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Journal of Film Preservation



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Dedicated to the preservation of, and access to, the world's film heritage since 1938

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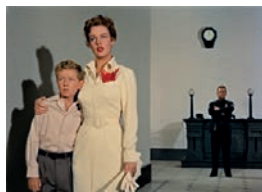
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Back cover: A scene from the restored version of *Invaders from Mars* (William Cameron Menzies, 1953). Courtesy of Ignite Films B.V.



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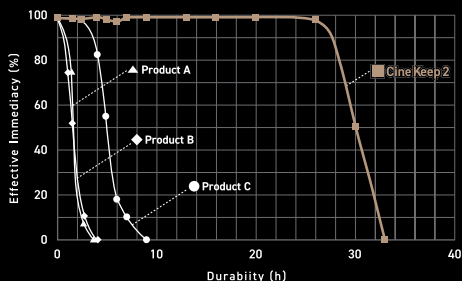
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BOOKSHOP

Editorial

Elaine Burrows

Editor, *Journal of Film Preservation*

As you can see, the 108th issue of the *Journal of Film Preservation* is in a slightly different format to recent ones and is in colour throughout. We were recently able to transfer printing to a new facility in Brussels (although our printing company remains the same), and this is the result. The changes will be more ecological and keep our costs down.

To quote one of our reviewers about something entirely different, this issue – quite apart from its change of format – is “a treasure chest full of surprises and wonders”. Our opening article is a transcription of the marvellous speech made by Tilda Swinton when she was presented with the 2022 FIAF Award, in which she talks about our affiliates’ work as being the “preservation of the very seeds of our cinema culture”.

Seeds come in all shapes and sizes, and most recently, for us, many are now virtual. We include three articles entirely about digital processes: Digital Statement II discusses digitising for preservation, David Walsh looks at options for digital storage, while Elina Vagionaki has surveyed how ten European FIAF affiliates are approaching the practical side of such work.

A second strand in this issue is that of small gauge, amateur, and non-fiction films, starting with a report from one of the Budapest Symposium sessions, and continuing with a discussion about 9½, an INEDITS Amateur Film / Memory of Europe project to bring in as much 9.5mm material as could be found world-wide, to document it, to make it accessible online (more digital input), and to use some in a montage film which is now on tour. Meanwhile, in Belgium, there is a programme in progress to document and copy – generally digitally – the previously dispersed, and generally inaccessible Flemish non-fiction film heritage.

Though not specifically aimed at non-fiction, Burkina Faso recently hosted a workshop which was part of a series designed to help train young professionals from different countries and cultures in practical archiving techniques, and to bring to light little-known archival collections. In December last year, the Association of European Cinémathèques (ACE) completed its third series of restorations and screenings, the primary purpose of which is to raise public awareness of cinema history and the significance of film preservation. Most of the films have been premiere digital restorations.

Scott MacQueen treats us to the story of the (digital) restoration of the William Cameron Menzies film *Invaders from Mars* (1953), working from five different 70-year-old copies. While it was shot on the-then new Eastman Color negative stock, the release prints were made on SUPERcineCOLOR, an extremely complex process involving Y-C-M negatives and metallic toning.

Moving from film history to archive history, we are delighted to be able to publish our first article from the National Film Archive of the Democratic People's Republic of Korea. This outlines their 50-year history and describes the events set up to commemorate the anniversary. There is further history to be had in the story of Luis Buñuel's professional relationship with Iris Barry in the early 1940s and his short-lived appointment to the post of FIAF's Technical Secretary at the end of 1946.

This year's Congress, hosted by the Filmoteca UNAM in Mexico City, links to this last article because the topic of its Symposium, "Women, Cinema, and Film Archives", aims "to celebrate the legacy of women in the film archive's history and their role in developing its future". Iris Barry (also mentioned in Jon Gartenberg's appreciation of the late Adrienne Mancía) was, of course, a prime mover not only in film archiving but also in FIAF itself, like the many other female film archivists who will be celebrated in Mexico City.

fr

Comme vous pouvez le constater, ce 108^e numéro du *Journal of Film Preservation* vous est proposé dans un format légèrement différent des précédents, et entièrement en couleur. Nous avons récemment pu transférer l'impression dans un autre atelier bruxellois de notre imprimeur (qui reste donc le même), et voici le résultat. Plus respectueuse de l'environnement, cette solution nous permet en outre de réduire nos coûts.

Pour citer l'un de nos contributeurs à propos d'un tout autre sujet, ce numéro – outre ce changement de format – est « une malle au trésor remplie de surprises et de merveilles ». L'article d'ouverture est un *verbatim* du formidable discours prononcé par Tilda Swinton lors de la remise du Prix FIAF 2022, dans lequel elle compare le travail de nos affiliés comme la « préservation des germes de notre culture cinématographique ».

Ces germes sont des plus divers, et pour nous, de nos jours, ils sont bien souvent virtuels. Vous trouverez dans ces pages trois articles entièrement consacrés aux processus numériques : le Digital Statement II traite de la numérisation à des fins de conservation, David Walsh des options de stockage numérique, et Elina Vagionaki de la manière dont dix affiliés européens de la FIAF abordent l'aspect pratique de ce travail.

Le deuxième volet de ce numéro concerne les films de petit format, amateurs et non-fiction, avec tout d'abord un compte-rendu de l'une des sessions du Symposium de Budapest, puis une discussion sur 9½, un projet d'INEDITS Amateur Film et Memory of Europe visant à réunir autant de films 9,5 mm que possible venus des quatre coins du monde, les répertorier, les rendre accessibles en ligne (le numérique reste là encore de mise) et en utiliser une partie dans un montage dont des projections ont lieu en

ce moment un peu partout. Parallèlement, en Belgique, un programme est en cours pour documenter et copier – généralement sur supports numériques – le patrimoine cinématographique non fictionnel flamand, jusque-là dispersé et souvent inaccessible.

Le Burkina Faso a récemment accueilli un atelier qui, bien que ne portant pas spécifiquement sur la non-fiction, faisait partie d'une série destinée à aider à la formation de jeunes professionnels de différents pays et cultures aux techniques pratiques d'archivage, et la mise en lumière des collections d'archives peu connues. En décembre dernier, l'Association des cinémathèques européennes (ACE) a achevé sa troisième série de restaurations et de projections, dont l'objectif principal est de sensibiliser le public à l'histoire du cinéma et à l'importance de la préservation des films. Il s'agissait pour la plupart des films de leur première restauration numérique.

Scott MacQueen relate pour nous l'histoire de la restauration (numérique) des *Envahisseurs de la planète rouge* (1953) de William Cameron Menzies, à partir de cinq copies différentes vieilles de 70 ans. Si le film avait été tourné sur négatif Eastman Color, alors nouvellement commercialisé, les copies de sortie avaient été, elles, réalisées sur SUPERcineCOLOR, processus extrêmement complexe de virage utilisant des négatifs CMJ.

es

Como puede ver, el número 108 del *Journal of Film Preservation* tiene un formato ligeramente diferente al de los últimos números y está impreso en color. Recientemente hemos podido trasladar la impresión a unas nuevas instalaciones en Bruselas (aunque nuestra imprenta sigue siendo la misma), y este es el resultado. Los cambios serán más ecológicos y mantendrán nuestros costes bajos.

Délaissant un instant l'histoire du cinéma pour celle des archives, nous sommes ravis de pouvoir publier notre premier article de la Archives nationales du film de la République populaire démocratique de Corée. Celui-ci retrace les 50 ans d'activité de l'institution et détailles les événements organisés pour commémorer cet anniversaire. L'histoire, encore et toujours : la relation professionnelle de Luis Buñuel avec Iris Barry au début des années 1940 et l'éphémère nomination du cinéaste au poste de secrétaire technique de la FIAF à la fin de l'année 1946 sont autant d'épisodes à découvrir.

Le Congrès de cette année, organisé par la Filmoteca UNAM à Mexico, est lié à ce dernier article, car le thème de son symposium, « Les femmes, le cinéma et les archives du film », se veut l'occasion de « célébrer la contribution des femmes à l'histoire des archives du film et leur rôle dans la préparation de leur avenir ». Iris Barry (également mentionnée dans l'article de Jon Gartenberg consacré à la regrettée Adrienne Mancía) a, comme chacun sait, joué un rôle primordial non seulement dans l'archivage des films, mais aussi dans la FIAF elle-même, à l'instar des nombreuses autres femmes archivistes que nous célébrerons à Mexico.

Para citar a uno de nuestros críticos sobre algo totalmente distinto, este número -aparte de su cambio de formato- es "un cofre del tesoro lleno de sorpresas y maravillas". Nuestro artículo de apertura es una transcripción del maravilloso discurso pronunciado por Tilda Swinton cuando recibió el Premio FIAF 2022, en el que describe el trabajo de nuestros afiliados como "la preservación de las semillas mismas de nuestra cultura cinematográfica".

Las semillas tienen muchas formas y tamaños, y más recientemente, para nosotros, muchas son ahora virtuales. Incluimos tres artículos dedicados íntegramente a los procesos digitales: Digital Statement II analiza la digitalización para la preservación, David Walsh examina las opciones de almacenamiento digital, mientras que Elina Vagionaki ha estudiado cómo diez afiliados europeos de la FIAF abordan el aspecto práctico de este trabajo.

El segundo tema de este número es el de las películas de pequeño formato, amateur y de no ficción, que comienza con un informe de una de las sesiones del Simposio de Budapest y continúa con un debate sobre 9½, un proyecto de INEDITS Amateur Film / Memory of Europe para recopilar todo el material de 9,5 mm que se pudiera encontrar en el mundo, documentarlo, hacerlo accesible en línea (más recursos digitales) y utilizar parte de este material en una película de montaje que ahora está de gira. Mientras tanto, en Bélgica se está llevando a cabo un programa para documentar y copiar -en general digitalmente- el patrimonio cinematográfico flamenco de no ficción, hasta ahora disperso y principalmente inaccesible.

En Burkina Faso se celebró recientemente un taller -no específicamente dedicado a la no ficción- que formaba parte de una serie diseñada para ayudar a formar a jóvenes profesionales de diferentes países y culturas en técnicas prácticas de archivo, y sacar a la luz fondos de archivo poco conocidos. En diciembre del año pasado, la Asociación de Cinematecas Europeas (ACE) concluyó su tercera serie de restauraciones y proyecciones, cuyo principal objetivo es sensibilizar al público sobre la historia del cine y la impor-

tancia de su conservación. En la mayoría de casos se trataba del estreno de la primera restauración digital.

Scott MacQueen nos cuenta la historia de la restauración (digital) de la película de William Cameron Menzies *Invaders from Mars* (1953), a partir de cinco copias diferentes de 70 años de antigüedad. Aunque se rodó en el entonces nuevo negativo Eastman Color, las copias de lanzamiento se hicieron en SUPERcineCOLOR, un proceso extremadamente complejo que implicaba negativos Y-C-M y tonificación metálica.

Pasando de la historia del cine a la historia de los archivos, estamos encantados de poder publicar nuestro primer artículo del Archivo Cinematográfico Nacional de la República Popular Democrática de Corea. En él se esbozan sus 50 años de historia y se describen los actos organizados para conmemorar el aniversario. La historia de la relación profesional de Luis Buñuel con Iris Barry a principios de los años 40 y su efímero nombramiento como Secretario Técnico de la FIAF a finales de 1946, nos aportan más datos históricos.

El Congreso de este año, organizado por la Filmoteca UNAM de Ciudad de México, enlaza con este último artículo porque el tema de su Simposio, "Mujeres, cine y archivos fílmicos", pretende "celebrar el legado de las mujeres en la historia de los archivos fílmicos y su papel en el desarrollo de su futuro". Iris Barry (también mencionada en el reconocimiento de Jon Gartenberg a la difunta Adrienne Mancía) fue, por supuesto, una de las principales impulsoras no sólo de los archivos cinematográficos, sino también de la propia FIAF, al igual que muchas otras mujeres archiveras de películas que serán homenajeadas en Ciudad de México.



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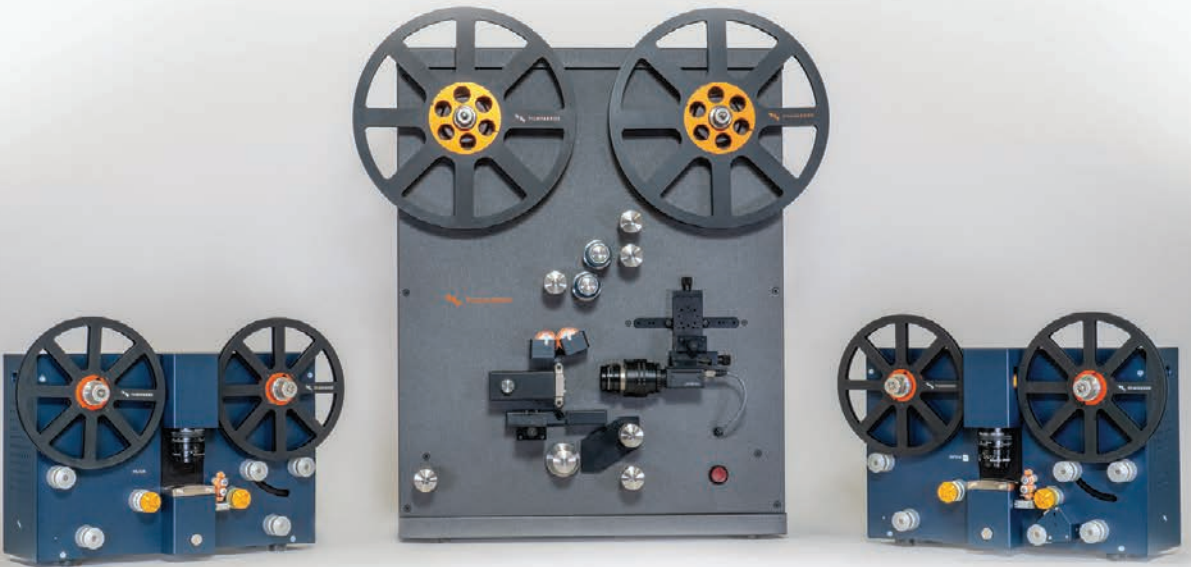




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Open Forum



The Home Movies Archivio Aperto festival. On screen is *J. Nunes Home Movies*, shot by J. Nunes in Rio de Janeiro, 1932-1936.



Tilda Swinton with the 2022 FIAF Award at the National Library of Scotland in Glasgow, 28 November 2023.

2022 FIAF Award Acceptance Speech

Tilda Swinton

Tilda Swinton is one of the world's best-known and most versatile actors, her filmography demonstrating a breathtakingly diverse collection of roles across the broad spectrum of cinema. Her long association with archival material includes her collaboration with Isaac Julien on *Derek* (2008), the story of Derek Jarman (with whom she worked extensively for nearly a decade) told through archive footage, and as one of the narrators of Mark Cousins's 14-hour compilation documentary *Women Make Film* (2019). Swinton publicly supports the work of film archives wherever she happens to be, giving lectures and masterclasses and helping to promote restored films.

Tilda Swinton was presented with the 2022 FIAF Award by the FIAF Executive Committee, at the National Library of Scotland's Moving Image Archive, Glasgow, on Monday 28 November 2022.

The cinema has always been inextricably bound up with travel, with luggage, and with the intoxicating atmosphere of mixed feelings for me. My first experience of a cinema was in a newsreel theatre – the Cameo Royal in Charing Cross station in London. This was a place packed with significant emotion for my brothers and me: it was where, as young children, we caught the trains that took us to our boarding schools – journeys out of the comfort and security of our family life and into the adventures and perils of the unknown (and the known-to-be uncomfortable and insecure). Journeys that demanded some courage and a certain amount of performing being all right, journeys out of ourselves and into society.

The ritual was reliable: the tickets were bought, the luggage deposited in a safe box, and we went to the pictures. I never asked my

mother if she ever reflected latterly on quite what a favour she was doing me by slipping me this drug. But I thank her now for it.

The Classic Royal cinema itself was the mistress of transformation and had only recently changed her skin again when I first went there at the age of six in 1967. Built in 1910, and from 1932 to 1956 a newsreel cinema, she then lived a saucy span when her name was changed to the Cameo Royal, and the policy of screening foreign-language, X-Certificate [adults only] films began with Brigitte Bardot in *Mam'selle Striptease* (*En effeuillant la marguerite*, Marc Allégret, 1956). I remember asking my mother what X meant on the corner of an old poster as we queued to buy sweets and being thoroughly thrilled to the core by how flustered she got.

My fancy is that – beyond the films that we saw there – the only three that stick in my mind are *The General* (1926), which we watched three times in a row due to a massive and fabulously delaying snowstorm, *Herbie Rides Again* (1974), and the Agatha Christie where they are all bumped off one by one un-



Tilda Swinton in *Friendship's Death* (Peter Wollen, 1987), remastered in 4K by the BFI National Archive in 2020.

til there are only two left and you are encouraged to leave the cinema for a few minutes while a clock face is shown on the screen and your mother smokes a cigarette and you all try to figure out who is the murderer (unforgettably exciting!). My fancy is that this rich and switchback life of the building itself was somehow transmitted to me during those bewitching visits throughout my young years and imprinted itself on my relationship with cinema ever after. It certainly felt that this was the site of endless possibilities – a haven, a sanctuary, and a portal to escape, happiness, thrill, and rescue.

I suppose it was there that it first occurred to me: there's no such thing as an old film. Buster Keaton was my chum then. He looked as bemused by life as I was. He and I had an understanding – and he has never failed me since.

Now, as a filmmaker, I know something else: there's no such thing as a new film. When we look up at the big screen to images shot at the turn of the 19th and 20th centuries and ever since, we are there and then, presence

distilled. When we call "cut" on a take of film run through a camera, we have bottled the moment – and time no longer applies.

The work that FIAF pitches itself towards is the preservation of the very seeds of our cinema culture. You grow the very possibility of a future for film – painstakingly, like a child growing cress on a flannel, and with a comparable sense of reverence and wonder. Last year somebody gave me a magic substance in a jar. She told me that with it I would be able to grow my own kefir. Every morning I feed this creature with new milk and hey presto, we have a living yoghurt plant in our larder. This somewhat unprepossessing blob of stuff, I learn, is referred to as the mother. Keep her safe and she will grow the new.

This all popped into my head as I cast about for a way to describe the essential significance of a healthy archive to a living culture. A blob of stuff. In the paramount engine-room of cinema identity, FIAF and the incalculably important work it does forms the mothership of legacy and the Eveready battery of film forever. Not only the roots of film made before we were born, but also its trunk,



Tilda Swinton and the members of the FIAF Executive Committee in Glasgow, 28 November 2022.

its branches, and its buds and leaves are all essential to our finding an anchor in the very concept of a cinema for the future. We need to distil that sense of sanctuary, of open possibility, and the humane power of lending others our eyes and hearts that cinema offers and delivers us. Like the kefir, we know that cinema is good for us. And we know that it must be grown carefully.

In the hands of FIAF, the archive of our world cinema heritage, far from being a boxed-up and shelved attic, full of discarded remnants, redundant and burdensome, is, rather, the vibrant kitchen – the hearth and the larder – of culture’s house. Little nourishing proceeds from anywhere else, it sometimes seems: the source drives us forward always.

It is a simple fact that there is no way that I could have had the nerve to step in front of a camera without my early devotion to Buster Keaton, to Roger Livesey, to Anton Walbrook, to Greta Garbo, to Alastair Sim, to Carole Lombard, to Alec Guinness, to Delphine Seyrig. They are my contemporaries, my companions, and my beacons, and the robustness of their eternal presence informs my journey

through the forest as I follow their breadcrumbs, in my curious quest for gestures that might count.

But when I think of our great treasure of cinema history, I find myself thinking most resonantly of the mighty company of trees. Not only because of the majesty of the way in which the movement of film culture seems to undulate in grand swaths, as if blown like treetops in a high wind. But also because of the way in which they are connected under the surface – the society of films, like the society of trees, is a pure and never-ending wonder to me. Because films relate to each other, they speak to each other and keep fellowship with one another. Sometimes they get into fisticuffs and sometimes they come to each other’s aid and defence. There are certain kinships identifiable between certain films across cinema history, not bound by era or geography, but by a matter of spirit and complicity in purpose.

And so maybe the power of cinema in our culture feels to me most accurately compared to the magic of mycelium underground: connecting and transmitting, informing, support-

ing, feeding, and healing. It charges our batteries and sets our clocks. We sail our ships by its runes, in all weathers, under all skies. Even in the dark. Even in the pitch blackness.

To describe my gratitude on being recognised in this way by this organisation for which I have such profound respect is – frankly – beyond my power. The honour that you pay me today takes pretty much all the biscuits. I am deeply touched and encouraged to the hilt. This is an army I am proud to march with, a banner I fly with conviction and certainty, an anthem I know the words to *ad infinitum*:

fr

Dans le discours qu'elle a prononcé à l'occasion de la remise du Prix FIAF 2022, Tilda Swinton évoque ses premières expériences au cinéma, suggère qu'aucun film n'est «vieux» ou «nouveau», car le cinéma est intemporel. Elle affirme que le travail des affiliés de la FIAF est «la préservation des racines mêmes de notre culture cinématographique». Elle estime que c'est le lien qu'elle a forgé avec les stars du cinéma des décennies précédentes qui lui a permis de devenir elle-même actrice. Elle compare l'histoire du cinéma à un arbre, dans le sens où les films de toutes époques et de tous lieux sont d'une certaine manière interconnectés: «la magie du mycélium souterrain: connecter et transmettre, informer, soutenir, nourrir et guérir.» En conclusion, elle dit que les mots ne peuvent suffire à exprimer combien elle est reconnaissante à la FIAF de lui avoir décerné ce prix.

Long live FIAF and all who sail in her!

Long live the State of Cinema and all her ways!

Long live the wild, wide screen!

Film forever!

Nothing but love...

es

En su discurso de aceptación del Premio FIAF 2022, Tilda Swinton habla de sus primeras experiencias cinematográficas, sugiere que no hay películas "antiguas" ni "nuevas", ya que el cine es atemporal, y afirma que la labor de los afiliados de la FIAF consiste en "preservar las semillas de nuestra cultura cinematográfica". Cree que fue la conexión que estableció con estrellas de cine de décadas anteriores lo que le permitió convertirse en actriz. Compara la historia del cine con los árboles, en el sentido de que las películas de todas las épocas y lugares están interconectadas de algún modo: "la magia del micelio bajo tierra: conectar y transmitir, informar, apoyar, alimentar y sanar", y por último dice que no tiene palabras para describir lo agradecida que está a la FIAF por haberle concedido este premio.

The Digital Statement Part II. Scanning for Preservation

The FIAF Technical Commission

This text was written collectively by the FIAF Technical Commission. Its members are Camille Blot-Wellens, Caroline Fournier, Tiago Ganhão, Anne Gant, Rodrigo Mercês, Davide Pozzi, Céline Ruivo, Ulrich Ruedel, and Kieron Webb.

Part II of the Digital Statement (DS) explores the decisions, questions, and problems around image scanning, specifically regarding preservation scans. These are scans that attempt to accurately capture the most information from a film element. They are ideally taken from the most original source, for example, the original camera negative or best surviving print. The resulting scans are usually quite large, and often require extra work after scanning before they are usable (for instance, for projection). This distinguishes them from access scans, which are generally created to be immediately useful for viewing, may be a smaller size, and are often taken from an already graded print. It is critical to note that scanning with the goal of preservation is a very specific operation. Many archives scan for access, which can create a satisfactory result for contemporary use, and conserves digital storage cost and space. FIAF documents on choosing film scanners, as well as the first part of the Digital Statement, have information that is helpful for scanner selection and setup, and digitisation for access. The FIAF Technical Commission (TC) wants to remind all readers that a scan with the goal of preserving the image information does not

replace a well-protected and conserved film element. It is critical that archives keep the film. In this section, “scanning” refers only to image scanning. Sound scanning is addressed in Part IV of the Digital Statement.¹

Part II does not address issues of digital preservation (see DS V), or the non-technical issues, such as the historical and critical understanding of film, which are essential to preservation or reconstruction of an image/film and have informed DS III. These aspects are crucial for a healthy and complete film preservation practice.

This section of the Digital Statement covers some dense technical topics, which the TC has attempted to summarise clearly and concisely, and which are still open to investigation and discussion, and perhaps even to consolidation or correction. Also, as with many digital developments, the landscape is changing quickly, and the TC welcomes criti-

1. Technical Commission resources, including all parts of the Digital Statement so far completed may be found at <<https://www.fiafnet.org/pages/E-Resources/Technical-Commission-Resources.html>>.



Example of an overscan frame: *Chegada do hydro avião Jahú ao Rio de Janeiro* (1927), tinted nitrate print scanned on Arriscan.

cal re-evaluation of this document as well as constructive suggestions or specific corrections by our colleagues in the field.

Part II consists of eight sections, namely, Film Sources: Selection of Material, Overscanning, Setup of the Scanner: Density, Setup of the Scanner: Resolution, Rebuilding the Image: What is a “raw” scan?, Photographic Grain and Graininess, Questions about Aliasing, and Conclusion: Keep the Originals!

FILM SOURCES, SELECTION OF MATERIAL

In order to better understand the way film scanners capture and process images, the Technical Commission interviewed representatives of many leading scanner manufacturers. One of the questions each was asked was, “Is a scan a clone of the original?” While their technological approaches differed widely, the scanner manufacturers agreed on this: a scan is not a clone of the original photochemical image. In some cases, the scan can come

close to capturing the original, but that depends on many factors, including the suitability of the scanner to the specific element being scanned, the quality of the material being scanned, and the skill of the operator. While it is acknowledged in photochemical duplication that a duplicate misses some details visible in the earlier element, the TC advises, precisely because a scan is not a clone of the original film, that original element should not be discarded after scanning. Scanned film elements should always be kept.

In making decisions about how to scan, it is important to know the purpose of the digitisation. If a scan is for access, it may make more sense to choose a quicker and less complex workflow — for instance, choosing elements in good condition, which are already graded, or choosing a scanner which handles positive material well. If a scan is for preservation, it may make sense to try to use the best generation, to make a higher-resolution scan, and to create a scan that requires post-scanning work such as grading or digital restoration.



Example of a full overscan with visible edges: *Napoléon* (Abel Gance, 1927), Safety diacetate Pathé, 4K scan on Nitroscan, Eclair laboratory.

Depending on the condition and the film stock type of the elements to be scanned, archives should identify the most appropriate machine to digitise those elements. Considerations include the level of deterioration or damage, film format, and the negative, positive, colour, or black & white nature of images. This will ensure that no further damage will be done to the film, and that the best possible capture of information will occur, avoiding as much as possible any loss of information.² Where feasible, short tests made on different machines can be helpful to compare the quality of scanned images, including use of diffuse light or wet gate for scratch suppression.

Once the elements have been chosen – or while they are being chosen – a condition report should be prior to any repairs or digitising

being undertaken. Archives need to define a clear goal – preservation or access – before digitisation. This means that the supervisor overseeing digitisation should define a clear digital workflow, including the different outputs to be created. The second step of the workflow creates the “raw” scans, i.e., the files directly from the scanner, uncompressed, and recommended to be done at a minimum of 2K or 4K and 10-bit log. It is important to recognise that the term “raw” may be used in different ways which can lead to some confusion. In this instance, we mean the output of the scanner that is closest to the original material, with no active interventions having been applied to image or sound. The scanner itself, while translating physical material to digital information, is already making approximations based on its own settings and capabilities, so “raw” is an inaccurate term.

It is recommended that archives keep these first-capture “raw” files, so that the digital restoration process can be reversible (at least to this first digital capture moment),

2. See the Scanner Forum on the FIAF website, <<https://www.fiafnet.org/pages/E-Resources/Film-Scanners-Forum.html>> as well as the Digital Statement Part I, about the different types of scan sensors, at <<https://www.fiafnet.org/pages/E-Resources/Digital-Statement.html>> and *Journal of Film Preservation*, Issue 99, Oct 2018, pp. 16-22.

in case something happens further along the digital workflow process, or decisions change over time.

OVERSCANNING

Most archives that have answered the FIAF survey in the Digital Statement Part V³ use the overscan setting when scanning the material. An “overscan” is a full-aperture scan which records the camera gate, frame line, and the inner part of the film edges. This setting helps to preserve as much information as possible about the camera gate characteristics. It is also very useful when stabilising the images later with restoration software.

This “extra” information can be of value, as it captures historical information about the material. The original camera gate or printer gate, and duplication or deterioration marks that are captured, can assist in making better processing decisions. If film frames are slightly unstable or uneven, it also gives a margin of error in the capture area, which can help later in reassembling the digital image. Some scanners, mostly prototypes, include “edge-to-edge overscan” in which the entire edges of the film (perforations and manufacturer data) are digitised as well. For silent films, there may be other information, such as shot numbers or handwritten annotations, on the edges. This kind of data can be crucial when reconstructing a film.

Scanning the full edge of the material is not yet a common practice in the archive world. However, the edge information is very valuable for preservation. If it is not captured during digitisation, then it can be done either by photochemical preservation of the film, or it should be documented through classical inspection and/or photographically. Alternatively, a second scan for different characteristics— a low-resolution documentation scan, for instance, could be considered.

If a film is overscanned, the number of pixels being used to capture the image area of the film will be diminished, as some of them are being used to capture the edges: for instance, a 4K edge-to-edge capture may only have 3600 pixels available for a silent film image. When possible, therefore, film should be overscanned on equipment that offers a resolution of approximately 4300 x 3956, thus ensuring that the image area will still be in 4K after processing it to the correct aspect ratio.

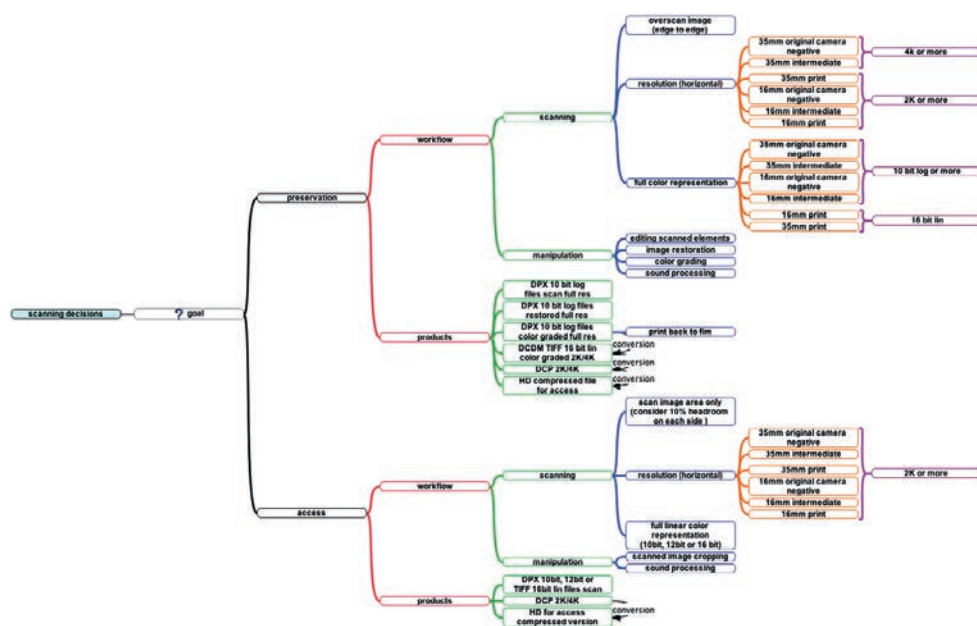
SETUP OF THE SCANNER: DENSITY

The settings of the scanner must be made in relation to both the goal and the established workflow. If an archive wishes to scan for preservation, the decision is usually to set the minimum density on the scan (D_{min}) to get a higher colour reproduction, close to the original film characteristics. This implies that the images will come up with a very large grey scale, inappropriate for viewing, but suitable and flexible for colour grading, printing back to film, and/or the production of digital presentation copies like DCPs in further digital processing.

When scanning for preservation, many archives follow the Cineon workflow developed by Kodak, where the base density is placed at 10% above black and the density of the film is mapped to bit values in a linear manner by a lookup table, or LUT. In Cineon 10-bit, every .002 ND (neutral density) change in density of the film equals one number change in the density of the file, resulting in a total range of .002 ND multiplied by 1023, resulting in 2.046 ND which covers the range of most colour negatives. This captures more range than was displayed in the original release print, which gives the archive room for manoeuvre in grading the material.

A display LUT can then be used to emulate the look of a negative printed to a photographic positive. In the digital realm, this is a way to get as close as possible to recreating the original look of the film in projection. Because this workflow was developed in the 1990s for com-

3. Digital Statement Part V – Survey on Long-term Digital Storage and Preservation, available at <https://www.fiafnet.org/images/tinyUpload/2019/04/Preservation_Digital_Statement_Final.pdf>.



Workflow diagram provided by Rodrigo Mercés, Cinemateca Brasileira, São Paulo, 2020.

mercial rather than preservation purposes, it works best for colour negatives and materials such as colour reversals and positives. B&W negatives and positives, and hand-painted and tinted materials, and even some colour negatives, fall outside its range.

It is important that this document be kept under review as it seems there are likely to be ways of capturing a wider range of densities in the future. One contemporary possibility is the Academy ACES format, which has not yet been widely adopted in archival workflows, but which can represent densities to 8.0 ND. There are also ways to adapt the Cineon format for archival scanning, such as changing the ND represented by each change in 10-bit values: for example, if each step is made to represent .004 ND, thus doubling the density range covered. However, as this is outside the standard documentation, an archive would need to carefully document the workflow, possibly by editing the DPX (Digital Picture Exchange) image header.

In any case, it is always important to review all the scanner settings before scanning, having a critical eye to the result and a good understanding of the characteristics of the material being scanned.

SETUP OF THE SCANNER: RESOLUTION

The “raw scan” resolution can either be defined with the aim of capturing the full image information of, for example, the original camera negative, for preservation (so 4K or more for the horizontal image), or, as seen in some archives’ workflows,⁴ it can be set to correspond to the resolution of a presentation print (around 2K for the horizontal image).

