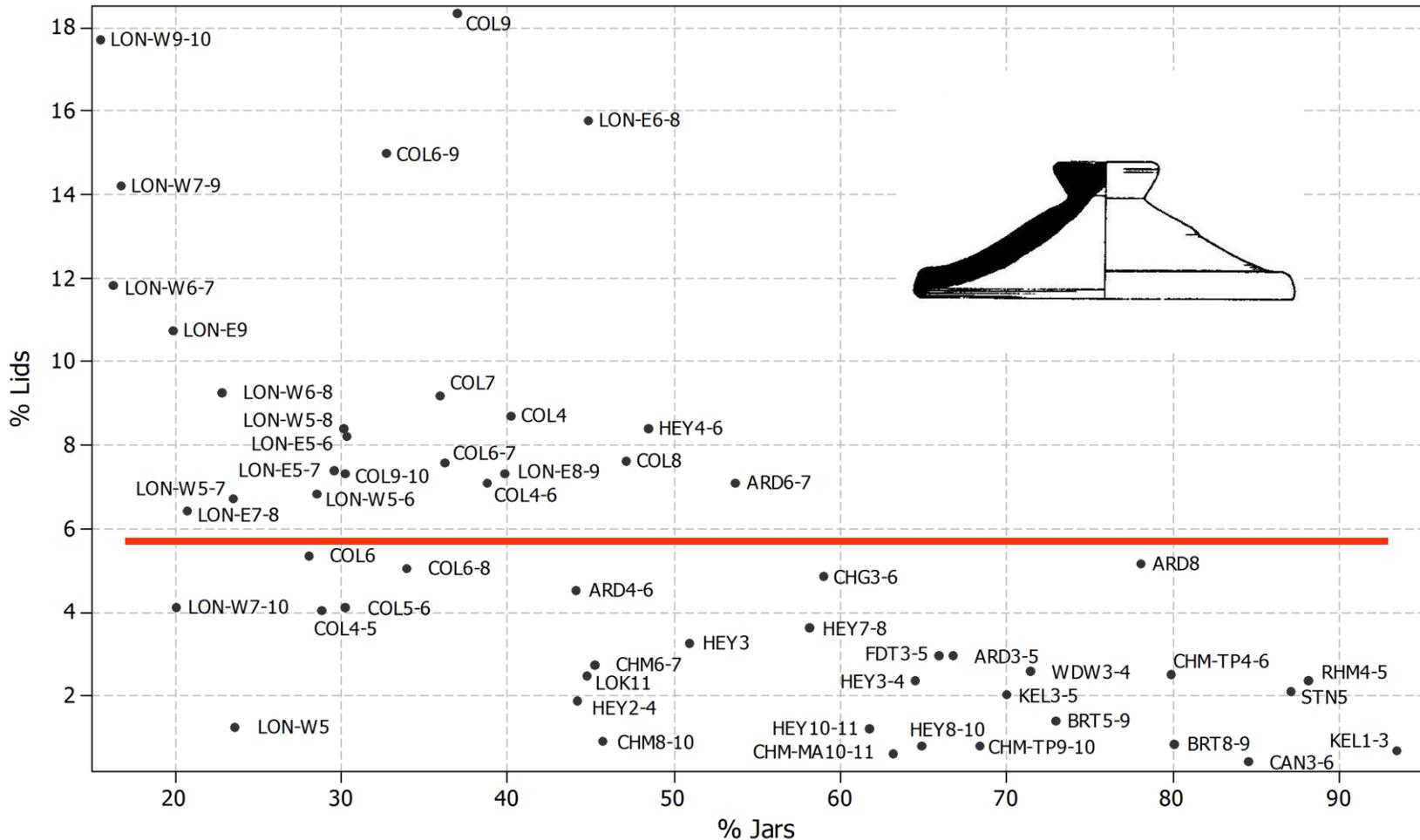
Roman Colchester (reconstruction)

SE Roman Britain: settlement landscape, c. AD 200

Alien cities: consumption and the origins of urbanism in Roman Britain (with D. Perring, UCL)



