ISAP NEWS

The newsletter of the International Society for Archaeological Prospection

Issue 54

June 2018

ISAP Fund report: Work on Earth Mound sites along the Murray River

Results of the ISAP Social Media survey... and what will happen next

The mystery hole in the garden of the Library of the American University in Rome.... Matteo Barone investigates!

Editorial

Dear Members,

Issue 54 has a lot of interesting content for you: we have a report from 'down under' on a research project that was made possible by the ISAP fund, an interesting hole in a garden in Rome, and the results of the survey of members opinions on social media!

We also have some thoughts from the ISAP Fund Secretary, Paul Johnson, and news about the editorship of the professional journal Archaeological Prospection! Quite a lot for you to get your teeth into as you head off on summer fieldwork projects.

We are still experiencing strange "things" with our newly deployed Open Source DTP software and the whole editorial team had to chip in, so a big thanks to Armin and Paul.

Finally, as always, don't forget the Newsletter can't happen without your contributions. Looking at the survey feedback, most of you find this a valuable resource, but you asked for less time consuming ways to contribute. So, as well as the circa 700 word short reports (which we still very much want) we're also happen to accept much shorter contributions in the form of images or datasets with a short paragraph explaining them! This could be a chance to show off your favourite anomalies, or to get some feedback on something that has really made you scratch your head…

We're always after nice cover images as well; don't feel like you have to have an article in the issue to contribute a nice picture of prospection in progress!

Have a good summer everyone (or winter, if you're below the equator),

Kayt Armstrong

editor@archprospection.org

The Cover Photograph shows Dave Ross undertaking magnetic gradiometer surveys under Australian gum trees for the earth mounds project in the Murray River valley (see p.3).

Membership renewal

£7 or €10 for the whole calendar year. Please visit:

www.archprospection.org/renew

Archaeological Prospection journal

Take advantage of the great deal offered to ISAP members by Wiley-Blackwell for this journal:

www.archprospection.org/wiley

Geophysical and Geomatic Investigations of the Anthropogenic Earth Mounds of the Murray River Valley, South Australia

Dave Ross[1], the River Murray Mallee Aboriginal Corporation, Ian Moffat[1], Mick Morrison[1] and Amy Roberts[1]

[1]Archaeology, College of Humanities, Arts and Social Sciences Flinders University

ian.moffat@flinders.edu.au

This research project, partly financed by the ISAP Fund and undertaken as a Masters thesis project by Dave Ross, was carried out to test the applicability of geophysical techniques, including magnetometry, Ground Penetrating Radar (GPR) and Electrical Resistivity Tomography (ERT), for investigating anthropogenic earth mounds sites in the Murray River valley region of South Australia. The results of this study show that magnetometry is well suited to defining the geographic extent of these features, presumably due to the presence of burnt clays within their sediment matrix. ERT and GPR both show some potential to resolve the stratigraphy of earth mounds, particularly in terms of distinguishing between anthropogenic sediment and the natural bank of the river. This result, which was the first application of geophysical methods to these, often subtle, features, demonstrates that magnetometry, GPR and ERT can find and define earth mounds, therefore opening up the possibility of mapping and understanding them on a landscape scale. This has major implications for understanding these features as part of the Holocene "broad spectrum revolution" in Australia.

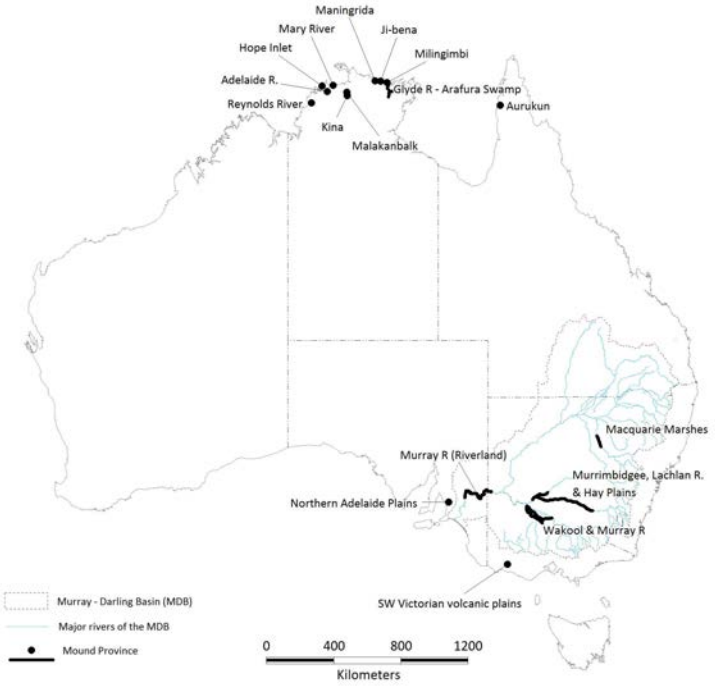

Figure 1: *Distribution of Mound Provinces in Australia (Westall and Wood 2014).*

Earth mounds are a common component of the Australian and international archaeological record (Brockwell 2006; Black and Thoms 2014). In the Australian context, these features are associated with river systems and wetlands in Northern Australia, the Adelaide Plains and the Murray River Valley (see Figure 1). They are elevated circular organic-rich accumulations of sediment with a diameter of 5-30 m which contain evidence of burning, material culture items and, in some regions, human burials (Westell and Wood 2014). In the northern Riverland region earth mounds are relatively consistent in morphology, being generally circular with diameters between 3–50 m and 0.2–0.7 m in height, consisting of burnt clay pellets, ash and charcoal in a fine silt matrix (Westell and Wood 2014). The construction of mounds proliferated through the last 2000 years, which appears to relate to the adoption of a more sedentary mode of occupation and the exploitation of food at lower trophic levels (i.e. rootstock) as part of the "broad spectrum revolution" (Williams *et al.* 2010). These features have not been the subject of any published geophysical investigation in Australia.