There seems to be a consensus among restorers and manufacturers that 4K is not enough to mathematically capture all the information that exists in a 35mm original camera negative (OCN) frame. It is also known that the duplication process of photochemical preservation increases generations and

4. For the results of the survey regarding digital practices at FIAF archives, please see <https://www.fiafnet.org/images/tinyUpload/2019/04/Preservation_Digital_Statement_Final.pdf>.

decreases the quality of the image. Because of this, later generations, such as dupe positives, dupe negatives, or prints, have less detail to capture, so it is generally accepted that 4K digitisation is suitable for most elements.

The number of pixels is only one of many factors determining the quality of the captured data. It is important to realise that other scanner characteristics also play key roles in the final definition that is achieved: the lens choice (optical definition and glare), illumination (collimated or diffused), digital sensor (type, construction, noise), film transport (intermittent or continuous), or wet gate/dry scanner, are all relevant to the quality of the final digitised image. See FIAF's Digital Statement Part I⁵ and "Choosing a Film Scanner"⁶ for more discussion about scanner types and characteristics.

If the archive wishes to better capture information such as original film grain, or dust or damage for archival documentation, then much higher resolutions are necessary. Some archives and labs scan at 6K, 8K, or more, and then make their access products at 4K or 2K, which is sufficient for contemporary playback and is visually acceptable.

The question of bit depth is another factor in determining the quality of the captured data and is as important as the number of pixels or a scanner's capabilities. The amount of bit depth needed to effectively represent the film is a question that the TC attempted to explain in simple terms. Even though, as pointed out in "Setup of the Scanner: Density", 10-bit is generally enough, it is important to understand some terms and variables that can have a direct impact on this decision, particularly when not scanning "standard" colour negatives.

When defining the bit depth at which a film element should be scanned for preservation purposes, one must first consider the amount of information available in the original element, and how it can best be represented in the digital realm. From light to film density and then digital representation, light/colour information goes through some transformations and different units of measure. If we take the colour negative example, one can say that 10 stops of light from the real world are represented in 6 stops of density in the negative film. In both these cases, each stop means double the intensity (light intensity or film density), despite the unit of measure. Most of the available commercial scanners work with a 12-bit sensor. This means that once the negative is exposed to light in the scanner, the sensor can differentiate 4096 values. When saved in a 10-bit file format, these colour negative density variations would be mapped and fitted inside the 1024 available code values of the file. In short, the mapping of the densities in a "regular" colour negative to a 10-bit log.DPX file is just sufficient to represent the film in the digital realm and in a transfer-back-to-film workflow. There is even some room for colour grading the scanned image.

The problem occurs when the range of the densities in the film is not what should be expected from a "regular" colour negative, for both higher and lower values.

For example, with an element with a higher density range, like a Kodachrome reversal film, the "standard" 12-bit sensor reading would not be able to capture the full range of stops in the original image. The constraints of the 10-bit file would limit it even further. Clipping the information that goes beyond the expected range will result in a wrong representation of the image, and is therefore not acceptable for preservation purposes. While it is still not yet possible to rely on higher dynamic-range sensors, there is a technique that is available in scanners or post-processing that involves exposing the same image twice, one for the higher and one

5. Digital Statement Part I, as cited above.
6. "Choosing a Film Scanner", available at <https://www.fiafnet.org/images/tinyUpload/E-Resources/Commission-And-PIP-Resources/TC_resources/Film%20Scanners%20v1%202.pdf>.

for the lower densities, and then combining them together. The values of this new higher-range image can then be mapped to a 16-bit file to ensure that no light/colour information will be neglected. Of course, along with the costs of doubling the exposures per frame and increasing the processing of the images, the resulting 16-bit file will also take up 50% more storage space than a 10-bit one. It is also possible to squeeze all this extra information into a 10-bit file, but the cost to make it a more accurate conversion is high and the results are usually not ideal.

The same principles can be applied to a faded colour negative, where the range between the lowest and the highest density is smaller. One way to manage this, while trying to take advantage of the entire sensor range, is to ensure that all the information captured is mapped to a wider range of values, unlike the pre-defined relation between “regular” colour negative film densities and digital values.

Despite all the technical advances in scanners and their increasingly precise sensitivity, we believe it is important to remember that in analogue film exposure, the analogue chromogenic film contains layers of different light and colour sensitivity, and silver halide grains of different sizes. Scanners work in another way: the sensors used to capture the images must be operated with different settings or differing illumination, so that they are detecting the ranges of visible spectrum and optical density. This remains an idealised scenario: large density ranges may still be hard to capture on typical current sensors, and the low signals on the image sensor may be affected by the inherent image noise generated by the scanning process, rather than only by the image itself. Some devices may choose to eliminate noise by clipping, thereby presenting an image unaffected by noise, and perhaps preferable to the untrained eye, but losing details in the dark areas. Differences in the spectral properties of colourants in film materials, including effects of fading, stain from dye decomposition, and typical side absorption of many chromogenic dyes, may

not be captured, with, for instance, individual colour(s) missing from scans of stencil-coloured nitrate. Thus, even in the best scenario, the scanned image as a “clone” of the analogue frame may still be substantially out of reach, a shortcoming that should be put into perspective, considering inevitable losses and changes in analogue duplication.

REBUILDING THE IMAGE: WHAT IS A “RAW” SCAN?

Effectively, all scanners need some reassembly of the image. While an analogue chromogenic film may contain layers of different light and colour sensitivities, and silver halide grains of different size, and thus “film speed”, image sensors are “colour-blind” by nature, and need to be operated at different settings and with differing illumination or filters to capture different ranges of the visible spectrum and optical density.

In area-based sensor scanners, the image is exposed to the “colour-blind” sensor in serial exposures in the different primary colours (RGB), to capture all colours and densities. Disregarding the limits of colour/density depth (see “10/12-bit log choice”, above), reassembly of these images should not be a challenge, since they should be perfectly aligned. This is achieved by holding the frame stationary until capture is complete, and then moving to the next frame.

In case of any misalignment of the image during the exposure due to micro-movements of the film, usually associated with the use of film gates without pin-registration (pinless, tension-based transport, or wet-gates), the resulting scanned image could be digitally corrected by the realignment of the already separated colour channels present in the file. In general, scanners with this kind of sensor tend to be more expensive. Another disadvantage of this workflow is the relatively slow scanning time due to the intermittent transport.

At the other end of the performance scale are scanners using area colour chips.⁷ As discussed before, in "Choosing a Film Scanner"/DS I,⁸ capture is fast, through the simultaneous sensing of the three primary colours with a single exposure. This is achieved by dividing the sensing sites of a single area sensor between them using a colour filter array, such as the Bayer pattern (filter mosaic). Compared to the same image captured at the same resolution with an area-based sensor, only a third of the data needed for full colour and resolution capture is obtained.

Such data thus need processing through algorithms to reconstruct the missing spatial/colour information – effectively, the missing two-thirds of an image with full RGB resolution needs to be reconstructed based on assumptions of the nature of the original image information lost during capture. Due to the possibility of using different algorithms for this "de-Bayering" or "de-mosaicing" now and in the future, it is wise to save scans before de-Bayering.

In the middle of the performance scale, in terms of complexity of image reassembly, line-sensor scanners offer the ability to capture full colour and extended exposure information. These sensors can work in two ways: either the line-sensor moves over the film, which is held in a stable position, or the film passes over the sensor. Any mechanical issue in the film transport can directly affect line reassembly, which can lead, for instance, to "wiggly" horizontal lines visible to the trained eye, or, in the case of "splice bumps", very noticeable image distortions in otherwise high-quality full-colour resolution scans. Some setups may help to solve these issues through monitoring the mechanical transport and activating some form of digital de-warping. This can be done during the scanning process, but correcting a digital artefact created by scanning is obviously not ideal. Another issue in

some line-sensors, those using beam splitters to facilitate separation of R, G, and B capture, are potential misalignments in the beam splitter, causing colour registration issues.

Each scanner has its pros and cons. No scanner is perfect for all material. It is important to remember that all scanners are rebuilding the image with some assumptions, algorithms, and decisions made internally. The "raw scan" is not so "raw" as we might imagine. The data is affected by the setup of the scanner, the settings that the operator has chosen, and the way that the machine rebuilds the image.

PHOTOGRAPHIC GRAIN AND GRAININESS

An understanding of how "motion picture film grain" can, or should, be rendered in digitisation would first require a discussion of what "grain" is to begin with, and how it is rooted in the materiality of photographic film. This, however, is a complex issue beyond the scope of this statement, with only a summary offered here.

Basically, according to Kodak digital expert John F Hamilton, in his 1972 article "The Photographic Grain",⁹ the term "grain" can have three distinct meanings. The first, denoting the light-sensitive crystal grains of silver halide in undeveloped films, does not concern us here as it is merely a chemical precursor of the grains in developed films. These grains are tiny particles of metallic silver (typically and microscopically, of filamentary rather than compact particulate nature) distributed through the photographic emulsion. However, these individual photographic grains are much too small to be seen by the naked eye, even upon enlargement in projection. Collectively, though, through their size, shape, and distribution (both lateral and through the – finite – depth of the emulsion), they not only form the photographic image with its varying densities, but indeed also the

7. <https://en.wikipedia.org/wiki/Color_filter_array>.

8. *Journal of Film Preservation*, Issue 99, October 2018, p.16-22 and <<https://www.fiafnet.org/pages/E-Resources/Digital-Statement.html>>.

9. J F Hamilton, "The Photographic Grain", *Applied Optics*, Vol.11, No.1, 1972, pp.13-21.

unique textures of still and moving images. These are also denoted as “photographic grain”, in what is effectively a third meaning of “grain”, describing a visual perception more aptly called “graininess”.

Note that processed chromogenic colour film material no longer contains any image silver, but, rather, consists of dye clouds formed around the developed silver grains before their chemical removal. Thus, the nature of “grain(iness)” also applies to the dye-cloud image in such colour films.

A digital image is not comprised of individual “black” metal grains of varying sizes in different, microscopically random positions, but, rather, of a set of pixels arranged in a geometric pattern stationary from frame to frame, which can take different grey or colour values. Thus, while unable to “forensically” resolve the shape and distribution of these small grains due to their microscopic size and distribution, digital images should be able to approximate the resulting and visible density fluctuations of the photographic image, which produce both its image and its “grainy” texture.

Lastly, the nature of the opto-mechanical film projection process also combines with the nature of photographic grain to result in a “moving” film-grain texture. The projected moving image is formed through a succession of individually projected photographic images, interrupted in analogue projection through the action of a projector shutter, resulting in a characteristic and dynamic “film grain”. To what extent a digital image can reproduce the film grain in both its spatial and temporal characteristics remains an open question (and, furthermore, may be heavily subject to compression, where this occurs), and may or may not be one reason for the “digital” look of pixel-based, shutter-free digital projection.

QUESTIONS ABOUT ALIASING

As explained above, the structure of analogue/photochemical motion picture film is very distinct from digital, and so is the way

that we perceive it. The look of a Digital Cinema Package (DCP) and a photochemical print are the end result of two different workflows. With born-digital films, the DCP is the object expected to be screened, and as long as it is approved, it should raise little ethical concern for film archivists and restorers. The ethical question is more complex when we start from photochemical material and want to restore it using digital technology and present it in a DCP. Even if we start with the main objective of emulating the look of a photochemical print in a DCP, there are some questions about film grain and the way it is rendered in the digital image. Some “boiling” appearance of digitised grain is often observed in digital projection, which might be caused by some sort of “aliasing”, either motion aliasing, temporal aliasing, spatial aliasing, or all three. Unfortunately, at this point the TC does not fully understand the effect of “aliasing” in digital cinema. We want to raise this as a point for more in-depth research in our community and provide some initial information.

WHAT IS “ALIASING”?

There are many definitions of “aliasing”, since it is found universally in digital systems and therefore manifests itself in different fields of knowledge. We can generally refer to it as an effect produced when a signal is imperfectly reconstructed from the original signal due to insufficient frequency of sampling to create an accurate representation.¹⁰ Aliasing is relevant in fields such as digital audio, digital photography, digital cinematography, analogue TV, and computer graphics. It was also studied in digital cinema, where it can be seen as any artefact inserted into image data as a result of the interaction of pixels with scene (image) content. According to John C Dainty and Rodney Shaw’s 1974 book *Image Science*,¹¹

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10. Cf., for instance, Graham Saxby, *The Science of Imaging, An Introduction*. Bristol and Philadelphia: Institute of Physics Publishing, 2002, p.145; Ron Graham, *Digital Imaging*. Caithness: Whittes Publishing, 1998, p.47.
11. J. C. Dainty and Rodney Shaw, *Image Science: Principles, Analysis and Evaluation of Photographic-Type Imaging Processes*. New York: Academic Press, Inc., 1974.

photochemical film as a capture medium does not suffer from aliasing because it is a non-uniform sampling device. In a more recent SMPTE paper (2006), by Gabriel Fielding, Ryan Hsu, Paul Jones, and Christopher DuMont,¹² the authors state that for film productions which only involve the optical transfer of film from the original negative to the final print projected on the screen, uniform sampling never occurs, so the issue of aliasing does not arise. It becomes an issue for film only when the colour negatives are scanned using a uniform sampling pattern (as is the case for all current scanners).

Trying to shed some light on this issue, the TC is performing a series of tests to compare a full photochemical chain, where the scene information is minimal, and then digitise it in several commercial scanners. The purpose of these tests is to better understand the degradation of grain structure when duplicated from an OCN to a dupe positive to a dupe negative to a final print, and how scanners interact with the content in this chain, and capture and interpret the different grain structures. Despite the fact that we could identify some differences when visualising a split-screen between the photochemical elements and their digital representation, it was difficult to determine all the causes which contribute to this difference. We suspect that some sort of "aliasing" exists, but also that reconstruction errors of the image, DCP compression, and the nature of the opto-mechanical projection can add important variables (see above) to the equation.

It is nevertheless important to understand and be aware of aliasing, because all conditions are present for this effect to appear when any photochemical film element is digitised. Regardless of the definition of grain that you might consider (see above), pixel size in the sensors currently used in the industry is still too big to correctly sample the

finest grain texture. Another SMPTE paper,¹³ published in 2003, explains how aliasing can cause distraction to viewers, since motion aliasing can produce surprising lines and colours that "dance", "twist", and "shimmy" across the scene. Perceptually, this can be serious because the human visual system is alerted by motion.

Apart from the distraction introduced by digital artefacts when watching a DCP, it is also of key importance to highlight the difference between aliasing (a product of digital uniform sampling) and grain (a product of film construction), since it has become very common to hear the words "grain" or "digital grain" when seeing a DCP that uses digitised photochemical material as source. This language appropriation can be misleading, since it helps to validate the idea that a digital workflow complies with section 1.4 of the FIAF *Code of Ethics*¹⁴ which states that archives will not edit or distort the nature of the work being copied and that new preservation copies shall be accurate replicas of the source materials, thus implying that the "aliasing" that we see in a DCP is the grain that always existed in the photochemical source material, and not an artefact introduced with digital cinema.

Generally speaking, the Nyquist theorem dictates that sampling rate must be twice the highest frequency of any source material information to be digitally captured. If higher frequency information is present in the source material, it will cause aliasing. To prevent this, an anti-aliasing filter can be applied on the original analogue signal to remove this high-frequency information before sampling. Also, the sampling rate, (which, in imaging, means the resolution), should be as high as possible to limit the possibility of generating aliasing artefacts.

12. Gabriel Fielding, Ryan Hsu, Paul Jones, and Christopher DuMont, "Aliasing and Reconstruction Distortion in Digital Intermediates", *SMPTE Motion Imaging Journal*, April 2006.

13. Roger R. A. Morton, Michelle A. Maurer, and Christopher DuMont, "An Introduction to Aliasing and Sharpening in Motion Picture Systems", *SMPTE Motion Imaging Journal*, May/June 2003.

14. FIAF *Code of Ethics*, available at <<https://www.fiafnet.org/pages/Community/Code-Of-Ethics.html>>.

CONCLUSION: KEEP THE ORIGINALS!

Whether or not digital cinema, or even photochemical duplication, complies with section 1.4 of the FIAF *Code of Ethics* is a question open to debate, one which the FIAF TC strongly encourages in the film community. Issues such as (grain) aliasing, reconstruction errors, the intermittent nature of opto-mechanical projections, and the shortcomings of image sensors and algorithms employed, may remain obstacles to the perfect reproduction of a photographic moving image.

Since archives and laboratories have begun using digital techniques, the definitions of the restoration and safeguarding of film heritage have changed dramatically. Even analogue restorations which were considered definitive decades ago are now being re-evaluated. Digital technologies have profoundly modified the methodology of preservation and restoration, and photochemical duplication is no longer a mandatory step in film restoration.

Within a decade, the same film materials may have been digitised several times, with the best technology available at the moment (HD, 2K, 8K, and many others), to capture the most information and assure its compatibility with the projection or delivery systems developed by the Industry. It is now commonly accepted that it may be necessary to repeat the work in the near future; as Fumiko Tsuneishi wrote a few years ago, "The currently flourishing digital restoration technology is greatly enhancing the opportunity to start new restorations of film classics from scratch."¹⁵

Reversibility is one of the fundamental concepts of preservation and restoration. This requires that archives keep the film materials and limit direct interventions, in order to maintain the condition of the materials in a stable state. The intention is that future archivists should have access, not only to the

best material possible, but also to the information contained on the element which is often outside the image frame (film stocks, edge codes, and annotations for editing or tinting/toning, among others) and rarely kept during the contemporary scanning process. As mentioned earlier, most scanners do not include the totality of the edges.¹⁶ The knowledge and understanding of film (history, technology, completeness) will continue to change and evolve. "Lost" film elements will continue to arrive in archives and private collections around the world.¹⁷ Keeping the original film elements allows restorers to repeat work and have the opportunity of creating new versions, not only more complete, but perhaps more coherent.

As Julia Wallmüller stated:

*History shows that restoration methods that were accepted during a certain period were subsequently criticized and abolished by the following generation. These ever-changing standards concerning the way cultural heritage should be treated have made reversibility of any restoration activity one of the most important principles of restoration theory. It implies the possibility of unrestricted recovery of an object's state before intervention.*¹⁸

15. Fumiko Tsuneishi, "Pragmatic Solutions for Problematic Sources", in Kerstin Parth, Oliver Hanley, Thomas Ballhausen, eds., *Works in Progress. Digital Film Restoration Within Archives*. Vienna: Synema, 2013, p.57.

16. It is important to note that this information was not always kept using analogue technologies either.

17. One of the most emblematic examples of films undergoing several restorations and multiple discoveries is probably *Metropolis* (Fritz Lang, 1927). This film was first restored between 1968 and 1972 by the Staatliches Filmarchiv der DDR, followed by a restoration, motivated by new discoveries (notably the music score), by Enno Patalas of Filmmuseum München in 1986–1987. In 1998, original materials located in several international archives led the Friedrich-Wilhelm-Murnau-Stiftung to commission Martin Koerber to establish a new version, which was presented in 2001. In 2008, a 16mm print was discovered at the Museo del Cine Pablo C. Ducrós Hicken in Buenos Aires, which led to another restoration, presented in 2010. Also the object of successive restorations was *L'Atalante* (Jean Vigo, 1934), restored in 1940, 1990, and 2001, about which see Bernard Eisenschitz, "Les *Atalantes*, le retour. À propos de plusieurs restaurations d'un film", in Béatrice de Pastre, Catherine Rossi-Batôt, eds., *Arts Plastiques et Cinéma. Dialogue autour de la restauration*. Grenoble: De l'Incidence, 2016, pp.26–37.

18. Julia Wallmüller, "Criteria for the Use of Digital Technology in Moving Image Restoration", *The Moving Image*, Vol.7 No.1, Spring 2007, p.81.

To conclude, preserving digital cinema is radically different from preserving photochemical cinema. As Per Legelius has pointed out, "the carrier does not have the same significance that a film negative has; with a digitized version we consider only the content, not the carrier."¹⁹ In this evolving technological landscape, keeping the original materials is the only way to assure the best version possible with the best technologies available at the moment, and also to have access to all the information contained on film elements, information that may be crucial to analyse the film and improve the work in the future.

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fr

La deuxième partie de la Déclaration numérique explore les décisions, les questions et les problèmes liés à la numérisation des images, en particulier en ce qui concerne les numérisations à des fins de conservation. De nombreuses archives numérisent à des fins d'accès, ce qui peut produire un résultat satisfaisant pour l'utilisation contemporaine, et économise les supports de stockage numérique et le coût associé.

S'il est convenu que la duplication photochimique fait perdre certains détails visibles dans le support d'origine, la Commission technique de la FIAF insiste sur le fait que, précisément parce qu'un scan n'est pas d'un clone de la pellicule copiée, il ne faut surtout pas que cette dernière soit détruite après numérisation. Les éléments scannés doivent toujours être conservés.

La partie II comporte huit sections: Sources de la pellicule: sélection des supports, *Overscan*, Configuration du scanner: densité, Configuration du scanner: résolution, Reconstruction de l'image: qu'est-ce qu'une numérisation « brute »?, Grain et granularité photographiques, Questions sur l'*aliasing*, et Conclusion: ne jetez pas les originaux! Chacun de ces thèmes est examiné en détail.

On trouve par exemple des conseils sur le choix des éléments à utiliser pour la numérisation, et d'explications sur l'*overscan*, notamment le couloir, l'interimage et une partie des bords de pellicule, et sur son utilité. Les réglages de densité et de résolution du scanner peuvent varier en fonction du résultat souhaité. Les différents types d'originaux appellent également un traitement différent, et la deuxième partie donne des conseils sur les plus appro-

priés. Différents types d'équipements peuvent être nécessaires selon le type de travail de restauration. Chaque scanner présente des points forts et des inconvénients, et aucun n'est idéal pour toute numérisation.

Il est question du grain photographique, de la granularité et de la possibilité pour une image numérique de restituer le grain de la pellicule dans ses caractéristiques tant spatiales que temporelles. L'*aliasing* – l'effet produit lorsqu'un signal, en raison d'une fréquence d'échantillonnage insuffisante pour créer une représentation précise, est imparfaitement reconstruit à partir du signal original – est présent dans tous les systèmes numériques. La Commission a tenté de déterminer s'il se produit également lors d'un transfert optique, mais n'a pu parvenir à une conclusion définitive. On trouve également des informations sur la différence entre grain et *aliasing*.

Enfin, la Commission rappelle qu'il est essentiel de conserver les originaux le plus longtemps possible après leur numérisation. Les systèmes et les méthodes ne cessent de s'améliorer – c'est particulièrement vrai dans le champ du numérique – et il n'est jamais exclu de pouvoir améliorer une numérisation antérieure. La réversibilité est l'un des concepts fondamentaux de la préservation et de la restauration, et la préservation des versions numériques une problématique très différente de celle des éléments photochimiques.

19. Frida Bonatti and Per Legelius. "How I Learned to Stop Worrying and Love Digital Archives: Digital Archiving Practices at the Swedish Film Institute", *The Moving Image*, Vol.19 No.1, Spring 2019, pp.144–150. Project MUSE <muse.jhu.edu/article/758770>.

La Parte II de la Declaración Digital explora las decisiones, preguntas y problemas en torno al escaneado de imágenes, específicamente en lo que se refiere a los escaneados de preservación. Muchos archivos escanean para facilitar el acceso, lo que puede dar lugar a un resultado satisfactorio para su uso contemporáneo, ahorrando tanto costes como espacio de almacenamiento digital.

Aunque en la duplicación fotoquímica se reconoce que un duplicado pierde algunos detalles visibles en el elemento anterior, la Comisión Técnica (CT) aconseja que, precisamente porque un escaneado no es un clon de la película original, ese elemento original no sea desechado tras el escaneado. Los elementos escaneados de la película deben conservarse siempre.

La Parte II consta de ocho secciones, a saber: 1) Fuentes de película: Selección del material; 2) Sobreescaneado; 3) Configuración del escáner: Densidad; 4) Configuración del escáner: Resolución; 5) Reconstrucción de la imagen: ¿Qué es un escaneado "en bruto"?; 6) Grano fotográfico y granulosidad; 7) Preguntas sobre el *aliasing*; 8) Conclusión: ¡Conservar los originales! Cada uno de estos temas se examina con cierto detalle.

Por ejemplo, se dan consejos sobre qué elementos utilizar como base para un escaneado, seguidos de una explicación del "sobreescaneado", es decir, la inclusión del marco, la línea de encuadre y parte de los bordes de

la película, y por qué resulta útil. Los ajustes del escáner pueden variar en densidad y resolución en función de los resultados requeridos. También los distintos tipos de originales requieren un tratamiento diferente y la Parte II ofrece consejos sobre lo que podría ser apropiado. Cada escáner tiene sus pros y sus contras y ninguno es perfecto para todos los materiales.

Se habla del grano y de la granulosidad fotográficos y de hasta qué punto una imagen digital puede reproducir el grano de la película tanto en sus características espaciales como temporales. El *aliasing* (efecto que se produce cuando una señal se reconstruye imperfectamente a partir de la señal original debido a una frecuencia de muestreo insuficiente para crear una representación exacta) se encuentra en todos los sistemas digitales. La Comisión intentó determinar si también se produce en la transferencia óptica, pero no pudo llegar a conclusiones concretas. También se incluye información sobre la diferencia entre grano y *aliasing*.

Por último, la Comisión reitera que es esencial conservar los originales el mayor tiempo posible tras el escaneado. Los sistemas y métodos mejoran constantemente -especialmente en el ámbito digital- y siempre existe la posibilidad de mejorar trabajos anteriores. La reversibilidad es uno de los conceptos fundamentales de la conservación y la restauración, y la conservación de las versiones digitales es muy distinta de la de los elementos fotoquímicos.

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Eternal Digital Storage: The Impossible Dream

David Walsh

David Walsh has been FIAF's Training and Outreach Coordinator since 2016. Previously, he worked for the film and video archive of the Imperial War Museums, first as Head of Preservation, later as Head of Digital Collections.

FILM FOREVER

It must have been the late 1980s or early 1990s. I had a call from a couple of television engineers who, concerned about the poor lifetime expectations of videotape, wanted to demonstrate their system for preserving video recordings on 35mm film. It was a nice idea: for each frame there was a full-size image recording the luminance and two half-size images with the colour difference information, a kind of analogue 4:2:2. The film could be read on a conventional telecine machine and the full colour signal recreated with some simple processing. Their demonstration clip looked as good as the original 1-inch videotape, as long as you ignored the dust marks from the film intermediate. The idea was crazy, of course: apart from the expense of writing and reading the data, there would be a mountain of film in place of a modest pile of videotape. And, as film archivists, we also had some nagging concerns about the long-term stability of film, having seen too many instances of acetate degradation.

The idea of storing electronic data on film has been around for a long time and has never gone away, despite considerable sciep-

ticism from film archivists, perhaps because what non-archivists see as a stable long-term medium, we see as something altogether too fragile and vulnerable to survive without careful nurturing. It's a matter of perspective: if you are used to dealing with data which might vanish at the touch of a delete button, then no doubt film appears as something permanent and reliable.

IBM were probably the first, with their 1360 Photo-Digital Storage System in the 1960s. This was not so much a long-term archiving system as a solution to the more immediate problems of reliable short- to medium-term data storage in the evolving world of computer technology. The data were written by cathode ray tube to small "cards" of photographic film, each one holding around 6.6 megabits, and the whole system of thousands of cards was designed to hold 128GB of data, a huge amount for the time.

Since then, there have been a number of proposals for storing data on film. Why film rather than any other medium? Until the 2010s, film was a widely used recording medium with a very well-developed supporting

structure of manufacturers, laboratories, and users, and, over time, the means to record data to film and then reliably read it became increasingly sophisticated. It therefore seems likely that it was the ability to tap into a mature technology that prompted these efforts, rather than a belief that film was especially suited to storing data. It wasn't just enthusiastic entrepreneurs with a big idea that tried to make it work, either. The big players were also interested. For instance, in the early 2000s, a team from Kodak's factory in Chalon-sur-Saône, France, devised a 35mm film-data storage system, using multiple exposure levels and differing colours to cram in as much data as possible. Given the tendency of colour dyes to fade, one might have concerns about the latter, but, in any case, the system never took off. Other researchers have looked into microfilm as a means to preserve data for the long term, but this doesn't seem to have progressed beyond a theoretical stage either.¹

Almost certainly, a large part of the reason is the inadequate data density offered by film: for the archivist there is an illogicality about having to use several reels of film to store the data originally contained in a single reel. Why not just store the original film? It is perhaps a little surprising, then, as film's declining industrial base becomes increasingly limited to a handful of manufacturers and laboratories, that there is now one company offering a commercial data-storage system using film, apparently with some success.² Admittedly, film archivists are not their prime target: the fact that data sizes for moving images are orders of magnitude greater than any other medium continues to make data-on-film a largely unfeasible solution for mov-

ing image files. And there's still the nagging doubt about film's longevity once we move away from climate-controlled vaults in temperate regions.

HARD DRIVES: KEEP THOSE PLATES SPINNING

A heritage mentality sits badly with the idea of continuous regeneration. We didn't become heritage professionals in order to take pleasure in throwing away old things. We want the thrill of opening the tomb and finding unspoiled artefacts still recognisable and viable. We want to be able to decipher ancient texts carved in stone, despite all that they have endured down the centuries. We don't want to read a copy that somebody made last week, we want to hold the original and marvel at its survival. If digital data were carved in stone, maybe we would be more trusting of it. Sadly, stone-based digital data struggles to meet many of the other requirements for preserving audio-visual media: a paper from 2010³ offered this assessment of storage density versus lifetime of various media:

Medium	Storage Density (bits/cm ²)	Life (years)
Stone	10	10,000
Paper	10 ⁴	1000
Film	10 ⁷	100
Disc	10 ¹⁰	10

A 10,000-year lifetime sounds good, but, at this level of data density, a 2K scan of a single feature film would require over 100 square kilometres of stone. Even stacking your stone tablets in tall piles is likely to require a warehouse around a kilometre long, which is not very feasible. The read/write speed is also likely to be problematic.

1. For example: C Nomand, R Gschwind, W J Riedel, "Long-term preservation of digital images on color microfilm". The Society for Imaging Science and Technology, NIP 21: 21st International Conference on Digital Printing Technologies, Baltimore, MD, Sept.18, 2005, p.353-356; Nomand, Gschwind and Peter Fornaro, "Digital images for 'eternity': Color microfilm as archival medium", *Proceedings of SPIE - The International Society for Optical Engineering*, January 2007.

2. PIQL (<<https://www.piql.com>>) promise that they "...can ensure your valuable information is archived appropriately for any length of time, with guaranteed accessibility".

3. Matthew Addis and Richard Wright, *Audiovisual preservation strategies, data models and value-chains*. Southampton, University of Southampton, PrestoPrime Consortium, 2010.

Never mind that, as archivists rather than archaeologists, we would happily settle for something less than 10,000 years if it gets us away from the constant toil of preserving electronic data through endless renewal. It is not so much the reliability of the systems that worries us, although that does worry us, for sure: got your data on RAID storage? (RAID: a “Random Array of Inexpensive Discs” – Inexpensive? Not for a film archivist.) How sure can you be that only one drive will fail at a time. Or that the controlling software is bug-free? Or that your backup system is functioning perfectly? How comfortable are you with these risks? Or perhaps you have a real taste for gambling and are keeping your data on external hard-disc drives stored on shelves... How many of these will fail to start up when the moment comes?

Maybe you have set out on the data-tape roadmap instead. The LTO tape system appears to be very reliable, and the tapes have a claimed lifetime of up to 30 years, although this is somewhat deceptive given that a new generation comes out every two to three years. Are we prepared to put all our trust in this never-ending trudge along this road, however well signposted? The original LTO roadmap suggested that each generation of drive being would be able to read tapes from its own generation and from the two previous generations, but somehow the system lost its own way when generation 8 was revealed to only read one generation back. In this setting, how long the underfunded archive waits to migrate everything onto a newer LTO generation depends on its tolerance of risk: that is, the risk that it won’t be able to read the old generation because of obsolescence, rather than any degradation of the tapes themselves. Anyone sitting on a load of early-generation tapes is likely to be getting sweaty palms by now.

Surely, though, the main issue with this unrelenting need for renewal is not with the hardware or the software, but with people and institutions. In 10 to 20 years, will the people who remember what needs to be done

still be there? Will you still be there? Will the politicians have closed the institution and taken away the funding? When it’s time to migrate all that data, can you be sure that someone won’t have lost the tapes? (“They were just backups, right?... Oh, sorry, I didn’t realise.”) No wonder archivists are desperate to have something tangible and long-lasting that can be put on the shelf and left alone.

GOLD!

The search for a permanent storage medium for digital data is as old as digital data itself. When CDs were first launched in the early 1980s, much of the media hype was about how indestructible and permanent they were, and the idea of storing data on CD-ROMs quickly took off as a convenient, reliable, and spacious solution. Certainly, compared to the alternatives – a variety of non-standardised, proprietary disc-drive and tape-based systems – it was the obvious solution for many projects. For instance, when the BBC Radio One archive came to digitise its audiotape collection in the mid-1990s, the decision to use both audio CDs and CD-ROMs as the storage media for everything was really the only practicable one, especially given that CDs were now the working format at the BBC.⁴

Then reality started to intrude as researchers began to report on their studies of optical media longevity – some will remember the 2000 Joint Technical Symposium in Paris, for example, where more than one team revealed the unacceptably high error rates for recordable CDs – error rates which climbed as the media aged. Products such as the Mitsui Advanced Media disc, also marketed as the Kodak Preservation disc, were intended to allay the fears of media degradation by replacing the aluminium reflective layer with gold. It is debatable whether this truly improved the life-expectancy of the disc, given that the vulnerabilities of recordable discs were

4. I am grateful to Richard Wright, the BBC’s Information and Archives Broadcast and IT Manager in the 1990s, for this information.

more likely to derive from the other layers, but certainly it was a good marketing ploy, even though it may not have always been clear whether a disc genuinely contained gold or was merely gold-coloured. Nevertheless, for anyone who feels that gold must somehow have a place in data storage, there is still the option of using your data as a fashion accessory!^{5,6}

CDs and DVDs were by far the most successful optical disc formats, but there were a number of other contenders using laser optics for digital data storage. One was the magneto-optical disc, a technology using a ferromagnetic material coupled with a laser to write and read the data. This was first introduced in the mid-1980s, and was adopted by various manufacturers, especially in Japan, but, with capacities restricted to a few GBs at best and a limited user base, the format has now largely fallen out of use, although one variant, the Sony MiniDisc, is still just about alive. Another system from the same period was the Plasmon LaserDrive disc. At the time this company went out of business in 2008, it was working on a disc capable of accommodating 240GB – a respectable amount of storage, but still some distance behind rival magnetic storage systems which were rapidly improving in capacity and speed. Inevitably, most users began to turn away from optical disc storage. In the BBC's case, the recordings digitised in the 1990s were migrated from disc to data tape in the mid-2000s: barely a ten-year lifetime for what many had assumed would solve their digital storage needs for good.

