

**Provide a critical reflection of your role and responsibilities within a wider archaeological project considering the requirements for professional and ethical judgement, and your relationships with other team members and other stakeholders.**

I currently work for Historic England where I am continuing my training as an Aerial Survey Investigator. My main responsibility is the reconnaissance of archaeological sites in the UK which involves conducting different types of surveys at different times of the year. Condition monitoring is one of my main responsibilities which is constantly ongoing to help protect historic places, something that remains at the core of Historic England's responsibilities as a public body (Historic England, 2023a). As well as reacting to the yearly seasonal changes, often my role can be reactive in other ways both with external weather factors such as flooding events but also with internal requests and projects that can come from within the aerial survey team as well as other teams across Historic England. One team I have worked with in the past is the Heritage at Risk (HAR) team who deal with the management of the HAR Register which lists all of the scheduled, protected and listed historic sites across England recognised as being at risk (Historic England, 2023b, p. III-V). When conducting surveys, I am constantly observing the condition of sites which can often be subject to mismanagement or disturbance. If the site condition looks concerning, it is my responsibility to contact the HAR team and provide the details of the site a few of the images taken whilst surveying to show the issues. Sometimes the issues can prompt a conversation between the HAR team and the land owners to discuss management practices but in some rare cases, this can be taken a step further through the involvement of external authorities and in even rarer cases, legal action.

Recently I was involved with a project that revolved around a casework request, submitted from concerns raised about the condition of a Scheduled Monument. The Scheduled Monument is called Tripontium, a Roman settlement located along the Roman road 'Watling Street', close to the town of Rugby (Gould, 1999, p.185 & 191-193). The site has minimal surviving earthwork remains and consists mainly of sub-surface archaeology, which has been subject to archaeological investigations dating from 1961 up until 2006 by the Rugby Archaeological Society (2015). The casework submitted for this site was the product of a visit conducted by an Inspector of Ancient Monuments, who works as part of the Development Advice team within Historic England. Visits to Scheduled monuments are often conducted to examine the condition of a site but tend to be focused on sites that have had risk factors attributed to their condition in the past. Sites that have suffered from "neglect, decay or inappropriate development" (Historic England, 2024) are placed on the HAR Register which kickstarts a programme to identify the problems, come up with a solution and continue to monitor their condition to assess how well plans are being implemented and see if conditions are improving or declining (Historic England, 2023, p. III-V). As well as Aerial surveys, Inspectors of Ancient Monuments help to tackle condition monitoring by visiting the sites that are placed on the HAR Register, Tripontium has been on the HAR Register since 2008 and is still currently on the HAR Register with a trend of 'declining' condition as stated within the internal monitoring report. Upon visiting Tripontium, the Inspector of Ancient Monuments discovered that unauthorised works were being carried out across the scheduled area and sent a request for the assistance of the Aerial Investigation and Mapping team (Appendix 1). As part of the Aerial Investigation and Mapping team, specifically working within reconnaissance surveys, this casework was passed on to me through the Aerial Survey Principal (Team manager). Upon receiving the

casework request, it became my responsibility to conduct an up-to-date survey of the site, creating products that would convey the current extent of activity, as requested within the National Specialist Services Request Form (Appendix 1).

My first action was to conduct background research on the site, including its historical significance but also try to gather a comprehensive understanding of the past use and management of the land, including any issues that have compromised the site's condition in the past. Simply looking at the information available about Tripontium on Historic England's NHLE entry was not sufficient, as although normally this would give a good background on the interpretation as well as the main archaeological features on the site, unfortunately, this list entry was derived from an "old county number" (Historic England, n.d.). This meant that there was hardly any information available, with the information still sitting in a legacy system yet to be transferred across, a recurring issue with the NHLE database. I found information about the general historical background of the site as provided by the RAS (2015) which provided detail about previous excavation activity on the site as well as the archaeological subsoil remains that could still lay intact, the main reason for the sites Scheduled Monument status no doubt. I also found information about the context of the site within wider studies of Roman settlements along Watling Street as reported by Gould (1999), which put Tripontium into the context of its environment both historically and geographically. I think it is important to fully understand a site in such detail when tasked with casework requests, as it puts the work I am carrying out into perspective and highlights the importance of why we are trying to protect monuments such as these. I think especially at Tripontium it is important to consider the value of the buried archaeological remains to be as important as upstanding archaeological remains. This concept can be difficult to understand for those who manage the land as buried archaeology

holds an intangible significance, something that can lead to the damage or neglect of sites that are seen as invisible from the surface (Kobylinski et al, 2005, p. 255).



