

No enterprise in the non-profit world can accomplish much without the enlightened, altruistic cooperation of its benefactors. The Reel Thing has been privileged to enjoy the generous support of the professional community since its inception. The organizers of The Reel Thing would like to recognize and thank all the individuals and organizations who contributed their considerable skills, energy and enthusiasm to the symposium. As always, we thank our presenters, who share their knowledge and experience in this symposium. And we would like to recognize the following individuals and organizations for their support and collaboration:

Gary Adams Beverly Graham Kristina Kersels Laura Rooney Leah Torbati Crystal Vilaikeo Morgen Ruff and the staff of the Whitsell Auditorium

The Reel Thing is made possible by the active and engaged support of some of the most important and innovative companies in the archival field. These firms work side by side with archivists and asset managers to constantly raise the standard of preservation and restoration, and to find new ways to insure that moving images from public collections and the private sector will retain their quality and remain accessible as a resource for future generations. We offer our gratitude for their indispensable sponsorship of AMIA and The Reel Thing.

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Audio Mechanics

THE REELTHING XXXVI

The Whitsell Auditorium, Portland Art Museum, Portland, Oregon

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Wednesday November 18, 2015 - 12:30pm - 5:30pm

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Welcome

Grover Crisp

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The Century of Sound Project
Robert Heiber, Rick Chace Foundation

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Archiving and Migrating Original Film Soundtrack Recordings Understanding past and present workflows

Chris Reynolds and James Eccles, Deluxe Media

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Rediscovering Shirley Clarke's Rose and the Players

Dennis Doros, Milestone Films

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BREAK

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Restoration of the Super-8mm Finley Fryer Road Movies

Laurence Cook, Metacirque

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Restoring Marcel Ophul's The Memory of Justice

Mike Pogorzelski and Heather Linville, The Academy Film Archive Jennifer Ahn and Kris Merola, The Film Foundation

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The Son's Return: Restoration of an original Biograph negative at 4k resolution

Paul Korver, Cinelicious

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Images for the Future

Giovanni Fossati and Ann Gant, Eye

Program



Welcome

Grover Crisp





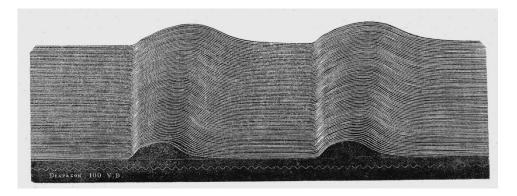
The Century of Sound ProjectRobert Heiber, Rick Chace Foundation

As one great era of the motion picture draws to a close, scholars and archivists are now working to define the era of analogue cinema both in terms of aesthetics and technology. And while many of these works will be traditional texts, The Century of Cinema is a media product, a massive multidisc Blu-ray set that spans the history of analogue sound recording for motion pictures. The Century of Sound project is not all-encompassing. It is focused on 'mainstream' Hollywood filmmaking, and doesn't fully represent either the technical diversity of audio engineering, nor does it study closely the evolution of motion picture sound engineering outside of the U.S. Neither does it follow the radical sound experiments of the avant-garde, which have been conducted in both the U.S. and abroad since the advent of sound in the cinema.

The story that Century of Sound tells is that of the sustained development within the American film industry of recording and editing practices that created a broadly accepted norm for narrative film-making, and the continual refinement of techniques and equipment to achieve superior results within the context of that system. The work is both a technical history and a history of the aesthetics that structured the space made possible by motion picture sound. One of the important narrative threads of the work is the story of how artists and engineers worked together to advance the quality and creativity of the movies.

Most of the equipment and media that have been used to produce and archive sound in cinema are now obsolete. This well-known state of affairs creates issues for the archivists who must make choices about how to play back and recover legacy soundtracks and about the new forms of media that will contain these migrated historical audio resources. A similar problem confronted the creators of Century of Sound. One of the great strengths of this work is that it has been created as a Blu-ray, and cinema audio is not just referred to, but is played throughout the work. The viewer can listen to the differences and evaluate the evolution of motion picture sound. An important aspect of the work is its fidelity to legacy audio and the authentic sound of the original media.

Co-creator Robert Heiber will discuss the history of the project and demonstrate some of the features of Century of Sound.



