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

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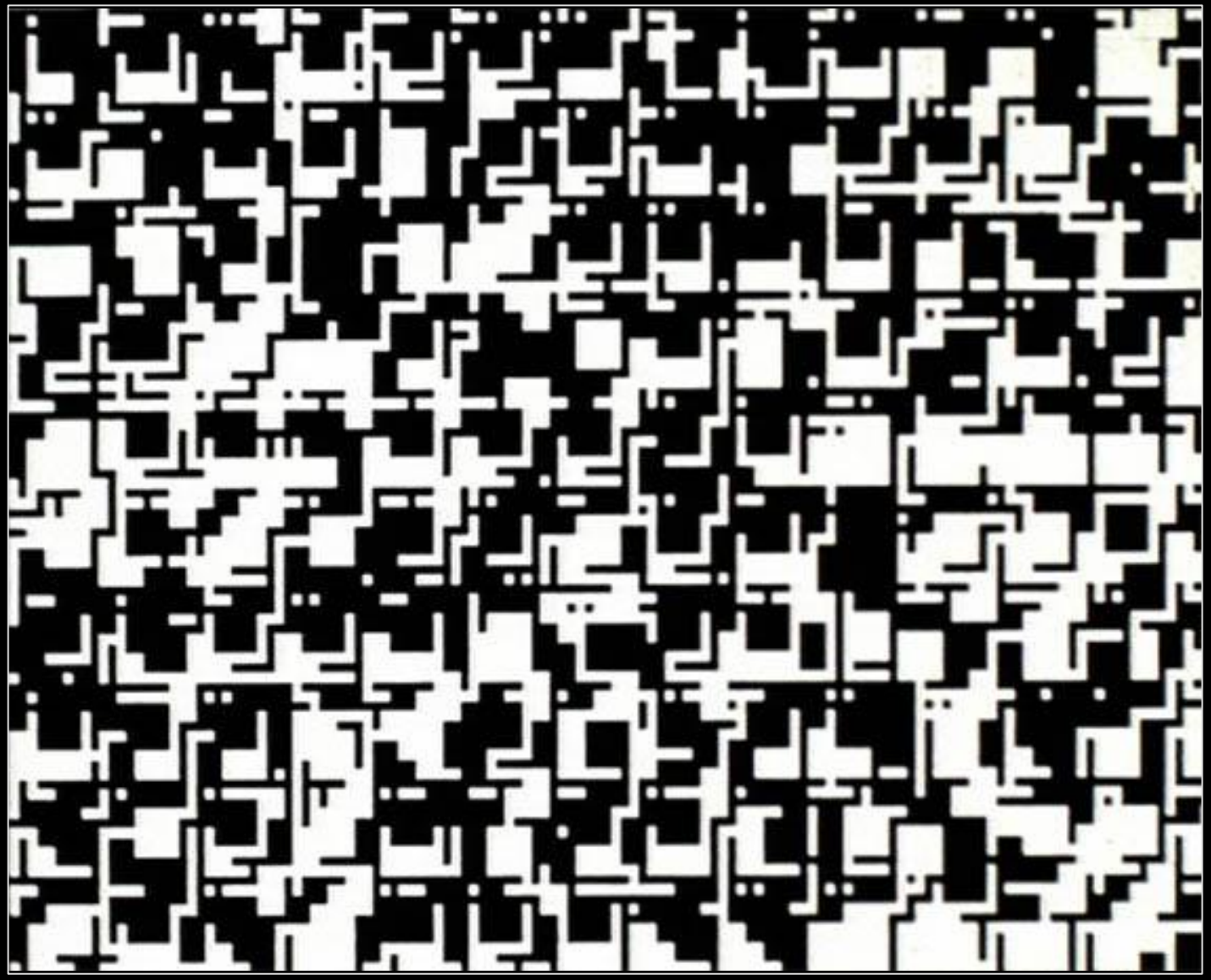

Still from Googolplex (1972)

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

FILM RESTORATION

"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)

- 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?

GOOGOLPLEX (1972)

- Decision to preserve the short version based on:
  - Complete soundtrack for short version
  - $
  - Exhibition history
    - Short version circulated more widel
    - "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

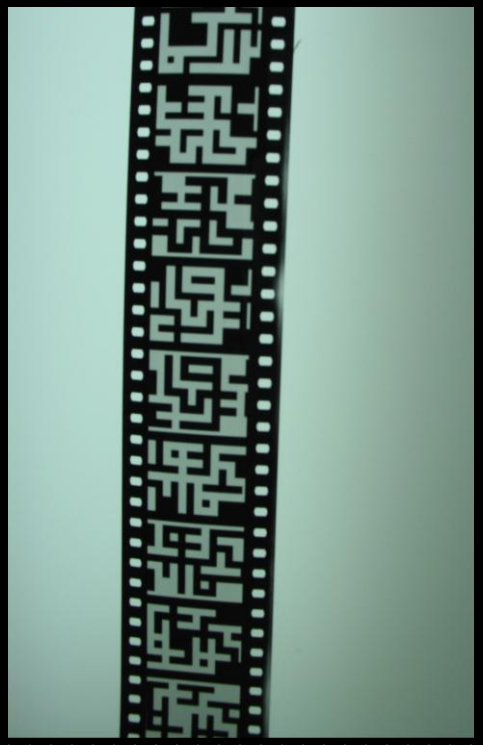

Photo of 35mm *Googolplex* element

GOOGOLPLEX (1972)

