

## The RAG

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## Roman Archaeology: Challenges and Opportunities—*Greg Woolf*



Greg Woolf is Professor of Ancient History at St Andrews University, Scotland. His major publications include: *Becoming Roman. The Origins of Provincial Civilization in Gaul*, Cambridge University Press, 1998, and (with Catherine Edwards) he edited *Rome the Cosmopolis*, CUP, 2003. Readers may also enjoy following up this article in his "The present state and future scope of Roman archaeology: a comment", *American Journal of Archaeology* 108 (2004): 417-428

Looking back over the last three decades of Roman archaeology I find it difficult not to be impressed by the huge advances the discipline had made. The quantity of information collected has increased enormously. Romanists have enthusiastically embraced new archaeological technologies, and entire new subject areas - landscape archaeology, palaeopathology, and underwater archaeology for instance - have been opened up. Yet just as imperial expansion brought new problems as well as new riches to ancient Rome, so the information explosion brings new risks. Each researcher now sees less of the whole than ever before.

Romanists are willing victims of the extraordinary richness of the material on which they work. Perhaps no individual scholar was ever able to master the whole, (although if we consider the life work of a Mortimer Wheeler or an Ian Richmond we can see how close some came to doing so). For many of us, this is part of the attraction, that we have images as well as texts, vast and varied landscapes as well as

cities and sanctuaries, military camps as well as peasant villages, the kaleidoscope of provincial diversity and the dazzling metropolis, treasure houses of art works and archives full of domestic artefact types of every kind. Archaeologists can easily, if they wish, find smaller canvasses on which to work.

These developments are not just serendipitous. Most European countries now have in place well organized institutions and policies for managing their archaeological heritage at national, regional and local levels. Making the developer pay has meant that in the wealthier parts of Europe, urban expansion and the creation of new transport infrastructure no longer destroys archaeological material so much as funds its recovery. The technologies available for detection, recording, interpretation, conservation and presentation get better year on year. Massive popular interest, which first encouraged legislators to act, now stimulates tourism and the production of books and television shows.

Roman archaeology has shared in the general bounty. Most parts of the empire benefit from the interest of researchers from more than one national tradition. Perhaps only Britain, the Netherlands and Germany are general exceptions to this rule - no doubt for climatic reasons - but fortunately these are also the countries where local excavators work to the highest standards. The Roman archaeology of the Iberian peninsula is accessible now to an extent that could not have been foreseen even in the early 1980's. Central and eastern Europe has since the early 1990's been opened up to foreign researchers, and local researchers have been able to work in better conditions than ever before. Even in the Middle East, spectacular research continues to be carried out despite the obvious difficulties.

By and large the discipline has coped well with the information explosion. Quantitative studies and cartographic projects are increasingly sophisticated. Patient typological classi-

fication of container amphorae, petrological studies to identify their production areas, excavations of kilns and wrecks and the creation of comparative distribution maps has allowed us for the first time to quantify Roman commerce in wine, in oil and other products and watch it develop over time. Satellite images now supplement aerial photography and surface surveys to produce maps of ancient landscapes: the use of Geographical Information Systems software (GIS) has made cartography an interactive analytical tool. We understand Roman water management better than ever before, and can describe the texture of social life street by narrow street in the Vesuvian Cities. Anthropological theory has been harnessed to the investigation of cultural change in the provinces, and we are learning to see the Roman house through the eyes of slaves as well as masters. Roman archaeologists and art historians are making contributions to other disciplines too, such as the sociology of imperialism, the historical epidemiology - even the study of Greek and Latin classics!

Yet there is a real danger that the better we know our own trees the less we know not only other parts of the forest but even the shape of the forest as a whole. Historians continue to produce great synthetic works, reinterpreting the Roman empire every generation. Yet archaeologists increasingly specialize, province by province, artefact-type by artefact-type, topic by topic. This is inevitable for many of those professionally engaged with Roman archaeology: those employed by local government or museums, or working in contract companies. But it is essential that university based Roman archaeologists remain generalists or at least set up collaborative projects of synthesis. It might reasonably be responded that university-based archaeologists face new pressures. If so, this seems to apply in some national traditions more than others: our Italian and French colleagues put the rest of us to shame. But it would be a shame, given the uniqueness of the imperial panorama and the rate at which our knowledge of it grows, if archaeologists left it to others to draw the big picture.

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## News From Roman Britain

David Kennedy

The Society of Antiquaries of London (rather older than our Roman Archaeology Group: they held their inaugural meeting in 1707) distributes an e-mail Newsletter to Fellows of the Society which often contains reports about Roman matters in Britain. The following, adapted from their November monthly letter, gives something of the flavour. In some cases they refer you to web pages with longer reports.

### Beauty, the Roman way

Puns abounded in last week's reports on the analysis of the 2,000-year-old beauty cream found by archaeologists working at the site of a Roman temple near Guy's Hospital in London last year. *The Guardian* headlined the story "The Maximus factor", while *The Times* called it "the London makeover". More prosaically, *Nature* simply reported that the cream was made of refined animal fat, most probably from a sheep or cow, with starch from boiled grains or roots and white tin oxide mixed in as a pigment. Scientific tests on the

cream were led by Richard Evershed, Professor of Biogeochemistry in the school of chemistry at the University of Bristol. "It makes your skin look subtly paler," he said, adding that "starch is still used for this purpose in modern cosmetics." Francis Grew, the Museum of London's curator of archaeology, said that there had been numerous finds of make-up jars and spatulas for mixing and applying make-up in the past, but that this was the first time that the contents had survived.

