A Brief Introduction to Contemporary Refuse Archaeology: Garbology

What is it?

The disposal of waste material in human culture is as old as human culture itself. This process has taken on many forms, from flintwork spall assemblages in prehistory through to Roman ditch-filling, then medieval middens and on to potsherd pits associated with the pottery industries of the eighteenth and nineteenth centuries. The investigation of all these historical 'dustbins' is now part of the established archaeological record.

However, until recent decades, these records were often sporadic and fragmentary, being restricted to the footnotes of the principal archaeological survey with which they were associated. And as for the refuse itself, as a historical record, this was assumed to end with the potsherd pits of the English Industrial Revolution.

But, towards the end of the nineteenth century, another revolution had taken place in the U.S.A.: the systematised mass disposal of urban waste. Gone were the casual pits strewn with everything from animal bones to broken bottles; gone were the choking bonfires on the edge of town; gone were the barges sunk out at sea.

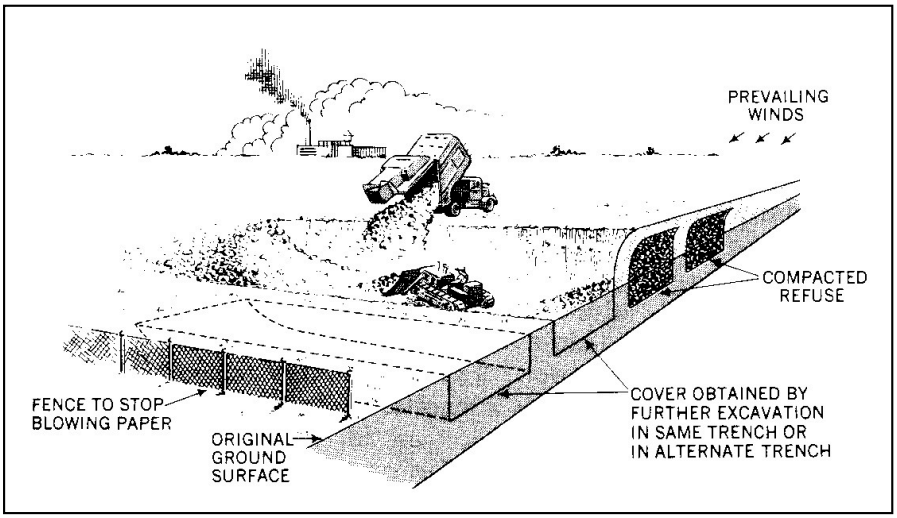
America was the first nation to prohibit the sinking of waste either at sea or through open burning, and during the 1880s communal urban landfill sites made their first appearance there, a concept introduced to England in 1912. However, these early landfills were not subject to national law, which did not at first exist to control them, and in practice they could be constructed according to local whim. Complaints mounted, public health was at risk, and laws were introduced according to which landfills were to become highly engineered methods of mass waste disposal in rehabilitated land, involving both careful stratification of material and an appreciation of its biodegradability. These new municipal sites became known as 'sanitary landfills', and the first was opened at Fresno, California, in 1937. The first British sanitary landfills were opened after World War II.

America again led the way when, in 1973, archaeologist and anthropologist Dr William Rathje of the University of Arizona initiated the 'Tucson Garbage Project'. Initially modest in scope and remit, it was set up to determine patterns of urban consumption through quantitative data obtained from selected residential dustbins in Tucson, then comparing the results with answers previously given on paper by interview. The results were sometimes amusing, particularly when alcohol consumption was found to be many times higher in reality than people were willing to admit. But the results were not so amusing when medical and dietary waste was related to those in socially deprived districts, where residents claimed (or it was claimed on their behalf) a higher degree of health care, and better dietary habits, than their waste suggested.