*Figure 1: Google Earth Historical Imagery (2016) Tripontium (Google Earth Pro, 2016).*

From looking at the HAR Register internal database I found that Tripontium had seen a period of mass earth dumping and earth disturbance visible in the Google Earth historical imagery in 2016 which could have damaged the condition of buried archaeology (Figure 1). By studying the changes in land use over the last ten years, through snapshots provided by Google Earth historical imagery, I was able to build a solid picture of the types of issues that Tripontium was facing. The site had been surveyed by another colleague earlier in 2011 (Historic England, 2011) and then again in early 2023 (figure 2), by comparing these images I could see how the area of activity has expanded into the field beyond the scaffolding yard in quite a significant way. This gave me a strong contextual background when planning the survey of the site, understanding what type of activity to look for. Examining the past land-

use context of Tripontium, also gave me the fundamental knowledge for talking about the site with the Inspector of Ancient Monuments, to discuss the next steps in the casework project and what detail was required from the survey. The outcomes of the discussions highlighted that it was essential to gather up-to-date evidence of the unauthorised activity which they explained from looking at the images taken in early 2023, had changed again. It was highlighted in discussions that mapping the extent of the activity and comparing the two surveys from within the same year would be the best way to enhance the understanding of how urgent the site's condition was declining to the local authorities.



*Figure 2: Photograph of Tripontium taken during routine reconnaissance by Grady (2023) – ©Historic England – 35214\_005.*

Knowing that mapping would be one of the main uses of the photographs it was important for me to consider this when photographing Tripontium. When photographing a site that will be rectified and georeferenced it is essential to include as many control points

within the photograph as possible to give the mapper enough options to select the best ones, as these are key to rectifying a photograph accurately (Evans, 2019, p.41-42). Control points can include anything unlikely to have changed on a modern OS map such as road junctions, buildings or field boundaries; selecting the clearest control points that are visible in the photograph will usually result in a more accurately georeferenced image (Evans, 2019, p.41). These are important considerations when taking photographs to make the latter stages in the process easier, something that is recognised to be of importance when designing a reconnaissance project for Historic England (Grady, 2015, p.6). Although this casework did not have a formal project design, I tried to think about how I planned and executed each stage of the casework process considering the advice and guidance available (Grady, 2015).

While planning the survey there were a range of things I had to consider to ensure that the flight was carried out safely and successfully, this included looking at the airspace to ensure there were no hazards or restrictions in place, checking the pilots had the correct and up-to-date documentation that they needed, ensuring the pilot checked the airworthiness of the aircraft before we set off as well as checking the weather forecast for all of the targeted areas to make sure the conditions will be both good for surveying but also safe, these are highlighted as considerations for a successful reconnaissance project throughout the guidelines produced for Historic England (Grady, 2015). It is also advised that the most up-to-date Air Navigation Order prescribed by the Civil Aviation Authority (CAA) is consulted for any specific safety queries (CAA, 2016). There are also ethical considerations to be aware of whilst flying, including the implications of excessive noise on those you are flying over, it is generally an aim to spend as little time circling over a site as possible, especially in built-up

residential areas. This is not a written rule but more a general consideration that needs to be made whilst flying to not cause a nuisance to those on the ground.

Once the survey had been successfully conducted, it was then down to me to process the images to be ready for the next stages of mapping. The photographs go through rigorous quality control and are processed to a high and consistent standard which is set out in the standards and guidance for Aerial reconnaissance project management (Grady, 2015, p.8). The images all need the appropriate metadata attributing to the files which are then converted into different formats, both as JPEGs but also as TIFFS for submission to the Historic England Archive which is set out in the Digital Image Capture and File Storage guidance (Historic England, 2015). When sending the images to the archive team within Historic England, it is important to maintain good communication, so they know where to retrieve the files from and then contact me to know when this stage is complete. Once the photographs were archived, I could commence the next stage of the casework project.



