A. Levels of Observation

L1 Can notice features pointed out.
L2 Can identify for themselves simple features specifically asked.
L3 Can notice specific items without specific prompting.
L4 Can make rough estimates of scale, size, height, etc.
L5 Notices different materials/mediums/ styles.
L6 Can identify features that have particular significance.
L7 Can notice the absence of features.

B. LEVELS OF RECORDING

L1 Can fill in gaps in worksheet sentences or pictures.
L2 Can make basic outline sketches OR Can answer simple questions about what can be seen.
L3 Can make more detailed sketches, picking out specific information, with labels.
L4 Can record accurately (including measuring to scale) in diagram/ picture, words and numbers. This does NOT assume artistic brilliance.
L5 Can put together information from more than one source, or from more than one site (or parts of a complex site), using the skills in L4.
L6 Can accurately and fully record a fairly complex site in detail, in response to a general instruction to describe it.

C. LEVELS OF COMPARISON

L1 Simple comparison (eg size, shape, colour etc) between two similar features, in the same field of vision.
L2 Simple comparison between several similar features, which may not be in the same field of vision (eg "Window E is the biggest in the house").
L3 Simple comparisons between features on and off the site, OR between different types of features.
L4 Ability to list differences AND similarities when asked for a general comparison.
L5 Ability to compare, without specific guidance, several features at once, using several different criteria.
L6 Ability to make comparisons that require explanation or justification (eg questions of taste, relative merit).
L7 Ability to make comparisons that require inferred as well as factual information.
L8 Ability to make tentative or qualified comparisons, with reason for the qualification and/or suggestions of how to resolve the uncertainty.

D. LEVELS OF FIELDWORK EMPATHY

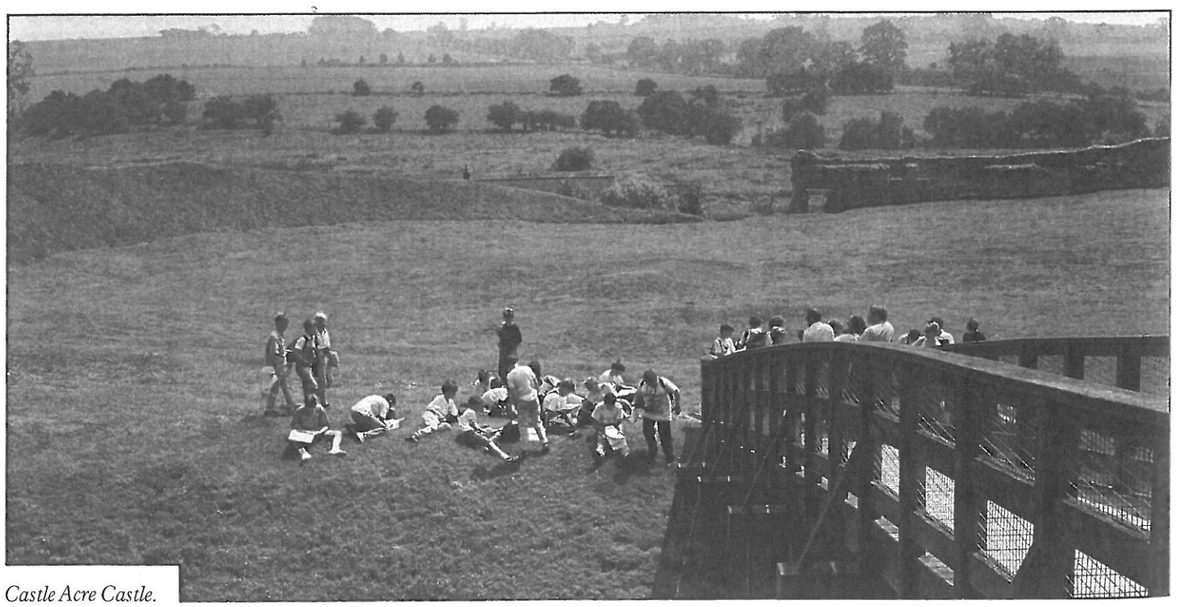
L1 Can make commonplace 20th century observations about features (eg "They had no toilets then").
L2 Can see some implications for the people in the past from 20th century standpoint (eg "It would be very smoky because there's no chimney").
L3 Simple or over-simplified attempts to understand viewpoints of past people, using evidence from the site (eg "They didn't care about getting dirty, because they had no baths" or "They must have been religious to build such big churches").
L4 Using the site features, can produce a fairly full imaginative construction of the physical side of life in the past on the site.
L5 Use of site evidence to produce more accurate or complex empathy ("The baths show us that rich Romans cared about being clean, or enjoyed washing").
L6 The ability to use knowledge of a past peoples' way of thinking to explain site features (eg "Perhaps because Elizabethans believed in X, they built Y in the style of ....").
L7 The ability to combine levels 5 and 6 above, so that empathy explains the site and the site illustrates the empathy.