Despite this, options for using optical disc media for long-term digital storage have not completely gone away. "Archival grade gold DVD-Rs" with, apparently, both a gold and a silver layer, are still available from one manufacturer. Meanwhile Sony offers an Optical

Disc Archive Cartridge system which boasts a capacity of up to 1.5TB and is ideal "for very long-term archiving", though the guaranteed "50+ year life" is hardly going to impress film archivists who might feel that a film which only has a life expectancy of 50 years is a cause for concern rather than celebration.

GLASS

There has been some recent excitement from researchers investigating the possibilities of using glass as a storage medium, the data being etched internally using high intensity, ultrafast laser pulses, and, surprisingly, we now find that the breathless promises of 50 to 100 year life-expectancies have become life-times of *billions* of years – 13.8 billion years to be precise, if one report is to be believed.⁷ It hasn't taken long for the film industry to show interest in this technology: Microsoft's *Project Silica* has collaborated with Warner Bros in a proof-of-concept project to store (and, happily, also retrieve) the 1978 film *Superman* "on a piece of glass roughly the size of a drink coaster".⁸ While there is no reason to doubt the claims about capacity and life-expectancy that this type of data storage offers (though one might question why 13.8 billion years rather than, say, 13.7 billion years), there remains a huge gulf between such research projects and a viable commercial product.

The same can be said for storing data in DNA. This molecular-scale technology potentially has huge capacity: one report states that "Scientists have said that, if formatted in DNA, every movie ever made could fit inside a volume smaller than a sugar cube."⁹ There is no question that encoding and successfully

5. Totenpass: The New Paradigm for the Permanent Storage of Precious Digital Data, <<https://www.totenpass.com>>. "Totenpass is a permanent digital storage drive made of solid gold. End your dependence on the cloud, the internet, energy sources, and destructible hardware."

6. The Rosetta Project: The Rosetta Wearable Disk, <<https://rosettaproject.org>>.

7. David Neild. "This Tiny Glass Disc Can Store 360TB of Data for 13.8 Billion Years", *Science Alert*, February 2016. <<https://www.sciencealert.com/this-new-5d-data-storage-disc-can-store-360tb-of-data-for-14-billion-years>>.

8. Jennifer Langston. "Project Silica proof of concept stores Warner Bros. 'Superman' movie on quartz glass". Microsoft website, 4 November 2019. <<https://news.microsoft.com/source/features/innovation/ignite-project-silica-superman>>.

9. Paul Rincon, "Scientists claim big advance in using DNA to store data". BBC News Website, 1 December 2021. <<https://www.bbc.co.uk/news/science-environment-59489560>>.

decoding a digital file on DNA is an extraordinary scientific achievement, but we are a long way from having a DNA drive fitted to our film scanners, and, buried in a comment from one of the scientists involved, there is perhaps a slight cause for concern: "...as long as you keep the temperature low enough, the data will survive for thousands of years...". Where have we heard that before?

IS THE BLOCKCHAIN THE ANSWER?

Then, for the real techno-geeks, there is dispersed cloud storage in which the data is held everywhere and nowhere, controlled by everybody and nobody. Blockchain technology does indeed open up the possibility of having your digital assets spread across computers all around the world in a theoretically unchangeable form because of the way that the information is held by every single one of the hosts. At least one company is trying to turn this into a viable scheme, but, while it might be worth trying for limited amounts of data, it seems unlikely to catch on any time soon as a realistic solution for moving images.

We are perhaps missing something here. Are we not pursuing the answer to the wrong question? Can we store data forever? Yes, probably, or at least for 13.8 billion years. But this is like locking your assets in a dungeon with a key that is hard to use and likely to be lost. As archivists, our concern is not what archaeologists of some future epoch might be able to dig up so that they can learn something of our lives; what we want is for our material to be *accessible*, now and into the indefinite future. The storage is only a small part of the system that provides this access, and we can be sure that forms of access will continue to develop and change rapidly and frequently, so the need to maintain and update the complete digital management system will always be there. An unchanging digital store set in stone is as much a fantasy as an online film-viewing platform that will never need to be modified. This constant need for renewal is an unavoidable characteristic of digital data, and we

archivists just have to accept that taking on digital assets means embarking on a journey that will never end. As long as we stick to the basic principles of digital preservation, however (lots of copies, multiple formats, several locations, careful monitoring), there really isn't any excuse for losing data. Until, that is, the end of civilisation as we know it, when everything but the most robust cultural records will have turned to dust. Maybe there is a point in choosing a few iconic films from our collection and putting them in a dry cave in a format that is easily deciphered and unlikely to decay too rapidly. What would that be? 35mm black and white motion picture film on polyester stock perhaps?

Les archivistes ont une préférence innée pour les originaux plutôt que pour les copies, et ne sont pas très à l'aise avec l'idée de devoir régénérer en permanence les données numériques. Ils pourraient toutefois se contenter d'une durée de vie garantie mais plus limitée si lesdites données pouvaient être stockées sans qu'il soit nécessaire de les gérer. Cependant, le stockage des données numériques nécessite un renouvellement, même lorsqu'un format – bande LTO, par exemple – garantit une relative stabilité. Les archivistes doivent mettre en balance le risque que leurs bandes deviennent obsolètes et le coût et le travail que représente une migration. Un autre problème que posent les renouvellements périodiques est que lorsque se produisent des changements au sein du personnel, des institutions ou des gouvernements, la connaissance de ce qui doit être fait peut se perdre.

Le stockage de données numériques sur pellicule peut convenir si le support d'origine est le papier ou assimilé, mais un film numérisé nécessitera généralement beaucoup plus de pellicule pour le stockage des données que l'original. Les CD et les DVD promettaient jadis un stockage fiable et pérenne, mais au milieu des années 2000, même les versions dites « gold » se sont avérées peu fiables et leur capacité de stockage trop limitée. Néanmoins, Sony propose toujours un système d'ODA (archivage sur disque optique) d'une capacité allant jusqu'à 1,5 To de données, garanti pour au moins 50 ans...

Parmi les options plus récentes, citons l'utilisation d'impulsions laser ultrarapides pour graver des données dans le verre, la durée de vie de cette technologie se chiffrant en milliards d'années. D'autres chercheurs ont réussi à capturer des données numériques en utilisant l'ADN et affirment que la totalité des films réalisés à ce jour pourrait être stockée dans un volume plus petit qu'un morceau de sucre. Aucun de ces systèmes n'est encore commercialement viable. Une entreprise au moins propose des techniques de blockchain pour assurer la sécurité de données dispersées sur plusieurs ordinateurs dans le monde, mais cela n'est pas réalisable pour les capacités de stockage importantes que nécessitent les fichiers d'images animées.

Étant donné que les moyens d'accéder aux données numériques sont toujours susceptibles d'évoluer, et que les systèmes d'accès et de stockage numériques sont intimement liés, le défi consistera toujours à maintenir l'ensemble du système de gestion numérique à jour et à le faire fonctionner correctement. Les archivistes doivent simplement accepter que la prise en charge de supports numériques est une aventure sans fin.

Los archiveros, que por naturaleza tienden a preferir los objetos originales a las copias, no se sienten cómodos con la necesidad de regeneración continua de los datos digitales, pero podrían conformarse con una vida útil garantizada (aunque más limitada) si los datos pudieran almacenarse sin necesidad de ser custodiados. Sin embargo, el almacenamiento de datos digitales requiere cierto grado de renovación, aunque un formato como la cinta LTO ofrezca una estabilidad razonable. Los archiveros deben sopesar el riesgo de que sus cintas se queden obsoletas frente al coste y el esfuerzo de la migración. Otro problema de la renovación periódica es que el personal, las instituciones y los gobiernos cambian, y puede perderse el conocimiento sobre lo que hay que hacer.

El almacenamiento de datos digitales en película puede ser adecuado para el papel o soportes similares, pero una película digitalizada necesitará normalmente mucha más cinta para grabar sus datos que la que se utilizó para el original. Los CD y DVD prometieron en su día un almacenamiento fiable y a largo plazo, pero a mediados de la década de 2000, incluso las versiones denominadas "de oro" habían demostrado ser poco fiables y demasiado limitadas en su capacidad de almacenamiento. No obstante, Sony sigue ofreciendo un sistema Optical Disc Archive con una capacidad de hasta 1,5 TB de datos, garantizado durante al menos 50 años...

Otras opciones más recientes son el uso de pulsos de láser ultrarrápidos para grabar datos en el interior del vidrio, con una vida útil de miles de millones de años. Otros investigadores han conseguido capturar datos digitales utilizando ADN y afirman que todas las películas jamás rodadas podrían almacenarse en un volumen menor que el de un terrón de azúcar. Ninguno de estos sistemas es aún comercialmente viable. Al menos una empresa ofrece técnicas de *blockchain* para garantizar la seguridad de los datos almacenados de forma dispersa en múltiples ordenadores de todo el mundo, pero esto no es viable para las grandes necesidades de almacenamiento de los archivos de imágenes en movimiento.

Dado que los medios de acceso a los datos digitales siempre estarán sujetos a cambios, y que los sistemas de acceso digital y los sistemas de almacenamiento están íntimamente ligados, el reto siempre consistirá en mantener todo el sistema de gestión digital actualizado y en pleno funcionamiento. Los archiveros deben aceptar sin más que hacerse cargo de los activos digitales significa embarcarse en un viaje digital que nunca terminará.

Digital Film Preservation: A Survey of Ten Non-Profit European Film Archives

Elina Vagionaki

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Film preservation was performed almost exclusively through photochemical means until the 1990s, when the introduction of the Digital Intermediate (DI) in post-production and the expansion of Digital Cinematography in filmmaking signalled the gradual adoption of digital technologies into film archiving. In the following decade, the “digital rollout” in cinema theatres marked a decisive moment in film archiving, as it has led to a sharp decline in film stock manufacturing and in analogue equipment and expertise.

The DI or hybrid workflow was widely adopted by film archives after 2005,¹ digital distribution and exhibition outmatched the traditional chain in 2012, and digital productions outnumbered the films shot on celluloid in 2013. Presently, most film archives are in the process of digitising part of their collections, re-recording the digitised and digitally processed film back to celluloid during the DI process is a less common practice, the majority of new archival acquisitions are digital-

born, and film is a niche projection format experienced for the most part in film archives and at specialist film festivals.

Despite the drastic changes in the field in the last twenty years, photochemical duplication and restoration are still widely employed, and initiatives have been launched within the film archiving community in support of analogue tools and skillsets. However, due to a combination of internal and external factors, such as the high cost of maintaining both analogue and digital workflows and the gradual disappearance of film-handling and scanning equipment and expert skills, many film archives worldwide have ceased using photochemical duplication methods. Therefore, while digitisation is still predominantly used as a strategy to provide access to analogue films, at the same time, it is emerging as a viable preservation mechanism.

This study was designed to capture a snapshot of current practices and challenges in digital film preservation at a time of rapid technological advancement. It employs a mixed-methods survey, undertaken in April-

1. Giovanna Fossati. *From grain to pixel: the archival life of film in transition*, 3rd ed., Amsterdam: Amsterdam University Press, 2018, p.66.

June 2020, with ten non-profit European film archives. The research objectives seek to identify:

- predominant deposit, cataloguing, distribution, and digitisation standards
- current digitisation goals and statistics, preservation processes, and access mechanisms
- challenges and improvement initiatives as viewed by preservation professionals

The aim is to contribute towards evaluating the evolution in film archiving, and to encourage collaborative solutions across a range of professionals and organisations involved in the creation, distribution, exhibition, funding, curation, and preservation of cinematographic works, in the hope of supporting the long-term preservation of our shared audiovisual heritage.

THE CURRENT STATE OF FILM PRESERVATION

Film preservation incorporates the processes of acquisition, conservation, restoration, preservation, access, and presentation through photochemical, hybrid, or digital workflows. The future of traditional practices and the use of digitisation as a long-term preservation strategy remain central points of discussion in film archiving today. On the one hand, it is estimated that a new photochemical copy could survive for over 500 years if stored in the right environmental conditions, whereas the migration of file formats and storage media every three to five years is essential to the long-term sustainability of digital works. In addition, film preservation has traditionally sought to safeguard the quality and authenticity of the original film artefact, by reproducing both the original carrier and content, and presenting it in similar conditions to the original screening. Though conservation of the original analogue carrier is, of course, an important part of a digitisation strategy, digitisation alters the original film medium and dispenses with the film apparatus.

On the other hand, duplicate digital copies are today much cheaper to produce than film copies, and much easier to store and distribute. Moreover, digital information can be copied with a 100% guarantee of no loss of information, thereby eliminating the loss of quality between generations that characterises analogue preservation. The 2007 PrestoSpace report concludes that, while photochemical preservation is the most robust preservation method, its uncertain future means that digital preservation is the only viable alternative for audiovisual materials in the long term, as long as the digital archive is constantly maintained to remain readable and usable.²

At this evolutionary stage in the field, there is greater clarity concerning the data management, storage systems, costs, and terminology involved in the long-term maintenance of a digital film archive, and digital standards have matured and are being further formalised. At the same time, discrepancies in practices and digitisation timelines are visible, which can be explained by variations in the size, mission, infrastructure, budget, and additional funding of film archives, as well as external factors such as national legislation and film production, the digital divide, and the rapid pace of technological change.

KEY CHALLENGES

Digital preservation has permanently increased the need for larger resources, given the large size and high-quality specifications of digital films, the exponential growth of digital audiovisual collections and the proactive preservation required throughout their lifecycle, and the need for ongoing investments in new technologies and training. These requirements can place a strain on the budget and infrastructure of non-profit film archives and can threaten the long-term preservation of

2. Walter Allasia, Massimiliano Porzio, Michele Vigilante, Laurent Boch, Giorgio Dimino, Alberto Messina, *PrestoSpace Preservation Towards Storage and Access. Standardised Practices for Audiovisual Contents Archiving in Europe*. PrestoSpace Publication Platform: A System for Searching and Retrieving Enriched Audiovisual Materials, June 2007. <<https://www.researchgate.net/publication/264883558>>.

Codes	Archives	Professionals	Q1	Q2	Interview
A1	Filmoteca de Catalunya	Mariona Bruzzo, Head of the Conservation and Restoration Centre	√		
A2	Eye Filmmuseum	Anne Gant, Head of Film Conservation and Digital Access	√	√	
A3	La Cineteca del Friuli	{.}	√		
A4	Film Archive of the National Archives of Estonia	Kadi Sikka, Preservation Specialist	√	√	
A5	Deutsche Kinemathek – Museum für Film und Fernsehen	Martin Koerber, Head of Audiovisual Heritage	√	√	
A6	Národní Filmový Archiv (National Film Archive of Czech Republic)	Jonáš Svatoš, Head of Digital Laboratory	√	√	√
A7	Cinémathèque suisse	Caroline Fournier, Head of Film Department	√		
A8	{.}	{.}	√		
A9	{.}	{.}	√	√	
A10	{.}	{.}	√	√	

Table 1. Participating archives and professionals

digital content: a lack of scalable architectures and streamlined workflows can translate into longer ingest periods and backlogs during acquisition and can delay preservation processes essential to the sustainability of digital films. The European Commission's latest implementation report on film heritage shows great variation in funding and human resources – with archives employing from 10 to 400 members of staff – and concludes that most Member States had not yet provided additional budgets for digital tasks in 2014. Moreover, both budgets and developments in data storage grow at a much slower pace than the rate of data creation, which inhibits the “save everything” preservation model. In addition, Fossati notes that both audiences and funding entities expect archives to use digital tools to broaden access to their collections, increase social participation, and create new revenues.³ However, copyright

constraints become wider and more complex in the digital realm, restricting both potential revenue for institutions and public access to works that have been preserved through state funding.

At the same time, the sharp decline in film-stock manufacturing and the gradual disappearance of film handling and scanning equipment and expertise threaten the preservation and accessibility of analogue film heritage in original formats and highlight the urgency to digitise analogue works while the means are still available. Ray Edmondson argues that time is not on our side when it comes to selecting material for digitisation since the economics of maintaining the necessary technologies are unfavourable.⁴ Brecht Declercq reports that the degradation of analogue audiovisual carriers, combined with the obsolescence of

3. Fossati, *op. cit.*, pp.87, 131.

4. Ray Edmondson, *Audiovisual Archiving: Philosophy and principles*. 3rd ed. Paris: UNESCO, 2016, p.67.

players and spare parts and the loss of specialised knowledge, has led experts to estimate that large-scale digitisation of audiovisual carriers will become effectively unaffordable sometime between 2023 and 2028.⁵

The building of partnerships between the public and private sector, the exchange of best practices across institutions, and the launching of collaborative projects are effective strategies to minimise costs. Richard Wright proposes a “collection level approach” for effective digitisation by creating budgets for digitising collections, rather than individual items.⁶ In addition, approaching archiving costs as a co-operative venue, with copyright holders taking more responsibility for the preservation of their films, is already in effect in some European countries. Finally, technology from single-source vendors poses risks to long-term data preservation, while the use of open-source, non-proprietary formats, widely supported by the audiovisual archiving community, allows archives to perform upgrades without being dependent on fees.

METHODOLOGY

A modified convergent research design was developed for this study, with a two-phase data collection process: a digital survey for collecting key feedback (Q1), and a follow-up questionnaire and one online interview for member-checking and exploratory purposes (Q2).⁷ Purposive sampling allowed for the *a priori* selection of 30 non-profit film archives (see Table 1 for names of participating archives and professionals) located on the European continent – all of which are FIAF affiliates and have implemented and still maintain digital workflows – and resulted in an unexpectedly high 33% response rate. The feedback received was

cross-referenced and analysed using quantitative and qualitative research mechanisms to draw interpretations from both data forms, thereby assessing the quality of the results. Findings are presented based on the order of response (A1–A7), followed by anonymous participants (A8–A10), and sensitive data has been replaced by {.} to ensure anonymity. Selective findings from Q1 are presented through statistical representation and narrative text, findings from Q2 are referenced where appropriate, and additional findings are available on separate Appendices.

RESULTS AND ANALYSIS

The charts that accompany this article illustrate the answers to the questions posed about contributors’ digital holdings and the processes they employ when undertaking any digital activities. The questions themselves form the captions to the charts.

1. Deposit, Cataloguing, Distribution and Digitisation Standards

In this section, digital standards are examined to address the first research objective.

Fig.1 analyses which digital file formats are accepted for deposit by which institution. All archives accept unencrypted DCP and ProRes, and all bar A6 accept DCDM. The majority of archives accept both DPX and TIFF (A1, A3, A4, A5, A7, A8, A9, A10), as well as JPEG2000 (A1, A3, A4, A5, A7, A8, A9) and MXF (A1, A4, A5, A7, A8, A9, A10). WAV is the most widely used format for audio files (A1, A4, A5, A6, A8, A9, A10), followed by BWF (A1, A4, A8, A9) and AAC (A8, A9). Over half of the archives accept MOV (A1, A4, A5, A8, A9, A10) and DSM (A1, A3, A5, A7, A8, A9), and half accept MPEG-4 (A4, A5, A8, A9, A10). A small number of archives accept MPEG-2 (A5, A8, A9), encrypted DCP (A6, A8), compressed DCP (A8, A9) and DNG (A8, A9), while FFV1/MKV is reported by A10 as an additional format.

5. Brecht Declercq, “Feels like heaven?”, October 2020. <<https://blog-ica.org/2020/10/27/feels-like-heaven-five-major-challenges-for-audiovisual-archives-in-the-era-of-full-digitisation>>.
6. Richard Wright, *Preserving Moving Pictures and Sound*. Digital Preservation Coalition – DPC Technology Watch Report 12-01 March 2012. <<http://dx.doi.org/10.7207/twr12-01>>.
7. A summary of responses to Q1 and Q2 may be found at the end of this article.

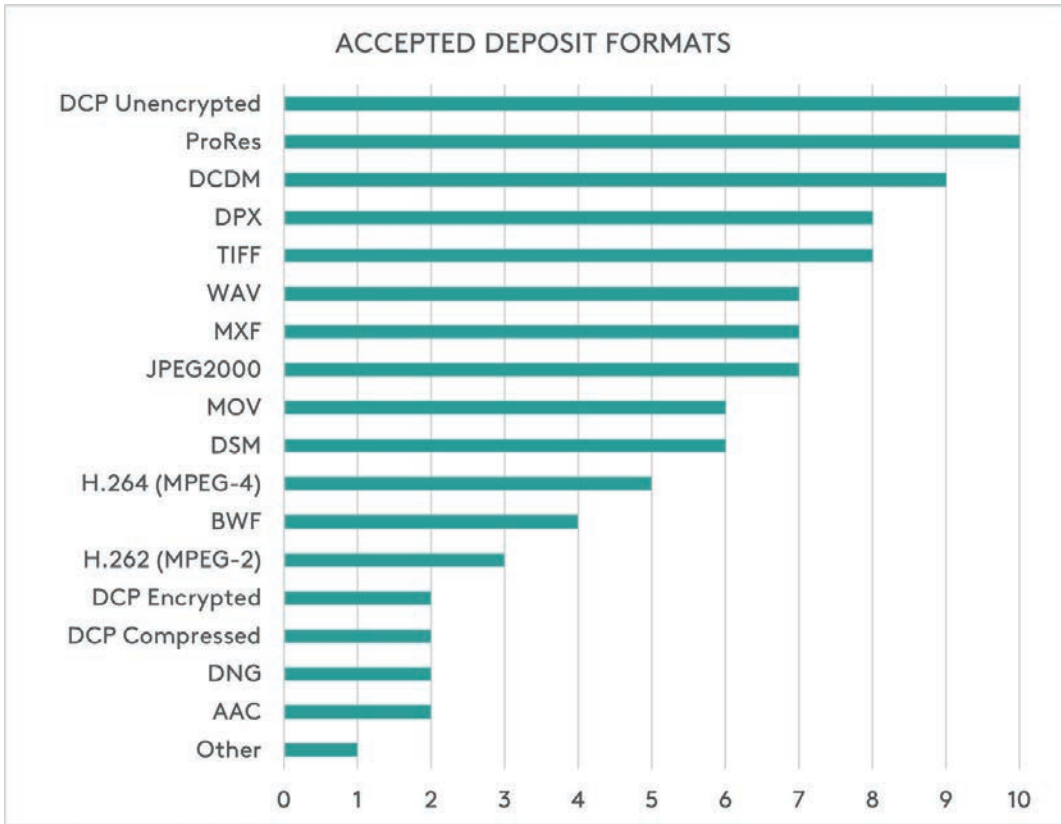


Fig.1. Which of the below file formats are accepted by your institution for the deposit of new digital acquisitions?

In relation to deposit formats, participants comment:

For digital elements that are benefitted for public funding the requirements are: DCDM and unencrypted DCP for theatrical releases, and the video files (ProRes, MXF) for TV-based. (A1)

For new digital productions we have a set of requirements: for most, we require a DCDM and an unencrypted DCP and a playable file. If it is a small production, we will accept a playable file (ProRes, usually) instead. Of course, because we accept older collections, orphan collections, varied and large collections as well, we have standards, but we also sometimes just receive donations in a wide variety of formats. Sometimes we are willing to accept the less desirable formats because that is all that exists. (A2)

We'd like to acquire DCDM/DSMs but that would require change in the legislation, since the digital legal deposit is defined by providing access to the distribution copy of the title. (A6)

We accept whatever is given to us. If there is a choice, we would take the highest quality version available. (A8)

Therefore, all film archives accept the recommended DCP and ProRes (popular within industry contexts), and the majority accept high quality, uncompressed masters (DCDM, DPX, and TIFF). The fact that less preferable formats can be accepted to avoid excluding materials can explain the variety of reported formats. Overall, the findings indicate that further formalisation of deposit standards and, when required, adjustments in legal deposit legislation can facilitate the acquisition process.

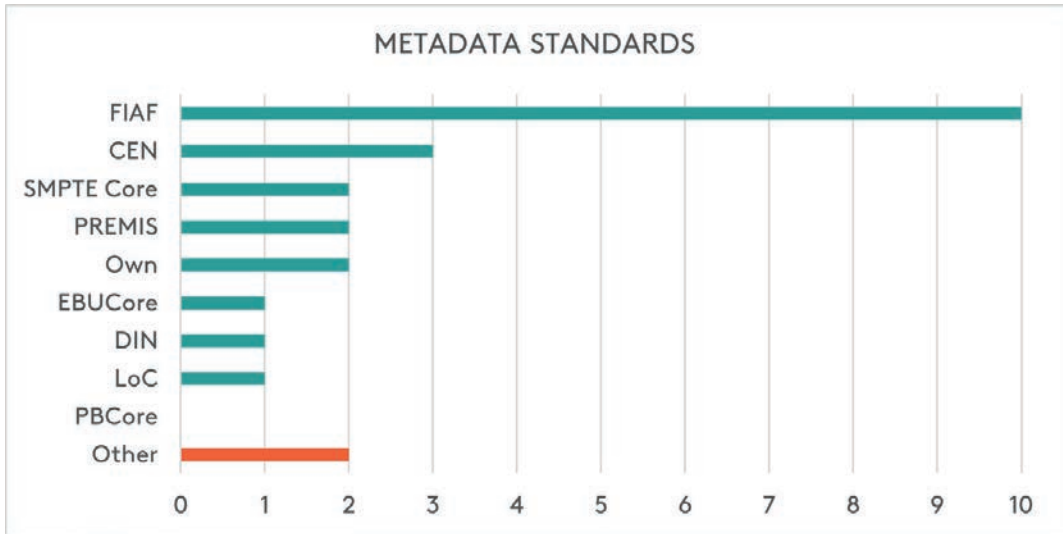


Fig.2. Which of the following metadata standards does your institution follow?

Fig.2 shows the metadata standards followed by different organisations. All archives refer to FIAF’s cataloguing guidelines⁸ when creating documentation for their collections, while a small number of archives (A1, A5, A10) report CEN, SMPTE (A7, A10), PREMIS (A8, A10), and their own metadata specifications (A4, A9). EBUCore and DIN are followed by A5, the LoC cataloguing rules by A6, while PBCore is not reported. The Dutch audiovisual thesaurus GTAA is reported by A2, and the archival and library standards Spectrum, ISAD(G) and AACRII by A10, as additional standards.

In relation to metadata standards, A6 notes:

Currently, our internal filmography is based on FIAF Moving Image Cataloguing Manual from 1980s. We are in the process in deciding on the new schema based on EN15907.

Findings show a clear preference for FIAF’s cataloguing rules, which have been specifically developed for the needs of cinematographic works and incorporate elements

of the CEN standard EN15907. Despite high convergence, the vast majority of archives combine standards to satisfy institution-specific needs and achieve a high level of description, and some archives have created in-house rules. The findings support Rubén Domínguez-Delgado and María-Ángeles López Hernández’s recommendation for an update in FIAF’s guidelines and CEN standards that will more accurately reflect the demands of the new digital era.⁹ Limited use is made of standards popular in the broadcasting or feature film communities like SMPTE Core (ST 2102:2017) and EBUCore, or in cultural heritage institutions like PREMIS and LoC, and the absence of PBCore can be attributed to the fact that it is a USA standard and fully EBUCore-compatible. Limited use of the DIN SPEC 15587 can be attributed to the fact that it is paywalled and only available in German.

Fig.3 lists the types of files different institutions provide for online access and for cinema exhibition. For online access, H.264 (MPEG-4) is used by all archives, and ProRes

8. Natasha Fairbairn, Maria Assunta Pimpinelli, Thelma Ross, *The FIAF Moving Image Cataloguing Manual*, ed. Linda Tadic. Brussels: FIAF, 2016.

9. Rubén Domínguez-Delgado and María-Ángeles López Hernández, “Film content analysis on FIAF cataloguing rules and CEN metadata standards”, *Proceedings of the Association for Information Science and Technology*. Hoboken, NJ: Wiley, 2017, pp.655-657. <<https://www.researchgate.net/publication/320588286>>.

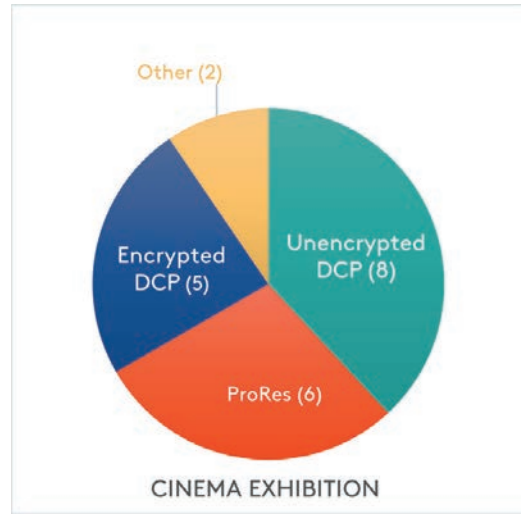
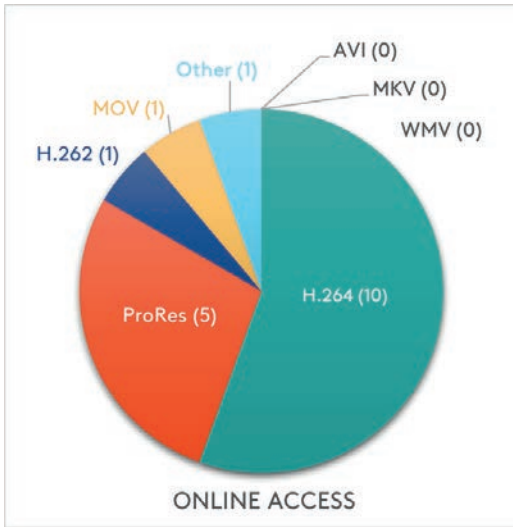


Fig.3. What type of files does your institution provide for online access and for cinema exhibition?

is used by half (A2, A4, A5, A7, A10). H.262 (MPEG-2) and MOV are each reported by one archive (A7 and A2 respectively), and H.265 (HEVC)/ AAC-LC in MPEG-4 container is reported by A6 as an additional file format. For cinematic distribution, most archives (A1, A2, A3, A4, A5, A6, A8, A9) provide unencrypted DCP, over half (A2, A4, A5, A7, A9, A10) use ProRes, and half (A5, A7, A8, A9, A10) use encrypted DCP. Finally, A5 reports Blu-ray and DVD as other formats offered, depending on needs of the venue, and A6 reports the use of H.265/AAC-LC in MPEG-4.

Overall, formats popular within industry contexts are used to provide online access (H.264, ProRes), and to distribute and project cinematographic works (DCP, ProRes), depending on the type of access required. These results show the growing popularity of ProRes, both for online access and cinematic distribution, compared to Céline Ruivo and Anne Gant's findings,¹⁰ where very limited use of ProRes can be observed in these areas.

Fig.4 lists the file formats used for preservation. Findings show that DPX is used by the majority of archives to create preserva-

tion files from film-based source material. This is followed by TIFF for the image source and FFV1/MKV for film-based source material, restoration, or video digitisation. MOV/ ProRes is used by A6 for digitisation, and uncompressed AVI by A8 for video digitisation.

Regarding preservation files, A10 notes:

We use lossless at highest technically appropriate resolution, bit-depth and so on. This varies per source, project, etc. (...).

Therefore, recommended preservation formats DPX and/or TIFF are used by the majority of archives. It is worth noting that FFV1/MKV, which is the chosen video digitisation format for several audiovisual archives and is recommended as a preservation master format for film by Jérôme Martinez and Reto Kromer,¹¹ is used by A1 for the preservation files. From the data available, variations in formats and technical specifications can be observed: project and institutional and collection needs vary and will change over time. In addition, Kromer advises that archives should adopt the formats they can better master and handle today,

10. Céline Ruivo and Anne Gant, *Digital Statement Part V: Survey on long-term digital storage and preservation*, April 2019, <https://www.fiafnet.org/images/tinyUpload/2019/04/Preservation_Digital_Statement_Final.pdf>.

11. Jérôme Martinez and Reto Kromer, "The RAWcooked project", FIAT/IFTA World Conference, Dubrovnik, October 2019, <<https://www.slideshare.net/fiatifta/martinez-kromer-rawcooked>>.

Archives	Container/Codec	Audio	Resolution
A1	MKV/FFV1	PCM	4K
A2	DPX		
A3	DPX		2560x1920 (HD)
A4	TIFF (image source)	WAV LPCM 48kHz	
A5	TIFF		1998x1920 (HD)
A6	MOV/ProRes (digitisation)		Full HD
	DPX (35 titles)		4K
	RAWCooked MKV/FFV1 (restoration)	PCM	
A8	DPX (film)		2K or 4K
	Uncompressed AVI (video)		HD or SD
A10	DPX (film)		
	MKV/FFV1 (video digitisation)		
	TIFF (image source)		
TOTAL (8 Archives)	DPX (5), TIFF (3), FFV1/MKV (3), MOV/ProRes (1), AVI (1)		

Fig.4. Preservation file formats

since they will have the option of changing to a different format during upcoming data migrations at no or little additional cost.¹²

Fig.5 shows the formats used for mezzanine files. The majority of archives use MOV/ProRes when creating mezzanine files, a small number use MPEG-4, and also reported is very limited use of FFV1/MKV and MPEG-2.

In relation to mezzanine files, archives comment:

PrintRIP is basically a good HDV camera mounted on the ceiling of checking projection room, controlled by an automated software which records every print screened in the room. (A6)

Typically, we use ProRes MOV for mezzanine as they are popular in industrial contexts. Technical properties vary over time with source and projects. (A10)

Overall, acceptable formats are used for the mezzanine files—which can serve as an access copy for the archive, as an online access copy, or be used for restoration—and some variation in the technical characteristics can be observed, reflecting findings by Ruivo and Gant.

2. Digitisation Strategies, Goals, and Statistics

This section examines the use and goals of digitisation and statistics relating to digitised collections to address the second research objective.

