Royal Commission on Ancient and Historical Monuments of Scotland

Photographic Section Digitising Document

Introduction

RCAHMS has as one of its strategic aims to have more of its collections digitised and available to the public. With this in mind we decided to undertake a pilot project to look at the methodology required to digitise the diverse material in our negative collection and to see how many could potentially be done in one day. It is intended as a 'fast digitising' project that would run in tandem with our other digital projects and is not intended to replace the way we produce work for these.

We wanted to try different methods to use as a comparison thus producing a more realistic estimate of what could be achieved. We had heard that capturing the image with a digital camera had improved with technology and was potentially a faster method and we wanted to compare the results to those from a scanner. Three members of our section were involved to give us the best overview and the following is a summary of the group's results.

Method 1

Digitisation was undertaken using the Flextight scanner. This scanner will do 5X4 size negs and smaller. Scanning of ½ plate negs was done on the flat bed Scanmate scanner. We chose to save the files as tiff format as we reckoned this would save time in the long run by not having to rescan for public orders/publication etc. in the future and because it is the recognised archive format. The scanner will not scan as jpeg. Within the scanning software we can dictate the size of the image and through a preview decide on the cropping, contrast and colour balance. Profiles can be created if scanning a similar batch of originals e.g. aerial negatives, which can save time. By controlling the image at this stage it reduces the checking time later. We saved the files to the hard drive of the pc as this is faster than RCAHMS network. After a sizable amount was complete they were checked using Adobe Bridge and any image looking dubious was opened in Photoshop for basic correction. In reality, because of the accuracy of the Flextight software this meant only a couple in every 100 needed attention.

Outcome

On average 110 negatives were scanned per day. File sizes approx. 13MB(b&w). 1 person per workstation.

Method 2

Digitisation was undertaken using a Canon 5D MarkII with appropriate lenses, on a copy stand with a standard light box. The camera was tethered to the PC and images were shot through Capture One software as Raw files from the camera. The camera was set on automatic exposure and automatic focussing. This was largely successful in most cases but occasionally hand focussing was required when the camera couldn't find a definite edge to focus on e.g. aerial negatives. All sizes of negative

were catered for using this method. The Raw files were then individually cropped in the software due to the variety of film formats which were not compatible with the camera chip dimensions. They were then batch processed into tiff format (for reasons, see above) and Photoshop ‘actions’ used to apply autolevels and convert to positive. The files were again checked through Adobe Bridge with about 5% requiring exposure refinements due to the haphazard nature of autolevels.

Outcome

On average 150 negatives were digitised per day. File sizes approx. 19MB (b&w). 1 person per workstation.

Conclusions

The tests have proved that digitising using a camera as the capture method is more productive but there are other factors that need to be taken into consideration before decisions are made.

- Due to the vast range of different colour neg/transparency material in our archive the autolevel correction in Photoshop of the camera files was unreliable, therefore requiring time consuming adjustments before archiving. The scanner software handles the colour correction more accurately and successfully.
- Although the files from both methods look ok when printed, enlargements from the camera capture proved to be inferior in quality to that of the scanned image.
- On H&S issues, capturing by camera means lengthy periods of standing and awkward bending and manoeuvring to maximise production. Some of this may be minimised by a custom built kit. One of our team complained of a bad back at the end of a full days copying using this method, something to think about if it is intended as an intensive digitisation project.
- It was felt that, as qualified photographers, the scanning method had more user input than the camera method, although for both we felt our professional expertise was being underutilised.

When making our final decision on capture method, obviously finances played a part and the fact that we had two flextight scanners already in the department was a factor along with file size and storage requirements. We have decided for this project to go with the scanning method.

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