*Figure 3: Photograph taken for the Tripontium casework by Andrews (2023) – ©Historic England – 34172\_007*

The next stages involved processing the images further, to transform a normal oblique image (Figure 3) into a rectified and georeferenced photograph which could then be used in GIS to map out the activity (Figure 4); this task was assigned to me by the Aerial Survey Principal. As my role has a lot of training opportunities and I had never completed the rectification process before, the Aerial Survey Principal worked with me to explain how this was done and showed me how to use the software. This was a great opportunity to enhance my skills and put them into a practical situation. We assessed the photographs together discussing which control points would be most useful, but ultimately it was my decision to choose the final photograph that was used in the rectification process (Figure 3). Once the image was rectified and georeferenced onto an OS map, I was able to conduct the

final stages of the mapping process in GIS. I have had previous experience mapping features in GIS before so felt confident doing this independently. I decided to highlight the areas of hardstanding which fell outside of the scaffolding yard as well as any extra activity that was spilling into the field, mainly the dumping of materials and waste. The end products that were sent to the Inspector of Ancient Monuments included the collection of photographs, with some showing further detail of the activity in close-up shots as well as a simple rectified photograph of the site with mapped polygons showing the different types of activity as defined in a key (Figure 4). The polygons were drawn out in GIS using visual observations of the types of activity, which clearly shows how both the hardstanding surface had been expanded and extended to create a new trackway and that the general dumping of materials had also been expanded into the outlined area of the scheduled monument (Figure 4). The end products were used in a meeting between the Inspector of Ancient Monuments, and both Warwickshire County Council and Rugby District Council. Both councils were involved in the case as they were both involved with different aspects concerning the site, the extension of the hardstanding to create the trackway but also in the expansion of land use to outside of the scaffolding yard and into the scheduled monument area. The photographs and mapping provided evidence of the current activity and gave the different stakeholders a basis for their individual concerns. It was ultimately decided that each stakeholder would contact the landowners and come to a collaborative resolution to remove the material from the scheduled area outside of the yard and issue a halt on any further activity in this area. No legal action was taken in the end but as a precaution the site will continue to be monitored and any changes will now be evident by using the casework products to compare against any future escalation in activity.



*Figure 4: Final product from the Tripontium casework using a rectified and up-to-date photograph to map out the different areas of unauthorised activity within the scheduled monument area (Using image from Andrews, 2023) - ©Historic England.*

Overall, I had a lot of involvement within the project from conducting prior research to understand the context of the site, but also in conducting and collecting the evidence for the casework project. The project was only short and did not require the formal production of a project design, however, I employed the standards and guidance for each relevant stage in the project as if this were part of the design. It was my responsibility to process the photographs and create the final products necessary for other teams working within Historic England enabling further communication of the issues with external stakeholders. The project was a useful medium for me to take the opportunity to learn new skills and put them into practice; when given the next casework opportunity, I now know I have the skills to complete the rectifying process alone and will be able to understand the types of mapping products that are needed from other teams.

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## Appendix 1:



## National Specialist Services Request Form

National Specialist Services Department offers a range of services.  
If you are unsure about who to speak to or need multiple services, please email this form to [NationalSpecialistServices@HistoricEngland.org.uk](mailto:NationalSpecialistServices@HistoricEngland.org.uk) and cc in your Team Leader.