The first question asked about which preservation activities the institutions are involved in and in what capacity (Fig.6). Digitisation is undertaken by all archives, either in-house (A1, A2, A3, A4, A6, A7, A8, A10) and/or outsourced (A4, A5, A7, A8, A9, A10), and A2 and A8 also digitise for patrons or other institutions. Digital restoration is performed by all archives, either in-house (A1, A2, A3, A4, A7, A8, A10) and/or outsourced (A2, A3, A5, A6, A7, A9, A10), and A8 also restores for third parties. Photochemical restoration is performed by most archives and is predominantly out-

12. Reto Kromer, "On the bright side of data migrations". *IASA Journal*, 49, 2018, pp.18–22.

Archives	Container/Codec	Colour Sub-sampling	Audio	Resolution
A1	MKV/FFV1		PCM	4K
A2	ProRes	422		
A3	MOV/ProRes	422HQ		2560x1920 (HD)
A4	MOV/ProRes (access copy)	422HQ		4K
	MP4 H.264 or MOV/ProRes (online copy)	422HQ		HD HD
A5	MOV/ProRes	444	297 mbits/s	1920x1080 (HD)
A6	MOV/ProRes (digitisation)	422HQ	PCM	Full HD
	MPEG-2 (printRIP)		PCM 25mbit	Full HD
	MOV/ProRes (restoration)		PCM	UHD
A8	H.264/AVC			HD or SD
A10	MOV/ProRes			
TOTAL (8 Archives)	MOV/ProRes (6), H.264 (MPEG-4) (2), MKV/FFV1 (1), H.262 (MPEG-2) (1)			

Fig.5. Mezzanine file formats

sourced (A1, A2, A3, A7, A9, A10) and/or performed in-house by a small number (A6, A10). Photochemical duplication is performed by over half the archives (A1, A2, A3, A6, A7, A9) and is exclusively outsourced.

Findings confirm a digitisation trend in film preservation, and the fact that A4, A5, A8, and A10 have ceased using photochemical duplication shows a clear commitment to the use of digitisation as a long-term preservation strategy. At the same time, while traditional preservation practices are in decline and predominantly outsourced, they are still widely employed.

The next question concerned the purposes for which organisations digitised their collections in relation to the level of importance (Fig.7). Public and research access are goals of high importance for all archives bar A1 when digitising their collections. Restoration is of high importance for over half the archives (A1, A2, A3, A5, A9, A10), of medium importance to A4 and A7, and of low importance to A6 and A8. Long-term preservation is of high importance to half the archives (A1, A4, A5, A8, A10), medium to A2 and A9, and low to A3 and A6. DVD/Blu-ray sales and commercial

distribution are of high importance to a smaller number (A2, A3, A9, A10 and A2, A3, A6, A9 respectively), of medium importance to A4, and to A4, A5, A10 respectively, and of low importance to A1, A5, A6, A7, A8, and to A1 and A8 respectively.

In relation to digitisation goals, archives comment:

We digitize mostly for access and presentation, on an as-needed basis. We digitize negatives for restoration at the point that they are needed for a project. (A2)

As we are convinced most of the film materials will undertake another round of digitization in the future anyway, digital long-term preservation is usually not our ultimate goal, rather than facilitation of access to the originally physical collections. (A6)

These findings confirm that access is the primary driver for digitisation for the vast majority of archives. This conclusion is supported by the fact that A2 and A6 digitise primarily on an as-needed basis and – as reported in Fig.8 and in Q2 – that A2 and A5 do not aim to digitise their entire collection. At the same

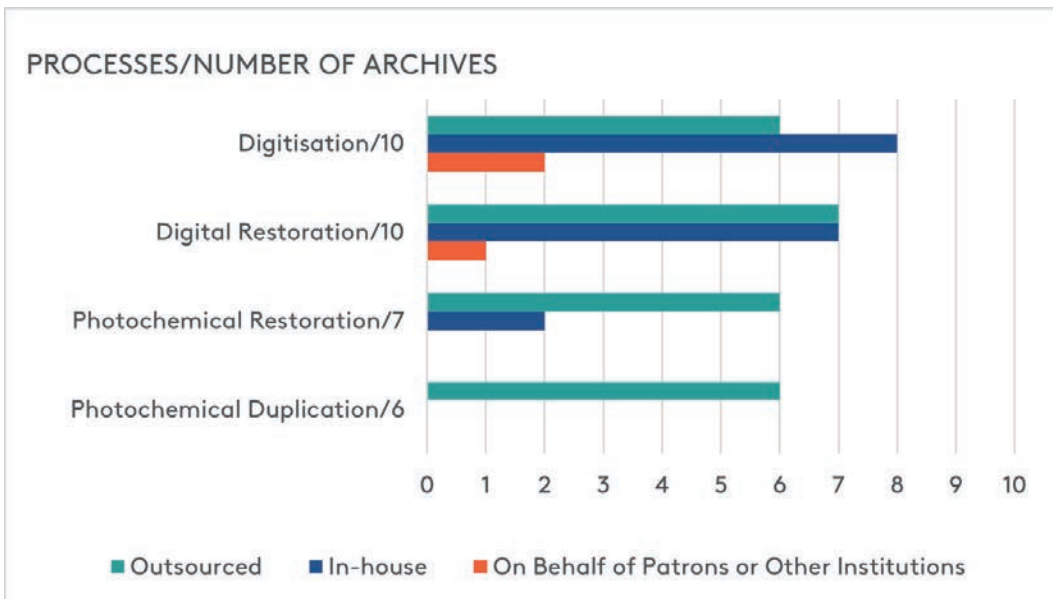


Fig.6. Which of the following preservation activities is your institution involved in and in what capacity?

time, digitisation for long-term preservation purposes is a goal of either high or medium importance for seven archives, which indicates that digitisation is increasingly used as a preservation mechanism. This conclusion is supported by the fact that A1 prioritises preservation over access, that – as reported in Q2 – A4 aims to digitise the entire collection despite copyright restrictions, and that A10 also undertakes copyright clearance on already digitised works. The overall low importance of DVDs and Blu-rays is due to the fact that these are an obsolescent technology.

Fig.8 relates to questions of what percentage of archives' collections (hours of film or number of titles) has been digitised and the total storage volume of this material. Participants were asked to specify if backups or non-film materials were included in the figures they submitted. Based on data provided by eight archives, variations in storage volume, from 600Tb to 6Pb, as well as in the percentage of digitised collections, from less than 1% to 15%, can be observed. Through statistical manipulation of available data, the results have been grouped into three main categories in relation to the percentage of digitised collections: Group 1 has digit-

ised less than 2% of their collections (37.5%), Group 2 has digitised 10% of their collections (50%), and Group 3 has digitised 15% of theirs (12.5%). The average percentage of digitisation that emerges is therefore 10%.

In relation to digitisation percentages, archives comment:

We do not wish to digitize our entire collection: this has to do with copyright, and also whether the material is needed in digital form. The volume of material under management in our digital storage now is about 2Pb unique material, but it grows daily, so that is an estimate. Our born-digital collection is also quite large and changes the percentages. About 5% of our collection (by title) is now born-digital, which is quite remarkable, because, in the history of film, it's a relatively new workflow. (A2)

Unfortunately, information about the percentage of other analogue film formats is currently not available. (A4)

% of collection is complex and not easily answered. (A10)

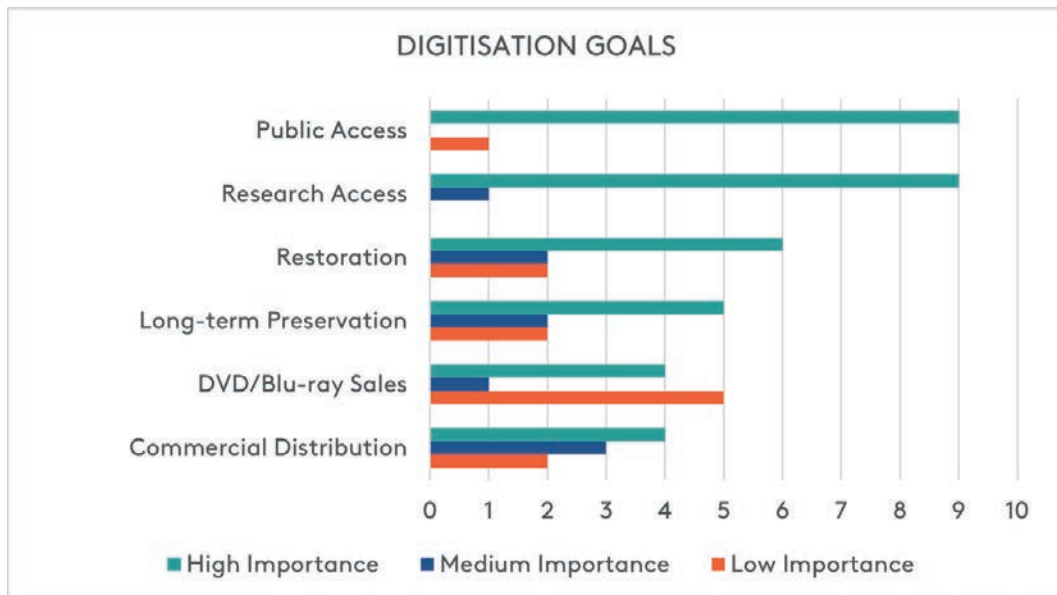


Fig.7. For what purposes does your institution digitise its collections in relation to the level of importance?

Despite the lack of precise statistics, it can be concluded that the overall level of digitisation is low. It should be noted, however, that some film archives may not wish to digitise their entire collection but rather only the material that is needed in digital form. Discrepancies in storage volume is an expected outcome given the varied sample group; differences in the size of institutions and the nature of their collections, along with variations in the technical characteristics of the preservation and mezzanine files, will result in very different storage requirements.

3. Preservation Processes and Accessibility

To address the second research objective, this section examines preservation processes after ingest and accessibility are taken care of.

The first question asked (Fig.9) was about processes typically followed during ingest to prepare new deposits for archival storage. All archives store new acquisitions as deposited during the accession phase, and the majority have a file validation process in place (A1, A2, A4, A5, A6, A7, A9, A10), perform fixity checks via checksums (A1, A2 A4, A5, A6, A7,

A8, A10), view the files (A1, A2, A4, A5, A6, A7, A10), create data backup (A1, A2, A3, A4, A5, A6, A9, A10), extract and create metadata (A1, A2, A4, A5, A6, A7, A10), and transcode (A1, A2, A4, A6, A7, A10). A1, A2, A5, A6, and A10 have automated many processes, with A1, A5, and A10 reporting a fully automated process for metadata extraction and creation, while A3, A4, and A9 report exclusively manual processes.

In relation to preservation processes during ingest, archives comment:

At the moment we still haven't received digital material in deposit and the processes above are the only two we could follow if we received them. (A3)

Usually, metadata comes to the archive by different means than DCP, therefore a manual step is usually required to pair the metadata to the actual digital files. (A6)

Overall, most of these archives perform recommended preservation processes during ingest, while variations, including in the level of automation, can be attributed to the different institutional and collection needs,

Archives	Storage volume	Back-up/ non-film materials	Percentage
A1	800Tb	included/ not specified	10% (of catalogued collection, 1984 titles)
A2	2Pb	not specified	15%
A3		not included/not included	less than 2%
A4		not specified/not included	10% (of 1000 hrs of 35mm film)
A5		not specified/ not included	less than 1%
A6	600Tb (representing 270 film elements)	included/not specified	10% (of whole collection of 55000 titles)
A7		not specified	Less than 1%
A8		not specified	10%
A10	6Pb	not included/ not specified	

DIGITISATION PERCENTAGE			
GROUP 1		37,5%	
GROUP 2		50%	
GROUP 3		12,5%	

Fig.8. What percentage of your collection (hours of film or number of titles) has been digitised and what is the total storage volume of this material? Please specify if backups or non-film materials are included.

policies, and resources of the varied sample group. It should be noted that A3 had not received digital material in deposit at the time of the questionnaire; the archive's feedback in the study therefore relates to digitised works, while it is provisional for digital-born materials.

Contributors were asked what they did to ensure the sustainability of the digital files once they reached archival storage (Fig.10). All archives perform data backups, all bar A3 migrate their collections, the majority perform file validation (A1, A2, A4, A5, A6, A7, A9, A10), perform fixity checks and create metadata (A1, A2, A4, A5, A6, A7, A8, A10), store their files through geographic dispersal (A1, A2, A3, A4, A5, A6, A8, A10), and transcode (A1, A2, A4, A5, A6, A7, A10). Fully automated processes with manual input for up to two processes are reported by A2, A5, A6, and A10, both automated and manual processes by A8, and exclusively manual processes by A3, A7 and A9.

In relation to preservation processes, archives comment:

By "archival storage" in this question, I am considering our tape robot, so, sustainable storage. Before that time, a lot of these operations are performed manually on incoming drives, but once the material has been checked and harmonized, it moves to a tape environment, and then these operations are automated. (A2)

We employ our internally developed digital preservation system based around Jenkins automation tool.¹³ (A6)

Overall, the majority of archives perform all recommended processes, and the use of automated tools is 14.2% ahead of manual tools, indicating some progress in automation. An 18.6% increase in automation compared to re-

13. < <https://www.jenkins.io>>.

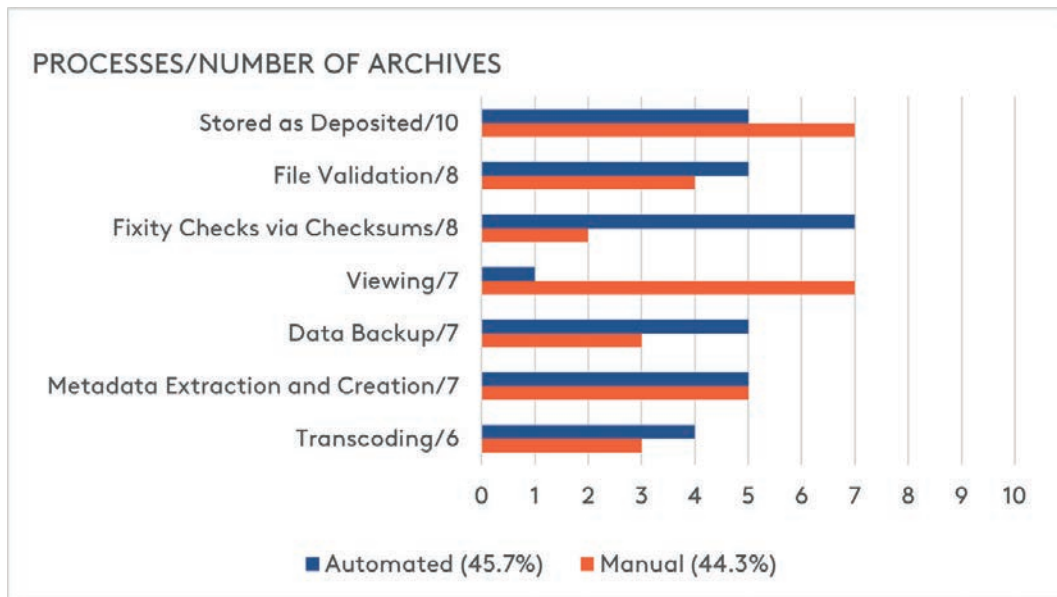


Fig.9. What standard processes are typically followed during the ingest of the deposited material to prepare it for archival storage?

sults in Fig.8 indicates wider use of automated tools once the files are in the tape library. The frequency at which these processes are performed, which is not examined in this section, would allow for a further level of analysis.

Fig.11 relates to responses about types of access provided by contributing organisations, and the methods they employ to make content available. All archives provide in-situ access to their collections, generally free of charge, as well as material to broadcasters, film producers, exhibitions and festivals, and DVD/Blu-rays to the wider public, predominantly for a fee. In addition, all archives bar A4 screen in their own or affiliated cinemas, and the majority provide online access to their catalogue (A1, A2, A3, A4, A5, A8, A9, A10), contribute to the European Film Gateway (A1, A2, A3, A4, A5, A6, A8, A9), and have presence in the social media (A1, A2, A4, A5, A7, A8, A9, A10). The majority also stream via their own websites (A2, A3, A4, A5, A8, A9, A10) and/or via YouTube (A1, A2, A3, A4, A6, A9, A10), while a small number of archives (A2, A3, A5, and A10) offer VoD services.

In relation to access, participants comment:

*We provide a lot of material for free online, and some things we do *mostly* for a fee, with some exceptions for free use. (A2)*

Access to the collections of the Film Archive is free, except in instances where it is limited by constraints of legislation or those imposed by the donor or depositor of the material. Since the majority of the holdings are works the intellectual property rights of which are owned by third parties, the archive can often provide only partial (or no) online access (low-resolution preview, excerpt). (A4)

We don't have ambitions to run our own VoD platform rather than provide the access through commercial third parties. That is also due to the fact we have to earn ~50% of our budget. The situation would surely be different if we'd have the full budget covered from the Ministry of Culture. (A6)

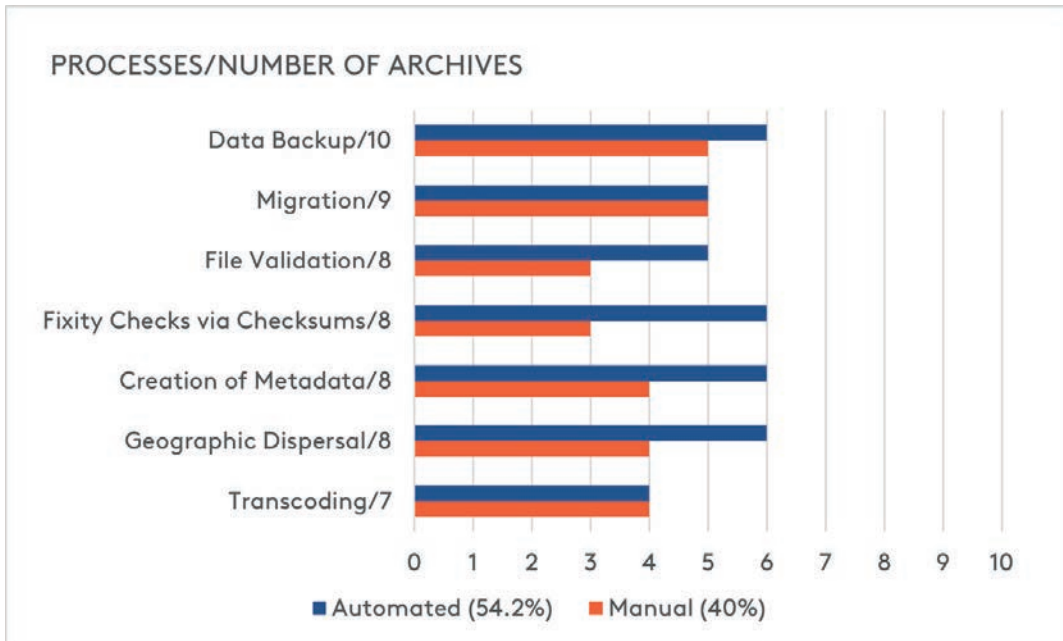


Fig.10. What activities take place to ensure the sustainability of the digital files once they are in archival storage?

The findings show that most archives provide a range of free-of-charge options for access to their collections to audiences and researchers. Fees typically apply for some access options that predominantly relate to commercial distribution, a source of revenue for the majority of organisations. The level of importance placed on these value-added activities will vary depending on institutional and collection needs, as well as on copyright legislation, which can impose significant restrictions to access.

4. Challenges and Recommended Initiatives

This section examines challenges and improvement initiatives to address the third research objective from the perspective of preservation professionals.

The first question concerned the main challenges for institutions – outlined in Fig.12 – in the current digital preservation landscape. In relation to this, archives comment:

The high cost to maintain the digital long preservation system. (A1)

A new challenge is to communicate the long-term demands (cost and staffing) of digital migration. It is very time-consuming, and it won't stop. Many people think that digitizing a collection is a solution, but it also creates a sort of "double archive" – a digital one to shadow the analog one. And the digital one is really quite expensive to maintain. We are receiving increasingly large amounts of born-digital material as well, which is vulnerable and needs to be archived quickly. It is also difficult to get attention and funding for metadata and cataloging, which is critical to the long-term sustainability of material, but it isn't a very "sexy" or timely project, so we don't find extra funding for it easily. Regarding staffing, most archives and labs worldwide are losing their experts in analog technologies, along with, of course, the labs and equipment. Most new professionals are more knowledgeable about digital technologies, there are not many people who are proficient in both worlds. (A2)

High costs to constantly upgrade technologies, efficient solutions for storage management and staff training. (A3)

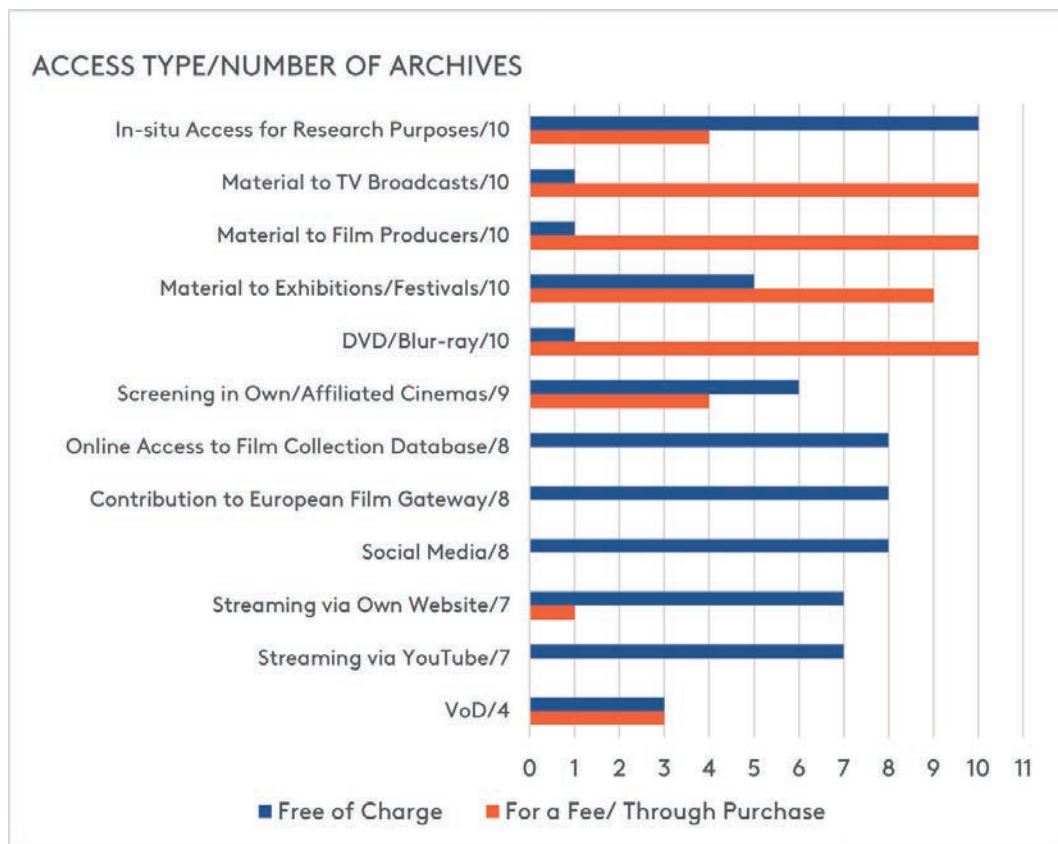


Fig.11. What types of access to the collections or services does your institution provide and how is the content made available?

The aim and challenge is to develop automated workflow for the management of born-digital and digitised content (incl. the acquisition process of born-digital film). (A4)

The challenge is always the funding. We have to find it for any activity. (A5)

Hiring qualified staff for digital preservation tasks is difficult, mainly because the skillset consists mostly of computer science-related fields, which means that governmental institution has to outbid commercial offerings in terms of offered wages – something impossible given the average salary in IT sector. (A6)

Documentation preservation in the long term. (A7)

Cost of long-term digital storage for large digitisation projects. E.g., we estimated that to digitise 10,000 magnetic tape items required over 2PB digital preservation storage. (A8)

Money, time, people working on it, lack of long-term reliability. (A9)

Budget – {;} accepts ongoing cost implication to sustain digital preservation technology, skills, resources, but the cost is high and government funding is reducing in real terms. Scale – we ingest and preserve huge data volumes, which impacts across network, infrastructure, staff resources, codebase, etc. (A10)

Findings show that the cost of digital preservation continues to be a serious challenge, which participants attribute to the on-going demands of digital migration, technological



Fig.12. What are the main challenges for your institution in the current digital preservation landscape?

upgrades, and storage requirements. Lack of funding is a challenge that can impact across the whole workflow and infrastructure and can hinder the documentation process, the upgrade and maintenance of technologies, personnel levels, staff training, and the implementation of automated processes. Lack of staffing is an issue attributed to lack of competitive salaries in the public sector and the loss of analogue expertise. The long-term demands of digital preservation, due to technological obsolescence and the need for migration, is a challenge because of increased budget and staffing requirements. The large volumes of data that some archives receive pose additional time restraints, since born-digital materials must be ingested and archived quickly and can impact on an archive's network and infrastructure.

The next question asked what institutional, national, and international initiatives would facilitate contributors' digital preservation practices during the next five years (Fig.13). Participants comment:

The new standard CEN/TC 457. (A1)

We have a good roadmap for the next 5-10 years, of course it all depends on funding. (A2)

Funding initiatives to upgrade technologies and international training courses. (A3)

Closer cooperation within the institution, as well as sharing international knowledge about the practical use cases of open-source tools. (A4)

Stable funding schemes are needed. (A5)

If the question is what would make our work easier, I guess it's general education in digital preservation fields across the whole industry, including distributors, producers etc.; there are many "lost in translation" moments between technical and "non-technical" (non-IT) personnel. (A6)

National/international guidelines + public/private funding. (A9)

As anticipated, funding is the most widely reported initiative: it will determine the implementation of a digital preservation strategy and can resolve many ongoing issues. In relation to standards and professional training and guidelines, the new standard CEN/TC 457 – a draft of which was published in March 2021



Fig.13. What institutional, national, and international initiatives would facilitate digital preservation in your institution in the next five years?

– is expected to facilitate cataloguing,¹⁴ while the need for international training courses and for an update in national and international guidelines is frequently mentioned. In relation to training and shared knowledge, close co-operation within an institution can lead to informed and timely preservation decisions on many levels, shared knowledge on open-source tools can facilitate their use, and general education on digital preservation across the industry can facilitate co-operation with industry professionals. Overall, these findings underline the fact that a digital preservation strategy should be tailored to the needs and resources of an institution.

CONCLUSIONS

This small-scale survey is not representative of the entire film archiving community. It is set within a particular geographic location and does not include studio archives or associations and institutions – such as libraries, historical societies, and museums – that collect audiovisual material and film-related ephemera of archival value. Any generalisations in the conclusions are therefore in reference to film archives that share similar characteristics to the sample group.

14. For more information, see, for example, <<https://www.fiafnet.org/pages/News/Standard-for-the-Digitization-of-Cinematographic-Film.html>>.

The predominant standards identified in the study are the FIAF cataloguing guidelines for metadata, H.264 for online access, unencrypted DCP for cinematic distribution, DPX for the preservation files, and MOV/ProRes for the mezzanine files.

Recommended preservation processes are performed by most of the archives, and a wide range of digital dissemination channels and platforms is used to provide access to their collections. Variations in processes, formats, and technical specifications are understandable, given the varied sample group which exhibits differences in policies, resources, collection needs, and national legislation and film production, alongside the influence of competing technologies and manufacturers and rapidly changing digital standards. In relation to the pace and goals of digitisation, the average level for digitised collections remains low at 10%, access remains the main motivation in digitisation, and long-term preservation emerges as a highly important selection criterion for half of the archives.

Initiatives such as sufficient funding, staffing, and training, cost-effective storage solutions, and updates on standards and guidelines can facilitate digital film preservation in the next five years. Shared knowledge on best practices, terminology, and other issues, across a range of industry professionals at institutional and industry level, can facilitate

the use of open-source tools and encourage collaborative preservation and access solutions. Replication of the survey within similar parameters and with a ten-year overlap would provide insightful feedback on the progress in digital film preservation.

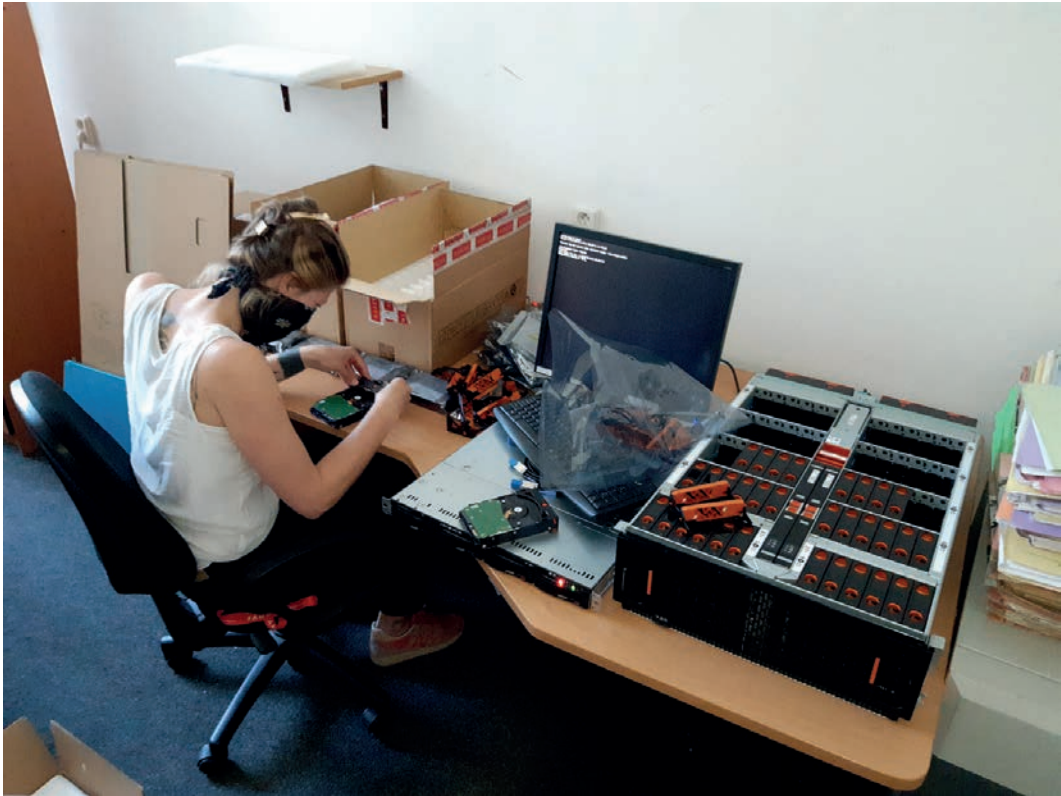
I wish to extend my sincere gratitude to Giovanna Fossati, David Walsh, Jonáš Svatoš, and all the participating archives. My special thanks goes to Brecht Declercq, Anne Gant, and my husband Matthew Hughes.

For reasons of space, the information from Q1 and Q2 has not been included in detail.

In Q1, institutions were asked about the main scope of their collections, how they acquire new material, how they are funded, and selection criteria for digitising assets in relation to the level of importance.

- The majority of archives reported a national collection scope, with only a few working regionally or locally. More than half have a global perspective, which either complements their national and/or regional/local scope or is the main focus of the collection. None was theme based.
- All archives welcome donations, most acquire works through voluntary deposit, the majority through contractual deposit, while over half rely on purchase-based acquisition, and a small number work with legal deposit.
- All archives receive state funding, the majority complementing this with revenue from commercial activities. Some receive donations and/or private sponsorship. EU funding is very limited and parent institution funding does not apply. Special project funding from other sources is available to a few.
- The cultural/artistic significance of a work is of high importance to almost all archives, while national significance is as important to almost the same number. Most consider deterioration and scarcity of original elements to be highly important. Other criteria considered are exhibition/festival requests, funding opportunities, popular demand, and revenue potential. None of the organisations give much priority to digitisation based on a routine schedule.

Q2 posed questions about the value of standardisation of deposit, cataloguing, and digitisation practices, about the time taken to ingest new material, about storage facilities, and about frequency of migration. Most archives considered it would be helpful if processes could be more standardised and are beginning to move in that direction. For the rest, answers showed that the ingest period typically lasts from one to two weeks (though large volumes of data obviously extend this), long-term storage is generally by means of LTO tapes – two archives additionally maintain triple files in separate locations – and files are generally migrated every five or ten years.



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Si la numérisation reste principalement utilisée par les archives comme une stratégie pour donner accès aux films analogiques, elle commence aussi à s'imposer comme mécanisme de préservation viable. En avril-juin 2020, l'auteur a mené auprès de dix archives cinématographiques européennes à but non lucratif une étude qui, au moyen d'une méthode mixte, s'est attachée à identifier les normes les plus répandues en matière de dépôt, de catalogage, de distribution et de numérisation, les objectifs et les statistiques actuels en matière de numérisation, les processus de préservation et les mécanismes d'accès, ainsi que les défis identifiés par les professionnels de la préservation et les initiatives prises pour tenter de les relever.

L'article fait le point sur l'utilisation des supports photochimiques et numériques dans les archives, suggérant que les seconds vont devenir de plus en plus l'unique option viable, pour la préservation comme pour l'accès. Parmi les défis à relever, on citera le coût des transferts et des supports de stockage et le fait que l'évolution des méthodes de stockage accuse un retard sur la production de données, tandis que la poursuite du déclin de la production de supports photochimiques adéquats rend plus urgente encore une nouvelle approche.

L'enquête montre qu'en ce qui concerne le dépôt, il existe un consensus général sur l'acceptabilité des différents formats, et sur l'idée qu'une formalisation plus poussée des normes de dépôt et, le cas échéant, des ajustements à la législation sur le dépôt légal, pourraient faciliter le processus d'acquisition. Concernant les métadonnées, une nette préférence est accordée au respect des directives du *Manuel de catalogage* de la FIAF. L'accès en ligne a été fourni en grande partie par le biais de formats prisés par l'industrie. Les masters numériques des originaux photochimiques tendent à être réalisés au format DPX et/ou TIFF, tandis que les fichiers mezzanine le sont généralement au format MOV/ProRes.