### Rabbit invasion puts Roman forts under siege

Even when human agencies do their best to protect the heritage, natural forces do their best to frustrate their best efforts. In Scotland, rabbits are being blamed for undermining some sixty defensive structures, some of which are said to be in danger of collapse. One of the worst-affected sites is the fort at Ardoch, near Braco in Perthshire, established about AD 80, and the earliest example of a Roman frontier fort in Britain. Hundreds of rabbits have now created burrows inside its defensive dirt ramparts.

David Woolliscroft, of Liverpool University, who has been working on the site for more than fifteen years, said it was "only a matter of time" before it was damaged beyond repair. "The earliest forts were made of timber and turf", he said, "so they are ideal for rabbit warrens - rabbit holes open up the insides of the structure to the elements, which dramatically increases the damage done by wind and rain erosion." Mr Woolliscroft said that unless the population was brought under control, Ardoch would become "virtually useless" as an archaeological site.

Historic Scotland recently conducted an investigation into the damage done by rabbits and other mammals, and a spokesman said it was in negotiation with the owners of the fort in an attempt to reduce rabbit numbers.

### Impenetrable Scottish forest is Roman spin

Ardoch fort was built after the defeat of the Caledonii at Mons Graupius as part of an attempt to consolidate control over southern Scotland - an attempt that, according to Tacitus, was frustrated because the Roman army had trouble flushing the enemy out of the impenetrable forests of Caledonia. Now, however, Professor Chris Smout of St Andrews University, the Historiographer Royal, has accused Tacitus of making up the story of Scotland's vast and impenetrable forest.

Professor Smout, author of *A History of the Native Woodlands of Scotland* (with Dr Alan MacDonald of Dundee University and Dr Fiona Watson, of Stirling University), says that the pollen evidence proves that the so-called Great Caledonian forest had been cut down centuries before the Romans arrived. Professor Smout points to the fact that this same excuse had been used to explain the Roman army's defeat against the German tribes. He concludes that the existence of Scotland's forests was an idea invented by Roman writers to preserve the image of the empire's "invincible" legions.

A postscript: Those who have visited the Roman sites of Scotland may be interested in the updated edition of Lawrence Keppie's book (originally 1986): *The Legacy of Rome: Scotland's Roman Remains*, London (published in paperback in November 2004).

# Tropaeum Traiani (Terra Europaea 2004)

## *Karen Henderson and Felix Hudson*



***Karen Henderson and Felix Hudson : Students in Roman Archaeology at UWA.***

After completing our archaeology and ancient history majors at UWA in early 2004, we were fortunate enough to be awarded travel scholarships in Roman Archaeology that enabled us to gain valuable practical experience. From July to early August we participated in the Terra Europaea 2004 field season around the Romanian site of Tropaeum Traiani.

Tropaeum Traiani (Trajan's Triumph) was a late Roman city in the Dobrudja, (in south east Romania, Roman Dacia) dating to between the 2<sup>nd</sup> and 6<sup>th</sup> centuries AD. Visible from the city walls is a reconstruction of the triumphal monument, or tropaeum, (pictured below) erected by Roman veterans of the Dacian Wars.



**Photo: Karen Henderson and Felix Hudson**

Dr. Alexandru Barnea from the University of Bucharest has been conducting excavations at the site for over a decade, documenting the site's history and importance as a case study of the Roman presence on the Dacian frontier.

No fewer than five basilicas have been uncovered for the city, which probably had less than 5,000 inhabitants. The archaeological remains of the main basilica are pictured below.



**Photo: Karen Henderson and Felix Hudson**

And the four aqueducts (one three miles long) (see picture below) which served the city are further testament to the amenities provided to the surrounding rural communities.



**Photo: Karen Henderson and Felix Hudson**

The 13 strong Terra Europaea team, consisting of archaeology, anthropology and classics students, art historians, and a numismatist was lead by Professor Linda Ellis from the University of San Francisco. San Francisco is where Terra Europaea is based as a not-for-profit group dedicated to support heritage research and public education. Tropaeum Traiani is one of the projects supported by Terra Europaea.

Pictured below is the mosaic wall on the museum at the nearby centre of Adamclisi.



Photo: Karen Henderson and Felix Hudson

After a few days excavation at the city itself, we moved to nearby Sipote to conduct surface surveys, soil phosphate testing and test excavations, attempting to locate a rural Roman settlement situated on one of the aqueduct lines supplying Tropaeum Traiani.

Due to significant plowing and intensive pastoral use and agriculture at the site, much of the context was disturbed. Consequently, the test trenches revealed a jumble of Dacian, Roman, Greek and medieval (Turkish) pottery. A surface survey conducted in a corn field showed the most promise due to a concentration of Roman pottery, and negotiation with local land-owners should open this site for future excavation.

