APPROACHING THE IMPOSSIBLE: RECONSTRUCTING LILLIAN SCHWARTZ’S GOOGOLPLEX (1972)

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presented by Jason Speck
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FILM IS FRAGILE
FILM PRESERVATION

- “Safety” film invented in 1951
- Archives begin copying film from Nitrate onto “Safety” stock en masse
- Best practices became necessary
- Need to distinguish between preservation, restoration, and reconstruction became apparent
FILM PRESERVATION

- To duplicate a film’s best surviving elements onto newer, more stable film stock

- Allows the best surviving elements to remain safe from the additional handling & wear and tear

- Allows the new print to survive for hundreds of years
FILM RESTORATION

- Based on the understanding that during a film’s lifetime, its elements may become compromised.

- Relies on a combination of tools and resources borrowed or adapted from commercial film production to return visual and aural components to the film.
“Moving image restoration is undertaken on constantly shifting ground, taking a work from the past and bringing it to an ever-evolving present. This elusive task requires a judicious, carefully wielded mixture of science, artistry, and scholarship. At its heart, however, is choice. What is often unacknowledged is the extent of the process’s subjectivity.”

Ross Lipman
“The Gray Zone: A Restorationist’s Travel Guide”
The Moving Image, Vol. 9 No. 2, Fall 2009. p. 1-29
FILM RESTORATION

- Based on the understanding that during a film’s lifetime, its elements may become compromised.

- Relies on a combination of tools and resources borrowed or adapted from commercial film production to return visual and aural components to the film.

- An attempt to render an interpretation of the film that is “faithful to the spirit of the work”
FILM RECONSTRUCTION

- Based on the idea of creating an alternate version of an established work that never previously existed in that form.

- The line between a *restoration* and a *reconstruction* is drawn at the inclusion of any element that was not present in an earlier existing version of the work.
GOOGOLPLEX (1972)

- [Link](http://www.youtube.com/watch?v=RnnXnDUVJbY)

- Part of the Lillian Schwartz Collection held at the Rare Book and Manuscripts division of The Ohio State University Libraries

- To be preserved with a Women’s Film Preservation Fund grant from New York Women in Film & Television
GOOGOLPLEX (1972)

- Inspection began in Fall 2011

- First discovery: the existence of two versions
  - 5 minute version
  - 8 minute version

- Both versions completely distinct
GOOGOLPLEX (1972)

- Conundrum:
  - Both films equally legitimate
  - Both films made by Lillian Schwartz
  - Both films made in the same year
  - Both films called Googolplex

- Which version do we preserve?
Decision to preserve the short version based on:

- Complete soundtrack for short version
- 
- Exhibition history
  - Short version circulated more widely
  - “Came to be known as Googolplex”
GOOGOLPLEX (1972)

- The plot thickens…
GOOGOLPLEX (1972)

“Googolplex 35mm edited for 16mm reductions”
- Approximately 1,130 feet ~ 12.5 minutes ~ 13,575 frames
- Raw, unedited, unassembled footage

To use 35mm element we would need to devise a method of recreating Googolplex on a frame-by-frame basis using 16mm print as a guide
GOOGOLPLEX (1972)

- Pros of reconstructing Googolplex
  - Better contrast & resolution
  - Much better picture quality
  - Ultimately more faithful to the original

- Cons of reconstructing Googolplex
  - Really, really hard
  - It would create an anomaly

Photo of 35mm Googolplex element
## Annotated “map” of Googolplex

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<th>BILL 16m FT.FR # END</th>
<th>BILL 16m # of Frames</th>
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**Annotations**:
- **Black pre-roll, pre-credit, sound; 1st frame is our Zero Frame.**
- **Seq ends on first of two black frames.**
- **1st frame image credits, last frame black.**
- **1st frame image credits, last frame black.**
- **Seq ends at splice.**
- **Frame 2364 is last frame of sequence, and 2365 is next frame of sequence.**
- **In this sequence, following a lone image frame is another frame.**
- **It is for the 17th pattern repetition that the frame begins.**
- **On 16mm, a similar alternating image-black is found.**
- **9 Sears Tower-y sequences; last frame is 1st frame re-orient-**
- **Here, it is clear that Lillian re-oriented the film.**
- **Here, it is clear that Lillian re-oriented the film.**
- **First frame is black, last frame is clear/wi**
- **First frame is black. Last frame is clear/wh**
- **First frame is black. Last frame is image.**
- **1st frames are black in this sequence.**

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**Googolplex (1972)**
24) WIND to new position on 35mm original. FLIP base/emulsion orientation. PRINT 35mm element backwards 136 for frames.
25) WIND to new position on 35mm original. FLIP base/emulsion orientation. PRINT 35mm element for 68 frames.
26) PRINT 2 black frames.
27) WIND to new position on 35mm original. PRINT 35mm element for 294 frames.
28) PRINT 2 black frames.
29) WIND to new position on 35mm original. FLIP base/emulsion orientation. PRINT 35mm element backwards for 31 frames.
30) WIND to new position on 35mm original. FLIP base/emulsion orientation. PRINT 35mm element backwards for 167 frames.
31) WIND to new position on 35mm original. FLIP base/emulsion orientation. PRINT 35mm element backwards for 184 frames.
32) PRINT 1 black frame.
33) WIND to new position on 35mm original. PRINT 282 frames.

Sample of optical printing instructions
GOOGOLPLEX (1972)

“Digital film restoration partly sacrifices the photo-chemical lineage of motion picture film, but it enables restorers to simulate some of its characteristics which would otherwise be impossible to recover.”

Film Museum
_Digital Film Restoration Policy_
Österreichisches Filmmuseum, 20 September 2011
“But think of the glory of choice! That makes a man a man. A cat has no choice, a bee must make honey. There’s no godliness there.”

John Steinbeck
East of Eden
New York: Penguin, 2002
CONCLUSION

“As long as film museums and archives intend to play an active part in media culture and its historiography, their interpretation of processes and artifacts from the past can only be expressed in the shape of a dialogue with the media technologies of the present.”

Film Museum
Digital Film Restoration Policy
Österreichisches Filmmuseum, 20 September 2011
THANK YOU!

Special thanks to Jason Speck

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