Figure 2: *The Hunchee Lagoon Study Area.*

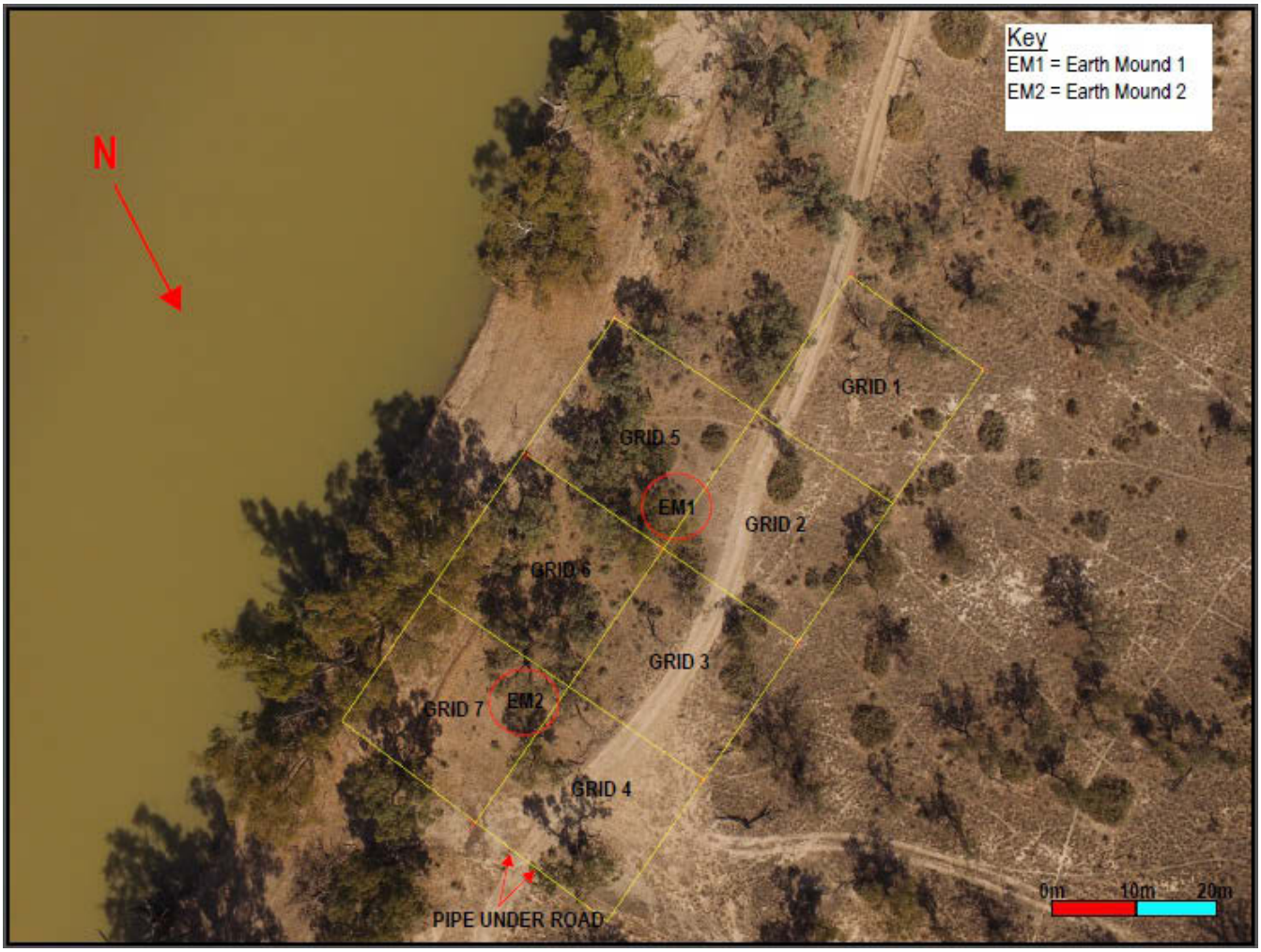

Figure 3: *Geophysical Survey Grids at the Hunchee Lagoon Site.*

Figure 4: *Ian Moffat with the GSSI Sir3000 GPR with 400 MHz antenna, Bartington Grad 601 magnetometer and DJI Phantom 3 Professional used for this survey.*

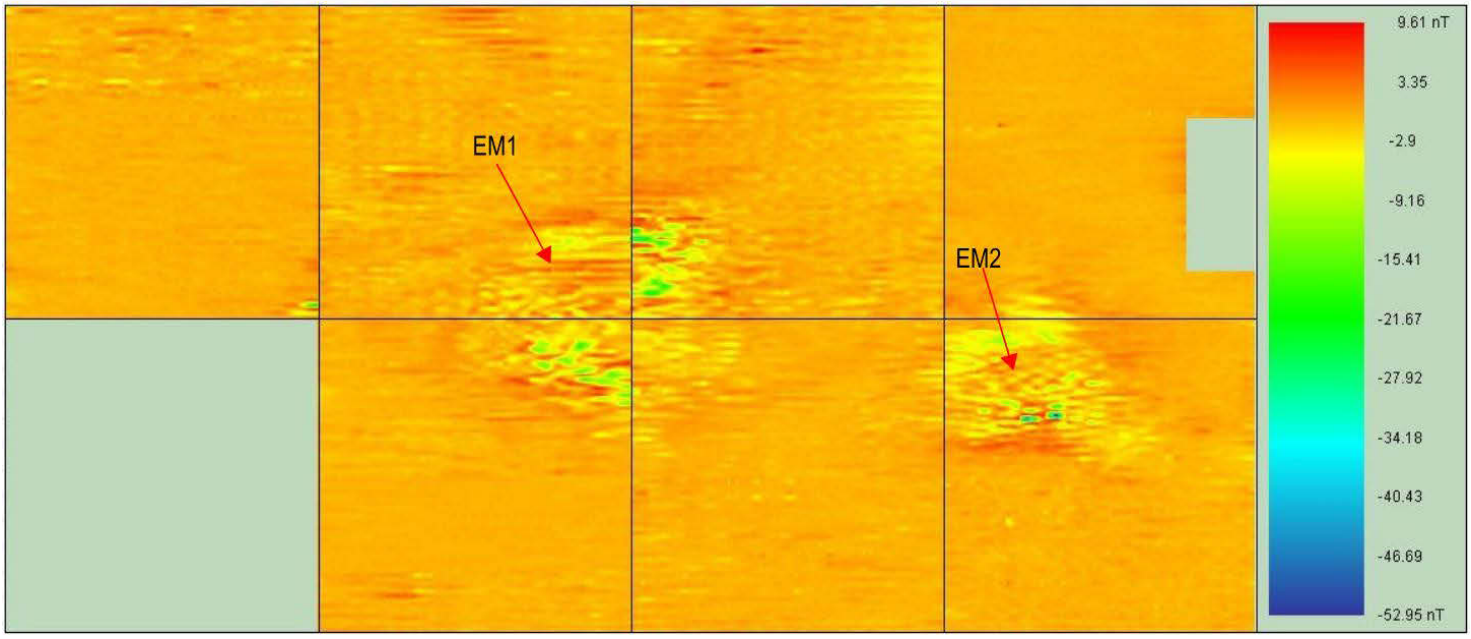

Figure 5: *Magnetometry data over the complete survey area, with the effect of the reinforced concrete pipe removed.*

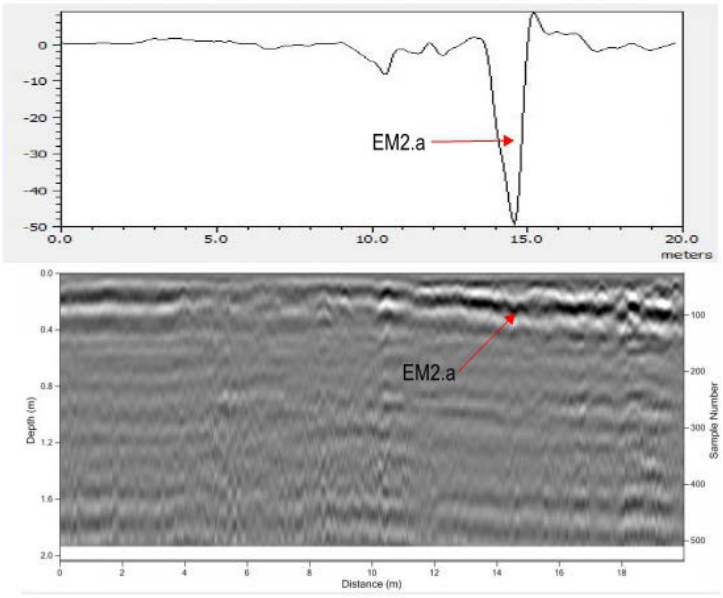

Figure 6: *GPR Line showing the high amplitude response from EM2 and an individual hearth feature (EM2a).*

This research was undertaken on Calperum Station, near Renmark on the Murray River in eastern South Australia, in an area known as Hunchee Creek (see Figure 2). The archaeology of the Hunchee Creek region is well summarised in Jones *et al.* (2017).