There were several excursions, which gave us the opportunity to see Histria (known as Romania's Pompeii), Constanta, the Danube delta region and a number of the country's pre-eminent history museums. As well as learning on-site excavation techniques, we received lectures on pottery analysis and manufacture, and phosphate testing.

We also participated in an invaluable discussion on community archaeology, focusing on the importance of fostering a strong relationship between local groups and archaeologists.

In addition to providing us with the opportunity to develop our technical excavation skills, the Terra Europaea experience gave us a first-hand insight into the logistical organization required to successfully carry out a large scale excavation in a foreign environment. We would like to thank David Kennedy and the supporters of the RAG who made the travel scholarships possible.

## Captain George Wood, US Army– David Kennedy

In January 2003 I received an e-mail message which began, "I am Captain George Wood from Fort Hood, Texas, US Army (Cornell University, MA Roman Archaeology)." The writer went on to explain that, as a serving officer, he had access to classified satellite images of the Middle East and had been exploring them to see if they could be used to trace the remains of Roman military sites in Mesopotamia for which aerial photographs are seldom available. He reported finding several possible forts.

Although I usually reply to all such enquiries whether it is from school-children in California writing a school essay or interested retirees in Bournemouth who want to see more photographs of the Zeugma mosaics, I have become wary

about responding to messages which seem too good to be true. A few months earlier I had been sent part of a satellite image by a man who claimed not to know where it had been taken but inviting me to comment on the marks visible. I noted that the region appeared very arid and the markings could disguise some buried archaeological feature. He then admitted he had just "discovered" the image was of Mars and posted the photo and my "validating" comments about life on Mars on a web site.

George Wood was, however, a genuine inquiry from a man who was both serving soldier and serious scholar. I subsequently recommended an article of his be published in the *Journal of Roman Archaeology* as it was a very convincing

image and interpretation of a previously unknown Roman fort in northern Syria, not far from the great ancient fortress city of Nisibis (Nusaybin on the modern frontier with Turkey).

Wood was posted to Iraq soon after writing to me and tragically was one of the early victims of a roadside bomb which killed him just over a year ago (20 November 2003).

George Wood's wife, knowing his passion for Roman Archaeology, was very keen that at least that first incomplete article be published. Happily it has just appeared in volume 17 for 2004 of the *Journal of Roman Archaeology*.

(<http://www.ivyleaguesports.com/article.asp?intID=2820>).

# The Language of Bones— *Pam Lynch*



**Pam Lynch is a doctoral candidate in Roman Archaeology at UWA investigating the people of Roman Britain through mortuary archaeology. She is studying age and gender distribution, health, occupations and lifestyle through skeletal evidence, grave goods and grave and cemetery organization.**

In the spring of 1951 children playing in a mound of upcast soil in York came across skeletal remains and pottery. In 1961 building work at the Lankhills School in Winchester uncovered skeletal remains and 4<sup>th</sup> century objects. In 1968 the excavation of an area in Dorchester, increasingly being destroyed by industrial development, resulted in the unearthing of over 1400 inhumations. The construction of a road to the south west of Cirencester in the 1970's led to the discovery of over 450 Romano-British burials.

These random finds led to the discovery and excavation of four of the major cemeteries of Roman Britain resulting in the uncovering of over 2500 Romano-British skeletons. In more recent years other major cemeteries have been excavated, the largest being the Eastern cemetery of Roman London, which produced the remains of almost another thousand people. Add to these the discovery of thousands of smaller cemeteries and individual burials, most the result of chance findings, and we have over 11,000 skeletons on the English Heritage database available for study.

These physical remains are the most direct

evidence we have concerning the people of Roman Britain and the possibilities that this database presents are extensive. Scientific research, particularly medical and forensic research, is constantly revealing new methods of dealing with skeletal evidence, which increases our awareness of this ancient population. There are over 200 bones in the human body, each with their own story to tell, and the potential is enormous. Even after 2000 years, with a well preserved skeleton, we are able to delve into the lives of these people.

So, what exactly can we tell from a skeleton? From a well preserved skeleton we are able to make assumptions regarding such things as the age and gender of an individual as well as their health, physical attributes, origin, and occupation. From this information we can then move on to discussions on the demography of the cemetery population and the area surrounding the cemetery, likely family connections and the possibility of ritual acts.

## Did you know?

- i) The last bone in the body to fuse is the collarbone which does not fuse till around 26 years of age.
- ii) The most common identifiable disease in the ancient world is arthritis, mainly osteoarthritis.
- iii) Several "Harris Lines" on the same bone can be an indication of seasonal conditions such as nutritionally difficult times of the year.
- iii) At least 90% of lead absorbed into the body is fixed in skeletal tissue. There is evidence of lead poisoning in burials of several Romano-British cemeteries.
- iv) Syphilis can lead to severe deformities, particularly in the skull and is evident in some Romano-British skeletons.
- v) Congenital defects, such as Spina Bifida may be apparent from skeletal

evidence.

vi) The degree of healing of a wound to the bone can be used to infer if the wound was likely to have been the cause of death.

vii) Oxygen isotope analysis of teeth can define, within reasonable parameters, the geographical region where an individual grew up.

viii) The type of soil plays a major part in the preservation of skeletal remains. Acidic soil, as in Cornwall, is very destructive. Peat has very preservative tendencies.

ix) Decapitated skeletons have been found at over 80 sites from Roman Britain. With the majority of these the skull has been removed from its correct anatomical position and placed by the lower part of the body.

x) The ears of some middle class Romans have been found to have similarities with those of Tasmanian abalone fishermen, divers and Scandinavian sauna users – sudden temperature variations have been found to stimulate the growth of an extra bone in the ear. The Romans were susceptible to this by reason of their use of plunge baths of extremes of temperatures.