| Person Initiating Request                                                        |                                                     |                                                                                                                                                                                                                                                |              |                                                 |                         |
|----------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------------------------------------------|-------------------------|
| Name and job title                                                               |                                                     | [Redacted]                                                                                                                                                                                                                                     |              |                                                 |                         |
| Group, Team/Region                                                               |                                                     | Development Advice, Midlands                                                                                                                                                                                                                   |              |                                                 |                         |
| Telephone number                                                                 |                                                     | [Redacted]                                                                                                                                                                                                                                     |              | Email address [Redacted]@historicengland.org.uk |                         |
| Regions Team Leader to be cc'd                                                   |                                                     | [Redacted]                                                                                                                                                                                                                                     |              | Date of request 08/08/2023                      |                         |
| Site Address/Project Information                                                 |                                                     |                                                                                                                                                                                                                                                |              |                                                 |                         |
| Site location (e.g. site name, address including postcode and grid ref if known) |                                                     | Tripontium                                                                                                                                                                                                                                     |              |                                                 |                         |
| Local authority area                                                             |                                                     | Rugby                                                                                                                                                                                                                                          |              |                                                 |                         |
| Details of designation (SM/listing grade, include UID if known/CA)               |                                                     | SM ( <a href="https://historicengland.org.uk/listing/the-list/list-entry/1005759">https://historicengland.org.uk/listing/the-list/list-entry/1005759</a> )                                                                                     |              |                                                 |                         |
| Request Type                                                                     |                                                     |                                                                                                                                                                                                                                                |              |                                                 |                         |
| Please highlight or circle the team(s)/type of support you need                  |                                                     |                                                                                                                                                                                                                                                |              |                                                 |                         |
| Reactive Casework                                                                |                                                     |                                                                                                                                                                                                                                                | Project Work |                                                 |                         |
| Development Advice (Planning incl.EAS)                                           | Partnerships/Grant-aid (HAR/HAZ incl. High Streets) | Other (incl. HE Estate)                                                                                                                                                                                                                        | Research     | Corporate projects                              | Other (incl. HE Estate) |
| National Specialist Services Team                                                |                                                     |                                                                                                                                                                                                                                                |              |                                                 |                         |
| Please highlight or circle the team(s)/type of support you need                  |                                                     |                                                                                                                                                                                                                                                |              |                                                 |                         |
| Archaeological Investigation                                                     |                                                     | Investigative Science                                                                                                                                                                                                                          |              | Technical Conservation                          |                         |
| Archaeological Projects & Archives                                               |                                                     | Science Advisors                                                                                                                                                                                                                               |              | Structural Engineering                          |                         |
| Geophysical Survey                                                               |                                                     | Scientific Dating                                                                                                                                                                                                                              |              | Building Services                               |                         |
| Aerial Investigation & Mapping                                                   |                                                     | Environmental Studies                                                                                                                                                                                                                          |              | Building Conservation Advice                    |                         |
| Archaeological Survey & Investigation                                            |                                                     | Archaeological Conservation                                                                                                                                                                                                                    |              | Quantity Surveying                              |                         |
| Landscape Strategy                                                               |                                                     | Materials Science                                                                                                                                                                                                                              |              | Emergency Planning & Fire Safety                |                         |
|                                                                                  |                                                     |                                                                                                                                                                                                                                                |              | Geospatial Survey                               |                         |
|                                                                                  |                                                     |                                                                                                                                                                                                                                                |              | Designed Landscape                              |                         |
| Requirements (expand as necessary)                                               |                                                     |                                                                                                                                                                                                                                                |              |                                                 |                         |
| Describe the reason for your request and the advice/support you need             |                                                     | Unauthorised works to scheduled monument. Owner has extended area used as scaffolding yard onto the scheduled monument and I seek aerial photographs to record current condition and to confirm extent of activity.                            |              |                                                 |                         |
| State the type and level of end product needed                                   |                                                     | Aerial photographs of the site and if possible a measured extent of the area of the monument affected.                                                                                                                                         |              |                                                 |                         |
| Date advice is needed by                                                         |                                                     | Not fixed, but if the opportunity to include in forthcoming aerial survey flights in the coming mo                                                                                                                                             |              |                                                 |                         |
| Are any other HE groups/teams involved?                                          |                                                     | [Redacted] Enforcement Officer, HE                                                                                                                                                                                                             |              |                                                 |                         |
| Site contact and access information                                              |                                                     | Not required                                                                                                                                                                                                                                   |              |                                                 |                         |
| Is there anything else we should be made aware of?                               |                                                     | The case is subject to enforcement by both Warwickshire County Council and potentially also Rugby Borough Council. The aerial photographs would ideally be made available to them and any instructions on how that should be done appreciated. |              |                                                 |                         |

|                |         |  |             |  |                 |  |                |  |                    |  |
|----------------|---------|--|-------------|--|-----------------|--|----------------|--|--------------------|--|
| HE Office Use: | Case No |  | Assigned to |  | Project created |  | Folder created |  | BS initials & date |  |
|----------------|---------|--|-------------|--|-----------------|--|----------------|--|--------------------|--|

*A redacted copy of the National Specialist Services Request Form submitted by the Inspector of Ancient Monuments who visited Tripontium.*