ENGLISH HERITAGE

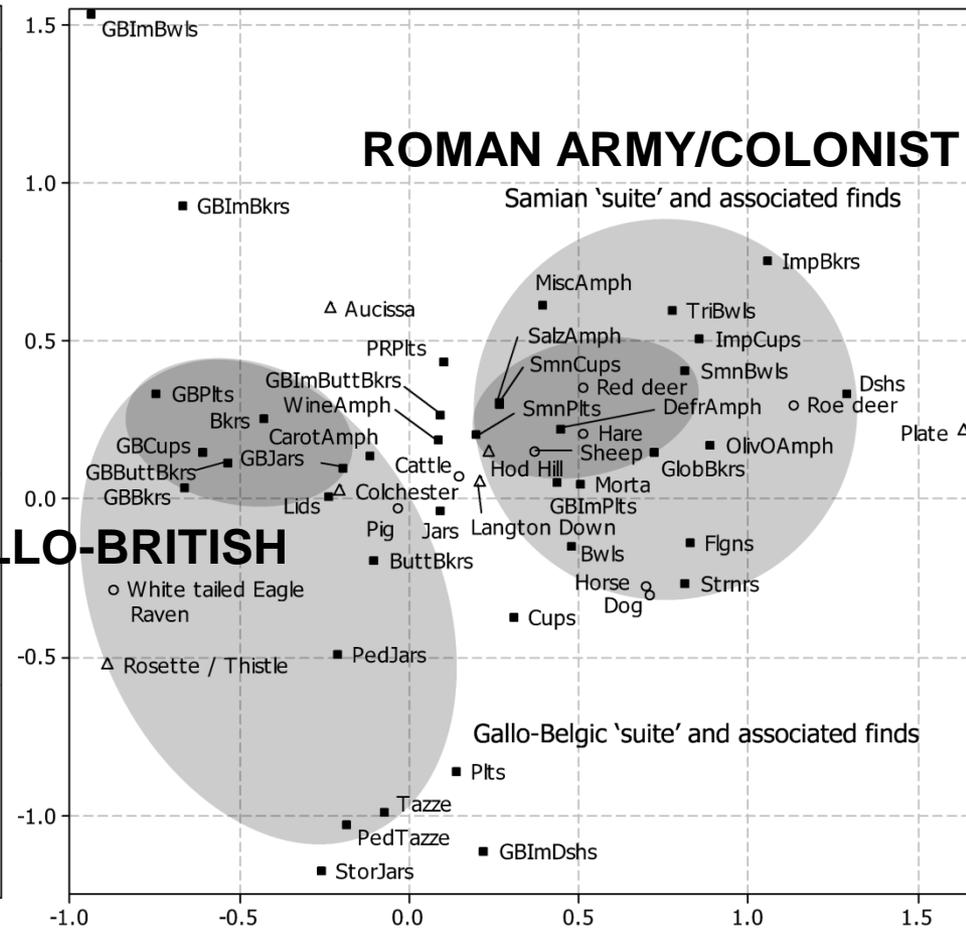
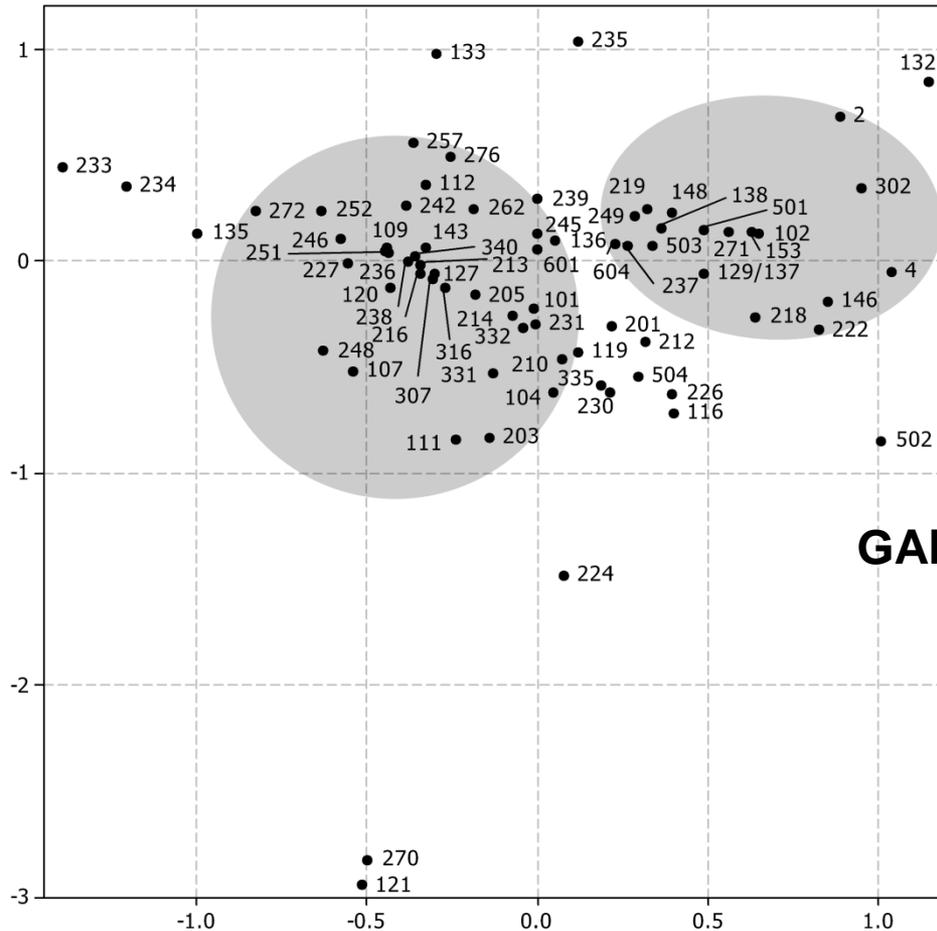


