

The RAG

Hadrian's Wall Illuminated- A 1600th Anniversary

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'Safaitic'—see page 4

There were Australians amongst visitors world wide who attended in England this month to celebrate the anniversary of the withdrawal of Roman authority from Britain in AD 410.

On 13 March the anniversary was celebrated by an illumination of the entire length of Hadrian's Wall. 500 volunteers standing 250 meters apart over the 135 kilometres length of the Wall lit up gas powered beacons thus creating for 30 minutes a line of light from Bowness-on-Solway at Cumbria's west coast to the site of the Segedunum Roman Fort in Wallsend.

Roman rule in Britain had effectively ended some years before 410 so that the year 410 is more a traditional date than an actual date of Roman departure. It would not be correct to envision a formal retreat or handover by the Romans. There was neither the sort of humiliating shambles that marked the departure of the US from Saigon on 30 April 1975, nor the sort of pleasant ceremonial formality that marked the return of Hong Kong to China by the British on 1 July 1997. Rather it was more a case of Rome fading (or slipping) away.

By the end of the 4th century internal disintegration resulting from barbarian incursion or local revolt had worn down Roman resistance, in particular because the Empire, under attack in general from all sides, did not have the capacity or will to supply reinforcements to its outposts. The Roman army in Britain in fact rebelled and in 407 appointed Constantine III as emperor. He promptly led his army, the Second Augusta, to Gaul where he was defeated by the western emperor Honorius. With that loss a Roman military presence in Britain effectively ended, and later appeals by communities in Britain to Honorius to provide security were rebuffed. Scots, Picts and Saxons made major incursions, and in 409 the Britons having lost all faith in Roman administration expelled the remaining Roman officials and looked to themselves for the provision of such defences that they could muster.

The outcome was that in the 5th century what had been the Roman territory of Britannia fell into widespread social and material decline.

A revived appeal by the Britons for help against the Saxons was made in 446 to Aëtius, leading general of the Western empire. Again the appeal was to no avail. Aëtius had enough to do trying to repel insurgents into Gaul and Hispania. The plea made to Aëtius has become known, perhaps incorrectly, as the 'groans of the Britons' from the terms in which it is recorded by Gildas in *De Excidio Britanniae*:

To Agitius [Aëtius? Agidius?], thrice consul, the groans of the Britons... we are driven to the sea by the barbarians, we are driven to the barbarians by the sea, between these two means of death we are either cut down or drowned.

In the battle of Dyrham in 577 the Saxons would eventually take the Western cities of Chichester, Bath and Gloucester. By then the Romans had long departed from Britain, but the legacies of Roman rule are the forebears of London, Canterbury, Bath, Chichester, Dover, Gloucester, Manchester, and York, and some 20 other well known and important cities of modern England, along with significant road networks within and between them. The most obvious legacy by way of a landmark is Hadrian's Wall. However, there are other Roman walls in Britain each of them famous, or at least important in its own right: the Antonine Wall, the London Roman Wall, the Wall at Colchester, and the Roman walls at York, Chichester and St Albans. There is also a structure at Leicester known as the 'Jewry Wall'—the remains of a Roman bathhouse and the largest surviving part of a civil structure from Roman Britain.

For all that the illumination of Hadrian's Wall was a fitting gesture to the commemoration of the 1600th anniversary of Rome's departure from Britain.

La Turbie - a magnificent Monument to Augustus in Provence

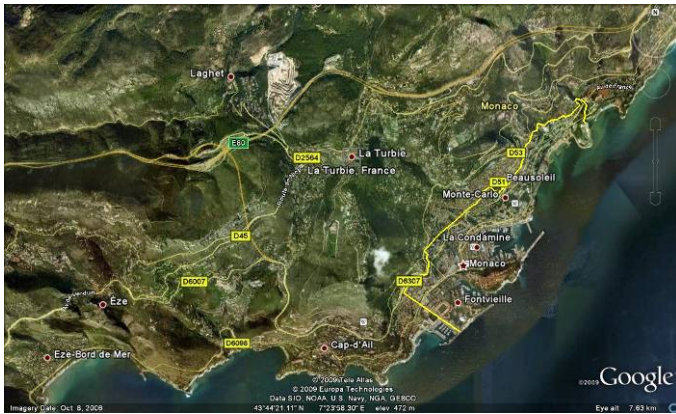
Norah Cooper

"There's a monument to Augustus somewhere near Nice", I was told before heading to Provence - a milestone or a small inscribed pillar, I suspected.

Searching through guidebooks was not much help until I discovered a drawing under the section, *History of France*: the drawing was of a massive construction at La Turbie, a town standing in the mountains high above Monaco and 18 km from Nice. The monument, built to impress the people of the Roman Empire is still breathtakingly impressive two millennia later.

La Turbie (in Italian "turbia") derives its name from *tropea*, the Latin for trophy. This particular trophy marks the end of the Alps in an area that was a sanctuary devoted to Heracles Monoikos (Monaikos is the Greek for Monaco). The Monument celebrates Augustus' victory over the people of the Alps who were finally subjugated between 25 and 14 BC. The Senate dedicated it to Augustus in 7-6 BC. A dedication inscribed on the west face of the monument refers to the conquest of the 45 Alpine tribes.