Geophysical survey was undertaken in an area surrounding and inclusive of two adjacent earth mounds, designated Earth Mound One (EM1) and Earth Mound Two (EM2) for this study (shown in Figure 3). All geophysical grids were located using a Leica RTK GNSS GS16 receiver. Aerial photographs were collected using DJI Phantom 3 Professional and E384 UAVs. Magnetometry data was collected using a Bartington Grad 601 fluxgate gradiometer with 2 sensors. GPR data was collected using a GSSI SIR3000 with a 400 MHz antenna mounted in a survey cart. ERT data was collected using a ZZ Flash Res Universal system using a 0.5 m electrode spacing. Much of the equipment used for the survey is shown in Figure 4.

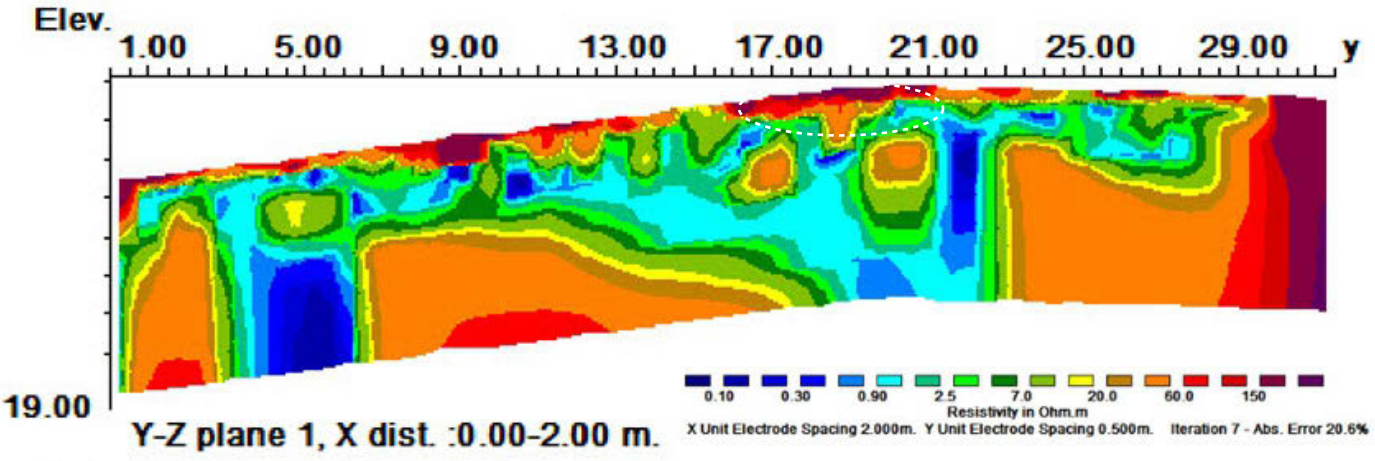

Figure 7: *ERT Line One, pseudo-section collected using the Dipole-dipole array. EM2 is indicated by the dotted ellipse.*

Magnetometry was very successful at defining the earth mound features while GPR and ERT showed some potential to map their stratigraphy. Magnetometry was able to define the geographic extent of the two earth mounds in the survey area on the basis of increased gradiometer response (as shown in Figure 5). GPR and ERT were able to provide some insights into the stratigraphy of the mounds, showing them as a high amplitude (GPR) and resistive (ERT) feature (shown in Figures 6 and 7).

Overall, this study demonstrated that geophysical techniques show exciting potential to contribute to the study of earth mounds in Australia. We intend to undertake further trials, possibly in combination with excavation, in the future.

References:

Black, S. L. and A. V. Thoms (2014). Hunter-gatherer earth ovens in the archaeological record: fundamental concepts. *American Antiquity* 79(2): 204–26.

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Jones, R., M. Morrison, A. Roberts and The River Murray and Mallee Aboriginal Corporation (2017). An Analysis of Indigenous Earth Mounds on the Calperum Floodplain, Riverland, South Australia. *Journal of the Anthropological Society of South Australia* 41: 18-62

Westell, C. and V. Wood (2014). An Introduction to Earthen Mound Sites in South Australia. *Journal of the Anthropological Society of South Australia* 38: 30-65.

Williams, A.N., S. Ulm, I.D. Goodwin and M. Smith (2010). Hunter-Gatherer Response to Late Holocene Climatic Variability in Northern and Central Australia. *Journal of Quaternary Science* 25(6): 831–38.

The ISAP Fund

Paul S Johnson

ISAP Fund Secretary

isap-fund@archprospection.org

The ISAP Fund was established during the 2014 AGM of ISAP to provide members of the Society with the opportunity to apply for funding that supports work undertaken to further the objectives of the Society

> *"… to advance the education of the public in archaeology (including the man-made landscape and the built-environment) through the promotion of high standards of research, application and communication in the field of archaeological prospection and related studies."*

All current members of the Society are entitled to make an application to the ISAP Fund for sums of up to £1,000 GBP to support projects for which they are the Principal Investigator. The grants provided by the ISAP Fund can be used for field- or laboratory-work, publication, or public engagement activities related to archaeological prospection. In order to be eligible for funding from ISAP the proposed projects must be demonstrably of benefit to the Society, and are expected to result in a contribution to *ISAPNews* as one of their outputs.

The deadline for applications under the current call for the ISAP Fund is the **28th September 2018**. Applications received after this date will, unfortunately, not be eligible for consideration in this round.

Previously funded projects include:

November 2017: Kris Lockyear "Looking for the invisible: a micro-geophysical investigation of a macro-geophysical feature".

In 2016, Drs Lockyear, Riva and Shlasko undertook a magnetic gradiometer survey at the Etruscan city of Vulci as part of Riva's project investigating the Etruscan economy. One of the very clear magnetic anomalies detected was a large rectangular feature of 40 m by 25 m. Subsequent GPR survey and a machine excavated trench failed to detect any sign of the anomaly, either geophysically or visually. The aim of this project is to (a) undertake Earth Resistance and magnetic susceptibility surveys over the whole anomaly and (b) to hand-excavate a trench over one side of the anomaly taking detailed magnetic susceptibility and resistance readings at each 10 cm spit (or stratigraphic unit) in order to see if the feature is detectable. Small soil samples will also be taken for possible laboratory investigation. The aim is to detect, explain and hopefully interpret the magnetic anomaly.

October 2016: Philippe De Smedt "Predicting the effect of soil and moisture variations on the interpretive potential of FDEM survey".

Frequency domain electromagnetic (FDEM) measurements can be related to subsurface conductivities, which means these are influenced by subsurface moisture variations. While seasonal influences on soil electrical variations have been investigated in depth, such studies rarely focus on FDEM instrumentation. Furthermore, robust quantitative information on how moisture variations affect the discrimination potential of archaeological features in FDEM datasets are fully lacking.

The research aims to bridge this gap through both an experimental and a theoretical approach. Starting from the physical characteristics of two test-sites, synthetic environments will be constructed in which different environmental conditions can be simulated to bear effect on the subsurface electromagnetic properties. Through these analyses a framework will be developed that allows evaluating the impact of seasonal variations on quadrature and in-phase FDEM responses, and enables predicting the interpretive potential of FDEM survey in varying environmental conditions.

March 2016: Ian Moffat "Geophysical and Geomatic Investigations of the Anthropogenic Earth Mounds of the Murray River Valley, South Australia" (see report in this issue).