E. LEVELS OF INFERENCE/ THOUGHT

L1 Can answer basic questions asking for the most basic inference (eg "The moat is to stop people getting in").
L2 Can explain how a feature or related artefact works, by reference to what can be seen.
L3 Can relate to a site or specific features to a different type of source (eg can label a sketch of the site with the help of a labelled diagram of typical features).
L4 Can link site evidence with several other forms of evidence (eg maps, oral history, pictures) to form a temporal as well as a spatial picture of the site.
L5 Can identify new questions arising from the site.
L6 Can make sophisticated inferences OR Can form hypotheses about features of the site, and can use evidence to arbitrate between them.
L7 As L6, but with explanation of the tentative nature of any conclusion.
L8 Can put a site into its full historical, geographical and cultural context, relating it to the features of the site, empathetic understanding, and a full range of documentary and other evidence.

These levels as set out here can represent only an approximate 'hierarchy' and could be seen as no more than a partial checklist of objectives. Depending on the amount of prompting, the complexity of the questions asked and the site studied, the 'hierarchy' may present a very different order, and may render some levels irrelevant, and necessitate the splitting of other levels into more detailed ones. Also, the five sections of skills here do overlap - for example, inference is certainly needed for comparison and empathy. Therefore this list cannot be used as a ready-made markscheme, but as a guide to help aim fieldwork at appropriate levels and at the full range of skills, and as a guide to assessing the work produced and evaluating the use of the site visited.

Cris Keith
Isle of Wight Teachers Centre, seconded to English Heritage



English Heritage

Castle Acre Castle.

Next year our annual residential course, Learning from the Past, will be held in Southampton (see pages 15-18 for details). In the following articles, three teachers who attended this year's course in Birmingham write about their experiences and the projects they undertook.

Archaeology of canals

The impetus to write this article arose from my attending the DES/ English Heritage course 'Learning from the Past' at Birmingham in April 1989. The option group I joined studied 'Canals' as an educational resource in the widest possible sense but I pursued an interest in the industrial archaeological potential of our artificial inland waterways.

Over the past twenty years as a teacher of 'A'-level Archaeology I have had cause to help many candidates in their choice of individual study (coursework) which counts 33% of the total mark. Not all are attracted to traditional archaeology nor are students taking the course over one academic year (as more mature students in Further Education) capable of addressing the deeper issues of, for example, prehistory within the first weeks of their course. In this context Industrial Archaeology has provided a somewhat separate area of study the rudiments of which can be appreciated quickly enough to allow fieldwork of a meaningful nature to take place fairly soon in the academic year.

The introduction of a similar coursework requirement in the LEAG GCSE syllabus has underlined this point and I therefore thought it appropriate that I investigate the challenge that I set my own students - the locating and archaeological recording of a canal.

At their greatest extent there were about 5000 kilometres of canals in the British Isles of which just over 50% remains navigable - the rest being in varying states of neglect, some, indeed, totally erased from the landscape.