La Turbie is on the highest point of the Via Julia Augusta built by Augustus between 13-12 BC, starting in Piacenza, Italy, and passing through La Turbie and onto Cimiez (Nice). Eventually the road was extended a further 240 km west to Arles where it joined the Via Domitia. The present day D2564 follows the Via Julia Augusta (see Google Earth map of region below).



The monument is on a paved esplanade, with a high square podium topped by a round aedicule (a small building). Twenty-four columns surrounded a tower which probably had a statue of Augustus at the top. Originally 50 m high, today it only reaches 35 m and only 5 columns remain in the reconstruction. From the remains of the present day solid foundation it is obvious that this was an enormous monument.

The Trophy was extensively damaged from the 12th Century onwards until excavation work began in 1905 by the archaeologist, Philippe Casimir. Between 1929 and 1933 reconstruction was carried out by the architect Jules Formigé and it was funded by a wealthy American, Edward Tuck. The reconstruction team was heavily influenced by the conventions of twentieth century classical architecture so the reconstruction may not be true to the original.



Google Earth view of La Turbie monument

On the western façade of the monument (photo next page opposite), the dedication inscription was restored by Formigé from fragments found on the site and using text from Pliny the Elder (1st century AD.)

The text states:

To the Emperor Caesar Augustus, son of the divine Julius, Pontifex Maximus, proclaimed Emperor for the fourteenth time, and invested with the seventeenth Tribunician Power, from the Senate and the Roman people, because under his leadership and auspices, all the Alpine people from the Upper Sea (the Adriatic) to the Lower Sea (the Tyrrhenean) have been subjugated to the power of the Roman people. Conquered Alpine tribes (followed by the list of 45 tribes beginning with: Trumpilini..... and ending with Suetri)

On either side of the massive carved inscription are two *Victories* and two *Trophies* - reliefs of Roman armour and arms above two captive Barbarians in chains (photo next page opposite).



La Turbie



South face of La Turbie

A modern staircase gives access to the colonnade area near the top of the monument with views of Monaco, west to Nice, east to Italy and the nearby Alps and the surrounding town of La Turbie. From this vantage point you realise that not only can you see vast distances but the monument, at the top of the hill, is starkly visible from all surrounding areas, a landmark for all people and all time. Local limestone quarries, which would have supplied the main foundation for the monument, are nearby and visible to the east.

There is a small museum on the site with artefacts, fragments of carved stone, models and drawings of the reconstruction and it is worth visiting.

Provence is one of the most beautiful places in the world and for the Romanophile it is also a treasure trove of wonderful sites to visit (see RAG 4.4 - "Roman Provence - From the Air" by David Kennedy).

Discovering *Tropaeum Augusti*, the Trophy of Augustus, was one of those unexpected, joyous moments in a holiday, when you set out to find a site and it turns out to be truly wonderful.

References

Bromwich, J. *The Roman Remains of Southern France*, 1993 (London).

Ed. Toman, R. *Provence. Art. Architecture. Landscape*. 2000 (Cologne).

Trophée d'Auguste information pamphlet.



Model of La Turbie— western façade

The Cairn of Hani– A Nomad on the borders of Roman Arabia

Karen Henderson

Karen Henderson, an Honours graduate in Classics and Ancient History (2006), is completing her first year of research on *“The Works of the Old Men” in Arabia: An Interpretive Aerial Survey of Ancient Stone-Built Structures in the Harrat Harra, Northern Jordan* for a PhD. She is a part-time Research Assistant on the Aerial Archaeology in Jordan project (AAJ) and has flown with the project in 2008 and 2009.

The Cairn of Hani is the largest Cairn of its type known in Jordan and is a rich source of historical and linguistic information. It dates to – broadly – the Roman period and opens a rare window into the people on and beyond the frontier of the province of Roman Arabia.

The site was visited last year by the team from AAJ, to ascertain the level of preservation in and around the site. Mr Michael MacDonald of Oxford University, an expert on the languages of the indigenous peoples of this region, had visited the site in the 1970’s and gave us approximate coordinates. Gerald Lankester Harding, the long-time Director of the Department of Antiquities of Jordan (1936-1956) – who excavated the Cairn – includes a description in his article. Even so, it took some finding! First, we flew over the location given by Mr MacDonald, to no avail. We subsequently visited that site on the ground, and found inscriptions but no trace of a large Cairn. We finally found it after a second field excursion when it was discovered that during a previous flight someone had, inadvertently, photographed a large square Cairn about 2 km away.



Location of the Cairn of Hani. Despite its relative isolation in the Panhandle (photo above), its position so close to the main highway to Baghdad (photo below) has severely compromised the integrity of the site.



It was with some disappointment that the team (consisting, on that second day, of David Kennedy, Don Boyer and Stafford

Smith) discovered that the site has been badly damaged since the 1970s, despite its relative isolation from any nearby towns or cities. Many of the inscriptions seen by Harding and MacDonald 30-40 years ago have been removed by the Department of Antiquities for display in various museums, but it was the damage done by the bulldozers that caused the most dismay. The ubiquitous bulldozer is a true menace in Jordan, and the site’s being so close to a main road makes it a prime target for those who do not realise its significance.