From the site at Southshields. Photo: Pam Lynch

## ROMAN BRITAIN TOUR 2004: ROMAN GLASSMAKERS IN BRITAIN

*JEAN AND ANDREW SWANSON*



**Andrew and Jean Swanson are enthusiastic amateur historians and archeologists with a great interest in Roman/Egyptian/Persian history. They have travelled in Iran, Turkey and the Middle East generally and were members of the 2004 Roman Britain Tour.**

The 2004 Tour of Roman Britain led our intrepid group along an historical pathway through the ruins of an era most Australians (and New Zealanders) only know of from books and TV programmes. It was fascinating (and fitness building) to stand in the remains of a Hill Fort; to visit working archaeological digs and view newly discovered finds (some of which had been in the ground for 2000 years) and to tour wonderful museums and view artefacts portraying our cultural history.

In many cases though examples no longer exist of aspects of the way of life in Roman Britain and it was interesting and enlightening to see replicas being built of such things as the Round Houses at Butser, Roman Villas, the Barracks and Commander's House in South Shields (see photograph at page 10). Of great interest to us was to see in various places demonstrations of how things were done and the tools used. The best example of this was when our travels led us to a converted stable in a country lane in Quarley, near Andover in Hampshire where Mark Taylor and David Hill, Roman Glassmakers, have their workshop.



**Photo: J & A Swanson**

Although glass as a material had been known for many centuries it was not until the 1st Century BC that glassblowing was invented, enabling the making of glass vessels. This technique quickly spread through the European Roman Empire and it is thought most of the glass artefacts discovered in Britain were imported from there, although some glassblowing sites from Roman times have been found in England.

Mark and David have worked together as glassmakers since 1989 and set out to reproduce Roman glass vessels as closely as possible to the real thing. This meant using the same raw materials.

Roman Glass is a soda-lime type. Its main ingredient, silica, fluxed by sodium and calcium oxides together with potassium, magnesium

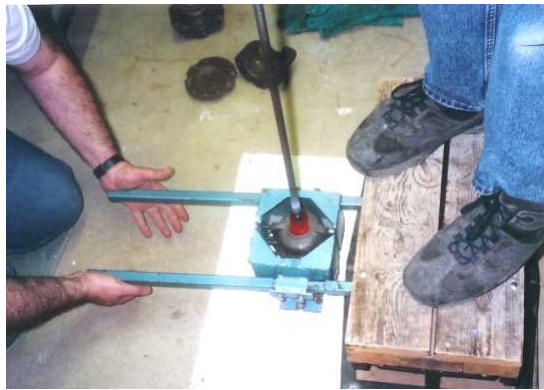
and aluminium oxides. The pale bluey-green colour of much Roman glass is caused by iron oxide in the sand. Other oxides are used to give different colours: antimony for white, antimony and lead for yellow, cobalt for blue etc.

It was also necessary for Mark and David to make their own tools, including those to complete the decorative work on many of the pieces, in the same manner as Roman glassmakers would have made them. The one concession to modern day technology is the gas fired kiln they use but they told us that Roman wood-fired furnaces were as effective. (In a demonstration in 1999 a replica Roman wood-fired furnace reached a temperature of 1100 degrees C).

Mark, who does the glassblowing, gave a number of demonstrations of his technique. We were amazed that when he first blew air into the 'pipe' it emerged as a bubble in the bulb of molten glass and he was able to manoeuvre that bubble of air to create the shape he wanted. In a matter of moments we had delicate vases and jugs, some with fine decorative work, ready to be fired.

A further demonstration, with the assistance of David, was the making of mould-blown beakers. In the early days of making glass vessels moulds were used to speed up the making of large numbers of vessels for basic household use and storage. Moulds then began to be used to create decorative pieces. These moulds were initially made by pressing clay around an embossed pattern. The three and four part moulds used by Mark and David are of bronze and made in the same way. Patterns include gladiators fighting (as on mould picture at left) and chariots racing.

To make the vessel the mould pieces were set in a clamp. Mark drew the correct amount of molten glass from the kiln and quickly lowered it into the centre of the mould. At the same moment as David locked the clamp together Mark



**Photo: J & A Swanson**

blew the molten glass to cover the mould. It didn't always work to perfection but most often did, producing a perfect tumbler with the pattern running around the sides. Once they were happy with the result the top was trimmed up and the rim ground and polished.

As Mark and David are the only people in Britain making authentic reproductions their work is in high demand for exhibitions. We saw examples in museums and galleries as our tour continued. They have even produced a 'cast' window pane – the first time one has successfully been made in 1700 years. This is installed in the Museum of London exhibition of Londinium – as are many of their glass vessels.

They made the Roman glass used in the film *Gladiator* and their work will be seen in two more upcoming major films. In 2001 they started also making mosaic glass and had many beautiful examples of bowls, vases and even earrings.