L'étude s'intéresse à la façon dont les archives produisent, en interne ou en externe, leurs propres fichiers numériques, et combien d'entre elles continuent à réaliser des copies photochimiques. Elle note que, dans l'ensemble, la numérisation demeure utilisée principalement à des fins d'accès, certaines organisations la pratiquant presque uniquement en cas de besoin. Les archives ont tendance à ne pas tenir de statistiques sur le pourcentage de leurs collections ainsi copiées, mais il semble clair qu'il demeure relativement faible dans l'ensemble.

Peu d'archives reçoivent actuellement beaucoup de nouveaux documents sous forme numérique; lorsque c'est le cas – et cela risque de l'être à l'avenir – elles s'efforcent généralement de les « préserver » dès l'acquisition. Les conditions d'accès varient: s'il est généralement gratuit pour une consultation sur place, il est payant en cas d'utilisation hors des locaux. Certains documents sont proposés gratuitement en ligne.

Le plus grand défi auquel sont confrontées les organisations est le financement, notamment des mises à niveau technologiques et du stockage. La migration des données

prend du temps, et la nécessité de telles opérations n'est pas toujours bien comprise par les financeurs. Le catalogage est une autre activité pour laquelle il est difficile de trouver des fonds. Les archives perdent également, en raison de l'âge et des départs à la retraite, du personnel compétent en photochimie. En outre, elles ont du mal à recruter du personnel pour le travail numérique, car elles sont généralement en concurrence avec le secteur commercial, mieux rémunéré. Certains services d'archives ont également souligné la nécessité d'améliorer l'échange d'informations et la formation dans tous les domaines.

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Aunque la digitalización sigue siendo utilizada predominantemente por los archivos como estrategia para facilitar el acceso a las películas analógicas, también está empezando a emerger como un mecanismo de conservación viable. En abril-junio de 2020, el autor realizó un estudio empleando una encuesta con métodos mixtos en diez archivos cinematográficos europeos sin ánimo de lucro, con el objetivo de identificar las normas predominantes de depósito, catalogación, distribución y digitalización, los objetivos y estadísticas actuales de digitalización, los procesos de preservación y los mecanismos de acceso, junto con los retos y las iniciativas de mejora identificados por los profesionales de la preservación.

El artículo considera el estado actual del uso fotoquímico y digital en los archivos, sugiriendo que este último se convertirá cada vez más en la única opción viable tanto para la preservación como para el acceso. Entre los retos que se plantean figuran el coste de las transferencias y las instalaciones de almacenamiento, así como el hecho de que el desarrollo de los métodos de almacenamiento de datos va a la zaga de la producción de datos, mientras que el continuo declive de la producción de materiales fotoquímicos adecuados hace aún más urgente la adopción de un nuevo enfoque.

La encuesta indicó que, en lo que respecta al depósito, existía un acuerdo general sobre la aceptabilidad de los distintos formatos y la idea de que una mayor formalización de las normas de depósito y, en caso necesario, ajustes en la legislación sobre depósito legal, pueden facilitar el proceso de adquisición. En cuanto a los metadatos, se manifestó una clara preferencia por seguir las directrices del *Manual de Catalogación* de la FIAF. El acceso en línea se realizó en gran medida a través de los formatos habituales en el sector. Los másters digitales a partir de originales fotoquímicos tendían a realizarse en DPX y/o TIFF, mientras que los archivos intermedios se realizaban generalmente en MOV/ProRes.

El estudio analizó cómo los archivos producían sus propias versiones digitales, ya fuera internamente o mediante subcontratación, y cuántos seguían realizando copias fotoquímicas. Se observó que, en general, la digitalización se sigue utilizando principalmente con fines de acceso, y algunas organizaciones transfieren más o menos sólo en función de las necesidades. Los archivos no suelen llevar estadísticas sobre los porcentajes de material copiado de este modo, pero parece claro que en general es relativamente bajo.

Pocos archivos reciben actualmente mucho material nuevo en formato digital y los que lo hacen -o esperan hacerlo en el futuro- se esfuerzan por lo general en "preservarlo" durante la ingesta. La provisión de acceso varía desde la gratuidad predominante en las instalaciones internas hasta el cobro por el uso fuera de las instalaciones. Parte del material se ofrece gratuitamente en línea.

El mayor reto al que se enfrentan las organizaciones es la financiación, sobre todo para las actualizaciones tecnológicas y el almacenamiento, mientras que la migración de datos lleva mucho tiempo y los financiadores a menudo no entienden bien las razones para hacerlo. La catalogación es otro ámbito para el que resulta difícil encontrar fondos. Los archivos también están perdiendo (por edad y jubilación) personal con conocimientos fotoquímicos. Además, les resulta difícil contratar personal para el trabajo digital, ya que por lo general tienen que competir con el sector comercial, mejor remunerado. Algunos archivos también comentaron la necesidad de mejorar el intercambio de información y la formación en general.

The Mosaic of Reality: Amateur Films Through the Lens of the Visible Archive

Lydia Pappas

Lydia Pappas is Assistant Director of the Moving Image Research Collections and Curator of the Regional Films and Chinese Film Collection at the Moving Image Research Collections of the University Libraries of South Carolina.

In 2022, Hungary's National Film Institute Hungary (NFI) hosted the 78th FIAF Congress. The Symposium theme was "The Visible Archive: Archiving, preserving, digitizing, and sharing 'non-feature' film collections", one gratefully accepted by film archivists like myself, whose non-feature and home-movie collections often don't fit with the themes of film conferences which tend to concentrate on fiction and linear narrative films.

I was honoured to be asked to join the Symposium's selection committee and to help choose the presentations to be accepted. The range of proposals was extremely rich and varied with some exceptionally interesting subjects being broached. This made the selection process much more difficult, but the committee worked well together, each giving others invaluable support. The committee Chair was György Ráduly (Director of the National Film Institute – Film Archive, Budapest), and the other members apart from me were Jon Wengström (Senior Curator of Archival Film at the Swedish Film Institute), Paula Felix-Didier (Director of the Museo del Cine Pablo Ducrós Hicken), Brian Meacham (Managing Archivist at the Yale

Film Archive), Eva Náripea (Director of the Film Archive of The National Archives of Estonia), Janka Barkóczi (Researcher and Archivist of the National Film Institute – Film Archive, Budapest), and Galina Torma (Chief Researcher and Archivist of the National Film Institute – Film Archive, Budapest).

We had some lively and interesting discussions throughout our committee Zoom meetings, but, in the end, some excellent proposals had to be left out. A two-day symposium may sound long, but when it's broken down into its various segments it does not allow as much time as you might imagine for actual presentations. From the more than 70 proposals received, we were finally able to wrangle individual presentations and panels proposed into eight segments over two days of 26 individual presenters and two panels.

The title of the Symposium was inspired by *Der sichtbare Mensch / Visible Man*, or the *Culture of Film*, the seminal 1924 film theory publication by Hungarian critic Béla Balázs, who placed the concept of "visibility" at the centre of his thinking and considered it extremely important for our time. It was Janka

Barkóczi who had the brilliant idea of naming each segment of the Symposium after chapters from Balázs's book, a work integral to the classical film theory period.

The topic of the Symposium included the various aspects of archiving of non-narrative and non-fiction material, and was dedicated to issues relating to researching and preserving these extremely diverse materials and how to make such collections "more visible" to the archival and academic communities as well as to the public. These are subjects dear to my heart as I deal with these issues every day, with my collections of non-narrative films.

Each of us was asked to moderate a segment of the Symposium, and we were able to choose which one we preferred. As curator of the home-movie collections in my archive, I chose "'The Mosaic of Reality' – Collecting practices, small gauge, and amateur film" as these topics fit best with my principles and expertise in film archives, and I was most excited to learn more about these presentations. I have always had an interest in amateur films, both from a social anthropological viewpoint and as a primary source of historical research. I tend to see a slice of life being shown in amateur films, while the framing of scenes shows us the importance of the subjects to the filmmaker. Such films represent a viewpoint from the participants' lives at that moment in time in a much more three-dimensional way than any still image ever can.

Amateur films intrigue me, but, because they can be harder to programme than feature films, they very often get short shrift when it comes to showing them. Unfortunately, they consequently tend to linger in obscurity in many film archives, to the detriment of many researchers who perhaps do not see their cultural significance as being particularly important. These types of films often need much more contextualisation or even explanation for the general consumer of film content, though a project that not only engages with, but also reveals these snippets of real life to interested people fascinates me.

Because of the difficulties that are often attached to the programming of amateur films, I am constantly beguiled by the different projects that my fellow curators and archivists devise to give context to these amazing and often silent productions.

We therefore brought together, into one 90-minute segment, a panel of four presentations which examined some of these projects and addressed some of the diverse ways archivists are dealing with issues surrounding small gauges and amateur-made films and videos. All the speakers were concerned with one or more of these issues in their day-to-day work and could demonstrate some fascinating ways of disseminating these materials into the communities in which they engage.

Our speakers on this panel came from different continents, and represented an interesting mix of archivists, curators, and cultural programmers, all having different approaches to collecting and disseminating amateur-made films. They were each allotted 20 minutes for their individual presentations, thus allowing time for questions from the audience at the end.

After my brief introduction, our first speaker was Mario Jorge Alves, a museum curator with a film background, representing the Oberhessisches Museum in Gießen, Germany. Before his current position as research associate, he had worked for Traumstern, an arthouse cinema, as well as for the Austrian Filmmuseum in Vienna. With a Master's degree in Cultural and Social Anthropology, he became the co-founder of the Giennale – a festival for art and culture in Gießen – and project manager for "Gießen in bewegten Bildern" (Gießen in Moving Pictures) at the museum.

Alves's presentation was selected because he uses small-gauge films to engage his local community and as a tool for the restoration of the community's post-war history. Entitled "Best practise: Collecting and archiving small-gauge films together with the local community", this was an interesting look at how a city



Two views of a public film screening at the Oberhessisches Museum Gießen.

can be brought together through the local collections in its museum, and how actively collecting this type of material can benefit many distinct aspects of the city's historical survival.

Like many other places in Germany, Gießen's buildings were largely destroyed during the Second World War, and uncountable historic documents were lost in the fires caused by bombing, etc. Unfortunately, this means that there are very few moving pictures of the time before, during, or right after the War. Part of the aim of "Das Kleine Filmbüro" in the Oberhessisches Museum was to collect amateur films which could help restore a part of Gießen's history. By connecting the small-gauge films with the stories and knowledge of their owners, these important historical sources can be utilised by many different elements in the city. These films are being collected and documented and can be viewed by the local community on original projectors. In many cases, they are also being digitised, are used in the museum's exhibitions, and are publicly accessible for serious researchers and the simply curious.

The museum's current project of collecting small-gauge material has brought in many films showing cityscapes that no longer exist. These find their place alongside films that depict everyday life as well as those that show events and happenings in the city's history which have not yet been documented and processed. The project includes contemporary interviews with donors to uncover the stories behind the films and gain information from witnesses present at the time. The films can then be screened to wider audiences throughout the city to gain more information about the movies by encouraging viewers to comment loudly on the films as they run. Once having become part of the collection, these films are treated like museum objects and their descriptions integrated into the museum's database. Through close co-operation with the local university, these films may be used not only as very different museum mediation formats and by interested citizens, but also as a research subject for students.



Bernadine Bailey's original Kodachrome boxes with her handwritten notes, which were often unreliable or difficult to read.

Our second presenter was Madeline Webb-Mitchell of the Indiana University Libraries Moving Image Archive (IULMIA), who started as a cataloguer there and moved up to Moving Image Archivist after gaining her Master's in Library Science from Indiana University, Bloomington. Her presentation looked at descriptive cataloguing techniques for amateur films by delving into the travelogues made by a woman filmmaker, Bernadine Bailey, and enumerating the challenges and ethical questions surrounding efforts to make the work of this filmmaker and writer visible through preservation and access. Bailey (1901-1995) was a travel writer from Illinois who documented her trips and supplemented her writing using small-gauge films. Her films were donated to IULMIA in 2017 after having been discovered by members of her home town's historical society in a barn earmarked for destruction. The films included not only Bailey's travelogues, but also some educational films, as well as a number of home movies shot in the US by someone then unidentified.

Although access to ephemeral material associated with this collection was severely limited during the initial months of the COVID-19 pandemic and subsequent lockdown, Webb-Mitchell was keen to delve into Bailey's background to create a biography of this prolific and unconventional female filmmaker. Luckily, her published works served as a touchstone for a small portion of the films, giving a sense of date and time. These articles, written for national newspapers and magazines, did not always have corresponding films, indicating that there may have been others, now lost. Genealogical research into Bailey's family tree revealed that the home movies documented family life at her sister's, which contextualised them to a large extent. Combined with creative image searches and Google Maps, Webb-Mitchell was able to identify 129 distinct locations around the globe captured in Bailey's work.

The result was a detailed inventory of the 134 films in this collection, shot on 16mm by Bailey and members of her family. This is no easy feat when dealing with amateur films, as many of us know only too well, but, usually, we are not blessed with much paperwork or accompanying information to help us on this quest. Webb-Mitchell also spoke to some of the challenges of this work, including how to respectfully present Bailey's films when her identity as a white Western woman imbues her work with colonial overtones, and ways of providing appropriate context for culturally sensitive content, such as images of faith-healing practices in the Philippines. Ultimately, questions of copyright for these never-published films were weighed and the decision to make Bailey's work available online, increasing the visibility of this amateur collection.

Our next speaker, Pin-Chuan Chen, is now Director of the Cultural Division at the Taipei Representative Office in the UK, but was formerly Director of the Taiwan Film and Audiovisual Institute (TFAI, earlier the Taiwan Film Institute or TFI). An academic scholar specialising in Taiwanese documentary and

archival film, he is currently responsible for organising cultural exchanges and promoting Taiwan's film heritage to a global audience. His presentation introduced the concept of Community Documentary in Taiwan and argued for the importance of collecting such productions as they form an invaluable resource with which to recreate images of an environment that is fast disappearing.

In the 1990s, the Taiwanese government launched, through their Council for Cultural Affairs, an initiative called the Community Development Project which encouraged people to record local oral histories, landscapes, and environmental and local issues using the then innovative technology of domestic digital video cameras. The results of these efforts were collectively referred to as "Community Documentary". Through encouragement from both public and private sectors, Community Documentary workshops provided the basis for a burgeoning collective movement that has now added an important historical series to the film heritage of Taiwan. This project promoted democracy through grass-roots organisations and communities and encouraged local history enterprises. At that time, the Taiwanese were attempting to assert their own identity as being distinct from that of the People's Republic of China.

Throughout the project, documentary-making workshops were created to encourage people with no filmmaking skills to participate in this scheme and train in using video-making facilities as a tool for narrating history from local perspectives. In 1995, these workshops were organised by one of the most important documentary organisations in Taiwan, Full Shot Studio, to encourage the development of community consciousness and create local narrative through "authentic" Taiwanese culture.

The workshops were held regularly between 1995 and 1998, and were responsible for the making of a total of 61 documentaries on Taiwanese indigenous culture, social welfare, endangered traditional customs, environmen-

tal protection, and Lesbian and Gay issues, to name just a few. Although these community documentaries are, strictly, “amateur” filmmaking, they are important depictions of the lives of ordinary people, and serve to record the transitions of Taiwanese society and its environment as well as demonstrating how people can express their identity through the process. In marked contrast to mainstream media, the community documentary has helped reveal local perspectives from across Taiwan and has accumulated a considerable amount of archival moving images. The preservation of these community documentaries is vital for future researchers.

Our final presenter, from the Museo del Cine Pablo C. Ducrós Hicken, in Buenos Aires, was Lucía Ciruelos, who led on the Museo’s archival project, “Las películas familiares del Museo del Cine: Sociedad Hijos de Entienza” (Home Movies at the Buenos Aires Film Museum: Children of Entienza Society)¹ which won funding from the Buenos Aires Ministry of Culture. In her presentation, she demonstrated how a collection of home videos, family, amateur, and experimental films is catalogued, archived, and evaluated, and how it can serve as a starting point for a protocol to present these historical and cultural heritage resources in a cohesive way. The collection, comprising films presenting the life of members of a Galician society in Buenos Aires between 1920 and 1950, is important as an example of a community which also represents one of the largest waves of immigration into Argentina, that of the Galician autonomous community of Spain.

The community of Galicia natives living in Argentina built their own communities, and created their own health and social clubs in Buenos Aires to sustain themselves and to help support each other in this new land. The gatherings of the families that joined these clubs were crucial in their attempts to retain



Frames from *Vigo* (date unknown), made by the Sociedad Hijos de Entienza and preserved by the Museo del Cine Pablo C. Ducrós Hicken in Buenos Aires.

some semblance of their original cultural identities while assimilating into a new one. There are few sources of information about immigrants to Argentina, so these films constitute an important historical record of these communities and their social activities, providing private glimpses into minority groups not recorded in anywhere else.

The energy and enthusiasm exhibited by the presenters added much to the engagement of the audience. They were bombarded with questions and the discussion continued well into the lunch break that followed. I thoroughly enjoyed the whole experience, being intrigued by the different approaches to the collection and dissemination of materials that they took within the confines of their work and available resources. I hope that many more such projects will be set up which can draw on the knowledge and information imparted by our four panellists.

1. She now divides her time between the Museo del Cine and the Filmoteca Narcisca Hirsch, as well as having joined Leche, an independent Buenos Aires laboratory, as a digitisation specialist.

Cet article revient sur un ensemble de présentations faites à l'occasion du symposium du 78^e Congrès de la FIAF, à Budapest en avril 2022, sur le thème «L'Archive visible: archiver, préserver, numériser et partager les collections de films hors fiction et longs-métrages», sujet du plus haut intérêt pour les archivistes dont l'objet du travail, films non-fiction ou familiaux, n'est pas fréquemment l'objet de présentations dans les conférences. Le théoricien hongrois du cinéma Béla Balázs a placé le concept de «visibilité» au centre de sa réflexion, et chaque segment du symposium empruntait son titre à l'un des chapitres de son livre de 1924 sur le cinéma, *L'Homme visible et l'esprit du cinéma*.

Sous la rubrique «'La mosaïque de la réalité' – Pratiques de collection, petit format et film amateur», quatre intervenants – Mario Jorge Alves, Madeline Webb-Mitchell, Pin-Chuan Chen et Lucía Ciruelos – issus de milieux professionnels variés et de différentes régions du monde ont proposé diverses approches pour aborder les questions relatives aux films de petit format et aux films et vidéos amateurs. Les films amateurs sont en général très difficiles à programmer et rarement visibles par les chercheurs. Il était instructif de découvrir les projets dans lesquels nos intervenants ont été impliqués, et certaines des approches fascinantes qu'ils ont adoptées pour diffuser ces films aux populations auprès desquelles ils interviennent.

Este artículo examina un panel de ponencias presentadas en el 78^o Congreso de la FIAF, celebrado en Budapest en abril de 2022 sobre el tema "*El archivo visible: archivar, conservar, digitalizar y compartir colecciones de cortometrajes de no ficción*", un tema útil para aquellos archiveros cuyos materiales de no ficción y domésticos no encajan fácilmente en el conjunto general de presentaciones del congreso. El teórico cinematográfico húngaro Béla Balázs situó el concepto de "visibilidad" en el centro de su pensamiento y cada segmento del Simposio recibió el nombre de uno de los capítulos de su libro sobre cine de 1924, *Der sichtbare Mensch / Visible Man*.

Bajo el epígrafe "*'El mosaico de la realidad' – Prácticas de coleccionismo, pequeño formato y cine amateur*", cuatro ponentes de diferentes trayectorias profesionales y procedentes de distintas partes del mundo (Mario Jorge Alves, Madeline Webb-Mitchell, Pin-Chuan Chen y Lucía Ciruelos) ofrecieron diversos enfoques para abordar las cuestiones relacionadas con el pequeño formato y las películas y vídeos realizados por aficionados. Las películas de aficionados suelen ser muy difíciles de programar y tienden a ser invisibles para los investigadores. Fue instructivo conocer los proyectos en los que habían participado nuestros ponentes, así como algunos de los fascinantes enfoques que estaban adoptando para la difusión de estos proyectos en las comunidades en las que trabajan.

AMATEUR FILMS / MEMOIRS OF EUROPE
INEDIT
FILMARCHIVES / MEMOIRS OF EUROPE

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THE ASSOCIATION FRIENDS OF EUROPE PRESENTS 9 1/2 EXECUTIVE PRODUCTION HOME MOVIES - ARCHIVIO NAZIONALE DEL FILM DI FAMIGLIA IN COLLABORATION WITH THE INTERNATIONAL FILM ARCHIVE ASSOCIATION FOR SILENT FILMS AND THE SCHOOL OF ELECTRONIC MUSIC OF THE CONSERVATORIO G.B. MARTINI OF BOLOGNA IN COLLABORATION WITH CICLIC CENTRE WAC BESANNE, SONOBA - ARCHIVES AUDIOVISUELLES EN BANLIEUE PARISIENNE - CINEMATHECA PORTUGUESA - MUSEU DO CINEMA - CINEMATHEQUE DE BRETAGNE - GWAREZ FILMOU, CINEMATHEQUE DES PAYS SAARLOIS ET DE L'AIN, KINOTECA NACIONAL DE CHILE, ETABLISSEMENT DE COMMUNICATION ET DE PRODUCTION AUDIOVISUELLE DE LA DEFENSE, FILMARCHIV AUSTRIA, FONDAZIONE KINETECA DI BOLOGNA, TURKORA CITY PUBLIC LIBRARY FILM ARCHIVE, HMH FOUNDATION MOVING IMAGE ARCHIVE, IICADOM THE INTERNATIONAL INSTITUTE FOR THE CONSERVATION, ARCHIVING AND DISTRIBUTION OF OTHER PEOPLE'S MEMORIES, ROBE PLANET FILM ARCHIVE, LABORATORIO UNIVERSITARIO DE PRESERVACAO AUDIOVISUAL DA UNIVERSIDADE FEDERAL FLUMINENSE LOUIS PELLETER COLLECTION, NETHERLANDS INSTITUTE FOR SOUND AND VISION, NGÁ TAONGA SOUND & VISION, NORMANDIE IMAGES, NORTH WEST FILM ARCHIVE, TOP FILM MUSEUM, YORKSHIRE FILM ARCHIVE, NORTH EAST FILM ARCHIVE. MUSIC COMPOSED BY BIGGIO CAVALLO, LORENZA CEREGINI, DANIEL MUSSATTO, DRIES VERSMISSEN. MUSICIANS: MARCO BONATO, RUGO CAVALLO, LORENZA CEREGINI, ESTHER GIULIANO, DIANA ONOTRIO, ERIO RONDELLI. MUSIC SUPERVISION SIMON LUCA LAITEMPERGHER. ARCHIVAL RESEARCH BY ANNA BRIGGS. EDITED BY GIULIA GOY AND MICHELE MANZOLINI. CURATED BY ANNA BRIGGS, MICHELE MANZOLINI AND MIRCO SANTE.

HomeMovies
ARCHIVIO NAZIONALE DEL FILM DI FAMIGLIA



Fig.2. Poster for 9½ (2022). The film frames are from anonymous footage found in Antwerp.

The Making of 9½

Anna Briggs, Michele Manzolini,
and Mirco Santi

Anna Briggs is an archivist specialising in amateur and non-fiction film curation, film literacy, archival outreach, and programming. Within INEDITS she is co-curating a series of international initiatives to celebrate the centenary of the 9.5mm film format.

Michele Manzolini is a director and screenwriter whose most recent films, *Il treno va a Mosca / The Train to Moscow* (2013) and *Il Varco / Il Varco – Once More unto the Breach* (2019), are both built on the intersection between archives, documentary, and fiction.

Mirco Santi is the current President of INEDITS Amateur Films/Memory of Europe and a co-founder of Home Movies – Archivio Nazionale del Film di Famiglia, Bologna. He manages the restoration and digitisation of films at the archive.

Mirco Santi (MS): Anna, can you describe how our project started?

Anna Briggs (AB): You and I met around 2009, when you advised me on technical processes for the exhibition *I Can Still See You*¹ that I worked on at the Yorkshire Film Archive, which was inspired by the exhibition by Home Movies – Archivio Nazionale del Film di Famiglia² of blown-up frames from the Togni circus family collection.³ We later started exchanging ideas for the centenary of 9.5mm film. You introduced the idea of producing a montage film, and we began to work with other members of INEDITS Amateur Films/Memory of Europe,⁴ in particular Alain Esmery, to discuss ideas for the centenary. As Alain had developed the project *100 years, 100 films*,⁵ a selection of a hundred 9.5mm films from member archives, we focused on the montage film which would

bring INEDITS to a global spectatorship, enable new partnerships with the association, and provide a global panorama on the ways in which this special format was used. We decided to call it 9½ – nine and a half – because, first, of course, it's the equivalent of 9.5, and second, as a reference to Fellini's 1963 film 8½ – *Otto e mezzo* or eight and a half.

MS: Yes, a montage film became an opportunity to differentiate between the two projects. To begin with, we looked outside European borders, using the web as a tool to identify what already existed on 9.5mm in the world. The other aspect concerned the possibility of being free to associate these images with each other without major constraints, even if they came from different and distant places and times.

As part of the centenary, INEDITS welcomed suggestions from its members. Five strands were implemented: a call to map 9.5mm collections in member archives, the *100 Years, 100 Films* curatorial project, the montage film, a working group on the mate-

1.<http://news.bbc.co.uk/local/leeds/hi/people_and_places/arts_and_culture/newsid_8544000/8544148.stm>.
2.<<https://homemovies.it>>.
3.<<http://doc.kine.it/wp/en/circle>>.
4.<<http://en.inedits-europe.org>>.
5.<<http://en.inedits-europe.org/9.5mm-Centenary/100-years-100-movies>> (webpage under construction at the time of writing).



Fig.1. *Ice Skating on the Old Danube / Vienna Around 1950*. Shot by Paul Badura-Skoda in Vienna, c.1950.

riality of the format, a resource within the association's website dedicated to 9.5mm,⁶ and conferences and symposia at the University of Southampton,⁷ Lichtspiel,⁸ and the Fondation Jérôme Seydoux-Pathé⁹ (all of which, like FIAF, supported our project).

Two objectives were behind these activities: to centralise and share resources around Pathé Baby for an exchange of good-practice ideas, and to help the association grow by involving its members in these projects and integrating new institutions.

After a call for participation, our working group was initially just the two of us, and we therefore decided to extend it to the Home

Movies Archive, involving Michele Manzolini who is very experienced in producing films based on amateur materials.¹⁰ Home Movies then took charge of executive production in addition to supplying footage.

MS: Shall we talk about how we organised the project?

AB: When we started working with Michele, we decided to divide the work according to each person's strengths, technical equipment, available time, interests, and network of colleagues. For a volunteer initiative like this with no budget, it had to be a "passion project", where each person felt the desire to do additional work on top of their normal duties, for months on end, and within a very short timeframe for a film production. From the beginning, we tried to be realistic with our limited resources. Working within fairly tight

6. <<http://en.inedits-europe.org/9.5mm-Centenary>>.

7. <<https://sites.google.com/view/100yearsof95mmconference/home>>.

8. <<https://lichtspiel.ch/en/symposium-2/9-5>>.

9. <<https://www.fondation-jeromeseydoux-pathe.com/event/309>>.

10. <<https://mubi.com/cast/michele-manzolini>>.

parameters can actually be liberating and a source of creativity: you don't get lost in a sea of source material. We set up a global network of mutual aid. Among others, Dino Everett in the US kindly digitised films from the private collection of Louis Pelletier in Canada, and Kae Ishihara and Tim van der Heijden volunteered their time to translate intertitles.

Michele Manzolini (MM): How was the research process organised?

AB: We decided the project would be global. Based on our knowledge that this French invention had been used in Europe much more than other continents, I started researching the furthest continents first as I knew that would require more time. I used various lists of national and regional archives, databases, and search engines, to start building filmographies from different countries and periods. I also contacted friends and colleagues, mostly via Facebook, to ask if they had any leads. Facebook was instrumental to the success of the project! It made it easy to geolocalise communities and networks, for people to forward contacts and put us in touch. Dozens of friends were kind enough to help us reach the right people; it shows in the long "Thank you" credits! We were extremely lucky to find devoted go-betweens like Kae Ishihara and Mariko Goda who painstakingly translated and mediated our exchanges with colleagues in Japan. I also used the network I had become part of at the FIAF restoration summer school I attended in 2008.¹¹

There were many countries under colonial rule during the golden age of Pathé Baby and amateur cinema, particularly in Asia and Africa. We asked some of the military film archives, like the Imperial War Museums and ECPAD (Établissement de communication et de production audiovisuelle de la Défense), to tell us if they had 9.5mm footage shot on those continents. We can perhaps talk about those films later, when we discuss how we narrowed down our selection.

We also found films randomly, for example, thanks to the Facebook group I set up to centralise information about the centenary.¹² Heidi Fial who works at Filmarchiv Austria and has been doing research on Pathé Baby, posted clips from the lovely, colourful film *Ice Skating on the Old Danube / Vienna Around 1950* by pianist Paul Badura-Skoda,¹³ and we contacted her to include the footage (Fig.1). She provided several films from the collection and has also curated a theatrical tour of 9½ in Romania alongside an exhibition.¹⁴

It was much easier to find footage in the online databases maintained by European and/or INEDITS-member archives. We decided not to send out a call for film submissions to avoid any confusion with the *100 years, 100 films* project, and because, by the time our initial idea for the montage film was validated and put into motion by the INEDITS board alongside other projects aggregated around the centenary, time was of the essence. Our film is mid length so we knew we couldn't include dozens of clips. We found many gems from European archive catalogues, made with different cameras, on black & white and colour stocks (Fig.2 p.66).

There was one big obstacle to the research (both for the montage film and for my monthly archive streaming programmes throughout 2022¹⁵): more and more archives are removing search-engine options relating to the materiality of film. You cannot search by film gauge. This has actually become even worse since the beginning of our project in 2020, but, thankfully, I had kept good notes, otherwise I would never have been able to re-locate the films on websites. This will be a problem for researchers and curators during the 16mm and 8mm centenaries, too. Archive websites are becoming more and more editorialised, treating the footage like content while doing away with

11. <<http://fondazione.cinetecadibologna.it/en/restaurare/fiafsummer/fiaf2008>>.

12. <<https://www.facebook.com/groups/872246786711645>>.

13. Information on titles, etc., is taken from the information provided – in English – by the source collections.

14. <<https://www.facebook.com/AnalogMania/photos/pcb.5785062488181012/5785060878181173>>.

15. <<http://en.inedits-europe.org/News>>.



Fig.3. 15th January 1923. Shot by Georges Zelger in Charenton-le-Pont.

the object's history and context. This seems a great loss, especially for amateur films that are often unique artefacts.

MM: How many films did we initially evaluate, Anna? And how many were included in the final montage? How many archives were involved in the project?

AB: The three of us watched around 170 amateur films selected from lists of titles submitted and researched. I probably watched three times that number altogether. Our final edit used 41 films from 22 film archives and collections, the sources all listed under the trailer video.¹⁶ There is footage from six continents: North and South America, Europe, Africa, Asia, and Oceania. We were careful to include the first film shot outdoors on 9.5mm: the marriage of Pathé engineer Georges Moreau, 15 January 1923, filmed by Georges

Zelger (head of Pathé's research laboratory) months before the camera was commercialised (Fig.3), now preserved by Cinéam.¹⁷

MS: Michele, can you describe your experience with 9.5mm material in this project?

MM: The idea, shared by all, was to produce a montage film, a compilation movie designed primarily for cinema screens. On the one hand, we had the freedom to select a lot of material because Anna's research had brought to light so many films, very different from each other and spanning several decades, from the 1920s to the 1950s. On the other hand, we had to find a way of tying them together coherently.

16. <<https://vimeo.com/755162687/6ac42f24d6>>.

17. <<https://www.cineam.asso.fr/exploration-mariage-georges-moreau-sc%C3%A8nes-de-famille-jeanine-b%C3%A9b%C3%A9sayn%C3%A8tes-comiques-572-244-0-1.html>>.

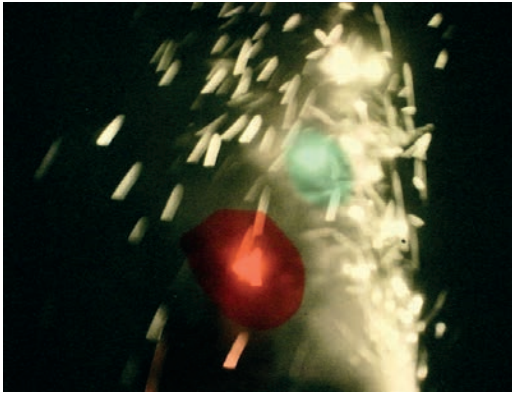


Fig.4. *Family Films. Please to Remember!* Shot by Peter Daubing in Haughton-le-Skerne, 1948.

We didn't want to make an educational film about the format and technical aspects. We were interested in it being a visual and acoustic experience, celebrating the centenary of Pathé Baby. To enable it to be screened in theatres, we had to contend with the quality of the material. We couldn't afford to use poor quality or low-resolution films. This in some way also ties in with what Anna said about information on online portals: in many cases we didn't know what the existing digital format was.

We chose rather large film segments, from thirty seconds to two minutes, avoiding cuts within films. It was a selection rather than a real editing job. Many amateur films, even early ones, have similar characteristics and common themes. At first, we thought of a geographical structure, taking us on a journey around the world, but, after viewing all the material, we changed course. We identified three different themes, which relate to the three forms of investigation of amateur cinema: family footage, which is more intimate and intended to record the domestic context, footage of journeys and discoveries – adventurous images to take home and view with the family – and more experimental footage – the creative approach – ranging from playing with light and shadow, colouring (Fig.4¹⁸)

and toning, to animation. In some ways, it is this third aspect that comes closest to purely amateur practice.

Starting from these three themes, we defined the selection of materials and constructed the three movements making up the film. For the family block, we focused on the type of shot, grouping different films according to how the subjects were filmed: close-ups, wide shots, full shots including several people, etc. The second brings together travel footage, and we structured it from the elements of earth, fire, air, and water, and the different types of subjective gazes in movement. The third group is built on the stylistic similarities between the different experiments and animations. All in all, the tone is a joyful celebration of the format.

We decided not to add any temporal, geographical, or archival references to the three movements in order to leave the viewer the freedom and pleasure of immersing themselves in the flow of images, fully enjoying the beauty of these rediscovered films without distraction. These references have, however, found their way to the end credits, which constitute a fourth movement – of considerable length – in their own right. Each film is shown for about ten seconds, side by side with a text with temporal, geographical, and archival references identifying the collection. It is both an index and a game of recognition and discovery to answer the questions that the viewing of the film might have generated. It is a type of visual end credits I like to use because it gives due credit to filmmakers and archives.