Nevertheless, the body of the Cairn is intact. The bulldozer has managed to skirt the edges of the main structure, and the Department of Antiquities has now been informed of the danger to the site. Still, when the photographs taken recently are compared with those taken by Harding in 1951, it is disheartening to see the preservation level has dropped significantly.

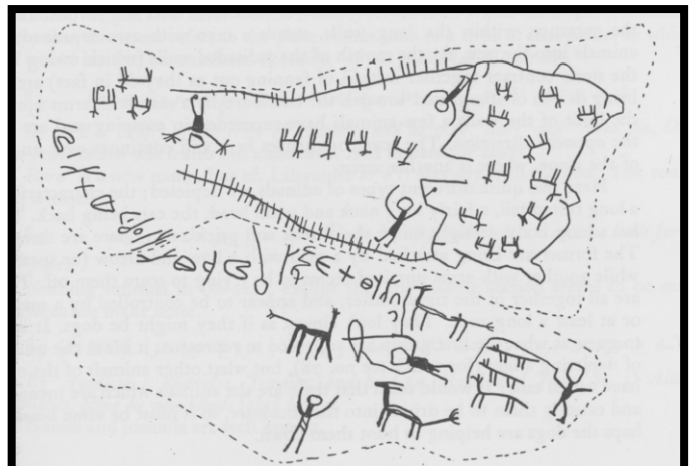


Today

1951



At the time of excavation, in 1951, there were 172 “Safaitic” inscriptions (RAG 3.2: 8-9; 4.2: 7-8 for articles explaining that this is the name given to the language of the nomadic peoples of this region in the 1st c BC to 4th c AD) and one in Latin as well as some remarkable rock art drawings. Further inscriptions and drawings were found around the site itself including what Harding identified as possibly trial pieces by those learning to write and draw. The drawings depict animals, hunting scenes, a battle, entertainment, as well as the extremely important drawing of a “Desert Kite” in use (photo below), which is now housed at the museum in Mafraq.



There are also popular symbols such as the series of seven lines or dots and a circular sun or sunburst. These symbols are often repeated on Cairns in the basalt desert (Harrat Harra) of Jordan. The two graves associated with the Cairn contained the bodies of a man and a woman, with the man - who must be the person referred to in the inscriptions as Hani' - being in a remarkable state of preservation. Harding interpreted the grave goods buried with the man as indicating that he was a mendicant "holy man" which may explain the elaborate commemorative honours paid him. At present this is the only example of the remains of such a person known from Hellenistic and Roman Jordan.

The site is of considerable historical interest. It is one of only four "Safaitic" Cairns ever excavated and is the only one which was found undisturbed and with well-preserved and very distinctive grave goods (now in the Amman Museum). The Cairn and the inscriptions provide very specific information about the burial practices of the nomads in the early Roman period, as well as personal information about the two individuals buried there and those who carved the inscriptions.

Unfortunately nothing discovered in the course of excavation or in the texts themselves gives any secure clue to the date of the Cairn, or when the interred lived. "Safaitic" inscriptions are only broadly dated to the early Roman period (above). The Latin text suggests a fairly early date, as Latin was not much in use in Jordan after the 4th c AD and certainly not for casual inscriptions like the one below—it is interesting, but difficult to decipher.



The original translation was done by Dr Eno Littman at Harding's request, and his text reads:-

"The first four letters are FLAM; that may be the beginning of the name FLAMINIVS; in that case the strokes at the right end would represent only an N, and IVC at the beginning of [line] 1. 2 would have to be connected with it. However, one might also read in [line] 1:

1. FLAMEN CA and would continue in [line] 2:
 2. IVCIVTEXTRICATV, and [line] 3 would be-
 3. FILISVFAL[E]RI[ANI]
- = FILIVS.

One might, therefore, translate it:

1. The priest Ga-
2. ius, the judge (iudex) of the tribe ... ,
3. the son of Valerianus.

At the end of 1.2 there is the name of an Arabic tribe, but I cannot make up my mind about it as yet. The word before it may be either TRI[BUS] or TRI[BU]S. The name of the tribe would be ATY or SATY or GATY." (Harding 1953: 45-46).

While the Department of Antiquities has been notified of the damage to this very important site, and a request has been made to monitor and fence the Cairn, there is a real danger that, like so many of these sites in the Harrat Harra, the bulldozer will find it before any action is taken. Given the significance of the site, and the fact that this is one of the few that have been excavated, this would indeed be a severe loss.

For further information:

Harding, G., 1953. The Cairn of Hani. *Annual of the Department of Antiquities of Jordan* 2: 8-56.