And then we got to get our hands on some of their work. Few of us could resist buying a memento of this fascinating experience.

# Lifetime Ambitions Realized - *BRIAN FLINN*



**Brian Flinn in Egypt – a 46 year ambition fulfilled. He was a member of the Roman Britain Tour 2003 and has stepped up for the Jordan Tour of 2005. As the sample of his photographs on this page indicates he has come to travel far and wide.**

We have all sat down, relaxed and picked up a magazine and become absorbed in an article on travel or some historic event and said to ourselves, “one day”, or “I wish”. I did this with Egypt in my teens and it took 46 years before I got to see the places I had read about. In the meantime I kept reading history and wondered why the Romans were in Egypt and so read what I could find on them. Alexander the Great



Amasya, East Turkey: Roman Bridge

was mentioned many times and so I had a look at him. I was soon well and truly hooked.

In November 1953 I finished my apprenticeship in Carpentry and Joinery, it was not however until December 1991 that I got to Cairo. Jordan was a transit stop (when I go on the Jordan Tour this year it will be my third visit).



Split, Croatia: East Gate—a flat arch

Egypt, Jordan and the Mediterranean countries were all I had read about and seen on film, but to stand there, look about, touch, and absorb, is something I will never forget - and it has all been worth waiting for.

Jerash in Jordan was the first Roman city I had seen. Located as it is in the middle of a large valley, we looked down on it from a hill and what a sight it was. Another was Leptis Magna in Libya protected for years by beach sand it is very impressive, with a lot of buildings of full height and in good condition. The Hippodrome and Theatre are a little way from the main city, but a must see. It appears most theatres on the coast look out over the water. I suppose if the entertainment was dull the view was always there.



Palmyra, Syria: Bel Temple



Nineveh, Iraq

In Italy of course Pompeii is the word. But not seen by many who visit modern Rome is Ostia Antica the old Roman seaport now miles inland –mostly full height walls and some double storey. Herculaneum not far from Pompeii is a real gem. Only a part of the city is exposed, the rest is under the modern town. What you see is almost every building complete with roofs. The city is tidied up but not re-built.

Naturally I have an interest in building materials and techniques. In my travels I learnt that in some buildings lead pins were used to hold stone blocks together. At the Pasagadae site behind the Tomb of Cyrus in modern Iran I came across a lead piece of just over 1 inch diameter in a bottom stone. Such pieces are rare because the lead has been much scavenged for use for example for musket balls. In the picture above right (‘Bel Temple’) the ‘wood worm’ effect indicates the efforts of lead scavengers.



**Albania: Apollonia. Note the stone ties in the foundations.**

## Letter from Jordan—Anne Poepjes



*Anne Poepjes. Anne is a Masters student at UWA. In this article she recalls some of her experiences in Jordan and Syria and Lebanon in 2004. The Photos are Anne's.*

Greetings to all fellow RAG members! I write this as the temperature drops, the tourists are becoming fewer by the day, and I am starting to feel like a local. So where to begin?

I spent a mad month on the Roman Britain Tour 2004 vainly attempting to keep up with



**Looking back towards the suk in Damascus**

David Kennedy (the only thing which consoled me was the fact that no-one else, not even the intrepid younger members of our tour group, were able to keep up with him either!) and arrived here in Jordan at the beginning of August, totally exhausted. My intended abode was Jarash. Jarash in summer is like an oven, with scorching days followed by insufferably hot nights, so I greeted the news that there was no space in the archaeological housing there with a sense of relief. I therefore spent August in the relative comfort of Amman, at the Council for British Research in the Levant (CBRL), and only day trips to Jarash were possible. I was lucky enough however to be involved in a small way in a chance discovery, which perhaps shed some light on the late 8<sup>th</sup> century A.D., when

Jarash, along with other Decapolis cities, was damaged by earthquake. The body of a man and his pack animal, complete with a large coin hoard of 147 (I counted them myself!) silver coins was discovered during road-works. The coins came from towns in the Decapolis region, most from a town called Waset. Professor Alan Walmsley (formerly based at UWA) interpreted the find as belonging to a native of that town who, escaping unhurt from an earthquake in Waset, made his way to Jarash only to fall victim to an earthquake there. My task was to clean the coins, which, although encrusted with soil, were in good condition.

I attended a conference in October, for the Association of International Experts in Scientific Tourism (Aiest), which was extremely interesting and useful – and shed an alternative view to the archaeological conferences I have attended previously. Although held in Petra, there were no Jordanian presentations or input, and the ‘technical’ excursions to Petra and Wadi Rum involved tour guides and dune bashing Jordanian-style, rather than the ‘scientific’ interpretation of the tourism product I was expecting.

Since moving to the site I have been working hard at networking, and although my usual contact in Jarash, Mrs Eman Oweis (the curator of the archaeological museum) has been overseas, I was very pleased to be invited to a planning meeting at the Jarash Municipal Offices for a World Bank sponsored program focusing on urban regeneration of the towns of Jarash, Salt, Madaba, Kerak and Ajlun. It was very interesting, both for my research and as a personal experience, and gratifying to already be recognized as ‘part of Jarash’, not only by locals but by the representatives of the Jordan Tourism Board and the Ministry of Tourism.