Anthropogenic earth mounds are an important and under-studied component of the Australian archaeological record. These features are ubiquitous in the Murray River Valley, and provide unique evidence about human intensification of occupation in the late Holocene. This project trialed the use of geophysical techniques to determine the stratigraphy and presence of anthropogenic burning within earth mounds at Calperum Station, South Australia. Aerial photogrammetry from a UAV was also used to map the location and geometry of these features. This was the first trial of the use of geophysics and geomatics on South Australian earth mound sites, with significant implications for understanding these important features. This project also served to popularise the use of geophysics within Australian archaeology.

September 2015:Nikos Papadopoulos "Reconstructing the Cultural Dynamics in Shallow Marine Environment through Electrical Resistivity Tomography and Photogrammetry" (see report in ISAPNews 47).

Low altitude aerial imagery with Remotely Piloted Aerial Systems (drones) and geophysical imaging techniques like Electrical Resistivity Tomography (ERT) have been extensively used in mapping onshore buried antiquities in a non-destructive manner, thus contributing to the study, mapping and management of cultural heritage. Despite the relatively frequent employment of these research approaches in the recovery of archaeological relics in land surveys, the specific methods have minimal to non-existent employment for the understanding of the past dynamics in littoral and shallow off-shore environments. This research applyed the above survey tools in a comprehensive and integrated way to investigate a part of the archaeological site of Olous, a now submerged Hellenistic to Byzantine aged city, located on the isthmus of Poros in north-eastern coast of Crete (Greece). The results from this innovative survey will be applicable to archaeological investigations in the littoral zone from similar regions of the world and time periods thus contributing to the best practice of shallow maritime archaeology.

The conditions and guidance for applications and awards of ISAP Fund grants have been substantially revised for the 2018 round. When applying, please refer to the current guidelines (Version 7) which can be found at the following location:

http://www.archprospection.org/isap-fund

Summary of the ISAP Social Media Survey

Armin Schmidt[1], Chrys Harris[2] and Kayt Armstrong[3]

[1]Dr Schmidt - GeodataWIZ, [2]Magnitude Surveys, [3]Durham University

A.Schmidt@GeodataWIZ.com

After discussions at the 2017 AGM in Bradford the Management Committee asked ISAP members for comments on the possible use of Social Media by the Society. Here we summarise the results, and let you know what actions will be taken.

General

Most of the 49 respondents describe themselves as "academic/researcher" (37%), a slightly smaller number as "practitioner" (27%; this seems to be used as the "catch-all" category), followed by a tie between "student" and the broad category "curator/consultant/heritage practitioner" (12% each). Other categories only received one or two answers.

Most respondents have been ISAP members for between five to ten years (37%), followed by those who have been members for over ten years (25%). The remaining 38% of respondents were nearly equally spread over the other three selectable categories (three to five years, one to three years, and less than one year). These numbers broadly reflect the slowdown of new membership subscriptions over recent years and it can hence be assumed that the survey has been completed by a fairly representative sample of the current membership, regarding their membership duration. Given that 62% of respondents had joined ISAP no later than 2013 it is clear that there is a need for ISAP to encourage new members to join and existing members to continue with their participation. Social Media channels are one of the possible avenues.

Out of the popularly available Social Media channels most people use Facebook, followed by Twitter (Figure 1). 69% check their Facebook account daily or weekly, while the corresponding number for Twitter is 49%; 27% and 47%, respectively, do not check these channels at all. As might be expected, the number of posts to these services is smaller (39% and 29%, respectively, again combined figures for daily and weekly posts), with a ratio of posts-to-reads of around 57%, which is the same ratio as for replies to the isap-all email list (see below).

Only 35% check LinkedIn daily or weekly while a high 22% check it monthly, which is much higher than for Twitter and Facebook (4% each for monthly checks), demonstrating that although LinkedIn has a considerable user-base (more than Twitter) ISAP members only check LinkedIn sporadically, with the consequence that older messages in the LinkedIn time-line may be missed. Instagram also has a reasonable number of consumers (28% check it daily or weekly, 16% monthly) and a high post-to-read ratio (64%). By contrast Google+ is only used by few (16%, n=8).

Generally there is great support for a Social Media presence of ISAP, although the opinions vary as to what form this should take.

A selection of comments are presented below:

"Long overdue."

"[Should be used to post about] who are the ISAP and what do they do? [These are] good questions, to an outsider."

"Can share info more widely and broaden … reach."

"The current lack of engagement with social media means that ISAP is effectively invisible within many archaeological/geophysical networks."

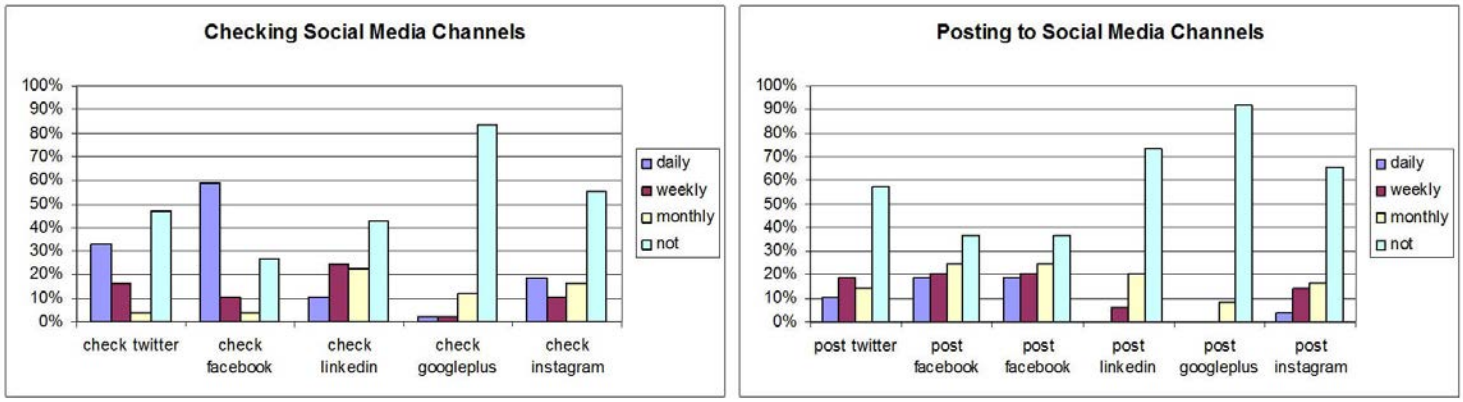


Figure 1: *Usage of popular Social Media channels (checking and posting).*

"If it can work without breaking any members then great, but it should not be started until everyone is certain that the time and people are there to keep it going."

"Use with caution, very time consuming for regular posts, likely to run out of steam if more than one channel is used."

While these comments reflect the usefulness of Social Media for ISAP's engagement with the wider community, some interesting results relate to the use of digital communication channels within ISAP and amongst its members ("How useful for you are/would be these discussion channels"). The average score for usefulness (out of 100%) were 59% for the isap-all email list, 55% for a bulletin board, 51% for a Facebook group and only 42% for an archive of the isap-all emails. It is also interesting to look at the scoring for different membership groups: the email list scored 58% in usefulness with respondents who had been members for more than ten years and a very high 80% from members who had joined in the last year, showing the popularity of this medium with more recent members. The usefulness of a Facebook group was scored by these two groups as 33% and 55%, respectively (see Figure 2). It is clear that more recent members find digital media, including the email list, particularly useful.