Drawing (below) by Harding of one of the 'Safaitic' inscriptions and photograph (above) of the stone itself by the AAJ team in 2009 (photo courtesy of Don Boyer). This is indicative of many of the inscriptions, and simply reads: 'By Hani' son of Khalif son of Taim and he placed a stone on the cairn of Hani' and built.' Note the sunburst and seven lines, both common motifs on 'Safaitic'



Uniquely, the majority of the inscriptions on it (99 out of 173) refer to the death of one man, Hani', and they were carved by members of 21 different tribes, an extraordinary "gathering of the clans" which has been found nowhere else. The inscriptions on such Cairns are usually limited to members of a few family groups, but as this individual may have been some sort of 'holy man or derwish' the Cairn also includes tributes from many others (Harding 1953:9). They are all brief as this example shows:-

A Visit to Hadrian's Villa (*cont.*)

Francesca Radcliffe

Francesca Radcliffe continues her account, commenced in RAG 4.4: 2-4, of Hadrian's stunning Villa at Tivoli, 25 km east of Rome.

While wandering around Villa Adriana on my short visit there in April 2009 I had time to visit only a few of the many imposing buildings. In this second part I shall describe some that I found the most interesting.

The first monument one meets when walking towards the central part of the Villa is the *Poecile*, or East-West Terrace (photo below). The former name, recalling the Painted Stoa in Athens where the greatest works of Greek painters were housed, was given by Pirro Ligorio (RAG 4.4: 2-4) when he made the first plans and descriptions of the Villa in the 16th century.



***Poecile* as seen on Google Earth, centre top, in the centre traces of a large apsidal building, could that be Antinus' temple?**

The *Poecile* is an immense terrace, about 230 metres long surrounding an olympic size pool, 100 m long by 25 m. Its north side is bounded by a perfectly preserved nine metre high wall, the Ambulatory Wall (photo above opposite). In its centre is the main entrance where the road coming from the north ended. At regular intervals on both sides of the wall are the remains of column bases, and a series of holes running along its upper section, [where the heads of timber beams were once inserted] indicating that there was a roofed portico along its whole length. An inscription, discovered in the 18th century, stated that the wall was 1450 feet long and, it then goes on to say, walking seven laps around it, would be the equivalent of two Roman miles. This, according to the Romans, was the ideal length for a healthy post-prandial stroll (*ambulatio*). At a later time, two slightly curved porticos were added at the east and west ends of the terrace. The tall wall surrounding this huge *quadriporticus* would have prevented the glorious views of the surrounding countryside, which so entice us today, but it would have provided privacy and seclusion. On the western and southern sides, because of the nature of the uneven terrain, the *Poecile* was built on an artificial terrace, created by the con-



The Ambulatory Wall, looking west. Photo F Radcliffe 2009 ©

struction of numerous substructures, the so-called *Cento Camerelle* (Hundred Small Chambers) or Service Quarters (photo below).

These rooms, which were accessed through a single door from a corridor resting on a system of external wooden walkways, linked by a set of concrete stairs, are all of the same size. Under the western rim of the East-West Terrace, they are stacked up four floors high. The modest nature of these cell-like rooms has led some scholars to speculate that they were servants' or slaves' quarters; others and, perhaps this is more likely, thought they were used as storerooms. Nearby are communal latrines and subterranean corridors which linked this part of the villa to the Greater and Small Baths and other areas of the Villa. A narrow paved road running along these utilitarian quarters came to light during excavations carried out by the Soprintendenza Archeologica del Lazio in 2000. These excavations also unearthed a second road, a large paved oval ring road (as well as a wall dividing the two roads), believed to have been the main access to the Villa.



Service Quarters, or *Cento Camerelle*, from the north. On centre right is the paved ring road, unearthed in 2000. Photo F Radcliffe 2009 ©

To the east, on a nearby hillock, the foundations of a semicircular building were also uncovered; these were interpreted as a possible temple dedicated to Antinous, Hadrian's favourite, who drowned in the Nile in AD 130, during the Emperor's visit to Egypt. The Emperor dedicated many temples (and even a town in Egypt) to his memory, and a cult - perhaps started by Hadrian himself - spread and took root in the Middle East: Antinous became a deity called Osirantinous.

From the *Poecile* it is but a short stroll to the Maritime Theatre (see RAG 4.4) and the Philosophers' Chamber or Apsidal Hall (photo below). The *Opus Reticulatum* (net pattern) brick walls of this chamber, and its apse on the south wall, are pock-marked by holes and fissures; the walls would have been faced and decorated in *opus sectile* of polychrome marbles. Some examples remain to be seen all over the villa, and it is hard to remember that the entire place would have once been teeming with elaborate colour schemes, instead of the rose-pink stretches of brickwork we now see. The purpose of the Apsidal Hall has given rise to many interpretations. Its architecture resembles a Roman auditorium or other civic building. It was also described as a library and its name, Philosophers' Chamber, seems to derive from the belief that the seven apse niches harboured the statues of seven philosophers. The modern consensus is that it was a hall used for holding councils, due to its location, adjoining the *Poecile* on one side and the Maritime Theatre on the other, and the close similarity to the Auditorium of the earlier imperial palace, the Domus Flavia on the Palatine Hill in Rome. And seven statues of the imperial family are more likely to have been lodged in the seven niches.



On the left, one of the entrances to the Maritime Theatre, and on the far right is a glimpse of the Philosophers' Chamber, four niches and the domed roof.