My archaeological background and familiarity with the canal system in different parts of the country have convinced me that many disused canals have left traceable evidence which allows discerning landscape detectives a chance to exercise their skills and powers of observation. Furthermore, as the waterways linked centres of commerce, they are to be found in both the rural and urban environment.

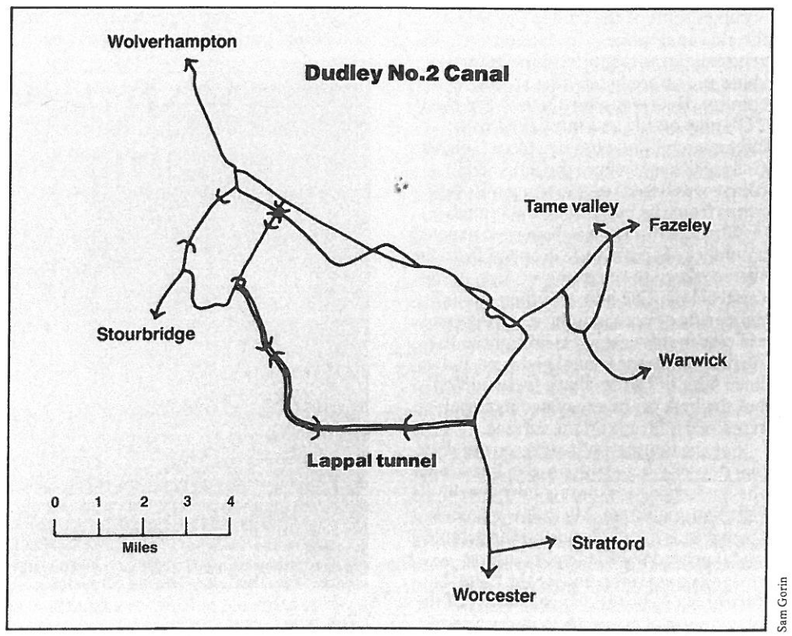
The research I carried out in Birmingham was individual in nature (as is appropriate to my students) but could have been followed equally by groups of children working on different lengths or themes of the waterway, eg bridges or water supply. For the sake of convenience I selected part of the Dudley No 2 Canal which skirts the southern fringe of Birmingham from Selly Oak where it joined the Worcester and Birmingham Canal to Halesowen.

Sam Gorin

Dudley Canal, bridge at Webb's Green

This eight kilometre section of canal contained at its heart the Lappal Tunnel - at nearly four kilometres one of the longest canal tunnels ever built. The tunnel was closed in 1917 because of subsidence and consequently boat movements were much restricted on the approaches to either end and the section was officially abandoned in 1953. Along the disused canal I noted earthworks higher than the ramparts and ditches of Maiden Castle, mounds which could easily be mistaken for Norman mottes and a continuous ditch system which would bear comparison with some Dark Age linear earthworks. Structural evidence and its clues abounded and occasional artefactual evidence came to hand.

As a starting point to the research I needed information on Birmingham's canals and there was a whole range of books and pamphlets generally available on this topic. More important to fieldwork were maps both ancient and modern, the



Sam Gorin

former to see what had been marked and the latter to attempt some correlation with the present environment. I used the current OS 1:25,000, the OS one inch (1967) and by good fortune the 1:2,500 (OS 25 inches to the mile 1881-2 Revised 1914) of the area above Lappal Tunnel. Even the Birmingham A-Z played its part in helping me navigate (sic) my way around a modern housing estate.