The isap-all Email List

Many (57%) have initiated or replied to posts on the mailing list. While the large percentage (67%) of long-term members who have already posted may be explained by the longer time they have had to make such posts, it is good to see that the highest proportion (71%) of people who submitted replies were from the one- to three-year membership range (i.e. members only since ca. 2015). 43% have not yet posted or cannot remember posting to the mailing list. Those who have not contributed gave various reasons. Some (n=4) thought their contribution was not necessary, others (n=3) felt hey had not enough knowledge to contribute, and one often had to rescue ISAP emails from their spam folder, hence missed most of the discussions.

On average, respondents were quite satisfied with the amount of information that they receive on the email list. On average they thought it was slightly too little (-8% on a scale of -100% being "far too little" and 0% being "just right"), with those who were members for more than three years agreeing even more with this (-14% too little) while the newer members felt it was slightly too much (+8%; where +100% would be "far too much"). These very small deviations from "just right" show that the current use of the email list is well endorsed.

ISAP Twitter Account

The overwhelming majority (74%) of respondents are in favour of an ISAP Twitter account (Figure 3); the highest percentage of proponents is amongst the newest members (80%, for those who have been members for less than one year), the lowest for the middle range (57%, for one to three years) and fairly high again (76%) for those who have been members for more than three years. Nearly everyone who checks their Twitter account is also in favour of an ISAP Twitter account (96%) and even of those who do

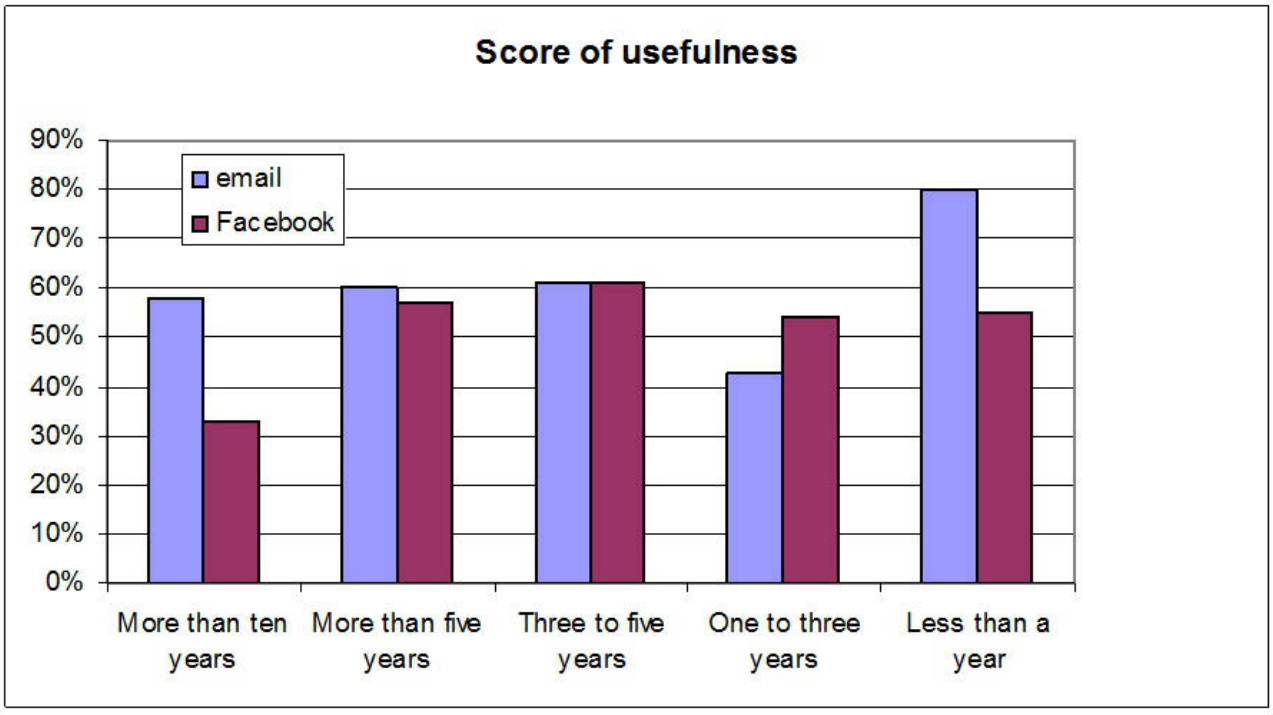


Figure 2: *Score of usefulness for isap-all email list and for a possible Facebook groupet by respondents with membership of different duration.*

not use Twitter only two are opposed to an ISAP Twitter account (most other non-users are uncertain). Despite such a high agreement with the suggestion, only 53% would actually follow an ISAP Twitter account; many are uncertain about it but only the two who were opposed to it are certain that they would not follow it.

Of the possible methods for linking the information from Twitter to the existing email list the majority of respondents (49%) supported a weekly digest of Tweets to be sent to the mailing list with the second highest (36%) being content with no link at all between the two.

The views on what should feature on the ISAP Twitter account are broad and inclusive (percentage of respondents who requested the content):

- 100% Conference announcements
- 82% Interesting survey results
- 75% Information on new publications
- 75% Announcements of new issues of ISAPNews
- 73% General geophysics topics
- 61% Job adverts
- 59% Survey results collected by ISAP members
- 57% Policy issues
- 57% Information on commercial instruments
- 48% ISAP membership information
- Plus: Learning opportunities, workshops, CPD events

Many respondents commented on the need for an ISAP Twitter account, the following is just an extract:

"I don't use Twitter; however it is an obvious way to reach a large number of people and so I am sure it would be a very useful thing to do - partially for the existing membership … , but even more so for the chance of reaching potential new members."

"Any Social Media account needs to be maintained regularly, or little point in having one."

"Twitter represents a low-cost/high-visibility way to broaden the engagement of ISAP among the wider communities of archaeologists, academics and cultural-heritage professionals."

"I think discussion should still be primarily on the email list but tweets could summarise and highlight ongoing discussions to draw more people in."

"I would be happy to pay for advertising through ISAP's Twitter, Facebook, and LinkedIn accounts."

The experience with Twitter accounts of other learned societies were summarised in the following replies:

"Quite a similar way, popularisation of the actions they take."

"To promote their missions, to drive debate, to draw attention to their activities, to engage directly with members, prospective members and the public."

"Information about interesting surveys and non confidential results. Fun facts - anecdotes about surveys or other related topics to keep alive the twitter account and to help to know the people and the society."

"It varies, but often anything relevant to their subject area is posted. A couple [of] tweets a day, maximum, would be plenty but even a couple a week would do."

"I get most of my archaeology info on Twitter! Just post anything appropriate and see what gets likes/responses."