Photo F Radcliffe 2009 ©

Walking along a large corridor and gingerly stepping over lovely black & white mosaics, I entered the *Hospitalia*, or Hall of Cubicles, now roofless but once covered by a ceiling; a complex of some twelve guest rooms opening on either side of the corridor. To the south is a large room, a possible shrine, suggested by an altar in front of four long niches. Each room was furnished with three recesses for beds, their position indicated by geometric designs in the mosaic floors (different in each room), while the exquisite mosaics in the centre display a multitude of floral and arabesque motifs, again different in each cubicle. The mosaics are all made with black and white *tesserae*, and

in one room I noticed that the walls showed remains of painted plaster close to the floors (photo below). We can but marvel at the variety and inventiveness of the splendid designs of these mosaics. It is unfortunate that because they are now roofless and unprotected, they do show sign of deterioration. One only hopes that the authorities will not be long in restoring them and providing appropriate cover for such delightful works of art.



One of the *Hospitalia's* mosaic floors and on the background wall, the remains of red painted plaster, centre top. Photo F Radcliffe 2009 ©

Visiting the *Piazza d'Oro* (Golden Square), an extremely complex set of buildings, fronting a huge space bordered by foundations and presenting a rural aspect, the central part covered by a vast meadow and wild flowers, slightly disappointed my expectations. The modern name derives from the wealth of sculptures and other treasures extracted here during the many "treasure hunts" carried out since the 16th century. Many of the marble statues and precious objects are now dispersed in museums (the Vatican harbouring the lion's share) and private houses in Italy and abroad. A small number of statues found in the 19th century, when the free-for-all was finally brought to an end, are now safely stored in the museum by the Canopus (which was unfortunately closed when I eventually reached it). Many imperial portraits were unearthed here, emphasising the importance of these buildings, among which were the marble heads of Vibia Sabina, Hadrian's wife, of Marcus Aurelius (AD 161-169) and Caracalla (AD 211-218). On reaching the main buildings, to my dismay I found they were fenced off and a rather stern architect firmly prevented me for getting any closer, I wanted to take a picture of a splendid floor in *opus sectile* that I could see inside the barriers, but impossible while that dragon was about! And she was there for a long time, I could not wait for her to move on, so I did!

To the south of the Greater Baths stands another impressive, if somewhat austere, three-storey building, the *Praetorium*, or Central Service Quarters (photo top next page). Some scholars believed that this building would have housed the Praetorian Guards (the elite guards protecting the emperor) while others think it was another slaves' or servants' quarter. It was divided into two distinct parts, the construction being similar to the *Cento Camerelle*: in each of the lower three floors was a broad central corridor flanked by a total of about 25 rooms with a transverse corridor and staircase at the western end. This building served as a substructure to the Upper Park resting above it



The *Praetorium* or Central Service Quarters close to the Greater Bath and the Canopus. Photo F Radcliffe 2009 ©

and this was reached by an external staircase on the eastern side. Between the *Praetorium* and the Greater Baths, are a number of enclosed spaces: some walls show traces of fresco decorations: simple bands and panels (photo below). There are more frescoed walls in the Villa, but these are the only ones I came across.



Decorated wall in one of the rooms in front of the *Praetorium*. Photo F Radcliffe 2009 ©

It takes more than a day to visit Hadrian's villa; in my short wandering time I only saw the tip of the iceberg, almost literally, as I did not have time to enter its miles of subterranean corridors, galleries and passages nor did I see a number of other buildings. Pope Pius II (1458-1464) after a summer visit in 1461 wrote: "...the Emperor Hadrian built a magnificent villa, three miles from Tivoli, like a big town. Lofty vaults of great temples still stand and the half-ruined structures of halls and chambers are to be seen ... remains of peristyles, huge columned porticos, swimming pools and baths...[but] time has marred everything. The walls once covered with embroidered tapestry and golden hangings are now clothed with ivy. So fleeting are mortal things!"

Some of the walls and buildings have been now cleared of ivy and trees, some restored and some have disappeared altogether, but this is still a place of wonder. This splendid and most impressive Villa has been the inspiration for countless artists and architects, from Raphael and Michelangelo to Palladio and Le Corbusier. They all came here to gaze, learn and draw. Paradoxically, the despoliation that the Villa suffered over many centuries and the dispersion of so many works of art around the world was also the reason behind its influence in the design of so many buildings not only in Italy and Europe but as far afield as the United States of America.

Masuh/Masouh Jordan *Stafford Smith*



Stafford Smith has an Honours degree from the Discipline of Archaeology. He is a full-time Research Assistant on the Aerial Archaeology of Jordan project, charged with the task of making all the project photos from the last 12 years available to researchers online.

You may think that the Aerial Archaeology in Jordan Project is primarily a photographic exercise, but during the September-October 2009 flying season the team spent a considerable amount of time following up aerial observations on the ground. One of the most interesting of the sites we visited, and perhaps most promising for future research, was Masuh (sometimes Masouh) (aerial photo below).