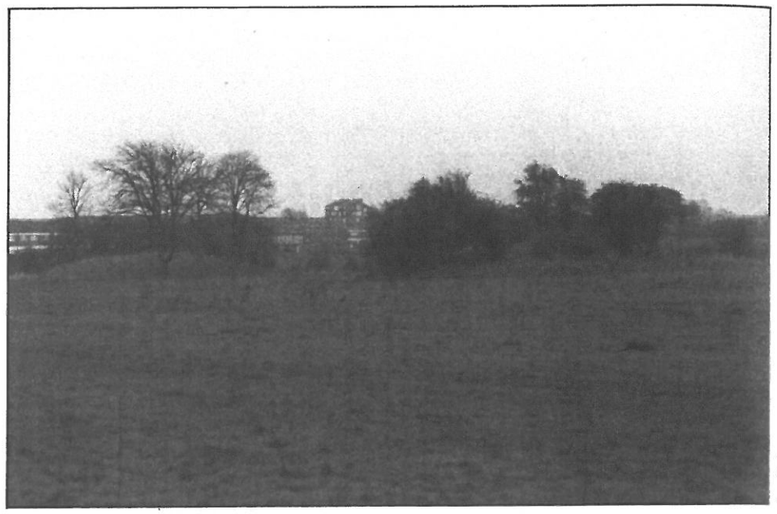
One of the first things that will emerge from a canal study is how difficult they are as features to eliminate totally. Their very nature - an open ditch, lined with puddled clay and intended to hold water - means that major and often expensive efforts have to be put in to reclaim the land for other usage, compared to disused railways for instance. There is a tendency for canals to remain in water - for drainage purposes - or at least to survive as green strips between housing or factories and this is how much of the Dudley Canal survived. It was a feature of Selly Oak Park and then became a linear dog walk with houses and their gardens backing down to it but leaving the line of the canal unencumbered.

The most interesting and rewarding research involves the Lappal Tunnel. At first I had hoped simply to locate the positions of the west and east portals through some reference works implied there would be no surviving evidence. In truth the location of the west portal proved to be in a grass field marked simply by a hollow but the location of the east portal was discovered on a grass play area marked by a curving run of brambles within which the infilled ground was boggy in the extreme.

Understanding the original layout and appearance of the canal at the east portal came from a series of old photographs provided by the Chief Ranger of the Woodgate Country Park which now occupies some of the land in the area of the old canal tunnel. My contact with this gentleman was fortuitous but shows the value and unpredictability of local enquiry. He it was who also had the 1881-2 OS map on file and this linked with information I had obtained from Newman College library (where the DES/EH course was based) on the siting of spoil heaps from the building of the tunnel.

When the tunnel was being constructed a number of shafts were dropped from the surface down to the proposed level of the canal below. The bore was then cut to either side of each and the resulting spoil - red clay in this case - was brought to the surface. Once the tunnel had been cut and lined with brick the shafts were infilled but the bulk of the excavated material remained in heaps on the surface.

For the best part of two centuries these 'earthworks' have remained in line across the landscape, now part country park, part housing estate. My task was to link the mounds I could locate on the ground and it proved to be a demanding yet rewarding exercise. One of the mounds turned out to be the central feature of the playground of Nonsuch Primary School,



Sam Gorin

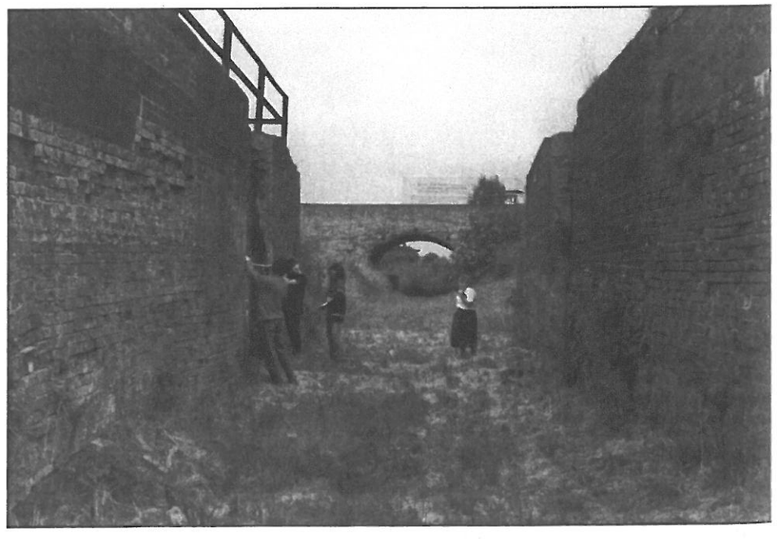
Spoil mounds from Lappal Tunnel in Woodgate Valley Country Park

Woodgate Valley Estate, where it is known as 'The Hill' by the children!