In addition to my research, Arabic classes have been an ongoing focus, and although very much still ‘shway shway’ (slowly slowly) and more nouns than verbs, I can make myself understood far more than previously, albeit in ‘pidgin arabic’!

And it hasn't been all work. Ramadan came and went in the usual mix of excitement and frustration, as you never quite knew who would be at work and who at home ‘sleeping’ (or smoking maybe?? Eating is never a problem, it is cold now so no drinking is tolerable, and even prohibition of sex in the daytime pales in significance compared to the total abstinence from smoking required between about 4.30 a.m. and 5 p.m.). Traveling after four in the afternoon is a nerve-wracking experience, as everyone is on the roads rushing to get home for Iftar (the evening breakfast meal) and that all-important cigarette! I was invited out for

Iftar, which was fun and included an impromptu concert by the younger members of the household to show off the English songs they were learning at school.

The very significant deaths of Yasser Arafat and the head of the U.A.E., Sheikh Said, led to all offices being closed and people being sent home from work for two days of mourning.



**Byzantine period mosaic—Jarash**

The end of Ramadan is celebrated with the Eid, a four-day holiday, and together with two of the staff from CBRL, I made my first excursion to Syria and Lebanon, not so much to see the sights as to have a few days of frenzied shopping activity combined with eating, drinking and sleeping. Although Charlotte bought not one but three carpets I managed to hold myself back, although my purchases included a handmade, silk embroidered horse bag from Iran, which looks beautiful hanging on my wall, and a magnificent shawl from somewhere romantic like Uzbekistan or Tajikistan; the merchants buy them from pilgrims travelling to the Hajj in Saudi Arabia. Both Damascus and Beirut are totally different to Amman; so much more of the old city of Damascus is still there, with people living in centuries old houses, and downtown Beirut has been almost totally rebuilt since the war, with a Parisienne ambience. We were only in Beirut for one day, so our experiences were limited to looking around the new downtown area and a short stroll along the ‘corniche’.



**Excavated therm: Beirut**



## LETTER FROM PRINCETON — David Kennedy



Professor David Kennedy — Department of Classics and Ancient History University of Western Australia

Over the last three months I have had the rare privilege of being a Member of the Institute for Advanced Study at Princeton in New Jersey. Although the IAS (a private institute quite separate from Princeton University) is best-known for its science and mathematics – it was the home of Albert Einstein for his last twenty years and J. Robert Oppenheimer, the father of the Atomic bomb, was its Director for many years, it has immense attractions for historians, too. The Historical Studies Library proudly announces that it “contains about 100,000 volumes and has subscriptions to about 1,000 journals. The library is strongest in classical studies, ancient history and archaeology, ...”. Not many places in the world can make such an assertion for our subject.

Glen Bowersock has been a permanent faculty member here for a generation. His book on *Roman Arabia* (1983) was the inspiration for almost all of the current generation of academics working in Jordan today. Although now retired, Christian Habicht continues to make a major impact in Greek history and until a few years ago this was the home, too, of Homer and Dorothy Thompson whose names were for long synonymous with the excavations of the Athenian agora. The latter was a Canadian and two more Canadians (Ted Champlin [most re-

cently a biography of Nero] and Brent Shaw [a book on Spartacus] hold prestigious professorships in Roman history at Princeton University nearby.

Princeton University has always loomed large in my research. A century ago it sponsored a massive expedition to what was then Ottoman Syria to record the remains of surviving Roman towns, villages and churches in the limestone massif southwest of Aleppo and in the basalt lands of the Hauran southeast of Damascus. The massive works of scholarship and the archived records and photos are an enduring monument to the talents of the Princeton men involved, notably Howard Crosby Butler and David Magie.

A generation later, Princeton sponsored the great excavations at Antioch-on-the-Orontes (now in Turkey). The glossier finds included the huge array of mosaics which make the museum at modern Antakya one of the major repositories of fine Roman mosaics anywhere in the world. (Gaziantep will probably overtake them when its new museum for the Zeugma mosaics opens). But Princeton, too, got its share. Mosaics from Antioch are prominent in the McCormick Art Gallery on the campus, others are on display vertically on the *outside* of another building, and some of the overflow is set up around the walls of the dining room here at the IAS!

The university and the IAS attract influential support. The trustees of the IAS include a former President of Brasil, the current chairman of the World Bank and the President/ CEO/ Chairman of Amazon. The list also includes the lady I was sat beside at a dinner here recently. Shelby White and her late husband have, over a generation, provided in excess of US\$20 million to support archaeological work in the Middle East. Happily, one of the most recent White-Levy grants is to support the post-excavation work and publication by the Australian archaeologist Ina Kehrberg of the important hippodrome excavations by her late husband, the Polish archaeologist Antoni Ostracz.

## Gravel Beds Near Hadrian's Wall—A Theory : *Alan Hale*

I read a piece lately by someone studying a stretch of Hadrian's Wall who had noticed a broad and deep strip of coarse gravel on the south side. The writer of the piece put this observation down to Roman regimental pride. There is an alternative explanation.