Editing was done with me by Giulia Goy,¹⁹ a film student at L'École cantonale d'art de Lausanne who did a six-month internship at the Home Movies archive entirely dedicated to the 9½ project. In addition to editing, Giulia worked on retrieving materials and managed post-production. Colour correction was carried out by Paolo Lancellotti.

18. <<https://www.yfanefa.com/record/26943>>.

19. <<https://www.facebook.com/nineandahalfilm/photos/a.102881955921993/116456447897877>>.



Fig.5. Musicians at a soundtrack recording session.

It is obvious that to construct a 45-minute film, one needs to make many choices, often dictated by the personal tastes of the people making them. We decided to favour the plurality of territories and the diversity of points of view, as well as the pleasure of finding many visual assonances and intentions in such diversities. Films showing colonial violence – in more or less obvious ways – were excluded from the selection, as they would have clashed with the celebratory tone and, in any case, couldn't have been included without more in-depth contextualisation.

AB: Michele, can you say more about the partnership with the Bologna music college for the soundtrack?

MM: The composition of the film's soundtrack was entrusted, with a somewhat experimental approach, to a class of students from Bologna's Conservatorio Giovanni Battista Martini, which offers the Inmics International

MA programme in film scoring,²⁰ under the supervision of Maestro Simonluca Laitempergher who dedicated a semester to this work. We instructed them to be inspired by the amateur gaze, the mystery emerging from certain shots, in order to trigger the wonder and surprise that these images naturally convey.

Once they had received the first edit, the four composers, Biagio Cavallo, Lorenza Ceregini, Daniel Mussatto, and Dries Versmissen, working in both acoustic and electronic modes, constructed a score in three movements. This was intended to accompany the film in cinemas either as a soundtrack or for live performance by an ensemble of four acoustic and two electro-acoustic musicians. The students had never worked on amateur films or archive material, so it was a double challenge. From my point of view, they did a very commendable job (Fig.5).

20. <<https://www.inmics.org>>.



Fig.6. *Kitchen Drama*. Shot by Mori Kurenai, 1930s.

MS: The ability of young musicians to be enthusiastic and moved by these images is astonishing. The average age of the group is 24. They could have been based much more on a search for punctual and didactic synchronism, for diegetic sound effects (which exist in part but are only hinted at). The approach is oriented towards the right balance, letting the images “speak”.

AB: Yes, it is a moving score that audiences have reportedly enjoyed all around the world. I was glad they didn’t go down the “Ken Burns” route which I often find condescending, adding background noises to make the silent footage more “palatable”, as if there is a fear that the images won’t be understood, or would be boring.

AB: Were you surprised by some films compared to your experience of viewing 9.5mm collections before the project? I was particularly delighted by those sent by Kobe Planet

Film Archive.²¹ The archive was a generous contributor to our initiative, with five amazing films by Mori Kurenai shot in the 1930s. Just a few years after the commercial release of Pathé Baby equipment, this filmmaker was already a master of his craft, using a variety of trick shots, special effects, stop-motion animation, colouring processes, dialectic montage... My absolute favourite in our selection is *Kitchen Drama* (Fig.6), a vivid, fast-paced, and delicate portrayal of female domestic labour.

MS: I must say that I really liked the Brazilian films offered to us by the Laboratório Universitário de Preservação Audiovisual da Universidade Federal Fluminense.²² Maybe this is because of the spontaneity in filming relatives and friends very close up: quite clas-

21. <<https://kobe-eiga.net>>.

22. <<https://www.cinevi.uff.br/lupa/category/colecao-j-nunes>>. In Portuguese.

sic shots degraded by vinegar syndrome give us something formally fluctuating, appearing to make bodies dance on the emulsion. This whirling dimension of the portraits is later echoed in footage of carnival celebrations.

MM: The long film from New Zealand²³ impressed me with its cinematic quality and landscape shots, the kind usually found in quintessentially American cinema (Fig.7). A kind of documentary road movie among the islands – from which we extracted three segments appearing in the three movements of the film – it is a glimpse of adventure and discovery that we never expected to find in this format from such distant places.

MM: Anna, can you talk about past and future screenings?

AB: We scheduled the global premiere on Home Movie Day.²⁴ It was screened in Italy, Québec, Romania, Brazil, and Japan. You programmed it in Bologna during Home Movies' Archivio Aperto festival²⁵ as a live premiere with the sextet performing the score for an audience for the first time (Fig.8, p.13). There were two screenings, in Mexico and Portugal,²⁶ to celebrate the UNESCO World Day for Audiovisual Heritage.²⁷ The premiere for the INEDITS community was during the annual conference in Saint Etienne, France.²⁸ There have been other screenings, and more are being booked, by participating archives, INEDITS-member archives, FIAF-affiliate archives (thanks to the promotion of the film to the FIAF community), and by other festivals, universities, cultural institutes, cinemas, and so on. We're planning a little French tour of live-scored events.



Fig.7. *Personal Record*. Walter T. Knowles. South Island 1953. Shot by Walter T. Knowles in Te Waipounamu / South Island, 1953.

The film is available for free to be shown at one-off events (cine-clubs, festivals, conferences, film literacy workshops, lectures, symposia, and exhibitions) until October 2023 (interested programmers can e-mail me at annamibriggs@gmail.com).

After this we will post the film on the INEDITS online resource developed by our colleague Stéphanie Ange, together, we hope, with a full playlist of the films from which we took clips for the montage, so audiences can enjoy a more in-depth experience with these collections. Tim van der Heijden has invited us to include the film in an upcoming virtual exhibit on Europeana, the European Union's digital cultural heritage platform, entitled *Capturing Motion: 100 Years of Amateur Film*, as a strand of *Crafted: Enrich and Promote Traditional and Contemporary Crafts*,²⁹ which is an exciting prospect.

AB: What is in store to continue celebrating the 9.5mm centenary in 2023?

MS: One project under discussion is a reference manual for all archives dealing with this format. Fifteen years ago, INEDITS members David Cleveland, Patrick Feuerstein, and Jean-Philippe Bernard edited *Restor INEDITS*, pooling knowledge from beyond the film archives circle. The new publication is to be developed in collaboration with – and thanks to

23. <https://www.ngataonga.org.nz/collections/catalogue/catalogue-item?record_id=71999>.

24. <<https://www.facebook.com/events/505003991475718>>.

25. <<https://www.facebook.com/events/505945074369244>>.

26. <<https://www.facebook.com/photo/?fbid=483933367100717&set=a.460221872805200> / <https://www.facebook.com/photo/?fbid=550059340456057&set=pcb.550065870455404> / <https://www.cinematca.pt/Cinematca/Noticias/Dia-Mundial-do-Patrimonio-Audiovisual.aspx>>.

27. <<https://www.unesco.org/en/days/audiovisual-heritage>>.

28. <<http://en.inedits-europe.org/News/Meetings/INEDITS-Meeting-2022-Rendez-vous-a-Saint-Etienne?>>.

29. <<https://pro.europeana.eu/project/crafted>>.

the impetus of – FIAF as a technical compendium on restoration and conservation. A tool to share best practice on the restoration and digitisation of small gauge formats is another increasingly urgent need.

AB: I think the various exchanges and symposia this year have shown that there are still lots of collections to bring to audiences, resources to be centralised and expertise to be shared. For the second year of the centenary,

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Anna Briggs, Michele Manzolini et Mirco Santi évoquent, deux mois après le début de sa tournée internationale d'un an, la production du film de montage qu'ils ont supervisé, *9 1/2*, produit par INEDITS Amateur Films / Memory of Europe et dont la production exécutive a été assurée par Home Movies – Archivio Nazionale del Film di Famiglia. Revenant sur les différentes étapes du projet, leurs choix et les contributions de leur réseau mondial de collègues, ils soulignent certains des défis et des leçons tirées de ce projet entrepris de façon bénévole.

Cette initiative est l'un des nombreux volets des célébrations du centenaire du Pathé Baby, premier dispositif cinématographique conçu spécifiquement pour un usage amateur, qui ont pour but de valoriser les fonds de films amateurs 9,5 mm du monde entier. Les autres volets sont un travail de localisation des films 9,5 mm conservés dans les archives des membres d'INEDITS, un projet de conservation intitulé *100 Years, 100 Films*, un groupe de travail qui se penche sur la matérialité du format, une ressource en ligne, ainsi que des conférences et symposiums au Royaume-Uni, en Suisse et en France.

La recherche a commencé par les pays hors d'Europe, ce travail étant susceptible de demander le plus de temps. Les archives militaires, susceptibles de détenir des documents de la période coloniale, sont également contactées. Les archives européennes et celles des membres d'INEDITS possèdent une bonne quantité d'informations sur leurs sites Web, mais nombre d'entre elles ne sont pas en mesure de faciliter les recherches par format. Le projet fait appel à de nombreux bénévoles qui aident à la réalisation des transferts numériques, aux traductions, à l'édition, etc. La musique, composée par des étudiants du conservatoire Giovanni Battista Martini de Bologne, peut être diffusée sous forme d'enregistrement ou jouée en direct par des musiciens.

Le montage proprement dit, d'une durée de 45 minutes, s'articule autour de trois thèmes – films de famille, voyages et découvertes et œuvres expérimentales – dont chacun possède sa propre structure interne. Chaque élément est montré pendant environ dix secondes, accompagné d'un texte contenant des références temporelles, géographiques et archivistiques identifiant la collection. Il est disponible gratuitement pour des projections ponctuelles jusqu'en octobre 2023.

I hope we can continue our efforts to mutualise tools for the preservation of this obsolete format, by capitalising on all the beautiful connections and discoveries we have made this year. It is important to develop more links with the cineclub and collector communities so that the knowledge and passion of our elders can be preserved for posterity. We should aim to record more media archaeology videos and oral history interviews around the Pathé Baby dispositif. There is still much to be done.

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Dos meses después de su gira internacional de un año, Anna Briggs, Michele Manzolini y Mirco Santi comentan la producción de la película de montaje que han comisariado, *9 1/2*, producida por INEDITS Amateur Films/ Memory of Europe y producida ejecutivamente por Home Movies- Archivio Nazionale del Film di Famiglia. Los autores recuerdan las distintas fases del proyecto, las contribuciones de su red mundial de colegas y las decisiones que tomaron. También comparten algunos de los retos y lecciones aprendidas de este proyecto voluntario.

La iniciativa fue una de las desarrolladas para celebrar el centenario de Pathé Baby, el primer dispositivo cinematográfico diseñado específicamente para uso amateur y para mostrar colecciones de películas amateur de 9,5 mm de todo el mundo. Otros componentes del proyecto fueron la localización de material de 9,5 mm en los archivos de los miembros de INEDITS, un proyecto de comisariado llamado *100 Years, 100 Films*, un grupo de trabajo que estudió la materialidad del formato, un recurso en línea, y conferencias y simposios en el Reino Unido, Suiza y Francia.

La investigación comenzó por los países no europeos, ya que eran los que probablemente requerían más tiempo. También se establecieron contactos con archivos militares que podían conservar material de la época colonial. Los archivos europeos y los de los miembros de INEDITS disponían de abundante información en sus sitios web, pero incluso muchos de ellos no podían facilitar las búsquedas por paso. El proyecto atrajo a numerosos voluntarios que ayudaron con las transferencias digitales, las traducciones, la edición, etc. La música fue compuesta por estudiantes del Conservatorio Giovanni Battista Martini de Bolonia y puede reproducirse como banda sonora o en directo.

La película de montaje, de 45 minutos de duración, consta de tres partes: imágenes familiares, viajes y descubrimientos, y obras experimentales, cada uno de ellos con su propia estructura interna. Cada elemento se muestra durante unos diez segundos junto a un texto con referencias temporales, geográficas y archivísticas que identifican la colección. Estará disponible para proyecciones únicas y gratuitas hasta octubre de 2023.



Adrienne Mancia with Luis Buñuel at the Cannes International Film Festival in 1974.

Adrienne Mancía (1927-2022)

Jon Gartenberg

Jon Gartenberg was formerly a Curator in the Film Department of The Museum of Modern Art, New York, and a member of FIAF'S Cataloguing Commission from 1982-1991. He currently works with FIAF archives on distributing their DVDs to universities in North America, and also repatriates to FIAF archives neglected collections of films discovered in commercial storage.

Adrienne Phyllis Johnson was born in 1927 in Brooklyn, New York, and grew up across the river in Paterson, New Jersey. She attended undergraduate school at the University of Wisconsin – Madison and received her Master's degree in art history from Columbia University. She moved to Europe, where she married Umberto Mancía (1923-1981), an artist known as Manbert.¹ He was interested in everything to do with art, and this inspired Adrienne to look at the work of filmmakers through the lens of their artistry. Living in Europe in the 1950s, she joined local film clubs where she developed an interest in international cinema from a European perspective.

Returning to the United States, Adrienne continued her film education, regularly attending screenings at Cinema 16 where Amos Vogel and his colleagues would assemble, in one program, diverse genres of filmmaking. Her first job in the film world was working for Leo Dratfield at Contemporary Films distribution company. Adrienne admired the work that Leo did in discovering unknown films for

the US educational market, including those of the National Film Board of Canada, the British Free Cinema movement, and animation from the Zagreb festival. Dratfield took her under his wing. She accompanied him to special screenings, and he became her mentor. At Contemporary Films, Adrienne became especially enamored of international animation, an interest she pursued throughout her career at MoMA.

In 1964, Adrienne began working at MoMA as secretary and assistant to Richard Griffith. When he retired through ill health in 1965, photographer and filmmaker Willard Van Dyke became head of the Department of Film, and she convinced him that she needed to travel to make discoveries. She would thereafter spend weeks at a time delving into historic films in foreign archives as well as discovering contemporary movies at film festivals (not only Cannes, but also more specialized ones such as Annecy and Zagreb for animation). Adrienne once remarked that, beyond seeing the films, "One of the most

1. Though they divorced, a portrait by him of Adrienne hung in her New York apartment until her death.

important aspects of film festivals is the exchange of information”² with other programmers and journalists.

Adrienne was an indefatigable moviegoer. With her warmth and generosity in tow, she saw all kinds of films, and developed long-lasting professional and personal relationships with a myriad of filmmakers across the globe.³ Eager as she was to share with the moviegoing public the films that she had seen, she was the ideal individual to lead the film exhibition program at MoMA.

As her colleague and friend Edith Kramer has said, “Adrienne’s interest in films knew no bounds.” She programmed movies from all time periods, countries, and genres, including animation, documentary, experimental, and narrative films. Her extensive library of books and festival programs includes shelves devoted to animation and experimental film, Japanese, Mexican, Italian and Indian cinema, individual filmmakers, and an ample supply of general reference books.

In 1965, with the new title of Curatorial Assistant, Adrienne became responsible for all film exhibitions, and in 1977 was promoted to full Curator, a position she kept until 1998. From the 1960s on – before the age of videotape, internet, and niche movie channels – the recognition for the films that Adrienne curated at MoMA garnered an outsized importance in terms of New York film culture and to programmers and cinephiles worldwide. She brought new and renewed attention to insufficiently recognized filmmakers, ranging from American avant-garde artists to international auteurs, screening films virtually

impossible to see elsewhere. Adrienne was a founder of the Cineprobe series (initiated in 1968), in which avant-garde filmmakers would show their works in person and stay for a Q&A session. She was also on the selection committee for New Directors/New Films (started 1972), a joint project between MoMA and the Film Society of Lincoln Center, a series designed to discover and promote a new generation of directors from around the globe.

Adrienne developed film exhibitions at MoMA into a robust program, including daily screenings, hiring additional curatorial staff, and engaging guest curators. The programs that she curated are too numerous to mention – they would need an entire multi-volume book of their own – while her programming philosophy is difficult to precisely pin down. Even though she was knowledgeable about the international history of cinema, I always felt that she programmed more by instinct than by intellectual study. She certainly seemed to be acutely aware of shifts in film production, responding with programs not only of new waves of emerging filmmakers, but also of the film history that was left behind. For example, in the late 1960s, as the studio system was breaking up with the rise of independent films such as *Easy Rider* (1969), Mancía and her colleagues celebrated the history of the American studio system with retrospectives of Paramount Pictures (1972) and MGM (1974), and, in 1985, a tribute to Warner Bros cartoons. At the time, Adrienne, interviewed in *The New York Times*, said, “This exhibition makes me very happy and very sad... It makes me happy because I love it and sad because it might very well be the end of a great era, the end of complete animation, done frame by frame, with great care, approaching art.”⁴

Adrienne Mancía was a major bridge between creation and curation. Early in my career at MoMA, she pulled me aside and reminded me that without filmmakers none of us

2. From an interview by Marian Masone in the Movie Maven section of *Brooklyn Paper*, 11 June 2004. <<https://www.brooklynpaper.com/movie-maven>>.

3. This is underscored by the artworks given to her by the likes of Cesare Zavattini, Marco Bellochio, Faith Hubley, Jan Lenica, Walter Lantz, and Robert Breer that hung in her apartment. Adrienne also owned a watercolor painted by Michel Couchat of the village of Fayence (near Cannes), to where Iris Barry (1895-1969), MoMA’s first film curator, had retired. Adrienne went to visit her (during her first Cannes Film Festival) to acknowledge Barry’s groundbreaking work, and it seems likely she was given it then. Her timing was fortuitous as Barry died only a few months later.

4. Peter W. Kaplan, “Bugs Bunny at The Modern – Is That All Folks?,” *The New York Times*, 11 September 1985, Section C, p.25. <<https://www.nytimes.com/1985/09/11/movies/bugs-bunny-at-the-modern-is-that-all-folks.html>>.



Adrienne (middle) surrounded by Peter von Bagh, Freddy Buache, Eileen Bowser, Robert Rosen, and others, at the 1979 FIAF Congress in Lausanne.



Clint Eastwood and Adrienne Mancia at MoMA on 10 December 1980 for "A Day with Clint Eastwood".



Jon Gartenberg and Adrienne Mancia in Bologna, c.2010.



A recent photograph of Adrienne Mancia.

would have any jobs. She instilled in me a sense of humility: that my mission was to support their creativity in my curatorial work. As Ron Magliozzi (a current Film Curator at MoMA) wrote, "If only a little of Adrienne's unmatched passion for cinema rubbed off on you, it was enough to fuel your career."⁵ Her mentoring went far, wide, and deep; since her death in December, there has been an outpouring of comments about the lasting influence she had on careers of a generation of filmmakers, distributors, curators, programmers, and other film professionals. As film historian Leonard Maltin wrote, "She loved film and lived to nurture creative people."⁶ In contemporary lingo, Adrienne Mancia was the original influencer in the realm of film culture.⁷

Early on, Adrienne also wrote extensively about cinema. For example, she made detailed reportages on the Pesaro Film Festival's 1966 and 1968 editions (incorporating the backdrop of social unrest in Italy), which were published in *The Village Voice*,⁸ hosted a panel discussion on film criticism with arch-enemies Pauline Kael and Andrew Sarris, authored a screenplay with filmmaker and curator Donald Richie, and penned pieces on individual films including *Suna no onna / Woman in the Dunes* (1964) and *Charlie Bubbles* (1968).

Adrienne left MoMA in 1998, and, for a short period, was a programming consultant for the Venice Film Festival. She then became the founding curator of the new film program at the Brooklyn Academy of Music (the BAM/Cinematek), where she continued to bring films and filmmakers to audiences, including in the Cinemachat series hosted by historian

5. From an email to colleagues, quoted in *The New York Times*, 17 December, 2022, <<https://www.nytimes.com/2022/12/17/movies/adrienne-mancia-dead.html>>.

6. Leonard Maltin's website, 1 January 2023. <<https://leonardmaltin.com/remembering-adrienne-mancia-and-bill-pence>>.

7. Without Adrienne's encouragement and support, I would not have had the opportunity to program films at MoMA, the BAM/Cinematek, or the Pesaro, Locarno, and Tribeca festivals. This was the kind of generous, down-to-earth friend and mentor that Adrienne was to me and many others.

8. Jonas Mekas, "Movie Journal", *The Village Voice*, 28 July 1966, p.29, reproduces the first of Mancia's Pesaro articles in the form of a letter from her to him. Her reports from the 1968 edition are in *The Village Voice*, 27 June 1968, pp.32, 33, and 37, 4 July 1968, pp.14, 31, and 32, and 11 July, pp.36 and 40.

and critic Elliot Stein. In 2008, Adrienne curated a retrospective, “The Talking Pictures of Manoel de Oliveira”, and – testament to his respect and love for her – Oliveira (then aged 99) flew to New York City to be present for the opening. In 2004, she organized a retrospective of the films of actor Bill Murray, entitled “What About Bill Murray?”.

After her retirement from BAM, Adrienne continued to watch movies in theaters in NYC (both first-run films and classics at repertory houses). As a film aficionado, she also continued to travel abroad well into her eighties, attending especially the festivals at Rotterdam, Pesaro, and Pordenone, and Bologna’s Cinema Ritrovato.

Adrienne was also involved in the larger film community and knew many FIAF members through attending film festivals and screening films in archives. She regularly participated in the Flaherty Film Seminars and served on the juries of many international film festivals (including the Camera d’Or section of the Cannes Film Festival in 1978 and Annecy in 1993). She garnered many awards and accolades, receiving the highest cultural awards from the French and Italian governments (France’s Chevalier dans Ordre des Arts et des Lettres in 1984 and the Ordine al Merito della Repubblica Italiana in 1988) for her work in promoting their national cinemas. At the time of the latter award, RAI Corporation president Renato Pachetti remarked that Adrienne had contributed more than any other person to the introduction of Italian cinema in the US. She was honored with the Mel Novikoff award from the San Francisco Film Festival in the late 1990s and, in 2015, with the Premio Jean Mitry in Pordenone and a special award from the New York Film Critics Circle.⁹

On both a professional and personal level, Adrienne Mancía was a pillar of integrity and inspiration. She set a high bar that other programmers aspired to emulate. She cultivated a spirit of collaboration, rather than competition. She was open and generous, down to earth and unpretentious. She taught all of us that *character* is the most important quality in an individual’s personal life and work, and this, I think, is what she would most want to be remembered by.

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Adrienne Mancía, décédée en décembre 2022 à l’âge de 95 ans, a eu une prestigieuse carrière de programmatrice de films, d’abord au MoMA pendant 34 ans, puis à la BAM/Cinematek de la Brooklyn Academy of Music. Ses projections de films au MoMA ont fait de ce musée la première institution au monde à présenter le cinéma comme une forme d’art. Elle y programmait des films de toutes époques, de tous pays et de tous genres, notamment des films d’animation, des documentaires, des films expérimentaux ou narratifs, et tenait à montrer aussi bien des classiques du cinéma que des films contemporains. Elle travaillait avec de nombreux collègues de la FIAF, rencontrés à l’occasion de sa participation à des festivals de cinéma, et projetait également des films issus de leurs collections. Bien au-delà de ses 80 printemps, elle continuait à participer à de nombreux festivals de cinéma, notamment à Pordenone, Bologne, Pesaro et Rotterdam.

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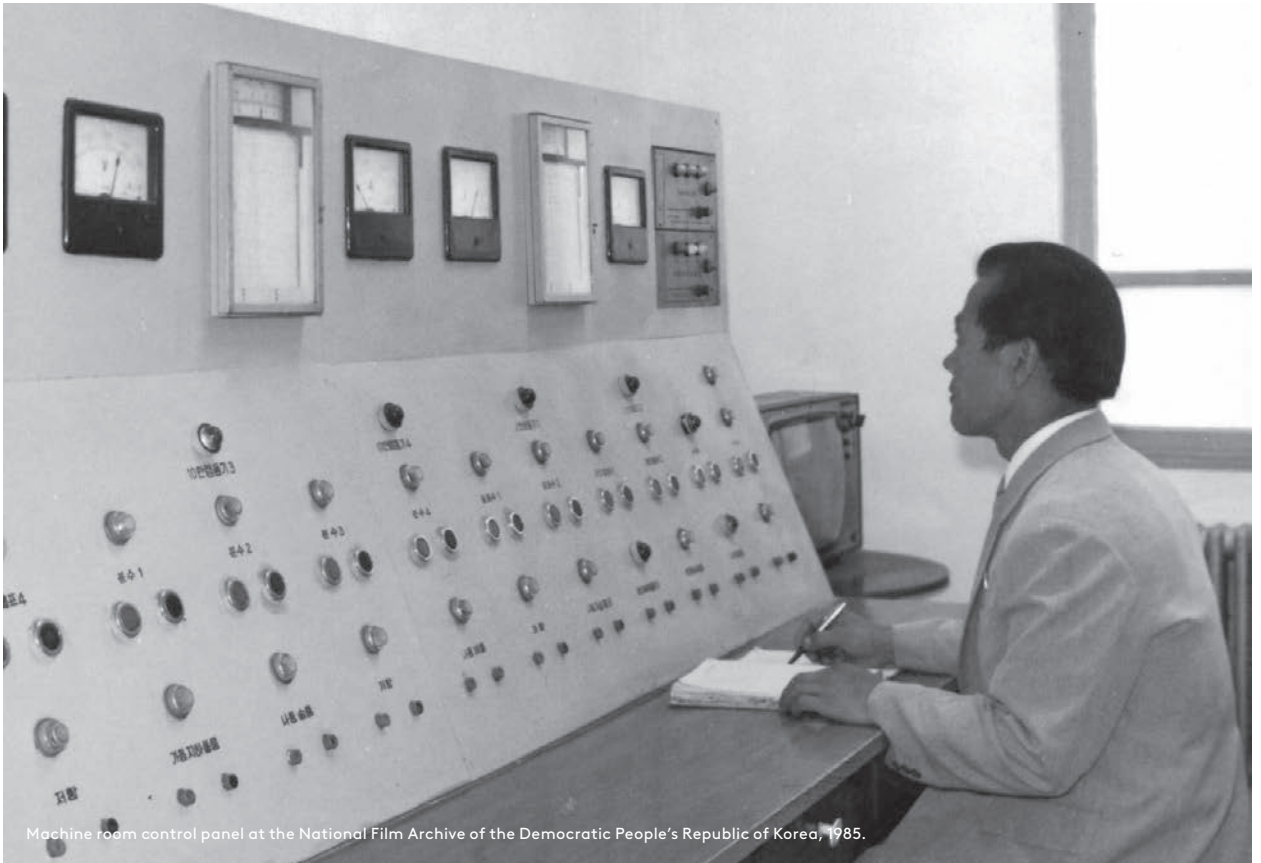
Adrienne Mancía, fallecida en diciembre de 2022 a los 95 años, desarrolló una célebre carrera como programadora cinematográfica, primero en el MoMA durante 34 años y después en la Academia de Música de Brooklyn como conservadora de la BAM/Cinematek. Integró las proyecciones cinematográficas en el MoMA, convirtiéndola en la primera institución del mundo en exhibir películas como forma de arte. Programó películas de todas las épocas, países y géneros, incluidas películas de animación, documentales, experimentales y narrativas, y se comprometió a proyectar tanto películas clásicas como contemporáneas. Trabajó con muchos colegas de la FIAF que conoció asistiendo a festivales de cine, además de proyectar películas de sus colecciones. Asistió a muchos festivales de cine, incluso pasados los ochenta años, como los de Pordenone, Cinema Ritrovato de Bolonia, Pesaro y Rotterdam.

9. When Bill Murray presented her with this award, he joked that she had confided in him, “I have never shown anyone’s films at MoMA who was either a friend or a lover,” and then boasted, “None of my films are at MoMA.” <<https://pagesix.com/2015/01/06/bill-murray-steals-the-show-at-ny-film-critics-circle-awards>>.

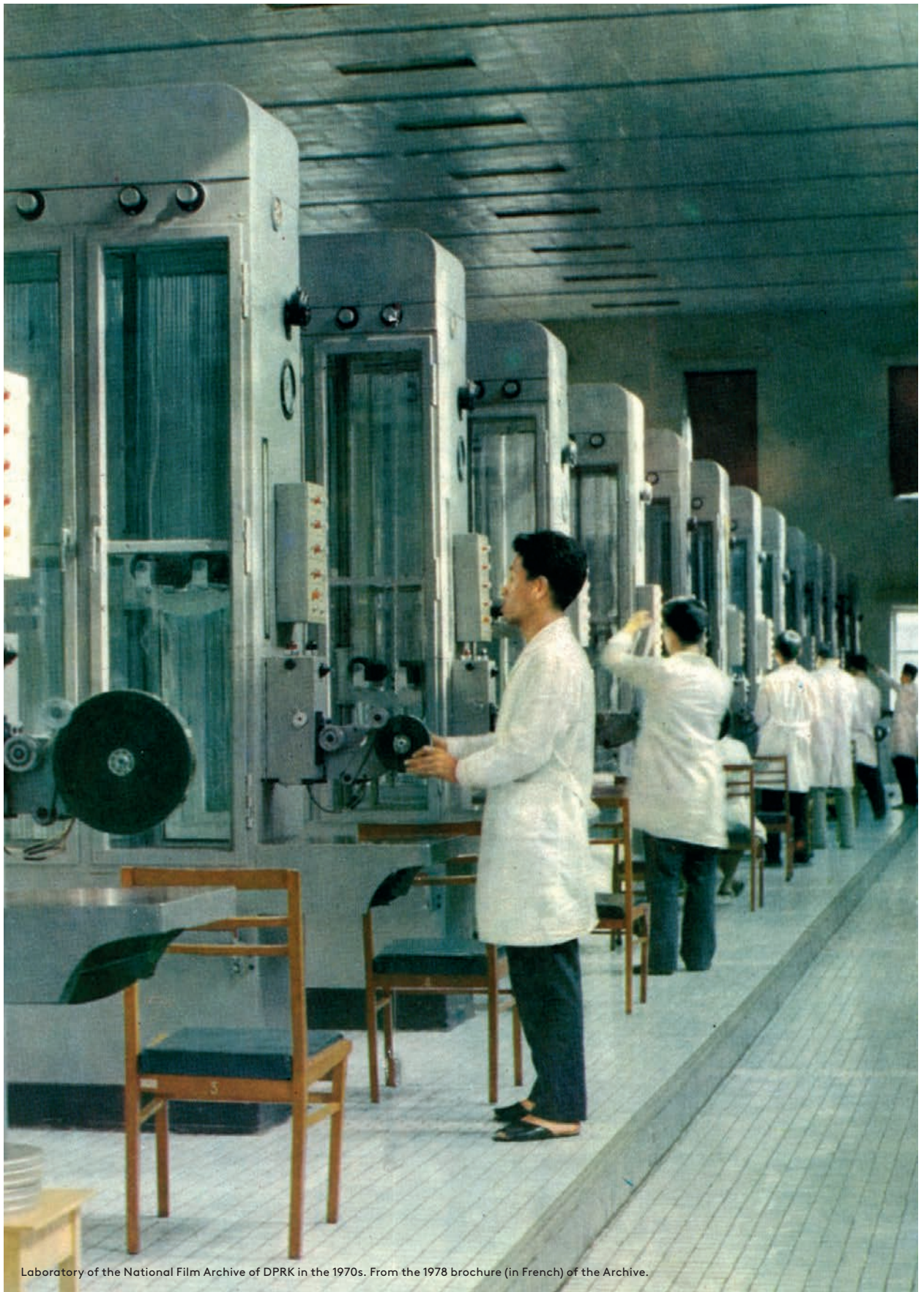


Luis Buñuel después de cazar un águila en la finca de Iris Barry y John Abbott en 1940.

History



Machine room control panel at the National Film Archive of the Democratic People's Republic of Korea, 1985.



Laboratory of the National Film Archive of DPRK in the 1970s. From the 1978 brochure (in French) of the Archive.

On the Occasion of the 50th Anniversary of the National Film Archive of the Democratic People's Republic of Korea

Ri KumChol

Ri KumChol is Director of Joson Minjuji Inmingonghwaguk Kugga Yonghwa Munhongo, the National Film Archive of the Democratic People's Republic of Korea.

The National Film Archive of the Democratic People's Republic (DPR) of Korea (hereinafter referred to as NFAK) significantly celebrated its 50th anniversary on 15 December 2022, and several celebratory events such as a commemorative meeting, individual screenings, and a project to renovate the film laboratory were carried forward very successfully.

As the unique national organisation in the field of preserving film materials in the DPR of Korea, the NFAK has always remained very faithful to its mission and duty, and, since its founding, has established and promoted wonderful and co-operative relationships with friends from all over the world.

The NFAK hopes very sincerely that this celebratory article will help us and our colleagues from around the world to understand each other more deeply, and to encourage exchange and on-going co-operation as well.

THE FOUNDING OF NFAK

The NFAK itself was founded in 1972, but its predecessor – the Central Film Managing Office, under the auspices of the Federation of Korean Archives – had been operating in the Western District of Pyongyang since the early 1950s.

During the Fatherland Liberation War (1950-1953), Pyongyang was totally destroyed and turned to ashes by bombing raids. The Film Managing Office was a half-underground construction at that time and its environment was too awful to satisfy even basic requirements for film preservation. New preservation premises were constructed a few years later, but it was still a temporary building with numerous problematic features.

Such a situation was completely unfavourable for long-term preservation of the valuable archival film materials belonging to the

Party and the State. This became especially so from the 1970s on, when Korea's literary and art world made rapid progress through the careful leadership and strong backing of the Party and the Government. Many fine works – including the feature film *Kkot P'anün Ch'önyö / Flower Girl* (1972) – were produced successfully, and the founding of a film archive was seen as an urgent priority in the drive to help support the development of the country's film industry.

Having a deep insight into these urgent matters, the Party and the Government took the decision to found a national film archive and made preparations to construct the necessary film vaults. At the time, though people were considering where to build them (even thinking about a deep mountain valley), they had no idea how to construct such a building. The Party and the Government eventually took measures to build film vaults in Pyongyang's Central District, constructing them with a double-framed wall, a corridor between walls to prevent not only the effects of outside temperature and humidity but also the danger of possible fire and explosion. The plan was finally ratified on 15 December 1972: the idea of the National Film Archive of the DPR Korea was made public, and we have been celebrating 15 December as our Founding Day ever since.