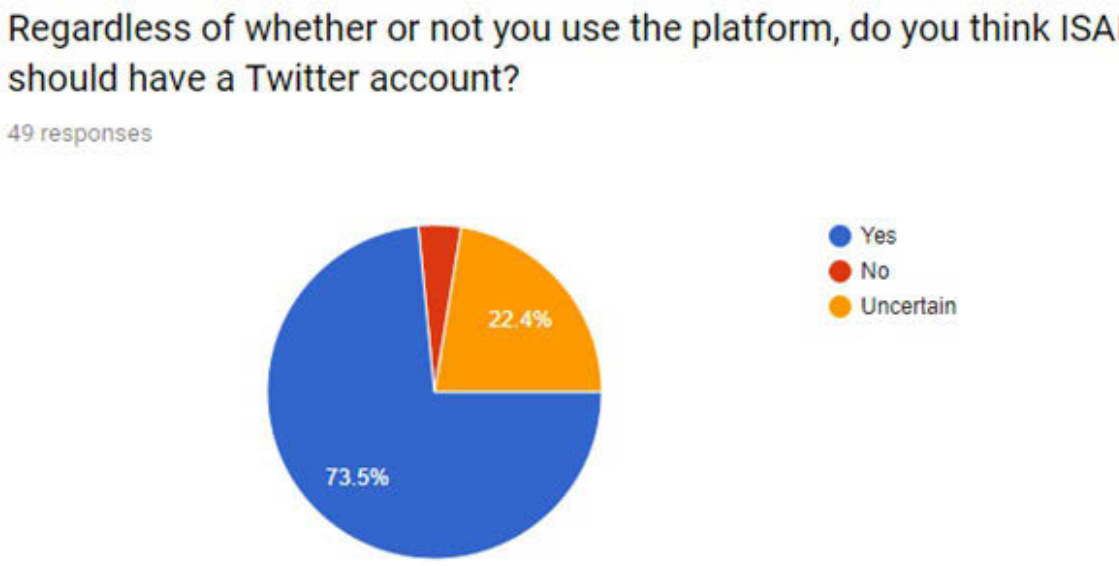


Figure 3: *Considerable support for an ISAP Twitter account.*

ISAP Facebook Group

There was also considerable support for an ISAP Facebook group (65%), although clearly less so than for Twitter. Comments suggested broadly the same use pattern for these two major Social Media channels with similar content requested for them (mostly due to personal preferences of one platform over the other). Replicating content between the two could be the most straightforward approach. Respondents indicated that Facebook's image and media content could be more useful than Twitter's for the Society. Even live video-streaming of conferences was suggested, which would also allow a commenting function. Obviously concerns over the moderation of group chats and discussions were raised, as well as question about who would be allowed to post to the group (any vetted member of the public?). Generally the feedback for Facebook was more mixed than for Twitter.

Highlights of comments on an ISAP Facebook group included:

"It's a great tool for communicating, presenting data and is more casual and instant. Virtually the entire 'aim' could be accomplished through Facebook."

"Facebook groups (& bulletin boards) require moderation and oversight to a greater degree than e.g. Twitter. The degree of oversight, and how this could be done while retaining a feeling of accessibility for members to post/ start discussion might be difficult to balance. I disagree with [the] option above that only the Management Committee should be able to post to such a group."

"I think the GPR-Slice Facebook page is an interesting resource as it has questions, answers and discussions. People seem to engage quite well through Facebook. Activity on any site/email/bulletin board requires good signposting on other platforms so that people don't miss out."

ISAPNews

The overall satisfaction with the newsletter is very high (a satisfaction score of 69%) with 51% of respondents rating it the second highest category of the survey (i.e. a score of 75%). The highest scores were awarded by those who had been members for more than 10 years (score of 77%), but amongst all other members no pattern of satisfaction was discernible from the data. It can hence be assumed that the newsletter appeals to most ISAP members in a similar way.

The responses gave some additional insights into what individuals like and dislike about ISAPNews. Obviously the content is dictated by what members submit themselves and there is little content the editorial team can generate on their own without input from the ISAP membership. The following thoughts may hence be ideas to prompt other ISAP members to submit some (even short) contributions to editor@archprospection.org .

"Like :D"

"Lacks current affairs (so technical news, links to research, commercial aspects) while [it] is too survey-results driven. I see survey results every day, I don't want to … see more."

"Of course it is pity that not many people send up their results [to ISAPNews]. Me personally, I am quite afraid of sending my results for publication, as I consider ISAPNews to be a high-level issue and I keep in mind that it would be read by the top professionals. Maybe a nice idea would be to make a gallery part, where people could just send a single pictures with their results or just photos of the field works. … Maybe a Facebook group could be a platform for exchange of the pictures. It works pretty fine in a Drone Photography group I am a member of. Once a month the board chooses the best pictures and publish them."

"It is as good as I could expect it to be. It is interesting and given the difficulties there must be in putting it together I think it is excellent."

"Perhaps have a section where people can simply display datasets e.g. depth slices with a very short caption, rather than having to write a details article. … This could be a separate section in the magazine, e.g. two pages where people can submit interesting images that don't really need further discussion. … This would allow people to rapidly and easily share what they have learned through fieldwork with the rest of the community, without having to go to the effort of writing an article or paper."

"It comes out too often; reduce frequency and increase quality of articles."

"[I] don't get the point of the adverts in it since it comes out so infrequently."

"Usually I skim through and look at the photos/figures, but not actually read the content."

"It's a great newsletter and would be quite easily switched to being published on Twitter/Facebook. It should be freely available as would only encourage more people to join. I believe the discounted rate for Archaeological Prospection is enough of a members benefit to justify cost, but it could perhaps be supplemented by a members-only job-postings on the email list or bulletin board, with notifications of new posts being put on Twitter/Facebook."

Other Social Media Presence

The only other Social Media channel that was suggested more than once for ISAP was LinkedIn, with some respondents being strongly in favour of it (*"You could have a members-only discussion group and would not need to maintain a bulletin board - this would also allow job vacancies to be posted"*).

Next Steps

The strong preference for an ISAP Twitter account chimes with the views of the Management Committee that such an account should be set up as a pilot scheme to evaluate the feasibility (especially in terms of time commitment) and usefulness of it. Based on the outcome of such an evaluation an additional ISAP Facebook group may then be created. In addition, it is reassuring that the traditional modes of internal communication (email list and newsletter) are still well received. This survey also brought out several interesting suggestions for further improvements to the newsletter, which the editorial team is now evaluating. Watch this space!

The mystery of a hole in the centre of Rome (Italy)

Pier Matteo Barone[1,2]

[1]Archaeology and Classics Program, American University of Rome, Italy

[2]Geoscienze Forensi Italia® - Forensic Geoscience Italy

p.barone@aur.edu

Figure 1: *A picture of the hole that opened up in the AUR Library garden.*

A great hole has suddenly opened up in American University of Rome's library garden (Figure 1). A GPR survey was carried out using a bistatic system equipped with 500 MHz antennas. This shows it is not a sink-hole, but part of a large hollowed area below the modern terrace at a depth of about 0.8 m and a volume of about 5x5x5 m^3 (Figure 2).

For safety reasons (it is an academic library frequented by students), the owner decided to excavate and properly backfill the cavity. For this reason, a GPR survey was requested to arrive at an accurate analysis of the first meter of soil above and within the cavity. GPR data highlighted an elongated anomaly due to an electrical cable and a circular anomaly caused by an abandoned concrete duct for pipes. At a depth of about 0.70 m a very clear point-source reflector was detected as well. This was reported to the person in charge of the excavation, so as to be aware of it during the dig.

During this operation, the archaeologist excavator brought to light a very strange metallic box, exactly in the position and at the depth shown by the GPR. The faces of the people at the site were a picture of astonishment as he plucked out of the box a gun wrapped in a piece of very deteriorated fabric and a very decayed page of an old newspaper, together with bullets (Figure 4). The gun was very rusted and barely recognizable as, probably, the very popular Smith & Wesson .38 M&P (Figure 4).

This discovery was not the only one. The archaeologist recovered small pottery sherds from the same layer as the box with the gun. Research is still ongoing, but these sherds look like ancient ones and this brought us to the conclusion that the hole could be part of a crypto-porticus below a Roman terrace re-used in modern times – in the early 20th century – when the modern villa that is now the Barnabites monastery – AUR campus – was created.