Percentages of lids versus jars in pottery assemblages

Alien cities: consumption and the origins of urbanism in Roman Britain (with D. Perring, UCL)



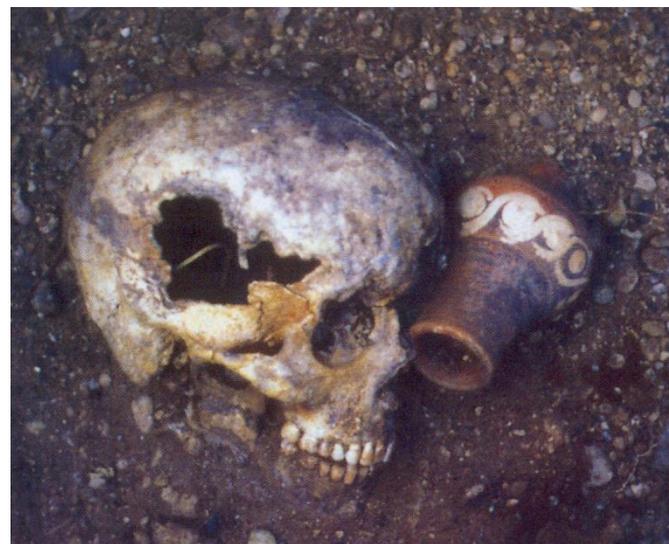
ENGLISH HERITAGE



CA, Sheepen, *Camulodunum*, c. AD 44 - 61: assemblages (left) versus pottery contents, with animal bones and brooches added as supplementary data (right)

