

Kyffin Williams: Digital Image Analysis

Report Name	Outline Project Specification
Author (User Id)	Alexander D. Brown (adb9)
Supervisor	Hannah M. Dee (hmd1)
Module	CS39440
Date	October 11, 2012
Revision	0.1
Status	Draft

1 Project description

Sir John “Kyffin” Williams was a Welsh Landscape Painter, widely regarded as the defining artist of Wales during the 20th Century [1, p.957-958]. His work, and associated metadata collected by the National Library of Wales, allows for some interesting analysis; particularly that of temporal or geological data for a given painting.

Temporal analysis will be the focus of this project as it allows for a diverse range of techniques; from statistical analysis of RGB values of the paintings to looking at the length and style of paintbrush strokes. The ultimate aim of this being to accurately place the year of a given painting which has no metadata collected.

2 Work to be tackled

2.1 Library and Language Decisions

There are quite a few image processing/computer vision libraries available to use, including:

- AForge.net
- FIJI Is Just ImageJ (FIJI)
- Intergrating Vision Toolkit (IVT)
- Open Source Computer Vision (OpenCV)
- Scillab Image Processing (SIP)
- Vision X Library (VXL)

Some analysis of these libraries needs to be performed before a proper choice is made. This analysis should take into account certain aspects such as cross-platform compatibility, ease of use and install, features available, etc.

3 Project deliverables

4 Initial bibliography

- [1] John Davies, Nigel Jenkins, Baines Menna, and Peredur I. Lynch. *The Welsh Academy Encyclopedia of Wales*. Cardiff: University of Wales Press, 2008.