I suggest that that Hadrian's Wall was the Berlin Wall of its day. Not just to keep those persons to the north out, but also to keep those other persons, to the south, in.



I do not know anything about the degree of regimental pride among that medley of details, auxiliaries, tribal levies and wandering warbands which made up the actual watchers on the wall.

What I do know however is this: Even on a dark and stormy night, if someone approached the Wall even with caution, across a bed of gravel, the sentry would have been bound to hear.



Mile's End, Hadrian's Wall. Photo: Don Boyer

Alan Hale is an alumnus of Stanford University, California, and is retired after 40 years as a journalist in Fleet Street, St Louis, Missouri and in Western Australia.

# Baths and Bathing in the Roman World

## David Kennedy

The Romans are of course famous for their baths and a visitor to Rome itself will find the massive fragments of the great imperial baths (*thermae*) of the emperors Caracalla (AD 211-218) and Diocletian (AD 293-304) amongst the most arresting survivals in the ancient capital. Every town had at least one public bath building, wealthy houses had private bath suites and many Roman forts also had them for the soldiers to use.

In recent years there have been fascinating studies into the logistics of building the great baths in Rome, the health aspects of bathing and problems of feeding and firing them.



Roman Britain Tour 2003. The Baths at Wroxeter—Photo. Don

The principle of how they worked is well-known but recent research has shed new and interesting light on details which would not otherwise be known from written sources. Those who took part in the Tour of Roman Britain in 2003 will well-remember the full-scale replica at Wallsend fort in Newcastle of a Roman military bath building. It is in fact one of three such baths reconstructed and set up to be fired and experimented with (The third is in Turkey).

In 1993 Tony Rook, a scientist with a background in building



Roman Baths uncovered during the recent underground rail works in Athens—Photo. Ed

materials and under floor heating, received a research grant to pursue a pet project in experimental archaeology: to investigate the practicalities of firing Roman baths.

At Xanten in Germany, the local authorities had reconstructed the bath building of the inn (*Mansio*) of the Roman town of Vetera. Rook volunteered to replace their own staff who fire up the heating system twice weekly while he measured temperature, fuel consumption, humidity etc. The results were revealing. First, was the discovery that even in the hot room (*Caldarium*) it is unlikely Romans went to the 60 degrees once supposed. In the confined space and with the tremendous humidity, 40 degrees is probably the highest bearable. Second, was the problem of controlling temperature. It took a week from first firing to reach 40 degrees but reducing fuel resulted in the fire going out while even the minimum fuel needed to maintain the fire produced continuing rises in temperature. Was there a means of maintaining a steady temperature, or was it as crude as letting the fire go out to bring temperatures down, then rebuilding it to bring them back up again? Finally, there was the fuel: at the end of a week they had consumed 1000 kgs of wood. How much more greedy of fuel would have been the major city baths in each city let alone the great *Thermae* in Rome itself, posing problems not just in the quantities of wood required but the logistics of collection and delivery. A more recent study has calculated that a modest public bath building in a Roman town – and there were often several such baths in towns – would require, on average, a cartload of fuel every day throughout the year.



Roman Britain Tour 2003—replica of a Roman Villa Southshields. Photo: Don Boyer

## ROME IN ISTANBUL AND ANKARA— Kevin O'Toole



**Kevin O'Toole: A Barrister & Solicitor who dabbles in Ancient Greek and Latin and has a particular interest in the archaeology of Athens.**

It can be said that when the Romans under Octavian and his general Agrippa defeated Antony (and Cleopatra) at Actium the Roman West had prevailed over the Greek East. However, when Constantine adopted Christianity and settled his capital in what had been the ancient city of Byzantium, the final victory was that of the Greek East. The Western body politic has since had a Roman frame but a Greek soul (albeit fast fading perhaps).



**Photo: Ed**

There were thus more than mere practical considerations at work when materials from the Colosseum in Rome were used for the construction of St Peter's. The monuments of one civilization are often, as a matter of principle, the building materials for another.

Participants in the Roman Britain tour of 2003 will recall seeing bits of the great monumental arch at Richborough in the later Saxon Shore Fort Walls. In the Agora in Athens the torso of a grand Classical or Hellenistic period statue (probably a Themis, goddess of justice) was found as rubble in a Byzantine wall. The now famous Grain Tax Law (a stone stele and work of art in its own right) of 374/3 BC was found down a drain in the Agora (the fate of all tax laws I suppose).

Contempt and indeed hatred for the art and symbols of a culture perceived or desired to be defeated could not have been better demonstrated than it was by the Taliban when they shelled the Buddhas of Bamiyan.

However, occupation and adaptation can be a more powerful, indeed triumphal, expression of the presence of a new order. The temple of Hephaistos (the Greek god of the anvil) in the Agora in Athens was converted (including architecturally re-arranged) in the 7th Century into a Christian Church of St George. Hephaistos had apparently swapped his anvil for a plough! The Parthenon was adapted for use as a church too until it was pressed into service as a mosque.

Yet it is hard to condemn the Ottoman Turks for converting Hagia (pron. Haiya) Sofia to a mosque in 1453 when it is recalled that some 250 years earlier Constantinople in general, and Hagia Sofia in particular, had been mercilessly desecrated and despoiled (for the greater glory and decoration of Venice) by Christians! Visitors to St Marks in Venice are thus witness to plunder from Constantinople. The Fourth Crusade anticipated what the Germans in the 16th century, and then the French in the 18th, did to Rome. In 1799 the French even 'stole' the Pope.