Is this a possible interpretation? There is reasonable certainty that close to the top of the Gianiculum slope (known in Roman times as Trans Tiberium), looking out across the ancient city, stood a villa – a grand Roman town-house. It would have been terraced into the upper slope in an overt attempt to blend in yet

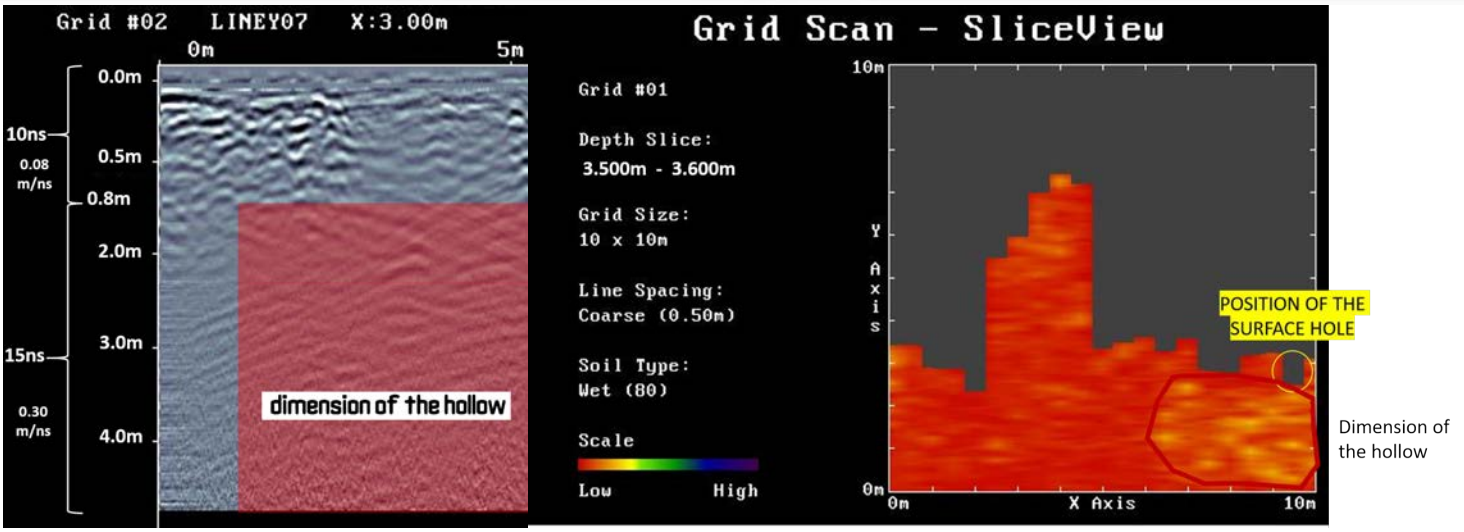


Figure 2: *Radargram and GPR map of the hollow: the extent is highlighted in red.*

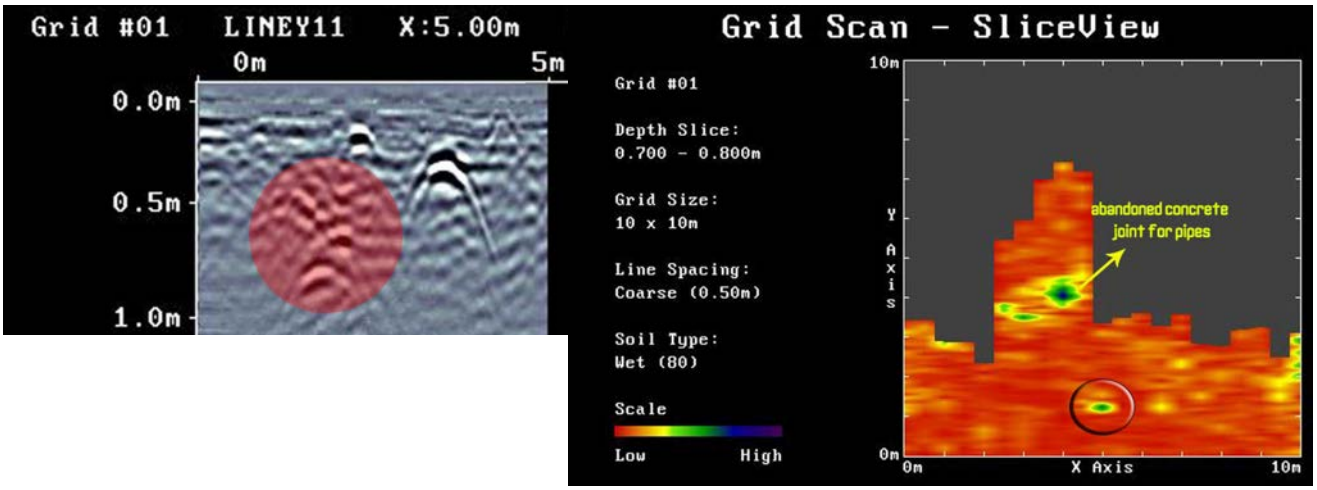


Figure 3: *Radargram and GPR map of the punctual anomaly (circled) due to the metallic box with the gun inside.*

Figure 4: *Left: the condition of the gun and bullets on discovery, Right: an example of the suggested firearm.*

command the contours of the hill. This, after all was, one of the plum locations in the Roman world, matching the villas surrounding the Bay of Naples. Across the top of the hill, through the grounds of the American Academy of Rome runs a Roman aqueduct that, refurbished, fed the Renaissance Fontanone. Then, of course, there were the Aurelian walls, which in the mid Imperial period ran down across the slope from Porta San Pacrazio a little to the north of AUR's library. So, if a villa did exist on this slope with its commanding panorama, its heady location was rudely compromised once the great defences were constructed in the 270s AD. What lucky senator or general lived here, marvelling at the eternal city below? Not that much has changed, of course.

New Editors for the Journal *Archaeological Prospection*

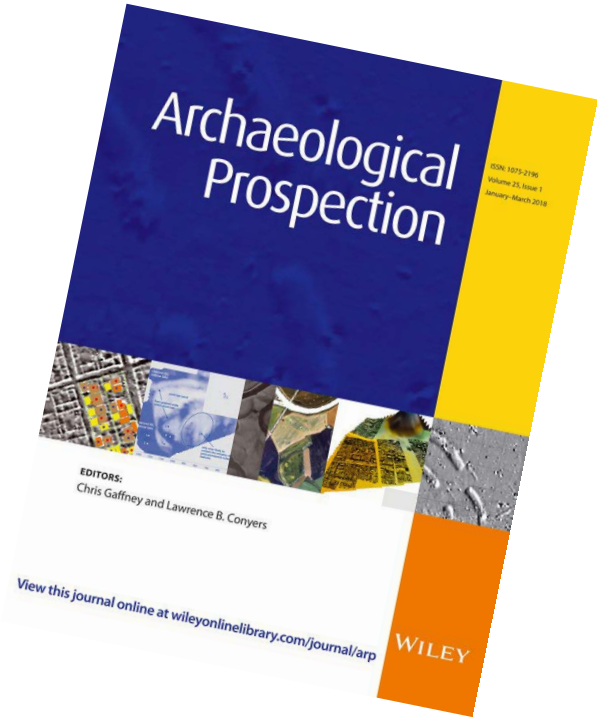
Chris Gaffney and Larry Conyers

c.gaffney@bradford.ac.uk

We, Chris Gaffney and Larry Conyers, will step down as editors of the journal Archaeological Prospection at the end of June 2018. It has been a privilege and adventure to have been in this role since 2004, with our first 'official' issue being 12(1), in 2005. The journal has now entered its 25th year and it is time for others to move the publication forward and in different directions with different leadership.