Where traces of the canal were slight or even missing I turned to oral evidence. The actual junction with the Worcester and Birmingham Canal is no longer clear but polite enquiry at a builders' merchants on the opposite bank produced a series of eye- witness statements and anecdotes about the 'old canal' and clearly such evidence should not be overlooked.

In retrospect I was lucky to have selected such a varied length of canal but many of the lessons I learned will be of value to myself, my students and, I hope, to others. There is much research of a purely archaeological nature which can be undertaken singly or as a group activity - indeed I never advocate that students should work unaccompanied on personal safety grounds. The understanding of the nature and purpose of the canal can be extended by other related studies, eg historical or biological but this multi-disciplinary approach is a move beyond an archaeological study, perhaps more suited to lower-school activity.

Nearer to my college in Nottinghamshire is the Grantham Canal - a rural waterway disused for almost half a century. Over the years we have been involved in clearing stretches of the canal in the area of Fosse Locks, where it is crossed by the Roman Fosse Way (A46) between Leicester and Lincoln. Groups of students have been able to clear and record the lock chambers - original red brick and repair work in blue brick - and to study the phases of widening the road bridge from underneath. The debris in the lock chamber produced an original Co-op milk bottle designed for a cardboard seal, several clay pipes and what we thought was a cannon ball but probably is a more



Sam Gorin

Grantham Canal, Fosse Locks

mundane ball-bearing from a locally - demolished swivel bridge.

The milk bottle lead to interesting discussions on its origins, style and date and I have since built up a collection of a dozen or so other milk bottles, some bearing messages or captions, through the medium of which I teach typology.

Archaeology is concerned with the study and interpretation of peoples' material remains both artefactual and structural. It is possible using canals to demonstrate particularly the structural aspect - in earthworks, stone, brick and even sometimes in cast- iron - and I believe they offer a useful introduction to the concepts of archaeology in general.

One great advantage the industrial archaeologist has to hand, particularly with relatively recent features like canals, was alluded to earlier but should be stressed because of its widespread availability to teacher and pupil alike and that is the possibility of seeking out and talking to people who saw scenes and witnessed events in the not too distant past. Such personal sources of information can be the highlight of research.

A few years ago I was moored at Foxton in Leicestershire, famous in the canal world for its steam-powered inclined plane which was designed to lift or lower narrow boats from one canal level to another. The boats travelled up or down the slope in large metal tanks on wheels but the scheme proved less than cost effective and was abandoned. In conversation with an elderly local resident I was given a first hand account of the scene at the time of abandonment - indeed my informant even recalled playing his equivalent of 5-a-side football in the disused tanks!

Finally, I would like to observe that while canals dominated my time at Birmingham there was a great deal of other useful activity and interchange of ideas with colleagues from a wide range of educational backgrounds and the whole week was an enlightening and rewarding experience.