The site was first recorded in 1918 on a low level aerial photograph taken by the German Air Force. Although they mislocated the place, it was that photograph that led to its correct location, our ground visit and subsequent photography in the

course of our two flights in the area.

As is so often the case with Late Roman archaeology, the churches are the features that have received the most attention. At Masuh one of the churches (photo of site opposite) was studied by Bastiaan Van Elderen in 1970, and revisited in 1982 by Fr. Michele Piccirillo who removed part of the upper mosaic floor (now in the Madaba Archaeological Park). This exposed a second mosaic floor underneath the one removed, and this lower floor is still *in situ* (photo below). A second church at Masuh was recently excavated by Hazem Jaser, Director of the Madaba office of the Department of Antiquities.



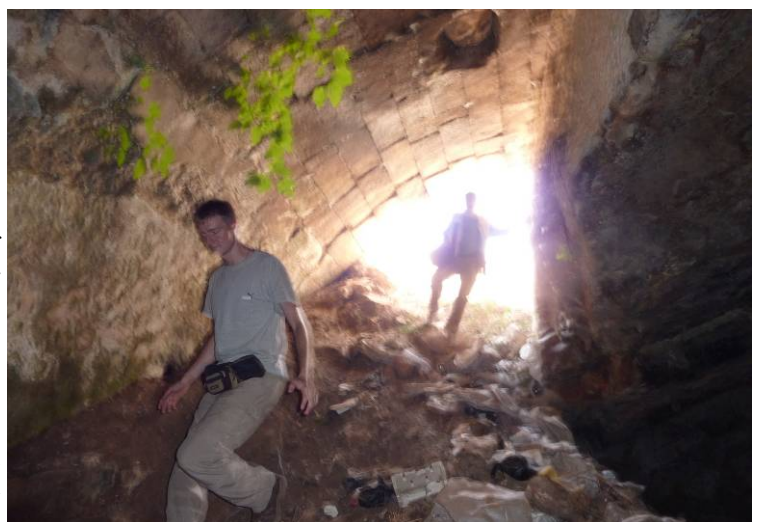
In addition to the churches the site complex at Masuh includes habitation structures, funerary monuments and two necropoleis, extensive water storage facilities, visible field systems, and an olive press, none of which have been examined in depth. Perhaps the most tantalizing of these unexplored elements of the site at the time of our visit was the great number of entrances leading to underground chambers (montage of photos below).



Each of these might lead to either a tomb or a water storage cistern, and it is hard to distinguish between the two without closer inspection.

The one that we had time to inspect did in fact turn out to be a huge cistern, very damp and cool compared to the dry heat and sun above (photo opposite).

In antiquity it was not uncommon for the majority of houses in a town, in regions where natural sources of water were restricted, to have their own cistern. Large public cisterns are known to have existed, and often even big cities relied on cisterns prior to the construction of aqueducts. I think it is most likely that the underground cavities at Masuh are cisterns as opposed to tombs. Moreover, it was common practice to separate tombs from habitation areas and there are at least two cemeteries located beyond the limits of the housing.



Masuh lies 22 km southwest of Amman and 9 km northeast of Madaba. The main site consists of a large area c. 400 x 250 m, c. 10 ha. There one encounters undulating ground, with walls, arches and other architectural elements protruding from the earth. In the aerial view the jumble of the ground-level ruinfield looks far more orderly and emerges as an extensive and quite dense collection of stone structures. Also noted are ancient quarries and a stretch of Roman road. It is evidently a large village/small town within which are the remains of at least the two ancient churches referred to above.

Located in a region abounding in archaeological heritage, Masuh is a little known site. It had been visited by a British expedition led by Captain Condor of the Royal Engineers in 1881. Then apart from the German aerial photo of 1918 it passed unnoticed until a brief report as part of the Archaeological Survey of the Hesban Region (Ibach 1987). Ceramic evidence from this survey suggests that Masuh was occupied from the late Iron Age right through to the Islamic period (Ibach 1987). Whilst this doesn't narrow the dating window much, the architectural evidence does suggest that the site underwent a major phase of construction during the Late Roman period (what American archaeologists call "Byzantine") – c. AD 300-600 (Ibach 1987 p191-192). Like many sites in the region, this may have been the period when Masuh was at peak population.

Masuh is located near the famous Nabataean and Roman town of Madaba, home of the Madaba Mosaic Map, the oldest map of the Holy Land. Whilst Madaba was probably the administrative centre of the area, Masuh was evidently of some importance, as traces of a Roman road are still visible on Google Earth running northwest from the site towards the Roman town of Esbus (ancient and modern Hesban) c. 3 km away. This region, the Madaba Plains, ancient Moab, was home to a thriving Christian community in the Late Roman period, as attested by the dozens of ruined churches located throughout the area, including those at Hesban, Siyagha, Khirbet el-Mekharyat, Ma'in, and Kfeir Abu Sarbut.

The Hesban Regional Survey identified evidence of Late Roman occupation at 85% of *all* archaeological sites located within approximately 100 km of Masuh (Ibach 1987 p183). This includes large city sites, towns, villages, agricultural and industrial sites, roads and way stations, and cemeteries (Ibach 1987 p183). Importantly, Late Roman settlement was identified even in the marginal agricultural areas, which is a strong indicator of the large growth in population during this time.