Archiving and Migrating Original Film Soundtrack Recordings Understanding past and present workflows

Chris Reynolds and James Eccles, Deluxe Media

Film soundtrack recordings are a critical part of film and music history with significant cultural and financial value to content owners. Soundtrack recordings comprise an extensive and important part of a film's archive, but these resources haven't always been properly organized or stored. This is a problem that applies to analog, hybrid and digital collections of sound elements. Archiving and migrating original film soundtrack elements can be challenging when they're needed for re-purposing, re-mixing or other uses. An understanding of the creative and technical processes that go into creating these recordings is critical to identifying audio components and assessing the relative values of those resources, and thus to making decisions about restoration work, preservation elements and storage protocols.

This presentation will analyze and compare analog and digital workflows and associated archival challenges for soundtrack recordings from the 1950's to the present, starting with the compositional process, and continuing through the recording, editorial, and mixing stages of film soundtrack creation. A comparison of the resulting physical and digital elements will be discussed at each stage of the process. The presentation will feature audio examples to demonstrate the progression of the soundtrack through the workflow and production phases of its development, culminating in the final music masters.

The process of migrating the technical resources of a production is that frequently, the existing archive is captured in formats that are obsolete. Thus, the archival process requires that choices about new platforms, new file types, and new storage media be made. The analysis of workflow and elements will contribute to an understanding of the importance and future use cases for each progressive element. Finally, best practices for migration of both analog and digital collections will be discussed, as well as the biggest threats to future accessibility and playback.



Rediscovering Shirley Clarke's Rose and the Players

Dennis Doros, Milestone Films

Milestone Films has been engaged in a long-term project to make large parts of Shirley Clarke's work accessible to new audiences. Milestone has been working through the body of her work in a fashion similar to that of an editor with unedited literary material, identifying previously uncatalogued material, versions and chronologies that reveal Clarke's aesthetic processes. Milestone approached the out-takes of Shirley's first film *Fear of Flight* this way, and have continued to investigate the rich legacy of her film-making career.

This presentation details the background research that Amy Heller and Dennis Doros have been conducting at the Wisconsin Center for Film and Theater Research. One of the reels at WCFTR was labeled "outtakes *The Rose and the Players*" - it was to become her 1957 *A Moment in Love*. The outtakes turned out to be an edited reel of choreographed dance by the great Anna Sokolow (choreographer and star of *Bullfight*). Upon inspection of the papers, the script for The Rose and the Players was located and it became clear that these outtakes were actually edited footage showing the complete dance portion of what was intended to be a feature film. In order to present the film publicly, Milestone engaged John Sweeney to create a score, added subtitles from the script to advance the plot, and restored a piece of "lost" choreography from a great dancer. These important rediscoveries also highlight the values of this 'integral edition approach to the complex work of an artist, and also suggests how valuable public/private partnerships can be in the archival context.

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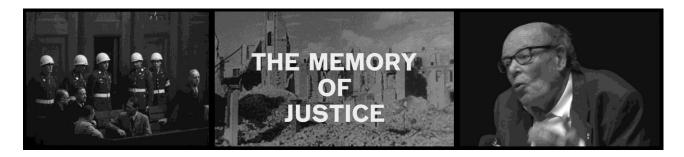
Restoration of the Super-8mm Finley Fryer Road Movies

Laurence Cook, Metacirque and Findley Fryer

Road Closed and Things to Go represent examples of media archaeology, and also demonstrates the robustness of small gauge production. It was created when artist and film-maker Finley Fryer encountered the photographer Robert Frank. According to Fryer, "This film was created from my adventures over a number of years in the mid 70's. The heart of the film comes from a road trip with Robert Frank, myself and his dog Sport. In the spring of 1974, when Robert had finished his ten week visiting artist residency at University of Davis, we drove his Ford pickup truck from California back to New York City. The balance of the footage is from upstate New York and Mabou, Nova Scotia." It was shot with a Minolta Autopak 8 K11, using Super-8mm Ektachrome 160 and Tri-X (probably XXX-400). It was edited in the mid- to late 1970s, and it was largely untouched by the film-maker until recent rediscovery.

This film demonstrates the flexibility of the camera and its ability to use a range of emulsions that respond differently to light - with effects such as grain, flare, and color shift that expose how the film was made. The film is an excellent example of an informal approach to film-making - one that uses the portability of the camera to create works that are more personal and intimate than those of mainstream cinema. The film was transferred on a Retro-8 (by Movie Stuff), digitized in Mjpg and output at 4:2:2 with no color correction or cleaning. The frame rate was adjusted in Sony Vegas Pro-13 editing software. The final work has been transferred to DCP.