With the strong support of the Party and the Government, talented specialists in the field of film preserving, machinery, and chemistry were brought in from the outset to staff the NFAK, and the construction project – two buildings of 16,500m² and 32,000m², with well-appointed vaults, checking rooms, temperature transition rooms, projection rooms, machine rooms, offices, and a VIP room – was completed in four years.

The founding of the NFAK laid a solid material and technical basis for long-term preservation of valuable film materials of the Government as well as film collections from

home and abroad, and enabled us to make a great contribution to the development of our national cinema industry.

THE PATH OF NFAK'S DEVELOPMENT

Since the first day of its founding, the NFAK has been journeying along its particular developmental pathway under the careful leadership and special interest of the Party and the Government.

In April 1976, not long after the NFAK's foundation, the Korean Party and Government took a series of steps to concentrate all original cinefilms and valuable film materials within the Archive and passed a law that required preservation of the original of every new film produced in Korea and of copies imported from abroad, and the establishment of a film distribution system through the NFAK. These rules were later endorsed by decision of the DPR Korea Cabinet in July 2009. Accordingly, the NFAK is now closely connected with the State Administration of Film, the Korean Central Television, film studios at all levels, film distributors, film research publications, and film educational institutions, and consequently makes a great contribution to the development of the national cinematographic art.

In accordance with its mission and duty, for decades, the NFAK has consistently done its best to find, collect, catalogue, and preserve all kinds of valuable archival film materials from around the world, and to determine long-term preservation methods. The NFAK now preserves more than 500,000 reels of various films (feature, documentary, science and educational, animation, etc.) from both home and abroad – including, for instance, *Nae kohyang / My Home Village*, the first Korean feature film produced in 1949 after liberation – more than 15,000 cinema-related books, and thousands of posters. Even while the collections increase in volume, the NFAK finished cataloguing its backlogs in 2012, on the occasion of its 40th anniversary, and has been updating its records every year ever since.



Film vault of the National Film Archive of DPRK in 1975.



Entrance of an underground film vault of the National Film Archive of DPRK in 1975 in 1976.

Since the first day of its foundation, the NFAK, in accordance with its first and foremost concern of long-term preservation of precious archival film materials, had fully equipped professional facilities for regulating temperature and humidity in its vaults, automatically complying with international technical standards, and has regularly upgraded its equipment and preservation environments. For example, in 2000, new insulation materials were applied to the entire wall surface of the vaults, a project to add cold-storage facilities and a complete set of large-capacity ventilators and air-conditioners was completed in 2003, an underground vault was extended and renovated in 2005 and 2019, a set of ventilators with capacity of 60,000m³ per hour was installed in 2017, and the total cooling capacity was increased by 30,000kcal per hour in 2018. It should be mentioned that all these projects were undertaken with the extreme special interest, guidance, and support of the Party and the Government. At present, the NFAK is maintaining constant temperature and relative humidity at 14±2°C and 45±5% in the copy film vault, at 9±2°C and 35±5% in the negative film vault, at 14±2°C and 45±5% in the underground vault, and at -5±2°C, 35±5% in the colour film vault. In addition, the NFAK has a planned programme to restore any film found, after checking, to be physically damaged.

The NFAK has achieved many successes in the field of scientific and technical research, one of which, for example, was to determine a new method of maintaining the correct temperature and relative humidity for preservation of colour negative film. In 1980, we remodelled a preservation cooling box into a deep-freeze box, and reduced air temperature to -20°C, before drying and ventilating the colour film vault. In addition, the NFAK has been giving priority to preventing vinegar syndrome in 35mm film by introducing advanced, world-wide standards of science and technology.

The NFAK has done very well with respect to film presentation and distribution for the past 50 years. In 1972, there were

four screening rooms in the archive building, but, to all intents and purposes, they were only for in-house showings. In 1978, Paradise Cinema House was built for the NFAK in the Potongang District of Pyongyang, and we were privileged to use the Pyongyang International Cinema House, located on picturesque Yanggak Island on the Taedong river, as our exclusive cinema in 2016. Every year, several hundred titles are screened to mark anniversaries and holidays, and audience figures total about 150,000. In addition, the NFAK loans more than 900 films to Korean Central TV, and to distribution systems and local theatres every year, thus contributing to the cultural and emotional life of the nation.

One really remarkable thing which has occurred during the NFAK's 50-year history is the digitisation and restoration work that has accelerated so vigorously since the early 2000s. We made a decision to give priority to the development of digital processes in 2003. Being aware of developing trends towards digitisation in film archives around the world, the NFAK has made all necessary preparations for such activities in the future.

On the basis of these preparations, a new department for digitisation and restoration was established in June 2016, and staff members of that department have been improving their skills more and more. Now, young and talented graduates in their twenties are in charge of our digitisation and restoration, and their dedicated attitude to work and the efforts to greatly improve their skills are really amazing. Only six years have gone by since the digitisation and restoration department was established, but, to date, they have already digitised more than 2,530 films and digitally restored more than 170 titles. Companies from UK and India appreciate their abilities and expertise very highly, and have suggested several ideas for co-operation after discovering what the NFAK is doing.



A delegation of film archivists from the USSR, Poland, Bulgaria, Hungary, Czechoslovakia, and East Germany visiting the National Film Archive of DPRK in 1986.

As well as carrying forward digitisation and restoration work in earnest, a well-organised system for double preservation, using digital media as well as film, has been successfully implemented, and the NFAK is now directing its principal efforts towards digital restoration.

Taking into consideration current and future requirements, and being aware of modern trends in conservation and restoration, the National Film Archive of the DPR Korea continues to move forward in this field, and, in the process, will further develop its own capabilities.

THE NFAK AND INTERNATIONAL RELATIONS

Film material is rightly regarded as a treasure and cultural heritage belonging not only to the nation of its origin but also to the rest of humankind. The NFAK has always attached great importance to exchanges with colleagues from around the world and, from its foundation, has contributed to this to the full extent of its abilities.

Over a decade before the NFAK was set up, its predecessor – the Central Film Managing Office/Federation of Korean Archives became affiliated to FIAF in October 1961. Relations with FIAF during the 1960s were therefore very sporadic and passive: there were few traces of exchanges with other archives. This is why we now celebrate 15 December 1972 as the day on which the Korean Archive was actually founded, even though the Central Film Managing Office had been in existence since the early 1950s.

The Korean Federation of Film Archives was admitted to FIAF as a Provisional Member in 1961 and its status was changed to that of Corresponding Member in 1966. In 1972, it was succeeded by the National Film Archive of the Democratic People's Republic of Korea, which officially applied for FIAF membership in May 1973. It was admitted as Provisional Member at the 29th Congress (in Moscow) in September 1973, and was then admitted as Full Member at the 30th Congress (in Montreal and Ottawa) in May 1974. The NFAK has the longest continuous FIAF affiliation of



Digitisation work at the National Film Archive of DPRK in 2016.

any member in Asia, and has consistently fulfilled the duties of that role, making positive efforts to contribute to the common cinematic heritage ever since.

In 1974, as part of co-operative measures taken by the Party and the Government in the cause of long-term efforts to preserve our valuable cultural heritage, a delegation from the NFAK visited Romania for a 60-day internship programme to exchange information on techniques and experiences of film preservation, and then visited to Germany for training in automatic measurement of temperature and humidity and the purchase of appropriate equipment.

International meetings of film archives have been held four times in Pyongyang – for example, meetings of archive technicians in 1980 and 1990 – and the NFAK has attended 12 FIAF Congresses, 11 conferences for directors of FIAF-affiliated organisations, ten interna-

tional symposia, and 11 international film festivals, all in the cause of increasing international co-operation.

Furthermore, during our 50-year history, archival delegation from many countries – Germany, China, Poland, Romania, and others – have visited the NFAK, and there have been exchanges and co-operative ventures with many institutions and individuals from Russia, Romania, Germany, Bulgaria, Hungary, Poland, Iran, India, Sweden, The Netherlands, Denmark, China, UK, France, Italy, the US, and so on.

The NFAK not only prizes highly its amicable relationships with friends from around the world and wants to increase co-operation with them, but it also regards it as a sacred duty to contribute to the common cause of long-term preservation of our valuable cinematic cultural heritage.

POSTSCRIPT

Half a century has passed since the National Film Archive of the DPR Korea was founded and many of its staff have won high-level official commendations during in that time. The NFAK has already achieved great success in its work, but the preservation of archival film materials will become ever more important as the years go by. There are still many tasks for us to undertake.

On the occasion of its significant 50th anniversary, all members of the Archive's staff look back on bygone days with deep emotion and are filled with zeal for still higher development, grounded in the valuable tradition and experience already in existence.

fr

Les Archives nationales du film de la République populaire démocratique de Corée (NFAK) ont célébré leur 50^e anniversaire le 15 décembre 2022. De nombreux événements ont été organisés dans le cadre de cette célébration avec un grand succès, dont une rencontre commémorative, des projections de films et un projet de rénovation du laboratoire cinématographique.

Unique organisation nationale dans le domaine de la préservation des matériaux cinématographiques en RPD de Corée, la NFAK a toujours honoré sa mission et son devoir et, depuis sa fondation il y a 50 ans, a établi et promu d'excellentes relations de coopération avec des amis du monde entier.

Grâce à l'intérêt tout particulier et au soutien ferme du Parti et du gouvernement, la NFAK a vu le jour le 15 décembre 1972, a rejoint la FIAF avec le statut de membre provisoire lors du 29^e Congrès (Moscou) en septembre 1973, et a été élevée au rang de membre à part entière (le seul en Asie à cette époque) lors du 30^e Congrès (Ottawa et Montréal) en mai 1974.

La NFAK conserve aujourd'hui plus de 500 000 bobines de films de toutes sortes (longs métrages, documentaires, films scientifiques et éducatifs, d'animation, etc.), provenant du pays et de l'étranger – elle comprend, par exemple, le premier long métrage de la RPDC, *Nae kohyang (Mon Village natal)*, produit en 1949 après la libération – ainsi que plus de 15 000 livres sur le cinéma et des milliers d'affiches de films.

The National Film Archive of the DPR Korea would like to take this opportunity to extend its warmest greetings to FIAF personnel and colleagues of all nationalities, who have been preserving mankind's common cultural heritage in the cause of advancing world civilisation, and to express our heartfelt thanks to our dear friends for all their efforts on our behalf.

The National Film Archive of the DPR Korea will always be faithful to its mission and duty and will always seek to strengthen friendly bonds with colleagues from around the world, now and in the future.

es

La Filmoteca Nacional de la República Popular Democrática de Corea (NFAK por sus siglas en inglés) celebró su 50 aniversario el 15 de diciembre de 2022. Se llevaron a cabo con gran éxito numerosos actos de celebración, como una reunión conmemorativa, proyecciones individuales y un proyecto de renovación del laboratorio cinematográfico.

Como única organización nacional en el campo de la conservación de materiales fílmicos en la República Popular Democrática de Corea, la NFAK siempre ha sido muy fiel a su misión y deber, estableciendo y promoviendo excelentes relaciones de cooperación con amigos de todo el mundo desde su fundación hace 50 años.

Con el especial interés y el firme apoyo del Partido y del Gobierno, la NFAK se fundó el 15 de diciembre de 1972, ingresó en la FIAF como miembro provisional en el 29^o Congreso (Moscu) en septiembre de 1973, y fue elevada a la categoría de Miembro de pleno derecho (de hecho, el único Miembro de Asia en aquel momento) en el 30^o Congreso (Ottawa y Montreal) en mayo de 1974.

Actualmente, la NFAK conserva más de 500.000 bobinas de todo tipo de películas (largometrajes, documentales, ciencia y educación, animación, etc.) nacionales y extranjeras, incluyendo, por ejemplo, el primer largometraje de la RPDC *Nae kohyang / Mi aldea natal*, producido en 1949 tras la liberación, más de 15.000 libros sobre cine y miles de carteles de películas.

28 december 1946

Dearest Luis:

Just back from five months in Europe which I found distinctly stimulating.

I'm delighted you are working, hope you like Mexico: a little anxious about the International Federation of Film Archives of which you are Secretary General by unanimous vote of a dozen delegate-archivists from a dozen countries. There will be offices provided by the French government, there will be a salary which would pay your rent, the work would take about a couple of days a month I should think with a secretary-typist permanently there to cope with things. I do think the Federation is a useful and good thing, it has various objectives of which the most immediate is to try to get the various countries concerned to agree to admit films being utilized for archival, non-commercial, cultural uses - no matter what type of film - to cross their frontiers free of duty.

What really are the chances of your being there in March, will you really accept the job? I am pretty vague about everything having been away so long. Will you be in New York, I would give a great deal to see you and think of you as you know with the friendliest feelings ever. Bless you, love to Jeanne, write me a line

Ever

ms

President of the International Federation
of Film Archives (')

Iris Barry y Luis Buñuel. De París a México, vía Nueva York

Esteve Riambau

Esteve Riambau es profesor titular de Comunicación Audiovisual en la Universidad Autónoma de Barcelona. Es autor de cuarenta libros sobre Historia del Cine y ha correalizado dos largometrajes y una serie de televisión. Desde 2010 es el director de la Filmoteca de Catalunya y, en 2011-2017, perteneció al comité ejecutivo de la FIAF.

El congreso de la FIAF se celebra este año en México DF con un simposio dedicado al papel de las mujeres en los archivos fílmicos. Resulta oportuno recordar la relación profesional que Iris Barry, desde el MoMA, mantuvo con Luis Buñuel y su intento de vincularlo a la FIAF cuando el cineasta aragonés ya se había instalado en la capital azteca.

La británica Iris Barry, conservadora del Film Archive del MoMA de Nueva York desde 1935, es elegida presidenta de la FIAF en el Congreso de París en julio de 1946. Henri Langlois, director de la Cinémathèque Française, es el secretario general. Acabada la guerra, se discute la reorganización de la Federación y se aborda la necesidad de nombrar un secretario técnico. El debate esencial se produce entre Barry y Langlois¹:

Langlois: *Lo mejor sería tener al frente de la Federación a alguien con un nivel superior al de un Franju de antes de la guerra, habría de tener a alguien representativo y un secretario.*

Miss Barry: *¿Y quién podría ser el secretario?*

Langlois: *Tuvimos una idea en Londres, pensamos en Griffith.*

Miss Barry: *Pensamos en él porque era el gran maestro del cine. Pero ayer hablamos de Buñuel.*

Langlois: *Es de múltiples nacionalidades. No es francés, no es inglés, no es americano, es de una pequeña nación.*

Miss Barry: *Es muy serio, habla varias lenguas.*

Langlois: *El problema es de dinero. Si hacemos venir a Francia a alguien de otro país, estaremos obligados a pagarle una suma elevada. Si contratamos a un francés, nos dirán que la Federación es un organismo vendido a Francia.*

Miss Barry: *No puede ser francés.*

1. Actas del congreso de la FIAF, París (15 de julio de 1946). Archivo histórico de la FIAF, CON/002. Disponible en la sección de historia del sitio web de la FIAF.

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IRIS BARRY MUSEUM MODERN ART
 11 W 53 ST NEWYORK

I APPRECIATE YOUR KINDNESS PROPOSING ME FOR SECRETARY
 ARCHIVES FILM HAVE ACCEPTED NOW I AM MAKING A NOT TOO
 BAD FILM HERE LEAVE FOR FRANCE NEXT MARCH REMEMBER YOU
 VERY OFTEN MY ADDRESS PELICULAS ANAHUAC HAVRE 43 BIS /
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THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

Telegrama de Luis Buñuel a Iris Barry del 27 de noviembre de 1946.

Langlois: *Hay que encontrar a alguien que quiera vivir en Francia, que viva como un francés con el dinero que se le pagaría a un francés, sin gastos considerables. Es por eso que Buñuel nos ha seducido.*

(...) Langlois: *Alguien que sea conocido por los políticos pero que no sea un político. Es incontestable que Buñuel ofrece todas las ventajas.*

Miss Barry: *Pero no podemos contemplar a alguien que tiene mujer y dos hijos, es demasiado caro.*

Los requisitos son, por tanto, que sea una personalidad relevante, a ser posible no francés y que acepte la menguada retribución que le puede ofrecer la FIAF (200.000 FF anuales). Barry avala a Buñuel, pero es Langlois quien le propone formalmente ser el "funcionario internacional permanente de la FIAF, (...) un puesto permanente de secretario ejecutivo que dirige la oficina de París. (...) Se trata de un puesto en el que hay un trabajo efectivo

por hacer, pero un trabajo que le dejará tiempo libre, sobre todo si está asistido por una buena secretaria. Hemos decidido que el secretario ejecutivo cobraría honorarios en calidad de gastos de representación, de modo que le dejaría absoluta libertad y disponibilidad para rodar. (...) Estamos muy contentos con el acuerdo de principios que su telegrama nos ha proporcionado. Un único punto negro: la tarifa que habíamos establecido para sus gastos de representación (...) Hemos hablado de ello con Iris Barry y hemos decidido ofrecerle gastos de representación más elevados siempre y cuando no trabaje más que para nosotros. Sin embargo, jamás será el salario digno que tiene derecho a pretender". Y concluye: "Tenemos mil proyectos con Iris Barry, Jean Painlevé, etc. que no pueden tomar forma a falta de ser apoyados. Usted es la persona más cualificada para hacerlo y es por eso,

no temo por ello, que a pesar de la modestia de la suma que la FIAF podrá garantizarle de entrada, le digo: Venga”².

Luis Buñuel se encuentra en México desde 1946. Como director, había debutado en París con *Un chien andalou* (1929) y *L'Age d'or* (1930), dos obras maestras del surrealismo, además del documental *Las Hurdes/Tierra sin pan* (1933) en la España republicana. Tras un exilio de ocho años en Estados Unidos, exhaustivamente estudiado por Fernando Gabriel Martín³, se disponía a reanudar su carrera en la capital azteca. Había llegado de la mano de Denise Tual, viuda de Pierre Batcheff (protagonista de *Un chien andalou*) e impulsora de una adaptación de *La casa de Bernarda Alba* que dirigiría Buñuel. “Como ella tenía que pasar tres o cuatro días en México (...), la acompañé”, afirma Buñuel. “Fue entonces cuando Denise me puso en contacto con el productor Oscar Dancigers”. Fue él quien dijo: “Tengo algo para usted ¿quiere quedarse en México?”⁴.

A la propuesta de Langlois sobre la FIAF, Buñuel responde entusiásticamente a Barry en un telegrama: “Agradezco su amabilidad al proponerme como secretario de los archivos filmicos. He aceptado. Actualmente realizo una película no muy mala aquí. Viajo a Francia el próximo marzo. Me acuerdo de usted muy a menudo” (27.11.1946)⁵. Un mes más tarde (28.12.1946), la archivista le expresa su ansiedad sobre la FIAF, “de la cual usted es el secretario general por votación unánime de una docena de delegados archivistas. Dispondrá de unas oficinas suministradas por el gobierno francés, cobrará un sueldo con el que pagará

la renta y el trabajo le ocupará un par de días al mes, creo que con una secretaria-mecanógrafa permanente. Creo que la Federación es algo útil y bueno. Tiene varios objetivos de los cuales el más inmediato es implicar a diversos países en el acuerdo de admitir films utilizados para usos archivísticos, no comerciales o culturales –no importa qué tipo de films- y que puedan cruzar fronteras libres de cargo”⁶. Barry le pregunta si realmente acepta el puesto porque no habría “nadie más apto que Buñuel para entender el valor de dicha organización ya que él mismo tuvo que afrontar un buen número de obstáculos para poner sus primeras películas en circulación”⁷.

A pesar de esa demora, el interés de Buñuel por el puesto no ha decaído y, con París en el horizonte, el 6 de diciembre de 1946 escribe a José Rubia Barcia, un intelectual republicano con el que ha trabado amistad en Hollywood: “La razón principal de mi viaje es tomar posesión de mi flamante cargo de secretario de los archivos del film. (...) Con lo que saque de Ciné France y de los archivos, no tendré ni para mantener mal a mi familia. De todos modos, es para mí un deber ir allá. Creo que para fin de marzo estaré de vuelta en México”⁸.

El proyecto, como veremos, no llegará a buen puerto, pero ¿de dónde procede la complicidad entre Luis Buñuel e Iris Barry que lo sustenta? Nacida en Birmingham en 1895 y crítica de *The Spectator* (1923-5) y *The Daily Mail* (1925-30), fue una de las fundadoras de *The Film Society* (Londres, 1925). Viaja a EUA en 1930 y trabaja para el MoMA como bibliotecaria. En 1935 es nombrada conservadora del recién creado *Film Archive* del museo neoyorquino, cuyo director es John E. Abbott, su segundo marido.

2. Carta de Henri Langlois a Luis Buñuel (12.11.1946) conservada en la Actas del congreso de la FIAF, París (15 de julio de 1946). Archivo histórico de la FIAF, CON/002. Disponible en la sección de historia del sitio web de la FIAF, Reproducida en: *Journal of Film Preservation* n. 100, abril 2019, pp. 77-78. Traducción del francés a cargo del autor.

3. *El ermitaño errante. Buñuel en Estados Unidos*, Tres Fronteras y Filmoteca Regional, Murcia, 2010.

4. Luis Buñuel, *Mi último suspiro*, Plaza Janés, Barcelona, 1982, p. 185.

5. La mayor parte de la correspondencia entre Luis Buñuel e Iris Barry (Luis Buñuel Papers, Film Study Center, MoMA), ha sido publicada en: Jo Evans y Breixo Viejo, *Luis Buñuel. Correspondencia escogida*, Cátedra, Madrid, 2018 Se ha mantenido la traducción de los originales en inglés (Iris Barry) y francés (Luis Buñuel).

6. Carta de Iris Barry a Luis Buñuel, 28.12.1946. Film Study Center, MoMA. Traducción del inglés a cargo del autor.

7. Cristina Martínez-Carazo, “Iris Barry y Luis Buñuel: Cartas y afinidades”, *Revista de la Academia norteamericana de la lengua española*, vol. VIII, n. 13, 2018, p. 186.

8. José Rubia Barcia, *Con Luis Buñuel en Hollywood y después*, Ediciós do Castro, Sada, 1992, p. 29-31.

Buñuel recuerda que “la conocía de Londres, desde los años del surrealismo”⁹. Sería, probablemente, en el viaje que ella efectuó a Europa, en 1936, en busca de películas para el MoMA. Quizá en París, cuando consiguió una copia de *Un chien andalou* o en Londres, con motivo de la Exposición Surrealista. En cualquier caso, sabía perfectamente quién era Buñuel y, en 1933, ya había programado *L'Age d'or*.

La FIAF se creó en 1938, con el MoMA como una de las entidades fundadoras, y el primer congreso tuvo lugar un año más tarde en Nueva York, donde Abbott fue elegido presidente. Entonces, España estaba en guerra y Buñuel ocupaba en París un cargo político de la República. Necesitado de trabajo, temeroso de ser reclutado a filas y aconsejado por el embajador Marcelino Pascua, el 16 de setiembre de 1938 llega a Nueva York y se instala en Hollywood como *historical advisor* de los films que se rueden sobre la contienda española. Ya había estado allí en 1930, contratado por la MGM como observador. Ahora asesora *Cargo of Innocence*, un proyecto sobre la Guerra Civil que no llegará a buen puerto. Se promociona con una autobiografía y mantiene regular correspondencia con Ricardo Urgoiti, exiliado en Buenos Aires, para resucitar allí la productora Filmófono, para la que ya había trabajado en el Madrid republicano. Tras un año sumido en esa penuria económica, aparece una nueva perspectiva profesional en Estados Unidos gracias a unos primeros contactos con el instituto Rockefeller: “Parece que quieren pensionarme para que haga cine documental “psicológico” dándome libertad y grandes medios” (11.8.1939)¹⁰.

Es justamente entonces cuando Barry vuelve a coincidir con Buñuel. El 13 de setiembre de 1939, ella le envía una carta a través de la esposa del compositor George Antheil, y alude un encuentro producido en Hollywood apenas un mes antes. El motivo son los inte-

reses cruzados entre una archivista que valora al cineasta y un cineasta preocupado por la preservación de sus obras. Concretamente, Buñuel pide a Barry la copia de *Un chien andalou* depositada en el MoMA para proyectarla en Hollywood. A cambio, le ofrece depositar *Tierra sin pan* y *L'Age d'or* en el museo. El 25 de setiembre de 1939, ella le escribe de nuevo: “Sentí mucho no tener la oportunidad de verle otra vez antes de partir de Hollywood, pero tuvimos que regresar a toda prisa en vista de la situación europea [...] Nos encantó conocerlos a los dos y esperamos volver a verle pronto. Si por cualquier razón viene finalmente a Nueva York [...] estaríamos encantados de recibirlo en nuestra casa si así lo desea”.

En noviembre de 1939, sin trabajo en Hollywood, Buñuel viaja a Nueva York y en sus memorias anota: “Acababa de conocer a una mujer a la que debo mucho. (...) Corrí a verla”. Fiel a su palabra de ayuda, Barry lo recomienda a Lothar Wolff, montador y productor asociado del noticiario *The March of Time*, donde ingresa la primavera de 1940 para preparar la versión en español del documental *The Vatican of Pius XII*.

Ambos no han olvidado, sin embargo, la recuperación de *Tierra sin pan*. En junio, Buñuel ha pedido una copia al productor Pierre Braunberger, pero, al no llegar, Barry moviliza a Wolff para que la gestione desde la oficina parisina de *The March of Time*. El 17 de noviembre, apenas aterrizado en Nueva York, Buñuel la reclama al laboratorio Éclair Tirage pero no llegará hasta principios de 1940 en una versión inglesa censurada. En marzo, el cineasta la presenta en una proyección privada en la Columbia University y, en vistas de su deterioro, se ofrece a restaurar una nueva banda de sonido. A pesar de su estado, Barry la muestra en abril, primero a Robert Flaherty y luego en un coloquio a cargo de Buñuel, antes de ser depositada en el MoMA, que la programará en diversas ocasiones.

A pesar de estos reconocimientos, Buñuel sigue en paro y, en enero de 1941, se ofrece a John Abbott para encontrar un trabajo

9. Max Aub, *Conversaciones con Buñuel*, Aguilar, Madrid, 1985, p. 87.

10. Carta de Buñuel a Ricardo Urgoiti, en *Cuadernos de la Academia* n. 7-8, agosto 2000, p. 567.



Personal de la Oficina del Coordinador de Asuntos Interamericanos en la sala de proyecciones de la 4ª planta de la Filmoteca del MoMA en 1942. Con Iris Barry (tercera por la izquierda) y Luis Buñuel detrás del proyector.

que “me permita esperar hasta el comienzo de su proyecto cinematográfico”. Se refiere a la Oficina de la Coordinadora de Asuntos Interamericanos (OCIAA), auspiciada por Nelson Rockefeller y que incluye un equipo de producción que recopilaría y remontaría películas destinadas a la propaganda antifascista en América Latina. El propio Buñuel, que se incorpora en marzo de 1941 y permanece hasta junio de 1943, lo define así: “El State Department ha creado un organismo de propaganda panamericana que radica en Washington y se halla dirigido por Nelson Rockefeller. Entre las mil actividades de este organismo está la cinematográfica de la que se encarga el conocido millonario John Whitney. Dicho señor, además de ser el rey de las American Airways y de otras cosas, es el financiero de David Selznick de Hollywood. Ya me lo han presentado los que me pusieron

a él, que son sus brazos en el asunto: los directores del Museo de Arte Moderno Film Library de Nueva York. Me han ofrecido un puesto en dicha organización que sería algo así como *technical advisor* y ocasionalmente director”¹¹.

El decisivo encuentro entre Whitney – también presidente del MoMA Film Library desde 1935- y Buñuel tiene lugar en un cóctel en casa de Iris Barry. Aunque dispone de un despacho en el MoMA, con veinte empleados y el título de *chief editor*, Buñuel está contratado por la OCIAA y su principal cometido es la edición de propaganda antinazi en inglés, español y portugués. Hay dudas sobre la dimensión de su participación en una

11. Carta de Buñuel a Ricardo Urgoiti, en: Javier Herrera, “Los momentos decisivos de Buñuel en USA: 1938-1940”, *Artígrama* n. 17, 2002, p. 560.

Luis Buñuel
Nilo 52 - Dep. 2
Mexico D.F.

Mexico 20 Mars 1947

Trés chère Iris : J'ai reçu votre telegramme ce matin et je m'empresse de vous repondre. Il y a longtemps que je voulais vous écrire, mais j'ai mené une vie impossible et j'ai eu en plus une belle pneumonie dont je viens à peine de m'en tirer.

Je crains fort, hélas! qu'aussitôt lue cette lettre, vous allez me "destituer" de ma place de secrétaire de la Federation Internationale, place que je cherissais tant. Raison: il m'est impossible d'aller à Paris avant plusieurs mois. Et je ne perdrai seulement pas cette position, mais une autre que, depuis longtemps, m'avait offert Cine-France, la compagnie où travaille Jean Gremillon, avec laquelle je devais réaliser plusieurs "shorts", et en 1948 un grand film.

Ce serait très compliqué de vous exposer les raisons qui m'obligent à retarder mon voyage, mais veuillez croire qu'elles sont impérieuses et d'ordre purement familiale. Il ne me reste même pas la consolation de penser que je dois faire un autre film à Mexico, lequel sera sûrement aussi banale que celui que je viens de faire. Les sujets cinématographiques "aztèques" et le goût du public sont vraiment lamentables et, aujourd'hui, sans espoir de redemption.

Je suis confus et je ne sais pas quoi vous dire au sujet de la Federation. Mais je voudrais faire l'impossible pour conserver ma place. Serait-il possible de déplacer ici pour quelques mois le secretariat? Je payerais de ma poche une secrétaire bi-linguale et je pourrais recevoir vos instructions de travail par correspondance. Les bureaux seraient placés chez moi. Ou bien, pourriez vous nommer un secrétaire provisoire à Paris? En tout cas voyez, chère Iris, ce que vous pouvez faire et de toutes façons croyez à mon amitié et reconnaissance pour tout ce que vous avez déjà fait.

En attendant votre resolution et des nouvelles de votre vie, je vous envoie toute mon amitié

Luis

P.S. - Veuillez noter plus haut ma ¹ditection définitive.

versión remontada de *Triumph des Willens* (Riefenstahl, 1933) y *Feuertaufer*, otro documental sobre la invasión de Polonia. Mientras él lo corrobora en sus memorias y en sus conversaciones con Aub, Cristina Martínez-Carazo minimiza su participación a raíz de un documento introductorio localizado en el MoMA y firmado por Ron Magliozzi.

Gracias a su contrato laboral, en 1942 Buñuel solicita la ciudadanía estadounidense con aval de Barry. Es, sin embargo, denegada por la campaña política desplegada en su contra por el periódico *Motion Picture Herald*. En el libro *La vida secreta de Salvador Dalí*, publicado a finales de 1942, el pintor acusa a su examigo de comunista y sacrílego. El cardenal Spellman recrimina a Barry por arropar al Anticristo mientras la influyente publicación corporativa acusa al MoMA de promover una campaña para proveer de libros de arte a los soldados que están en el frente. Afectada por estos ataques, la Film Library reduce su presupuesto, la OIAA se traslada a Hollywood y su plantilla se ve sensiblemente reducida.

El 30 de junio, Buñuel envía una carta de dimisión a Barry, no sin asegurarle que “al dejar el Museo después de dos años y medio, llevo conmigo los mejores recuerdos. Siempre he encontrado aquí un espíritu de cooperación sincera hacia mi trabajo y la mayor comprensión y cordialidad en nuestras relaciones. Todo eso, señora Barry, ha sido posible gracias a usted”. Aquel mismo día, Barry acepta la dimisión “con muy sincero pesar. Se me brinda la oportunidad de decir, no obstante, cuan calurosamente he apreciado su lealtad y devoción a su trabajo en el departamento del coordinador durante estos dos últimos años. (...) Entiendo que su dimisión es también consecuencia de su deseo de que las actividades cinematográficas del coordinador tengan éxito, y sólo puedo añadir que deploro la existencia de una situación que ha hecho su dimisión aconsejable”. Aunque el biógrafo de

la archivera pone en duda “el papel de Iris en el despido de Buñuel”¹², la sinceridad de estas palabras parece irrefutable.

De nuevo sin trabajo, Buñuel regresa a Hollywood en 1944 donde es contratado por Warner Bros para ocuparse de versiones españolas. Un año más tarde, decide no renovar el contrato y vivir de sus recursos hasta que, en una cena en casa de René Clair, coincide con Denise Tual, que le propone viajar a México. Allí es donde, en noviembre de 1946, recibe la proposición de la FIAF. A pesar de un mantenido entusiasmo inicial, el 20 de marzo de 1947 comunica a Barry: “Mucho me temo ¡por desgracia!, que tan pronto lea usted esta carta, me “destituirá” de mi puesto de secretario de la Federación Internacional, puesto que apreciaba en sumo grado. El motivo: me es imposible ir a París en los próximos meses. (...) Las razones que me obligan a retrasar mi viaje son imperiosas y de orden puramente familiar. (...) Estoy confuso y no sé qué decirle en cuanto al tema de la Federación. Pero haría lo imposible por conservar mi puesto. ¿Sería posible desplazar aquí el secretariado durante algunos meses? Pagaría de mi bolsillo a una secretaria bilingüe y podría recibir sus instrucciones de trabajo por correspondencia. La oficina estaría instalada en mi casa. O bien, ¿podría nombrar a un secretario provisional en París?”. Apenas dos días más tarde, ella responde con un lacónico telegrama: “La operación de la Federación Internacional seriamente afectada por su ausencia. Por favor envíe telegrama diciendo cuando llegará a París” (22.3.1947)

Cuando recibe la oferta de la FIAF, Buñuel se dispone a rodar *Gran casino*, un vehículo de lucimiento musical de Jorge Negrete y Libertad Lamarque que se estrena en junio de 1947 con escaso éxito. Dado que se encuentra en paro durante buena parte de aquel año, los motivos que cancelaron abruptamente el viaje de Buñuel a París son inciertos. El puesto de secretario técnico de

12. Robert Sitton, *Lady in the Dark. Iris Barry and the art of film*, Columbia University Press, New York, 2014, p. 318.

la FIAF, abandonado por Georges Franju en 1944, no será cubierto por Zika de Malewsky-Malevitch hasta diciembre de 1947.