In contrast, the Hesban Regional Survey found that: "As the Byzantine period ended ... the level of settled occupation sharply declined, so that in the Umayyad period (A.D. 661-750) ceramic evidence of occupation was found at only 33 sites, or 23 percent of the total" (Ibach 1987 p183).



Masuh's main cemetery, complete with a rectangular structure that may have been a monument of some kind, or a third church, is located to the south. This area is now separated from the site by a modern road, and the cemetery has been extensively looted quite recently – the holes were still open (photo opposite—the pitting indicates recently looted graves). This destruction is so often the case in Jordan, and whilst we must remember that archaeology could be viewed as somewhat of a luxury in less developed countries, we must not forget that once destroyed, the archaeological record cannot be replaced. In fact, looting is not the only modern process to be potentially affecting the site: modern houses are gradually encroaching onto ancient Masuh and bedouin are grazing sheep over the ruins.

An important characteristic of the Byzantine population increase in the East is the explosion of agricultural villages. Indeed, unlike the Roman west where villas and isolated farms were most common, the East has been characterized as a 'World of Villages' (Millar 1993). We can see the importance of agriculture at Masuh from the ancient field boundaries still visible from the air. Some are located in the immediate vicinity of the town, but they are more prevalent a short distance away. Exploration of these 'fossilized field systems' is an exciting direction for aerial archaeology. Olives were a likely crop, an interpretation strengthened by the olive press found at the site.

Masuh offers an exciting prospect for archaeological research. Perhaps the most useful direction at this stage would be an intra-site spatial analysis of the site, to identify wall foundations and building layouts. A site plan could be developed from our aerial photos, and eventually deeper questions tackled, perhaps locating Masuh in the wider landscape context, or exploring Masuh's role in the Byzantine to Early Islamic transition.

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BOOK REVIEW

David Kennedy

Scheidel, W., Morris, I. M. and Saller, R. P. (eds) (2007) *The Cambridge Economic History of the Greco-Roman World*, Cambridge (CUP) £120/ US\$225

The nature of the economy of the Roman Empire is important. An empire of about 2 million square kilometres, stretching from Britain to the Red Sea, enduring for centuries ... What impact did this imposition of political unity have on the diverse economies of the region from nomads of Mauretania to sophisticated urban civilizations in the Greek East? What were the economic consequences of the city of Rome drawing in the grain (and oil and wine and many other) surpluses of the Mediterranean to satisfy the needs of its population of c. 1 million? What were the consequences of stationing 250-400,000 troops along the distant frontiers and paying them in silver? What were the consequences of imposing a relatively uniform and routine taxation system on the diverse elements of the Empire? How 'modern' did the Roman economy become and why did Rome never have an industrial revolution? These and many more questions have absorbed the attention of scholars for generations and resulted in a spate of books and hundreds of academic articles. Many of those concerned in recent years – both with Greece and Rome, were brought together to write chapters for this huge – and very expensive, book.

The objectives of the book are clearly articulated: "We have two goals in this book: to summarize the state of knowledge in ancient Greek and Roman economic history, and to contribute to shaping future research" (p. 1). The resulting "single-volume overview of Greco-Roman economic history ..." consists of 28 chapters spread over 768 pp of text (and footnotes – mainly of references) followed by 149 pages of Bibliography and 25 of Index. There are 24 maps, 29 drawings and 15 tables.

Most chapters are models of clarity, readability and stuffed full of facts, discussion and interpretation. Inevitably key ancient texts are cited or quoted – sometimes almost reluctantly; it is the archaeological evidence almost all contributors view as dynamic and the key to future developments in the subject. Here, it is the passage of time that has underpinned so much of what can now usefully and reliably be proposed: the aggregation of many thousands of pieces of evidence painstakingly exposed, recorded, analysed and interpreted ... then added to the bigger picture to permit interpretation. The explosion in archaeological fieldwork – excavations, ground and aerial surveys and marine – since 1945 has been truly transformational. A graph such as that depicting the chronological pattern of shipwrecks in the Mediterranean (p. 572) has been reproduced in this and other variants many times and, as commentators regularly remind us, it is flawed in many ways. That should not obscure the immense endeavours that underlie it or the important generalizations that can be made from it.

Scheidel has done more than most to clarify, develop and present in an intelligible fashion what we know about the demography of the Greek and (particularly) Roman worlds. His contribution here (ch. 3) is the longest (49 pages) in the book. Perhaps rightly so as he and many other contributors stress the impor-

tance of human numbers in this (and many other fields) of ancient history. As more than one contributor observes (e.g. 676), there is an intimate connection between population and economy. The key question here is: was the evident growth in the economy simply a product of a growth in population or was there an increase in living standards as well? The answer for all commentators – both here and elsewhere – is that per capita income grew faster than GDP. The evidence of a dramatic increase in shipwrecks in the Mediterranean has been often cited. Other indisputable indicators are the significant spread of settlement in the early imperial period, the huge increase in output of 'things' from jars of olive oil through ornaments to tiled roofs. Especially exciting and fast becoming another often-to-be-repeated piece of evidence is the graph of lead pollution trapped in the Greenland ice cores (548, Fig. 20.1). The peak is precisely the core period of Roman history and the implied sharp rise in silver production coincides with a huge rise in the emission of silver coins from the Roman mints (These are hard to quantify – but clearly significant and implying a notable rise in living standards). The editors (11) suggest numbers for the 'typical peasant': a proportionate increase in living standards beyond population growth – a modest 25 or perhaps 50%, over a thousand years and unevenly distributed but sufficient to mark out the Classical period as having greater abundance and comfort than anything before and anything subsequent till early modern times.