There have been immense changes during our time at the helm – online submissions, Impact Factor accreditation, online journal delivery and a very different way that the journal is distributed and marketed to our community, to name but a few. In our Editorial in 2005 we noted that we expected the core focus to remain on ground-based geophysical techniques, but that we hoped the scope of the journal would broaden to encompass other new and different techniques. This has now happened with Lidar and other digital capture methods for topography. We also said that we wanted to see more challenging archaeological/anthropological questions being tackled with the data that we all produce, and have had some excellent papers on such issues. There is still some way to go to use technical excellence more productively for asking and testing challenging and innovative ideas about people and the past.

The whole Editorial Board and the many external reviewers, as a team, have overseen about 4500 pages of output during our tenure as Editors. The dedication of the whole community has proved that committed reviewers can make good or even moderate papers excellent. Our editorial assistant, Sue Gaffney, has supported us and the journal throughout the whole period and has managed most of the correspondence during the 2000s when submissions and reviews were not yet online. Similarly, we also wish to express our thanks to Neil Linford who has done a splendid job as the Book Review Editor throughout this period.



The new team will be Gregory Tsokas and Eileen Ernenwein. We are sure that you will be pleased to hear this and our guess is that most of you will know both of them already. No doubt they will look to you all to for input and inspiration and we sincerely wish them good luck.

Journal Notification

Archaeological Prospection 2018: 25(2)

Virtual simulation of a late antique shipwreck at Marzamemi, Sicily: Integrated processes for 3D documentation, analysis and representation of underwater archaeological data

Leopoldo Repola, Nicola Scotto di Carlo, Daniela Signoretti, Justin Leidwanger

Geophysical correlation: global versus local perspectives

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Creating volume estimates for buried shell deposits: A comparative experimental case study using ground-penetrating radar (GPR) and electrical resistivity under varying soil conditions

Selene L. Kenady, Kelsey M. Lowe, Peter V. Ridd, Sean Ulm

The geophysical truth about the 'Gold Train' in Walbrzych, Poland

Janusz Madej, Monika Łój, Sławomir Porzucek, Wojciech Jaśkowsk,i Jerzy Karczewski, Sylwia Tomecka-Suchoń

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Geophysical surveying of the ancient walls of the town of Cagliari, Italy, by means of refraction and up-hole seismic tomography techniques

Roberto Balia, Andrea Pirinu

Geophysics and preventive archaeology: comparison with trial trenching on the CSNE project (France)

Guillaume Hulin, Didier Bayard, Pascal Depaepe, Alain Koehler, Gilles Prilaux, Marc Talon

Archaeological Geophysics Environmental & Criminal Forensics Conference

Date: 4th & 5th December 2018

Venue: Geological Society of London, Burlington House, Piccadilly, London

A 2 day joint meeting of the Near Surface Geophysics and Forensic Geoscience Groups of the Geological Society.

4th December 2018: Recent Work in Archaeological Geophysics

The Near Surface Geophysics Group of the Geological Society of London (NSGG) is pleased to announce the thirteenth in a succession of biennial day meetings devoted to archaeological geophysics. Near surface geophysical techniques have become increasingly established in archaeological research and evaluation over the past decade and are now routinely applied in archaeological investigations. This meeting offers a forum where contributors from the UK and further afield can present and debate the results of recent research and case studies. Suppliers of equipment and software also attend and the meeting therefore represents an invaluable opportunity for both archaeological and geophysical practitioners to exchange information about recent developments.

Convenor: *Paul Linford, Historic England, Fort Cumberland, Eastney, Portsmouth, PO4 9LD, UK; email:* ***Paul.Linford@HistoricEngland.org.uk***

5th December 2018: Criminal & Environmental Forensics

This multidisciplinary meeting will capture shared interests between the geological, environmental science, engineering, geotechnical, mining and archaeological communities with those practitioners working in the criminal and environmental fields. Expected sessions will include use of such techniques to the intelligence community, novel methods of analysing forensic geoscience material, case and controlled studies, remote sensing, geochemistry, geophysics, etc.

Convenors: *Jamie Pringle, School of Geography, Geology & Environment, Keele University, Keele, Staffs, ST5 5BG, UK. email:* ***j.k.pringle@keele.ac.uk*** *Alastair Ruffell, School of Geography, Archaeology & Palaeoecology, Queen's University, Belfast, N.Ireland, BT7 1NN; email:* ***a.ruffell@qub.ac.uk***

It is anticipated that each meeting will attract 100 or more participants. As well as oral presentations, there will be space for commercial and poster displays. Fellows will enjoy a conference attendance fee discount, with discounts for attendees if they attend both days.

Call for Abstracts:

Those interested in contributing to either meeting are warmly encouraged to contact the respective convenors, and to submit abstracts of up to 1000 words in length, accompanied by suitable greyscale illustrative material, no later than the 1st October 2018. An **abstract template** is available, accepted abstracts will be collated and made available to all those attending. We particularly encourage students and Early Career Researchers to submit abstracts.

As plans develop more information, registration and notes for presenters will be available on the NSGG website: **http://www.nsgg.org.uk/meetings/**.

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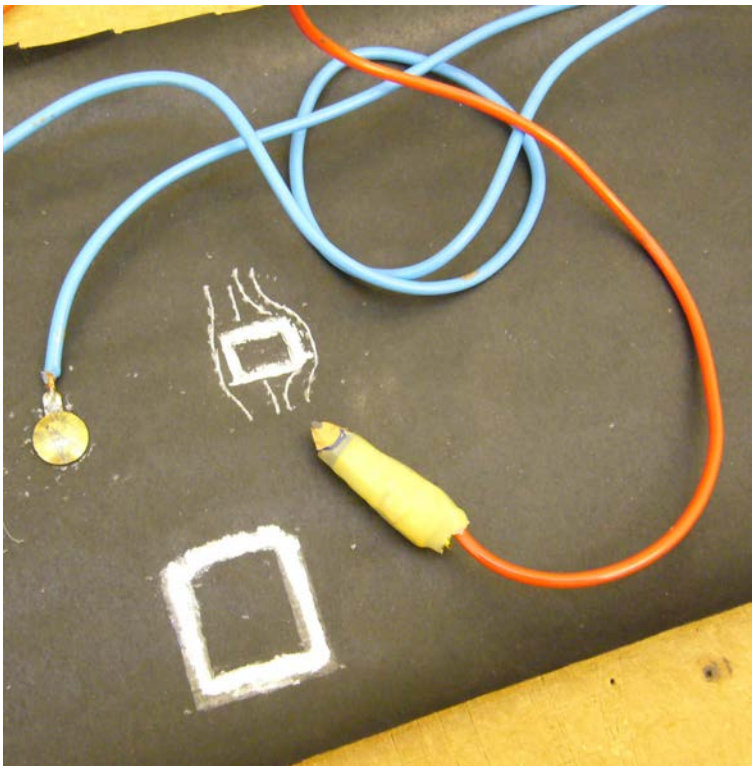

Please send

survey reports (ca. 700 words and some images),
interesting images/data (with a short caption),
cover photographs or
notifications

to the editor:

editor@archprospection.org