Sam Gorin
Newark Technical College Nottinghamshire

The village group

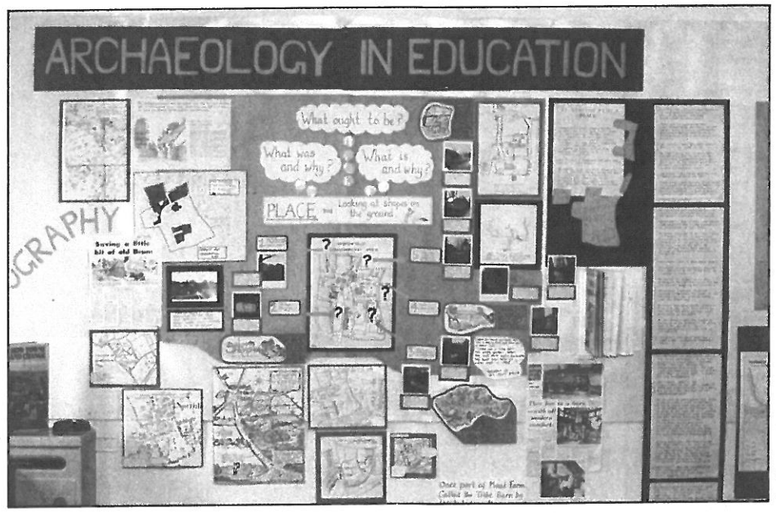
The title of the course suggested that the Past has relevance to the Present. I liked that. So often the emphasis seems to be on learning about the Past, as if it is in some way divorced from our lives today. Several course options were offered, some more obviously historical than others. I chose what came to be called 'the Village Group', led by Tony Boddington (HMI) and Peter Stone (English Heritage). The group was made up of teachers from all phases of education, including a lady from Canada, and numbered twelve. We had been sent a booklet about the village of Northfield before the course began and almost straight away we were taken out on a site visit. Coming from rural Norfolk I was rather surprised to find that the 'village' was, in fact, part of a large Birmingham suburb! After our first view we assembled together and were offered the opportunity to direct our own lines of enquiry - wonderful! Tony and Pete would be there to assist, offer short cuts, direct us to resources as we required them but the investigation was ours. I liked that too! We were not to work alone so I worked with Rachel Shaw from Northampton as we both came from archaeological backgrounds.

We took as our premise the concept of PLACE. We both had experience of topographical survey, but wanted to widen our skills to include documentary and other historical research. We thus intended to apply a breadth of skills to the investigation of Northfield Old Village, with a view to discovering what was and why, what is and why, and what ought to be.

Our quest began with a map of the village on which was clearly outlined '**Conservation Area**'. The questioning process was underway.

* Why is this a conservation area?

Our topographical instincts led us to question the shape of the conservation area and, after another tour of the site, to question the shapes of other important features.



Lyn Staszewska

Display of Rachel Shaw and Lyn Staszewska (Archaeology Liaison Officers)

* Why is there an open space next to the Pastoral Centre?
* Why is the 'Green' the shape it is?
* Has the graveyard always been this shape?

Our walk also led us to question some of the street names.

* Why Old Moat Drive? Where is the moat?
* Beech Farm Close? Was there a farm here?
* Pine Close? Conifer Drive? Woodland Road? Why so many woody names in a modern urban development?

While surveying Old Moat Drive we asked a resident if she could remember what the area was like before the houses were built. Her reply revealed that prior to 1965 there had been a playing field and a scout hut, and further to the south "some pretty gardens and the tithe barn"! More questions!

The questions we had raised now gave structure to our investigations. We pursued our search for clues which might provide some answers in Newman College library, Northfield local library and the Local Studies department of Birmingham Central Library. The researches and expertises of the other members of the 'Village Group' were also invaluable and a spirit of camaraderie developed as we found things out which might help someone else's investigations. We discovered maps dated from 1714 to 1955; old pictures and photographs covering a 100 year time span; and articles and reports from various newspapers and documents. The work of our colleagues into census returns and land apportionment provided other pieces to the jig-saw. Gradually our mental picture of the development of this place grew.

We reached the stage where we could, fairly accurately, describe what had been, when changes had occurred and what is there today. We had some insight into the attitudes to the Past of people at different times in Northfield's history, although the process of enquiring WHY, as stated in our original intentions, would require greater investigation of wider

continued on p14

Play The Dustbin Game

On the right is a modern dustbin — well, half a dustbin — full of everyday 20th century rubbish. The class needs to think of themselves as archaeologists and investigate this rubbish.

There are two routes you can follow — take both if you have the time.

