Poster abstract

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The Application of Image Analysis to Quantitate Paper Colour Change from Digital Data Sets

Digitisation of the physical collection is well underway at the State Library of NSW and is generating large sets of data in the form of images. These high quality images have the advantage of being information rich, acquired under standardised, uniform conditions and represent a complete snapshot of the object at a given time.

These large digital data sets can be viewed as a new resource that has the potential of containing useful conservation information. However extracting this information requires collaboration with specialists in Image Analysis. This poster will present the experimental work currently being undertaken in the exploration of Image Analysis software to obtain practical information for conservators.

There are many image processing and analysis programs available such as Adobe Photoshop but the authors of this poster chose to use ImageJ — a program that was initially developed for medical research and that offers sophisticated analytical and macro capabilities. Additionally it has the advantage of being open source, free, runs on desktop computers and is constantly updated. Custom macros are being developed to analyse the Library text based data sets. This approach may be applied to a range of conservation questions but the focus for this study is on colour change in paper as it relates to the ageing process.

REFERENCES

Duffy, C. (2013) *Applications of Image Processing Software to Archival Material* Paper Conservation: Decisions & Compromises ICOM-CC Graphic Document Working Group Interim Meeting Vienna

AUTHOR BIOGRAPHIES

Dana Kahabka is Senior Conservator, Digitisation Project, at the State Library of New South Wales. Previously Dana has worked at a number of cultural institutions including the Australian War Memorial, Queensland Art Gallery, The National Archives of Australia (Sydney Office), the State Library of Queensland and the Australian National Maritime Museum. Dana undertook an internship at the Centre for Cultural Materials Conservation, University of Melbourne after completing a Bachelor of Applied Science in the Conservation of Cultural Materials from the University of Canberra. I'm currently exploring how data from digital images can be used as a survey tool for conservation.

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Dennis Dwarte is the Honorary Associate, Medicine & Sydney Microscopy & Microanalysis, University of Sydney. He has been actively working in Image Analysis since the late 1980's. He was Senior Image Visualisation and Analysis Specialist at the Electron Microscope Unit (Sydney Microscopy & Microanalysis) the University of Sydney and has worked on Image Analysis projects in the Biological, Medical and Material Sciences fields. He has published numerous Image Analysis papers, taught Image Analysis at the Graduate and Post Graduate level and written many Image Analysis macros and programs.

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