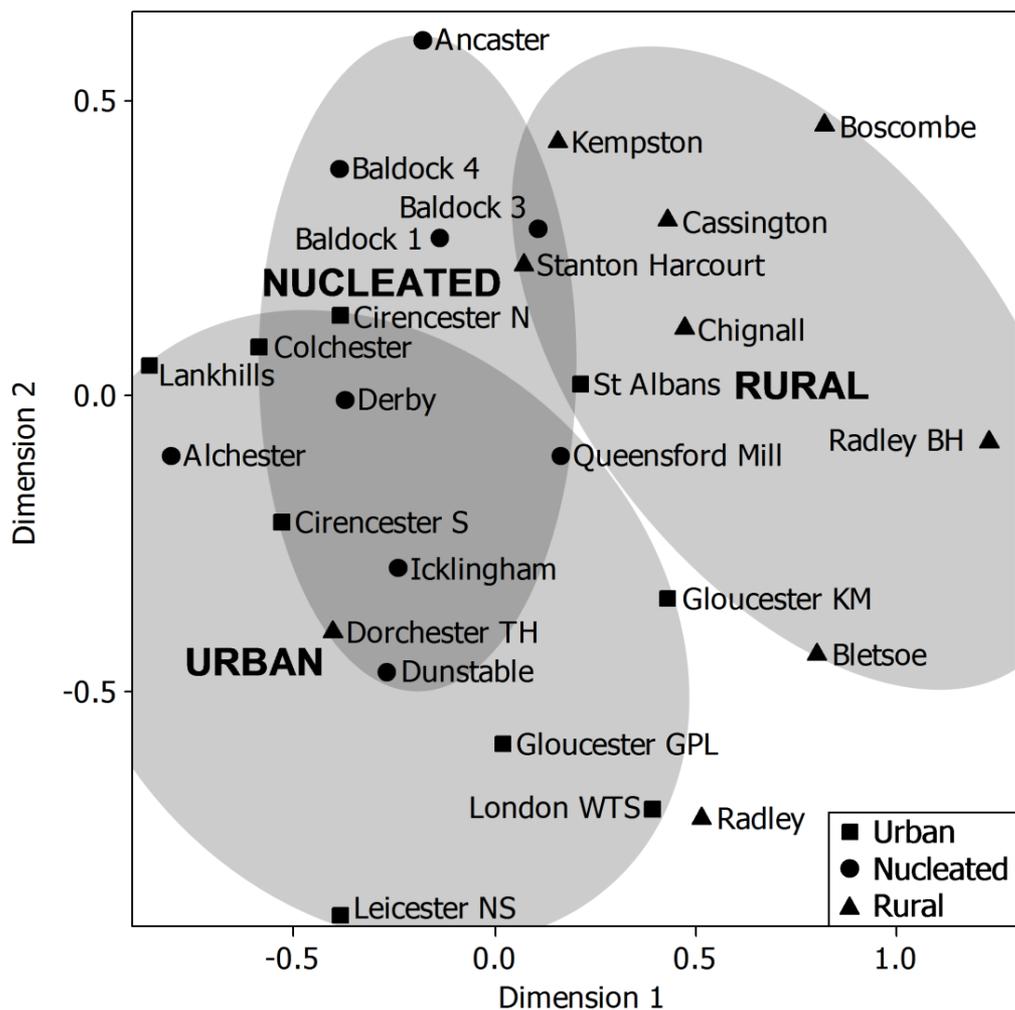
Health and social inequality in late Roman Britain (with R. Griffin)

Condition	Urban	Nucleated	Rural	P value
	(11 sites)	(9 sites)	(9 sites)	
Dental abscesses	1	4	13	0.002
Ante-mortem tooth loss	12	13	23	0.014
Spondylolysis	2.0	3.7	5.9	0.025
Spina bifida	1.3	1.6	6.7	0.028
Enamel hypoplasia	15	13	30	0.030
Periodontal disease	39	9	52	0.041
Neoplastic disease	1.0	2.6	3.9	0.051



Average prevalences (%) of health indicators by settlement type, with significances computed using one-way ANOVA.

Health and social inequality in late Roman Britain (with R. Griffin)



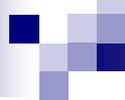
- Overall health/ exposure to infections

- Enamel hypoplasia
- Cribra orbitalia
- Rib periostitis

- Diet and oral health

- Caries
- Dental calculus
- Ante-mortem tooth loss
- Dental abscesses
- Periodontal disease

Multidimensional scaling: non-work related health data from late Roman Britain



Challenges

- Numerical literacy
- Students would rather read Caesar than statistical text books
- Pressure to omit forms of recording/quantification in developer funded archaeology (i.e. competitive tendering)