Route 1

Archaeologists are like police detectives — looking for the smallest clues to help them find out what has happened.

What does this rubbish tell us about the people whose dustbin it is? Make a list of all the things in the dustbin and write down what you think each means.
Here's a start

Tin of Whiskas ..... Cat?

Newspaper ..... ?

..... ?

..... ?

..... ?

..... ?

..... ?

..... ?

..... ?

..... ?

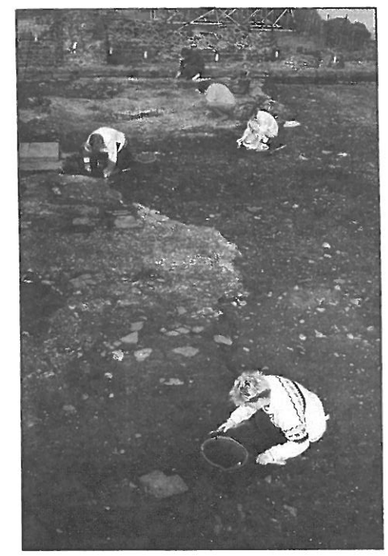
Did you work out what sort of family uses this dustbin?
Are there any children?
How many pets?
What sort of food do they eat?

Route 2

Let us imagine that all this rubbish has been dumped or buried somewhere. After some time quite a lot of it will have rotted away. Organic material (i.e. things which were once living such as paper/wood) will tend to rot quicker than inorganic things (i.e. things which were never 'alive' but manufactured such as plastic or metal).

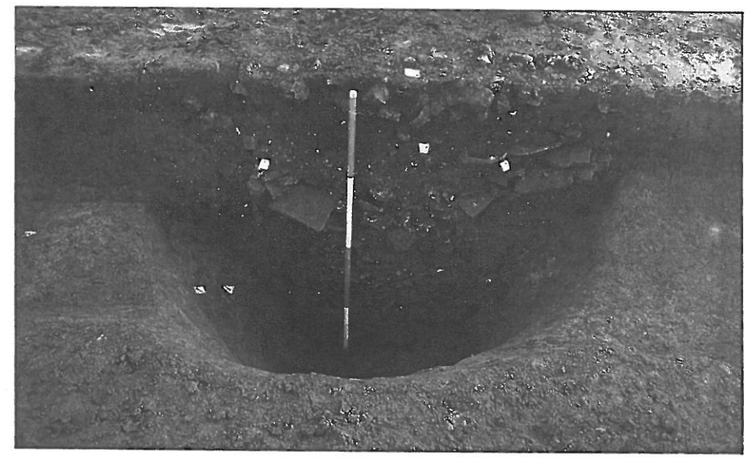
Your detective work is more difficult now. What can you tell about the family NOW? Once the paper label has gone from the can of cat food, how do you know what was in the tin?!

In the past people got rid of their rubbish where they could — they dug pits, threw it into ditches, filled hollows in the landscape, used old wells and spread it on fields.



△
Archaeologists spend a lot of time digging up other people's rubbish. Here they are working inside the Roman city of Wroxeter, near Shrewsbury in Shropshire.

Pits for rubbish were the commonest form of waste disposal in the past. Below is half of a Roman rubbish pit nearly five metres deep. It contains bones, tile and mortar, pottery and broken metal objects. But just think about all the things which must have rotted away — bits of vegetables, for example.
▽



Sorting out the excavated rubbish takes patience and time. At the end of an excavation there might be tens of thousands of pieces of objects left to investigate.
▽

DID YOU KNOW!
. . .that today each person in Britain disposes of 5Kg of rubbish per person per week.
. . .Why not find out when the council first provided a dustbin-emptying service in your town or village? What happened to the rubbish before that?

To play **The Dustbin Game** you need: one dustbin full of rubbish to investigate — use rubber gloves!

Text by Mike Corbishley; Photography Mike Corbishley and Roger White; Drawing Huw McPherson; Design by Alan McPherson.