Hagia Sofia the Church of Holy (or the Divine) Wisdom in Istanbul ("Istanbul" by the way is etymologically Greek, not Turkish) was designed to be a mirror on earth of heaven. There was an earlier Hagia Sofia dedicated in AD 415. It was destroyed by fire in AD 532 (the picture at left shows a frieze of sheep from the ruins of the earlier Church).

The Emperor Justinian inaugurated the present structure, augmented as it has been over the centuries to keep it standing, or to make it look like a mosque, in



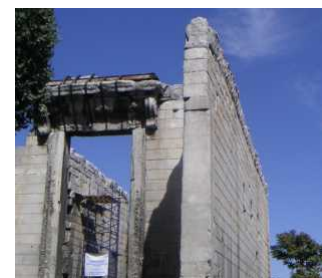
**A view of Hagia Sofia—Istanbul. Photo: Ed**

AD 537. For all the architectural hotch-potch (internally and externally) that Hagia Sofia has become, it remains a stunning place to visit. It was in its day one of the wonders of the world and visited as such by our ancient tourist forebears.

Those tourists would also have visited the nearby Hippodrome, and after it passed from utility to attraction the fabulous Sunken Cistern built in AD 532 has also become much visited by tourists. The Cistern is indeed fabulous to visit (you can even have a coffee down there and listen to a live musical performance—another use for a drain!). The Hippodrome however is at best a pale shadow of its original conception.

Constantine's great palace built around AD 320 was by 1453 in ruins. The ruins were filled in and became the foundations for the massive building programs of the Ottomans.

Roman period remains can also be seen in the capital of Turkey, the city of Ankara (from the Latin, *Ancyra*). The remnants of the temple of Augustus and Roma (*Monumentum Ancyranum*) still bear (albeit severely damaged) in Latin and Greek the *index rerum gestarum* of Augustus (his will and testament, his orders for his funeral, his accomplishments and his account of the state of the empire).



**Remains of the Temple of Augustus and Roma in Ankara.**

**Photo: Ed**

Unfortunately the remaining walls of the temple look to be merely a perverse appendage to the Haci Bayram Mosque which in the 15th Century was built to adjoin what was the north-west corner of the Temple.

As elsewhere in the Empire, in *Ancyra* Roman baths were built and the archaeological remains of an enormous bath complex are well preserved in the modern capital. Thus, although the Romans plundered too, they could hardly be accused of acting with unclean hands!

# Roman Archaeology at UWA

## Scholarships in Roman Archaeology

As in 2004, in 2005 there will be two opportunities for up to five students to be awarded a travel scholarship this year.

## Touring the Roman World

The projected tour of Ancient Jordan and Syria is scheduled for 30 April to 20 May inclusive. Details: <http://www.extension.uwa.edu.au/tours/jordan.shtml>

## Aerial Archaeology in Jordan

This project of active aerial archaeology – the only one in the Middle East – has been running since 1997 with further seasons planned for 2005 onwards.

Several thousand colour slide transparencies have been taken and Professor Kennedy is looking for a mechanism to make the material better-known and more accessible. The obvious solution is to scan all the slides and put thumb sized versions on a catalogue online. The thumb should be linked to a larger version but one that is informative without allowing direct use. The image would also have a Copyright warning.

After several years, the project now has a revised funding arrangement which it is hoped will develop to make the project largely self-sustaining. At the moment part of the costs are borne by the Royal Jordanian Air Force which provides helicopter flights at one third (US\$500) of the commercial rate (US\$1500) per hour; part comes from a regular private donation of £2000 (c. AUD\$5000); part from grants from up to five institutions; and part from income from the oc-

casional provision of photos to archaeological projects of their site/region. It is the latter which it is hoped to develop by advertising the archive and making it easier for potential users to find and purchase what they want.

The expertise and time to set up an online catalogue is beyond the available resources. If anyone has ideas or knowledge of setting up such a catalogue online Professor Kennedy would be glad to hear from them.

## UWA Courses In Roman History and Archaeology

Courses in Classics and Ancient History at UWA are open to all members of the public. You can enrol for an entire course of lectures and even the tutorials if you wish without any requirement to be examined. In other words, you can attend courses simply for the pleasure of it. For readers of this newsletter the units that might be of most interest are:

### Semester 1

AH 103 Glory and Grandeur: the Achievements, Significance and Legacy of the Greek and Roman World.

AH 231 Majesty of the Roman Empire

### Semester 2:

AH 102 Julians and Julio-Claudians

AH 204 Roman Archaeology

AH 292 Roman Art and Architecture

A full listing can be seen on our web site: <http://www.classics.uwa.edu.au/>

Enrolments are booked through University Extension: <http://www.extension.uwa.edu.au/access/index.shtml>

## Membership of The RAG

Membership of the RAG is open to anyone interested in Roman Archaeology or classical studies generally. There is an annual membership fee of \$25 (inclusive of GST).

To apply, complete and post the form with this edition of the RAG or contact the committee members at the addresses below.

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