The explanation for the rise in living standards overall in the Roman period in particular is attributed to various factors, none of which can be measured accurately: the fundamental peace and stability that characterized most of the empire from the late 1st c. BC until the early 3rd century. Also important were the decline in transaction costs (543, 626) associated with political fragmentation and customs dues etc, and the development of a uniform set of laws and even weights and measures and the growth and reliability of an empire-wide coinage. Beyond these, however, were factors that exerted a significant pull: the city of Rome (and to varying extents, other cities) and the frontier armies. But there were other large cities drawing on distant surpluses: Alexandria, Antioch and Ephesus, all of which probably had to import cereals in large quantities. Overall, Scheidel believes as many as 7-9 million people, converted by him as an eighth or ninth of the total population, were 'urban' and drawing on the surpluses of a wider food-producing area. For Rome at least and for the armies, there was to a degree a command economy in place. Capital and army camps *had* to be supplied, adequately, reliably and regularly ... for generations. What is interesting is the extent to which that supply was left to private enterprise.

The 80 tons of white marble on the great arch at Richborough had to be imported from Italy's Carrara quarries just as the red granite columns at Palmyra had to be floated down the Nile from Aswan on the first stage of their journey. Items like these are impressive and tantalizing but still obscure important questions, not least the scale of such activity and what else was at work we cannot see.

Even just on things Roman this book is an Aladdin's Cave of wonderful tit-bits of data and fascinating interpretation.

Roman Archaeology at UWA

Pompeii

As many of you will now know, the Western Australian Museum is to present an exhibition called *A Day in Pompeii* which will run from 21 May to 5 September 2010. The Museum is also planning a series of lectures on Friday evenings during this period at the Cultural Centre, Perth.

In addition, the Winter 2010 Programme for RAG is likely to include an entire Saturday session devoted to Pompeii.

RAG Winter Programme

Topics for individual Saturdays are now in planning stage. One is likely to be on Pompeii. A second on Rome in the movies. A third may be devoted to some of the rich evidence for Greece under Roman rule.

Library Lectures

From time to time, members of the committee of RAG have given public lectures in metropolitan libraries as part of the libraries' daytime programmes for the public. Prof. Kennedy was reminded while giving such a lecture recently at the Cambridge Library in Floreat that these sessions not only attract a big audience (about 70 on that occasion) but the audience consists overwhelmingly of people who have never heard of RAG. A few on that occasion joined, and have now begun attending RAG Saturday sessions.

If you know of such library lecture programmes in your area you might want to suggest to them they can approach us about giving lectures. We have a clutch of three or four topics from which they can choose.

RSVP Saturday Sessions

It is encouraging to have a healthy audience of c. 70 at each Saturday session and it is gratifying for all the committee members who freely provide all the buffet tea at half time. It is important that they know closely how many are likely to attend. At recent meetings barely a quarter of those who did come had called to tell us and at the last session we ran out of food—an unwelcome first. Please call the number on the programme sheet or advise by e-mail if you intend to come.

Donations

The Roman Archaeology Group acknowledges with thanks the following members who regularly donate their time and/or supply the refreshments for our sumptuous afternoon teas:

Rebecca Banks
Ann Boyer
Don Boyer
Norah Cooper
Natalie Cullity
Maire Gomes
Rodney Greaves
David Kennedy
Mike Manley
Sandra Moran
Emilia Oprandi

In the next issue

Martina Müller on Roman windows; Norah Cooper on native sites in Roman Scotland; David Kennedy on documents from Dura Europos in Syria; Stafford Smith on putting the Aerial Photographic Archive for Archaeology in the Middle East on Flickr; Sandra Ottley on Roman inscriptions.

Fieldwork in 2010

David Kennedy, Stafford Smith and Don Boyer will be in Jordan in May-June for the first part of the annual *Aerial Archaeology in Jordan* project. They will be joined there by Dr Bob Bewley and Mrs Francesca Radcliffe, the other team members from the UK. Going early this year will show us sites in a green landscape at the end of winter. The second part of the flying season will be in October. The third season of the Jarash Hinterland Survey is planned for October 2010. Grant applications and permit requests have been submitted and we are now awaiting approval.

Europe 2010

At the end of the June flying season, David Kennedy will join his colleague Dr Bob Bewley (Operational Director of the Heritage Lottery Fund in the UK and an Honorary Research Associate here at UWA) in giving a paper at an international conference in Paris.

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Complete and post the form with this edition of the RAG or contact The Treasurer at the email address below.

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