Exploring Stephen Dwoskin’s Digital Legacy

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Dwoskin’s Drives

What we know:
• 20 Drives
• Estimated 12TB of data
• 6 Drives analysed here (01, 02, 03, 04, 06, 10)

What we don’t know:
• Dwoskin’s working pattern
• The processes and tools used in his filmmaking
• The content on the drives
Aims of the Research

• Utilise digital forensics tools to explore the digital archive.

• Make the findings of this exploration accessible.

• Contribute to the understanding of the technological changes of independent filmmaking from the 1960’s onwards

• Explore the patterns of Dwoskin’s personal artistic development

• Contribute to the discipline of digital archiving
The Method

Disk Imaging

Extraction and access

Analyse content and metadata
Disk Imaging

A disk image:
- is a copy of the drive
- is created using the BitCurator tool Guymager

Preserves the original:
- drive
- content
- metadata
Extraction and access

- Image access
  - Extract and explore contents

- Bulk extractor
  - Summarised and sorted content in human readable format
  - e.g. email addresses, URL’s, images, key words

- Fiwalk (BitCurator) /mactime (Sleuthkit)
  - Metadata extraction
  - Source of timeline data
Analyse content and metadata

• Interdependent branches
• Metadata and Content analysis combine to inform analysis of events
• This stage involves an iterative process of visualisation to increase accessibility of data
Distribution of Data

• Variable number of files and file size
• Larger quantity of files does not mean large size
• Average file size can be indicative of content of drive
Distribution of Timeline Activity

- Drive usage clustered
  - 01 used throughout the period
  - Others more clustered usage
  - Different types of drive?
- Shows all activity so not necessarily file creation
Timeline of Modification Activity

- Modification indicates active engagement with the file.
- Gives an indication of when a project was ‘finished’ in terms of actively changing file content
- 01, 04 and 06 seem to be earlier projects compared to 02, 03 and 10.
- 02 dominates in his final years 2010-2012
Timeline of Access Activity

- Access indicates passive engagement with the file.
- Gives an indication of when a project was most recently reviewed.
- Access common across all drives although definite peaks and troughs.
- 02 was the only drive accessed in Dwoskin’s final year.
- 2013 – the year after Dwoskin’s death.
Profiling Drive Activity

Month and Day graphs

(Need axis altering)
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- Keyword search of File names indicates on drive 04 only.

- [OVERLAY TITANIC ACTIVITY AND DISCUSS]
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• File structure

• File types
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• Comparison with complete timeline indicates that this was the primary but not sole focus of the time