16mm FT.FR START	BILL 16mm FR # START	BILL 16mm FT.FR END	BILL 16mm FR # END	# of 16mm FRAMES	Notes: 16mm (1st Frame is our Zero Frame)	BILL 35mm FT.FR START	35mm FR # START	BILL 35mm FT.FR END	BILL 35mm FR # END	BILL # of 35mm FRAMES	Notes: 35mm (1st Frame is our Zero Frame)	P I S
46.18	1858	46.20	1860	3	EG. ROW	88.15	1423	89.00	1424	2	EG. ROW	EG
0.00	0	0.25	25	26	Black pre-roll, pre-credit, sound; 1st fram	0.00	0	1.09	25	26	1st frame of credit has one	
0.26	26	7.38	318	293	1st frame image credits-last frame black c	1.10	26	19.14	318	293	1st frame image credits-las	
7.39	319	8.23	343	25	Seq ends on first of two black frames	19.15	319	21.07	343	25	Seq ends at splice	
8.24	344	9.09	369	26	Seq ends on first of two black frames	21.08	344	23.01	369	26	Seq ends at splice	
9.10	370	11.11	451	82	Seq ends on first of two black frames	23.02	370	28.03	451	82	Seq ends at splice	
48.30	1950	51.19	2059	110		121.14	1950	128.11	2059	110	Frame 2059 is Hangnail: sh	
51.20	2060	54.25	2185	126		128.12	2060	136.09	2185	126	Frame 2184 is Hangnail: sh	
54.26	2186	56.05	2245	60		136.10	2186	140.05	2245	60	Frame 2186 has image: sho	
56.06	2246	59.04	2364	119	Frame 2364 is last frame of sequence, and	140.06	2246	147.12	2364	119	Frame 2364 is last frame of	
59.05	2365	64.30	2590	226	In this sequence, following a lone image f	147.13	2365	161.14	2590	226	In this sequence, following	
64.31	2591	65.02	2602	12	It is for the 17th pattern repetition that th	161.15	2591	162.10	2602	12	It is for the 17th pattern re	
65.03	2603	69.07	2767	165	On 16mm, a similar alternating image-bla	185.09	2969	195.13	3133	165	Print normal 35mm orientat	
69.08	2768	73.21	2941	174	9 Sears Tower-y sequences; last frame is l	310.04	4964	321.01	5137	174	Print normal 35mm orientat	
73.22	2942	73.29	2949	8		220.01	3521	220.08	3528	8	Print normal 35mm orientat	
73.30	2950	74.13	2973	24		219.01	3505	220.08	3528	24		
74.14	2974	74.36	2996	23	Here, it is clear that Lillian re-oriented the	222.06	3558	221.00	3536	23	Here, it is clear that Lillian	
74.37	2997	74.37	2997	1	PRINT Single Frame of 35mm	221.00	3536	221.00	3536	1	PRINT Single Frame of 35m	
74.38	2998	75.20	3020	23	Here, it is clear that Lillian re-oriented the	222.06	3558	221.00	3536	23	Here, it is clear that Lillian	
75.21	3021	76.28	3068	48	Last 2 frames of this sequence are both bl	256.14	4110	259.13	4157	48	Last 2 frames of this sequer	
76.29	3069	78.29	3149	81		329.02	5266	334.02	5346	81		
78.30	3150	80.38	3238	89	NB: on 16mm there are 4 consecutive blac	334.02	5346	339.10	5434	89	Print Frame #5346 (black)	
80.39	3239	81.30	3270	32	Sequence begins with black frame.	339.11	5435	341.10	5466	32	Sequence begins with black	
81.31	3271	81.38	3278	8	Here, Lillian has re-oriented the film. It is	345.10	5530	345.03	5523	8	Here, Lillian has re-oriented	
81.39	3279	85.10	3410	132	First frame is black. Last frame is clear/wl	341.11	5467	349.14	5598	132	First frame is black. Last fra	
85.11	3411	87.29	3509	99	First frame is black. Last frame is image.	349.15	5599	356.01	5697	99	First frame is black. Last fra	
87.30	3510	88.02	3522	13	First 2 frames are black in this sequence. I	356.10	5706	357.06	5718	13	Print 1st two frames of 35m	

Annotated "map" of *Googolplex*

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

CONCLUSION

"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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