Section 8. Conclusions#

In this Guide we have tried to show that archiving geophysical survey projects is not only desirable (Section 3) but also feasible (Sections 4-7) and thereby, hopefully, dispelled the myth that archiving is "too difficult to do". This Guide has been written with a very specific view: how can an archaeological geophysicist compile all her or his digital data, interpretations and reports into an Archive that is then ready for deposition to an Archiving Body, using tools and standards available at the time of writing (2011). We have deliberately omitted the vast range of information related to the academic subject of archiving and its standards as we feel that this can indeed be a mind-boggling world of its own that may frighten people more than it would help them achieve the goal of archiving their data. If readers feel that they want to find out more about archiving standards, including the OAIS ISO standards, there are many useful links available on related pages in other Guides.

As pointed out in the introduction (Section 1), the term 'archive' is used differently in different contexts. We have therefore strived to be consistent in our use of the terms Archive and Archiving Body since the tasks related to compiling the former are clearly separate from depositing such compendium to the latter. We hope that this clear distinction also helps to encourage more people to archive their data. Most will already have developed a folder hierarchy as advocated throughout this Guide to store their own digital data. Adding the additional information explained in Section 4 and further detailed in Sections 5-7 is not an overly onerous task and if built up as a project progresses (Section 7) it can be accomplished relatively easily. At the end an Archive will have been created that is certainly fit for in-house preservation and should also be considered for depositing to an Archiving Body.

Although the authors are closely linked to the ADS and Digital Archaeology, respectively, we have not made a firm recommendation as to which Archiving Body to choose. Section 3.4 details various types of Archiving Bodies and it is clear that one that offers advanced features is more desirable ? but maybe also more expensive. The choice will depend on many factors, including the content of the Archive, the funding body of the project (which may stipulate deposition with a particular Archiving Body) or the required functionality. We think that ADS and Digital Antiquity's tDAR repository are the perfect home for archaeological geophysical projects.

The middle chapters of this Guide (3-6) are written in a 'fold-out' structure. The start, Section 3, is a broad explanation of archiving and an introduction to what should be included in an Archive. This is then expanded in Section 4 where the different components of the Archive are fully explained, apart from the Comprehensive Documentation of metadata which is discussed in detail in Section 5. The mapping to particular subsets is finally the content of Section 6. This hierarchical presentation of details is simultaneously a 'pathway' towards a full and well-formed Archive. Even if not all information or all details are available or provided, data and metadata that are created in the spirit of this pathway can form a valuable resource; maybe in the form of a 'proto-Archive'. In fact it is very unlikely that many existing Archives fully conform to everything as laid out in this Guide. Hence in addition to being a 'Guide to Good Practice' this document is also an aspiration.

We have commented in various places on current (2011) shortcomings that will hopefully be overcome in the not too distant future.

- 1. There is no agreed exchange format for archaeological geophysics metadata or indeed a database template. It would be relatively easy to use the metadata information from this Guide and create XML schemas for them that could then be implemented in individual databases to facilitate exchange. Many practitioners have aired their dissatisfaction that in some instances metadata have to be manually typed into a web form even though they are already available in

an in-house database. Technologies to improve this situation are already available and should be harnessed.

- 2. It was stated throughout this Guide that during the conversion of proprietary data formats to preservation file formats metadata are usually lost (see for example Section 3.2). It is hence desirable to design a new preservation format that can retain most of the metadata encountered in archaeological geophysical surveys. In the first edition of this Guide the Archaeological Grid Format (AGF), designed by one of the authors (AS), was briefly mentioned and it may be possible to develop it into such an open preservation format in the future.
- 3. Extracting metadata from proprietary data formats is not very difficult and tools could be designed by software vendors or interested parties that extract such information and reformat it into XML documents that conform to the schemas mentioned above.
- 4. As discussed in Section 7.1.1 resources are needed to archive a project. One way to free up such resources is a supporting regulatory framework. Some academic funding bodies already stipulate that digital data that are created as part of a funded project have to be deposited with an Archiving Body and they will provide resources to do this. In the world of commercial archaeological geophysics this is not yet as explicit but a similar requirement would allow all contractors to offer project archiving without being undercut by those who do not.

All these are important issues for the archaeological geophysical community and it is anticipated that some of them will be taken forward by interested individuals or groups, like the International Society for Archaeological Prospection (ISAP) or the Geophysics Special Interest Group of the Institute for Archaeologists, U.K. (GeoSIG of the IfA). It will be very interesting to review the situation for the next incarnation of this Guide.