"That's archaeology, mon cher*: the Science of Rubbish!"* [1846]

As sanitary landfills became increasingly common (and, of course, older), the remit of the Tucson Garbage Project broadened, gaining acceptance in America as an archaeological discipline in its own right. Thus the first sanitary landfill was formally excavated in 1987 under Dr Rathje's direction, after which the Project, now fully systematised with a structured methodology, went national and the discipline gained its formal title of 'Refuse Archaeology', or (less formally) 'Garbology'. Archaeologists in Canada, Mexico, and Australia have now adopted its protocols and applied its methods to the study of their own modern refuse.

Sanitary landfills are not just medieval middens on a grand modern scale, but highly organised and carefully ordered records of contemporary urban culture going back four generations. Waste material is contained in datable stratified layers throughout the long life of the landfills, and that which has been carefully constructed [see Illustration] can therefore be equally carefully deconstructed archaeologically.



What else can Refuse Archaeology tell us?

The Tucson Garbage Project was an actualistic study in which transitory refuse was examined and interpreted *in situ* mainly for local socio-cultural purposes, although some of the quantified results were extrapolated and applied both regionally and nationally. Conventional trenchwork at sanitary landfills is far broader in scope, and can answer an astonishing range of questions asked by many disciplines: when and where, for example, were the first wireless sets considered to be disposable enough for their owners not to wish or need to repair them but be willing to throw them away, replacing them with newer models? Was it always so in that particular community? Some intriguing results have been obtained through the study of such luxury-item disposal, particularly in former 'frontier towns', whose communal wealth was found to be greater 80 years ago than it is today. Conversely, increasing prosperity may also be measured, with equally surprising results.

Questions asked by the scientific community may also be answered. These may relate to studies of biodegradability in manufactured products, measuring ecological awareness

over time and the true emergence of recycled products. Answers supplied by the archaeologists on site, and subsequent analysis of detritus, impact on the future management of sanitary landfills themselves, according to how modern products deteriorate in comparison with older items. The biologist too is involved, studying the process of decay through the action of micro-organisms – part of the engineered process of the sanitary landfill – and so also any actual or potential threats to public health. Such studies are useful to the wider medical community, in particular those associated with managing waste disposal in 'emerging' nations and non-industrial cultures.

Refuse Archaeology also impacts on the history of modern consumer culture, as unique manufactured household objects are occasionally recovered, of which there is no other record, some particular to a region or local community, others more widespread but which have not survived outside the sanitary landfill. There is also the matter of quality: we may be told one thing by our contemporary manufacturers, but Refuse Archaeology suggests something very different when articles sold to us on the advertised interpretation that they will 'last forever' are found utterly degraded after just a few years. On the other hand, popular misconceptions and prejudices are also overturned, as the surprisingly poor quality of many early commercial goods can be contrasted with the higher standards – both in quality of construction and aesthetic appeal – of recent times.

Major surveys, with international implications, are possible by assembling data from all sites when assessing the dietary habits not just of urban sectors but now of entire cities and counties, with eventually an international database of dietary changes being possible.

These are just a few of the fascinating and important areas being answered by Refuse Archaeology: one that reveals a part of our communal past that we would perhaps rather forget; and one that cannot lie, often exposing the realities behind political and Corporate spin. Unfortunately, as a system, it has not been adopted in Britain. However, every archaeologist has the opportunity to apply the protocols established by Dr Rathje at regular sites where modern detritus is found – even on the way to that Roman mosaic.

We perhaps tend to forget that our Western material consumer culture is already at least a century old, and the careful study not only of its early phases but also of its contemporary nature has the same fundamental purpose as all archaeology; the study and understanding of ourselves. All archaeology IS indeed rubbish, and, from the purely archaeological perspective, a fizzy-drinks bottle has equal value with a gold Saxon torc; so also a TV set with a horde of Roman coins, and a pile of compact discs with the Vindolanda tablets.

After all, the celebrated and unique Vindolanda tablets were once considered 'rubbish' by their Roman contemporaries, and thrown onto a fire to be destroyed.