Restoring Marcel Ophul's *The Memory of Justice*

Mike Pogorzelski and Heather Linville, The Academy Film Archive Jennifer Ahn and Kris Merola, The Film Foundation

The Academy Film Archive and The Film Foundation recently completed the digital restoration of Marcel Ophul's 1976 documentary *The Memory of Justice*. This presentation will focus on several aspects of the film including its very difficult production, its eventual acquisition by Paramount Pictures, subsequent limited distribution, slide into obscurity, and its rebirth through restoration.

By 2005, when testing for the restoration began, the only known pre-print elements were two CRIs - one 35mm, the other 16mm. Eventually, dogged archival investigation led to the discovery of the original 16mm elements at Paramount, but the A/B/C/D conform of the film made its reassembling an exacting and complicated laboratory exercise. In addition to the physical problems with the film, there were legal problems with the music and clips - the film is

replete with sourced music and clips and the clearance status for nearly all of them was unknown - and this precipitated several practical and ethical dilemmas. On the audio side, there were also technical (and ethical) issues. The original release featured actors overdubbing non-English speaking interviewees. The restoration returned the original recordings of each interviewee. And when the final conform was completed, there was the additional task of creating new sets of subtitles for the four and a half hour film so that the film could be shown to international audiences for whom *The Memory of Justice* was intended.

The presentation will include clips of the original photochemical tests (on 35mm film), short video clips and some before/after as well as complete clips from the restoration, projected digitally.





The Son's Return: Restoration of an original Biograph negative at 4k resolution Paul Korver, Cinelicious

The Son's Return (1909) is an early D. W. Griffith film starring Mary Pickford. Cinelicious was the technical partner in this restoration, which included UCLA Film and Television Archive, MoMA's film department and the Mary Pickford Foundation. The work started with the original Biograph camera negative. Biograph was recognized for the technical quality of their films, but this quality was achieved by the Biograph cameras and printers. This system used a negative that was perforated on both sides of the image at mid-frame, quite possibly in order to enjoy the patent protection of this process. This non-standard system represents a formidable problem for the transfer process, which is based on equipment built to handle standard 35mm film perforations. Additionally, the Biograph films were hand-cranked, and may have required variable projection speeds for optimal playback. Thus, the second challenge was to come up with a scheme to capture and then present the images of the film at the correct speed. This presentation will demonstrate the evolution of this project and the very high quality of the process made possible by scanning at 4k.





Images for the Future

Giovanni Fossati and Ann Gant, EYE

As the realities of digital technology began to transform the infrastructure of the moving image industry, it became clear that all media based on physical platforms would need to be migrated to platform independent digital formats. This requirement applies to both public archives and private entities, and by the turn of the century, several firms across the globe were engaged to do mass migration projects. Several of these projects were reported at the CCAAA-sponsored Joint Technical Symposium. About eight years ago, the Netherlands Filmmuseum became one of the first major public archives to undertake mass migration of program content. This process included recasting the NFM as EYE Film Institute, and a vast project known as "Images for the future," was launched to digitize their national media collections. Giovanna Fossati and Ann Gant will present an analysis of the "Images for the future" initiative, discuss the achievements (in the areas of digitization, migration, documentation and access) arising from that program, and then suggest some of the issues that lay ahead in for collections that have made a transition to the data-centric mode.

$The \ Reel \ Thing \ Technical \ Symposium \ is \ organized \ and \ coordinated \ by \ Grover \ Crisp \ and \ Michael \ Friend \ and \ Coordinated \ by \ Grover \ Crisp \ and \ Michael \ Friend \ and \ Coordinated \ by \ Grover \ Crisp \ and \ Michael \ Friend \ and \ Coordinated \ by \ Grover \ Crisp \ and \ Michael \ Friend \ and \ Coordinated \ by \ Grover \ Crisp \ and \ Michael \ Friend \ and \ Coordinated \ by \ Grover \ Crisp \ and \ Michael \ Friend \ and \ Grover \ Crisp \ and \ Michael \ Friend \ and \ Grover \ Crisp \ and \ Michael \ Friend \ and \ Grover \ Gr$

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