Tras un silencio superior a un año, Buñuel escribe a Barry una carta que “servirá como mínimo para romper el hielo”. A pesar del desencuentro, la sintonía sigue viva y, más tarde, le confiesa: “Aquí sigo, desde hace un año, fracasando en todos los proyectos interesantes que presento. Por el contrario, a menudo tengo ofertas para realizar basuras, que rechazo. Tendría que haberme marchado de México. Pero ¿a dónde iría? El futuro es incierto. (...) Los Noailles no existen ya. México es espantoso. Pero no puedo volverme atrás, irme de aquí. He de triunfar o morir. Iris, la sigo recordando con nostalgia, con ternura” (7.7.1948).

en

In 1946, Iris Barry and Henri Langlois proposed to Luis Buñuel that he take up the post of Technical Secretary of FIAF. After his initial acceptance, the Spanish filmmaker, then exiled in Mexico, resigned a few months later.

The intense friendship between Buñuel and the British archivist stems from the eight years in which the former resided in the United States. They were introduced in London in 1936, they met again in Los Angeles in 1939, and the arrival at the MoMA archives of copies of Buñuel's first three films served to introduce the filmmaker to Nelson Rockefeller who hired him to remake anti-fascist propaganda films there. In 1943, pressures from the North American ultra-right, prompted by the publication of a book by Dalí that accused Buñuel of being a sacrilegious communist, forced him to resign.

However, his friendship with Barry did not decline, and, once he had settled in Mexico to resume his career as a filmmaker, the FIAF President proposed that he occupy the Technical Secretariat. According to Buñuel, his resignation was due only to family reasons and, after a long separation, he and Barry met again at the premiere of *El ángel exterminador* / *The Exterminating Angel* at the 1963 New York Film Festival. In conversations published in 1985, Buñuel confessed to Max Aub: “I owe a lot to Iris; because of her I have not starved to death in the United States.”

Su carrera cambia de rumbo con *Los olvidados* y, consciente de ello, en noviembre de 1950, Buñuel pide a Barry una invitación oficial para mostrársela en Nueva York. Ella, sin embargo, ya no está allí. Divorciada de Abbott en 1943, abandona el MoMA en 1950 tras ser operada de un cáncer y se traslada a vivir al sur de Francia. Sólo regresará en septiembre de 1963 para la inauguración del New York Film Festival y allí coincide con Buñuel en la proyección de *El ángel exterminador*. No se volverán a ver, pero el cineasta le confesará a Max Aub: “Yo le debo mucho a Iris, por ella no me he muerto de hambre en los Estados Unidos”¹³. La FIAF, qué duda cabe, también perdió a quien hubiera sido un excepcional secretario técnico.

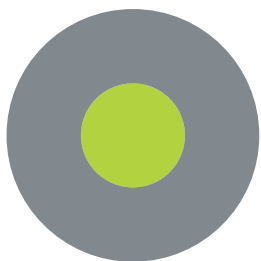
fr

En 1946, Iris Barry et Henri Langlois proposent à Luis Buñuel le poste de secrétaire technique de la FIAF. Le cinéaste espagnol, alors exilé au Mexique, accepte d'abord la proposition, avant de démissionner quelques mois plus tard.

L'intense amitié entre Buñuel et l'archiviste britannique est née des huit années pendant lesquelles le cinéaste a résidé aux États-Unis. Ayant fait connaissance à Londres en 1936, ils se retrouvent à Los Angeles en 1939, et l'arrivée aux archives du MoMA de copies des trois premiers films de Buñuel retient l'attention de Nelson Rockefeller, qui engage le cinéaste pour réaliser des *remakes* de films de propagande antifasciste. En 1943, les pressions de l'ultra-droite nord-américaine, suscitées par la publication d'un livre de Dalí qui accuse Buñuel d'être un abominable communiste, le contraignent à démissionner.

Cependant, son amitié avec Barry ne se démentira pas et, une fois Buñuel installé au Mexique pour reprendre sa carrière de cinéaste, le président de la FIAF lui propose donc d'occuper le secrétariat technique. Selon Buñuel, sa démission est uniquement motivée par des raisons familiales et, après une longue pause dans leurs relations, Barry et lui se retrouvent lors de la première de *L'Ange exterminateur* (*El ángel exterminador*) au Festival du film de New York 1963. Dans des conversations publiées en 1985, Buñuel avouera à Max Aub: « Je dois beaucoup à Iris. C'est grâce à elle que je ne suis pas mort de faim aux États-Unis. »

13. Max Aub, *op. cit.*, p. 88.



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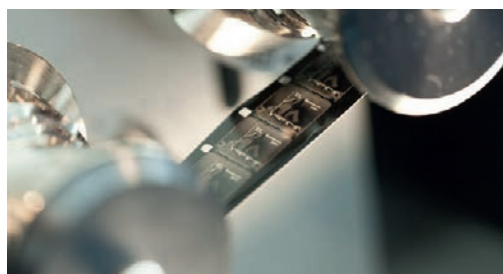
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Frames from *Bílý ráj / White Paradise*
(Karel Lamač, Czechoslovakia, 1924).

Archives at Work





Le groupe du chantier-école devant la Cinémathèque africaine de Ouagadougou.



Les bâtiments du FESPACO.

Des archivistes « passeurs de mémoire » collaborent à la préservation du patrimoine cinématographique africain

**Joseph Bamogo, Léonce Tira,
Marc Trille et Charlotte Werner**

Joseph Bamogo est conservateur d'Archives au ministère de la Justice et des Droits humains du Burkina Faso. Il est titulaire d'une licence en communication des entreprises et des organisations.

Léna Humbert est étudiante en dernière année de Master Gestion des Archives et de l'Archivage à l'Université Paris-Saclay. Elle souhaite mener d'autres missions à l'étranger et se spécialiser, à terme, dans l'archivage électronique.

Léonce Tira est conseiller en Gestion du patrimoine culturel, il est le directeur de la cinémathèque africaine de Ouagadougou.

Marc Trille est archiviste retraité, il est le chef de projet Burkina Faso au sein d'ASF-France.

Charlotte Werner est étudiante en deuxième année de master Gestion des Archives et de l'Archivage à l'Université Paris-Saclay. Elle aimerait beaucoup continuer à faire ce genre de mission très enrichissante, d'autant plus qu'elle souhaite se spécialiser dans les archives audiovisuelles et musicales.

Sur tous les continents, les catastrophes naturelles, les conflits, la pauvreté ou l'ignorance détruisent malheureusement trop souvent le patrimoine. Ainsi, une partie de l'histoire et de la mémoire des peuples est vouée à l'oubli. Le patrimoine documentaire, sous quelque forme que ce soit, bien souvent négligé, est pourtant un des principaux outils de connaissance des origines, et donc de l'identité des peuples. C'est dans le cadre d'un projet remarquable qui réunit des archivistes et des établissements d'enseignement et dont l'objectif est la transmission des connaissances archivistiques et la préservation du patri-

moine que s'est déroulé, à Ouagadougou, du 19 au 30 septembre 2022, un chantier-école qui avait pour but de classer, répertorier et mettre à disposition des chercheurs le patrimoine écrit et audiovisuel de l'institution du FESPACO.

LE FESPACO ET LA CINÉMATHÈQUE AFRICAINE DE OUAGADOUGOU

Le FESPACO, Festival panafricain du cinéma et de la télévision de Ouagadougou, a été créé en 1969 par un groupe de cinéphilés africains. La première édition s'est tenue du 1^{er} au 15

février 1969. Il est institutionnalisé en 1972 et placé sous la tutelle technique du ministère de la Culture. Aujourd'hui, il demeure l'une des principales vitrines du cinéma africain.

Les trois missions essentielles dévolues au FESPACO sont l'organisation des éditions du festival, la contribution au développement du cinéma africain en tant que support d'expression des valeurs culturelles africaines, la divulgation et la révélation des œuvres cinématographiques africaines.

La Cinémathèque africaine de Ouagadougou a été créée en 1989 à l'occasion du vingtième anniversaire du FESPACO. Elle est le fruit d'un long processus dans lequel l'engagement du FESPACO et des cinéastes africains organisés au sein de la Fédération panafricaine des cinéastes a été déterminant.¹ Son inauguration officielle en 1995 marque la concrétisation de la volonté de l'État burkinabè et de ses partenaires de préserver et de mettre en valeur le patrimoine cinématographique et audiovisuel africain.²

Pour assurer son fonctionnement, elle dispose de deux salles de stockage et de conservation des films, d'une salle de projection, d'un centre de documentation et de locaux administratifs. Elle est organisée en trois services : le service de la conservation et de la restauration, le service de la valorisation et de la promotion et le service de la documentation.

La Cinémathèque africaine de Ouagadougou a pour mission de rechercher, acquérir, conserver et mettre en valeur le patrimoine cinématographique national et africain.

DES ACTEURS CULTURELS ENGAGÉS DANS UNE DÉMARCHE DE TRANSMISSION DES SAVOIRS ET DE CONSERVATION DU PATRIMOINE

Le chantier-école a réuni professionnels en gestion du patrimoine, archivistes, étudiants en archivistique et personnel administratif.

Les Archivistes sans frontières

La mission des sections nationales d'Archivistes sans frontières (ASF) et d'Archivistes sans frontières-International est de protéger, conserver, organiser et diffuser le patrimoine documentaire en danger de disparition ou de dommages irréversibles. En ce sens, l'archiviste est un « passeur » de mémoire, mais également un rouage primordial de la transparence démocratique. Les projets d'ASF doivent inclure la garantie des droits humains, individuels et collectifs et le respect de l'identité des peuples. Les Archivistes sans frontières interviennent bénévolement sur les différents chantiers dans le monde.

ASF-France fait partie d'ASF-International et en respecte donc les principes. Cette section, forte d'une soixantaine d'adhérents, peut mobiliser rapidement les ressources nécessaires pour répondre à toute demande d'aide. L'association intervient ou est intervenue au Burkina Faso, au Congo, en Côte d'Ivoire, en Ethiopie, en Haïti, en Italie, au Mozambique, au Nigeria, en Palestine et au Sénégal.

Depuis 2010, ASF-France mène des projets au Burkina Faso, d'abord dans le cadre d'un programme destiné à aider les administrations dans leur politique d'archivage pour une meilleure gouvernance. Puis, à partir de 2018, ASF-France trouve sur les terres burkinabè toutes les conditions requises pour expérimenter une nouvelle forme d'intervention : les chantiers-écoles.

La section burkinabè d'Archivistes sans frontières, ASF-Burkina, est une association créée en 2022 à l'initiative de quelques jeunes archivistes burkinabè. Elle est forte à ce jour d'une vingtaine de membres. Etant sans but

1. Voir "La Cinémathèque africaine de Ouagadougou", *Journal of Film Preservation*, n°49, octobre 1994, p. 21-22.

2. La Cinémathèque africaine de Ouagadougou a été admise à la FIAF comme membre provisoire en avril 1994. Elle est un associé de la Fédération depuis 2001.

lucratif, le financement de ses activités se fait entièrement par l'investissement de ses membres ainsi que le soutien financier et logistique de ses partenaires.

Son objectif principal est de valoriser le patrimoine documentaire et archivistique du Burkina Faso et d'ailleurs. Elle compte réussir à toucher et réveiller la conscience collective sur la nécessité et l'urgence de sauver et de préserver les archives. A cet effet, le bureau exécutif actuel a axé ses activités sur des thématiques de sensibilisation, de formation, d'orientation des décideurs au moyen de conférences-débats, forums, chantiers-écoles, ateliers de travail, séances de lobbying et de publicités, visites *in situ*, entrevues et audiences avec les autorités...

La jeune association a été associée au chantier-école session 2022 organisé par ASF-France au FESPACO.

Les chantiers-écoles

Le projet de chantiers-écoles est porté par trois partenaires liés par des conventions :

- ASF et ses archivistes chevronnés et volontaires ;
- L'université de Versailles-Saint-Quentin-en-Yvelines, qui a rejoint récemment l'université Paris-Saclay ;
- L'École nationale d'administration et de magistrature (ENAM) du Burkina Faso, qui forme notamment les futurs conservateurs d'archives et archivistes.

Ainsi sont nés les chantiers-écoles, offrant une approche pédagogique singulière qui met en regard théorie et pratique et en relation étudiants français et du pays d'intervention. Les chantiers-écoles portent l'ambition de contribuer à la formation de jeunes professionnels venant de différents pays et de différentes cultures aux techniques pratiques d'archivage et également de sauver de la destruction ou de l'oubli des fonds d'archives peu connus. Ces chantiers-écoles se déroulent sur une période de deux semaines : le chantier du

FESPACO était le cinquième réalisé au Burkina Faso, après le classement des fonds d'archives du gouvernorat de Bobo Dioulasso en 2018, de la mairie de Ouagadougou en 2019, du Centre national de la recherche scientifique et technologique en 2020 et de l'École nationale d'administration et de magistrature en 2021.

Les participants au chantier-école 2022

Une vingtaine de personnes ont participé au chantier-école. Parmi elles, des étudiants en cycle de licence de l'Université Norbert-Zongo de Koudougou, des élèves archivistes de l'École nationale d'administration et de magistrature (ENAM), deux étudiantes de l'université de Paris-Saclay. Outre ceux-ci, les participants ont pu compter sur le soutien et les orientations du directeur de la Cinémathèque et de son personnel. La coordination du chantier-école a été assurée par le chef de projet Burkina d'ASF-France et trois archivistes membres d'ASF-Burkina.

DES RESSOURCES MAINTENANT ACCESSIBLES AUX CHERCHEURS ET AUX CINÉPHILES

Devant la masse de travail à effectuer et la courte durée du chantier, soit deux semaines, il a été décidé de prioriser le classement et le conditionnement des affiches entreposées en vrac dans la salle de documentation, d'archives administratives stockées dans cette même salle et dans le couloir attenant et des films 16 et 35 mm conservés dans la salle A de la Cinémathèque.

Les affiches

La plupart des affiches concernent des films ou différentes sessions du festival. Pour chaque affiche a été créée une fiche descriptive avec le numéro provisoire attribué à chaque affiche, le titre du film ou le titre du festival, le genre de l'affiche (de festival, de film, de documentaire ou de série), le réalisateur, le pays (de production ou du lieu du festival), la date (de sortie du film ou de la tenue du festival), ses dimensions et enfin des observations dans lesquelles est indiqué



Les affiches classées et répertoriées.

le nombre d'exemplaires conservés pour chacune d'entre elles. Pour des raisons pratiques et logistiques, seulement trois exemplaires de chaque affiche ont été gardés.

La répartition stricte des tâches – mesure des affiches, rédaction des analyses des affiches sur les fiches, recherches complémentaires lorsqu'il n'y a pas toutes les informations sur l'affiche, cotation provisoire, conditionnement des affiches et rangement sur les étagères – a permis de gagner du temps lors de découvertes d'affiches en double ou triple exemplaire.

Les fiches techniques ont été transposées dans un fichier Excel. Une fois le fichage des affiches terminé, ont pu commencer le classement définitif et la cotation à trois niveaux : série A (pour Affiches»), puis en sous-séries (1A, 2A, 3A, 4A, etc.) en fonction du genre de l'affiche : affiches de festival, films de fiction, documentaires, dessins animés, séries et événements particuliers, et enfin le numéro d'ordre dans chaque sous-série.

A la fin de ce chantier-école, les 664 affiches traitées sont cotées et rangées sur des rayonnages. Le fichier Excel permet une recherche à plusieurs entrées (nom du film, du réalisateur, pays, année...) et ne demande maintenant qu'à être complété au fur et à mesure de l'entrée de nouvelles affiches.

Les archives administratives

Les travaux ont également porté sur l'organisation des archives administratives du FESPACO. L'essentiel du travail a consisté à trier, regrouper, analyser et classer les archives suivant un plan préalablement élaboré. A terme, une soixantaine de boîtes ont été obtenues. Il convient de préciser que ces documents constituent seulement un échantillon du fonds d'archives de l'institution. Dans les bureaux, de nombreuses archives financières ayant reçu le quitus de la Cour des comptes seraient à éliminer après obtention des autorisations réglementaires. Cela permettrait de désengorger certains bureaux.

Les films

Avant le lancement du chantier-école, un important travail de catalogage des films conservés dans la Cinémathèque avait été réalisé. Les agents ont en effet recensé dans une base de données l'ensemble des films conservés dans la Cinémathèque avec, pour chaque film, des informations sur la date d'entrée, le réalisateur, la date de production... Toutefois, malgré cet inventaire complet, les films entreposés dans les salles A (bobines 16 et 35 mm) et B (DVD, VHS, etc.) n'étaient pas physiquement localisables. Les opérations de recherche, longues et fastidieuses, ont été simplifiées lors de ce chantier-école grâce à un travail d'identification et d'indexation. A la demande des agents de la Cinémathèque, le groupe chargé des films a, dans un premier temps, attribué une cote topographique à chaque film. Cette cote est composée des éléments suivants :

- nom de la salle de conservation ;
- numéro de l'armoire où se trouve le film ;
- date d'entrée du film dans le fonds ;
- numéro de la ligne ;
- numéro de la colonne ;
- numéro de l'emplacement sur la ligne.

Exemple : A1/1993/1-2/0004 représente la cote du film burkinabè *Rabi* de Gaston Kaboré. A1 : Salle A, Armoire 1 / 1993 : Année d'entrée du film à la Cinémathèque africaine de Ouagadougou / 1-2 : son emplacement sur l'armoire, ligne 1 colonne 2 / 0004 : le numéro d'ordre.

Les cotes attribuées ont été imprimées en format étiquette et collées sur chaque film ainsi que sur les étagères des rayonnages de conservation. Enfin, les cotes topographiques ont été reportées dans la base de données initiale afin d'obtenir un fichier unique à partir duquel il est désormais possible d'effectuer des recherches et de connaître l'emplacement exact de chaque film dans le magasin de conservation.

Aux termes de ce travail, tous les films sur support pellicule (16mm ou 35mm) ont été codifiés, étiquetés et rangés soit :

- 548 films sur support 16mm composés de films d'actualités, de fiction et de documentaires africains;
- 357 films sur support 35mm composés de films de fiction, de documentaires africains et de la diaspora, de films français et d'autres films non africains.

DE RÉELLES SATISFACTIONS ET DES PERSPECTIVES PROMETTEUSES MALGRÉ QUELQUES IMPRÉVUS

Le résultat obtenu est bien entendu encourageant. Des instruments de recherche existent maintenant pour les différents fonds classés et répertoriés, mais au-delà, il faut souligner l'entente parfaite entre participants, la richesse des contacts humains et une volonté farouche de tous de pouvoir terminer le travail commencé. Il ne faut cependant pas oublier de relever certaines difficultés plus ou moins graves qui ont marqué ce chantier-école.

Privilégier l'humain tout en formant des professionnels

La parole est donnée aux étudiants.

« Ce chantier-école fut extrêmement enrichissant à différents égards. Tout d'abord, si nous sommes amenés au cours de notre formation à connaître les institutions archivistiques françaises, tant dans leur fonctionnement qu'au travers de leurs périmètres d'activités, il est très formateur et instructif de travailler dans une institution étrangère et d'essayer de comprendre le contexte général – notamment politique et économique – propre à celle-ci ».

« Il était assez plaisant de donner de la profondeur à la formation d'archiviste : rencontrer des personnes qui font les mêmes études que vous, qui exercent le même métier que vous et qui œuvrent également à une bonne gestion documentaire dans le but de conserver et valoriser le patrimoine

est particulièrement enthousiasmant. Nous pouvons ainsi constater que, à quelques divergences près, les pratiques métier sont les mêmes, tout comme les enjeux et les objectifs finaux. Il était alors enrichissant d'échanger et de réfléchir ensemble pour mener à bien ce chantier-école et ainsi apprendre davantage les uns des autres ».

« Cette même appréhension du métier à l'international permet également de se projeter et d'ouvrir les champs des possibles : cela laisse en effet présager de jolies opportunités de travail en collaboration avec des archivistes du monde entier ».

« Ces deux semaines ont été l'occasion de rencontrer des personnes qui partagent l'intérêt des archives, de créer des liens avec celles-ci et de rester en contact avec elles dans la perspective de pouvoir continuer à travailler ensemble dans la suite de ce projet et pourquoi pas dans d'autres projets à venir ».

« Nous ne savions pas que le Burkina était aussi riche en matière d'archives cinématographiques. Ce chantier nous a permis de mieux connaître le patrimoine de notre pays ».

Des difficultés surmontées

La durée des chantiers-écoles est fixée à deux semaines maximum pour ne pas trop impacter les archivistes sans frontières qui y participent sur leurs congés annuels. Et cette durée a constitué une difficulté pour ce chantier devant la masse de travail à effectuer. Il a fallu, toujours dans un esprit de concertation et de prise de décision collective, décider de ne s'occuper que de la première salle de la Cinémathèque, des affiches et de quelques archives administratives.

Deux coupures de courant (qui ont duré un jour et demi) ont en partie ralenti les activités. Pas d'électricité équivaut à pas de connexion Internet, il a donc été impossible d'effectuer

les recherches complémentaires sur la Toile afin de compléter les fiches quand des informations manquaient (le plus généralement pays de production et date de sortie des films). Une solution a toutefois été très rapidement apportée : le personnel du FESPACO a très gentiment prêté le *Dictionnaire des cinémas d'Afrique*. Cet ouvrage a ainsi permis de retrouver de nombreux films dont le FESPACO possède les affiches afin de les référencer le plus précisément possible.

L'état de conservation des bobines de films est en apparence assez satisfaisant : celles-ci sont conservées dans des boîtes métalliques ou plastique de format adapté et sont entreposées dans une salle spécifique. L'ensemble du patrimoine audiovisuel est toutefois menacé, les locaux ne présentant pas les conditions idéales de conservation. Le magasin de conservation est en effet soumis aux aléas climatiques, notamment aux inondations et aux écarts de température. La présence de rouille sur les boîtes métalliques ainsi que l'accumulation de poussière sur l'ensemble des étagères tendent à fragiliser davantage l'ensemble du fonds. Celui-ci présente d'ailleurs des signes importants de dégradation, comme le laisse présager la forte odeur de vinaigre dans la salle, due à la décomposition des matériaux qui composent les bobines. Enfin, le système de traitement d'air est défectueux.

La fin du chantier-école a été quelque peu mouvementée. En effet, le vendredi 30 septembre devait être le dernier jour du chantier et voir la fin des travaux des trois groupes « archives », « affiches » et « films ». Mais, au petit matin, un coup d'Etat est survenu, contraignant tous les participants à se protéger en restant chez eux ou à l'hôtel. Le sentiment de frustration ressenti par les membres du groupe en voyant que, à un jour près, les objectifs ne seraient pas atteints a été de courte durée. En effet, le prolongement forcé du séjour de la délégation française, dû à une reprise échelonnée des vols internationaux, a permis de finir le travail le mardi 4 octobre.

Si la cérémonie officielle de fin des travaux a été annulée, cette journée a permis aux participants de terminer les différents chantiers et de se dire au revoir, non sans émotion.

Encore du travail à réaliser

Les participants se sont séparés avec l'idée bien arrêtée de reprendre et de terminer le travail l'an prochain si les conditions le permettent. Il faudrait, en effet, finaliser l'inventaire des archives cinématographiques et audiovisuelles se trouvant dans la salle B (film sur support DVD, VHS, BetaCam, Umatic, disques durs et clés USB). L'idéal serait alors de préparer la salle B en amont du chantier, notamment en rassemblant les doubles et les copies de films, de façon à optimiser les opérations d'identification, de traitement, de cotation et d'indexation. L'expérience de la salle A suggère qu'en plus de la cote topographique, permettant de localiser physiquement les films dans le magasin de conservation, un identifiant unique indépendant de la localisation soit attribué à chaque film. Cela rendrait l'identification plus juste du point de vue archivistique, mais aussi plus efficace si un changement de lieu de conservation survenait.

En ce qui concerne les affiches, elles sont toutes, depuis 2015, en format numérique. Il faudrait alors réfléchir à la façon de joindre ces affiches au classement et de les prendre en compte dans la base de données existante. De ce fait, l'idée d'une numérisation des affiches papier est également venue sur la table, mais cette dernière devra être faite par des professionnels au vu des dimensions conséquentes de certaines d'entre elles. Reste également à traiter le fonds photographique et à organiser les archives administratives.

Le travail effectué par les étudiants en archivistique lors de ce chantier-école est une simple pierre venue s'ajouter à d'autres qui contribuent à la protection et à la conservation d'un patrimoine inestimable. Ils formulent le vœu de voir la Cinémathèque africaine de Ouagadougou remplir toutes les conditions pour préserver, conserver et com-



Classement des affiches.



Cotation des boites de film.

muniquer les trésors cinématographiques qu'elle contient. Ils lancent un appel à tous les partenaires culturels et financiers potentiels, à la fois pour résoudre les problèmes de mise en sécurité des magasins de conservation et surtout les difficultés de traitement

en

A remarkable project took place in Ouagadougou between 19 and 30 September 2022. L'association Archivistes sans frontières-France (the Association of Archivists without Borders-France) has been experimenting with workshops in Burkina Faso since 2018. Supported by three partners: ASF-France, the University of Paris Saclay, and ENAM (Ecole Nationale d'Administration et de Magistrature du Burkina Faso), the workshops offer a unique pedagogical approach that brings together French and Burkinabè students. The ambition is to contribute to the training of young professionals from different countries and cultures in practical archiving techniques, and to save from destruction or oblivion little-known archival collections. The ASF-Burkina section was created in 2022 in time to enable it to join the other partners at that year's workshop.

The 2022 workshop took place at the headquarters of FESPACO, the Pan-African Film and Television Festival of Ouagadougou – the main showcase of African cinema – and at the Cinémathèque africaine de Ouagadougou. Its main theme focused on the treatment of posters kept in bulk, on the classification of a batch of administrative archives, and on the itemising of films on 16mm and 35mm.

The result is very encouraging despite some difficulties: the two-week time limit, occasional power cuts, the breakdown of the air-conditioning system in the vaults which endangered their conservation status, and the coup d'état that occurred as the workshop was taking place.

Finding aids now exist for the various classified and listed collections (664 posters, about 60 boxes of administrative archives, and 905 reels of film), but beyond that, we must emphasise the perfect understanding among the participants and the great value of personal contact.

The participants would like to be able to finish the work started by finalising the inventory of the remaining film and audiovisual archives and by classifying the photographic collection. Finally, they call for a solution to the problems of air-conditioning and for the digitisation of the rarest films.

d'air, condition essentielle d'une bonne conservation des films, mais aussi penser et réaliser une numérisation des films les plus rares. Il en va de la mémoire cinématographique de l'Afrique.

es

Entre el 19 y el 30 de septiembre de 2022 tuvo lugar en Uagadugú un proyecto extraordinario. L'Association Archivistes sans Frontières-France (la Asociación de Archiveros sin Fronteras-Francia) lleva experimentando con talleres en Burkina Faso desde 2018. Con el apoyo de tres socios: ASF-Francia, la Universidad de París Saclay y ENAM (Escuela Nacional de Administración y Magistratura de Burkina Faso), los talleres ofrecen un enfoque pedagógico único que reúne a estudiantes franceses y burkineses. La ambición es contribuir a la formación de jóvenes profesionales de diferentes países y culturas en técnicas prácticas de archivo, y salvar de la destrucción o del olvido los fondos archivísticos poco conocidos. La sección ASF-Burkina se creó en 2022 a tiempo para poder unirse a los demás socios en el taller de ese año.

El taller de 2022 se celebró en la sede del FESPACO, Festival Panafricano de Cine y Televisión de Uagadugú -principal escaparate del cine africano- y en la Cinémathèque africaine de Ouagadougou. Su tema principal se centró en el tratamiento de los carteles conservados a granel, en la clasificación de un lote de archivos administrativos y en el inventario de las películas en 16 mm y 35 mm.

El resultado es muy alentador a pesar de algunas dificultades: el plazo de dos semanas, los cortes ocasionales de electricidad, la avería del sistema de climatización de almacenes que puso en peligro su estado de conservación, y el golpe de Estado que se produjo mientras se desarrollaba el taller.

Ahora existen guías documentales para la aproximación a los diversos fondos clasificados y catalogados (664 carteles, unas 60 cajas de archivos administrativos y 905 bobinas de película) pero más allá de eso, hay que destacar el perfecto entendimiento entre los participantes y el gran valor del contacto personal.

Los participantes desearían poder terminar el trabajo iniciado finalizando el inventario de los archivos cinematográficos y audiovisuales restantes y clasificando la colección fotográfica. Por último, piden que se solucionen los problemas de climatización y que se digitalicen las películas más raras.



Fig.1. *Gone with the Wind* (1939).



Fig.2. *Our Town* (1940).



Fig.3. The hillock and split rail fence in *Invaders from Mars* recall Menzies's designs in *Gone with the Wind* and *Our Town* (Figs.1 & 2).



Figs.4 & 5. Leif Erickson recalled Menzies' Police Station design as "black-and-white in color".



Renovating Mr. Menzies's Martians

Scott MacQueen

Scott MacQueen worked for 30 years in film restoration for the Walt Disney Company and PRO-TEK Media Preservation Services, before becoming Head of Preservation for the UCLA Film & Television Archive in 2012. Since retiring in 2021, he now freelances as a restoration supervisor. He has written extensively on film history and technology and has provided commentaries for several DVD and Blu-ray restoration releases. The latest of many awards he has received for his work is the inaugural 2022 Hollywood Professional Association award for "Best Restoration" for *Invaders from Mars*.

A MARTIAN ODYSSEY

The brilliant production designer William Cameron Menzies directed the seminal 1953 Cold War science fiction film *Invaders from Mars* for producer Edward L. Alperson. For reasons that will become clear, the film became physically compromised shortly after first release. In 2022, *Invaders from Mars* was retrieved from the brink of extinction. The restoration was mechanically complex, drawing on five different 70-year-old copies to achieve a high-quality rendering of the original version. To understand the task and the achievement it is necessary to be conversant with the taking and printmaking processes used in 1952-1953, and subsequent editorial decisions that affected the ability to recover an authentic version.

Invaders from Mars survives today in the memories of baby-boomers who encountered it in the 1950s and 1960s. Its brilliance lay in Menzies's deployment of a child's perspective, dream logic, sets in distorted perspective, and psychological compositions to underscore the symbolic narrative. There is a dichotomy

of good parents and bad parents as the boy hero's natural parents are turned into soulless automata by the Martians.

Even Menzies's actors realized that the design was something special. Leif Erickson, who played the boy's father in *Invaders from Mars*, told interviewers Tom and Jim Goldrup of the architectural distortions and specific color design Menzies brought to the film.

Invaders from Mars was the first of its kind. The director, Cameron Menzies, was the guy who designed the sets for *Gone with the Wind* (Fig.1).¹ He was a powerhouse. He did a neat thing in several sequences: it was in color, but the sets were black-and-white, like the courtroom scene [the police station], the sets were not built square. They were built with perspective. Everything was out of kilter in the perspective sense. It was like a kid's view of the courtroom. It was strange. That was his idea, and he did the whole thing in black-and-white. We all

1. The hillock and split rail fence in Fig.3 recall Menzies's designs in both *Gone with the Wind* (Fig.1) and *Our Town* (Fig.2).



Fig.6. A boy becomes a man when a man is needed.

wore black-and-white clothes, yet it was in color. (Figs.4 & 5) So, we thought, 'What the heck's going on, what's the strange effect? It's a wild one.'"²

Once possessed by the alien, the mother becomes a nazified *Mutterlein*, dressed in black with Aryan tresses, coiled like Medusa's snakes. The loving father becomes a bully and a brute. Surrogate Mother and Father figures are portrayed by two doctors, a male astronomer in a salt-and-pepper blazer, and a woman psychiatrist wardrobe in a crisp, ivory-white uniform with a flaming red kerchief pinned, symbolically, over her heart. This is remarkable in a B-movie made for children on a \$290,000 budget. As the boy takes charge to save our world (sounding the alarm, giving intelligence and resources to the US Army), the main theme echoes the lesson of John Steinbeck's story *Flight*, "a boy becomes a man when a man is needed". "Can you work it, David?" asks Colonel Fielding as he thrusts the long tubular ray gun into David's hands. "Yes, sir!" says David, as he powers up this glowing phallus to emit a powerful orgasm. For such a parable, the purity of the image and proper representation of color is paramount (Fig.6). Menzies's biographer, James Curtis, calls it "a triumph of design and composition. It worked because Menzies shot it from the boy's perspective, incorporating strong foreground elements to underscore the peril".

2. Tom and Jim Goldrup, *The Encyclopedia of Feature Players of Hollywood*, vol.1. Narberth, PN: Bear Manor Media, 2012.

When released in 1953, *Invaders from Mars* found itself bookended between two other Martian tales: John Balderston's doxological anti-communist *Red Planet Mars* (from his 1932 play) and a \$2,000,000 adaptation of H.G. Wells's invasion fantasy *The War of the Worlds*. Where Balderston found God residing on Mars, Wells found Science residing on Earth. Menzies and his writers found the bogeyman *diabolus ex machina*, a macrocephalic, tentacled golden head in a glass globe. Its Cold War paranoia writ large, the experience is mediated by a xenophobic child on the cusp of sexual awakening. Color theatrical release had an unforgettable impact on children, and 1958 black & white TV prints proved nearly as effective despite lacking Menzies's color design.³ Several generations were imprinted by the drama of loved ones sucked down into swirling sand, the alien craft hidden below ground, and the aureate invader issuing dire commands merely by shifting its eyes.

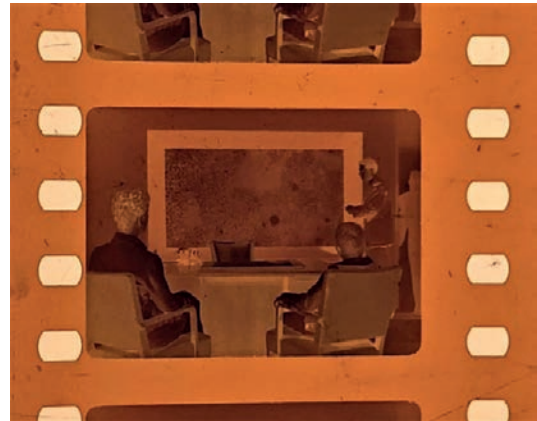
ENTER SUPERCINECOLOR

Invaders from Mars was photographed in 1952 using the-then new Eastman Color 5248 negative, with an Exposure Index of EI 16 for Daylight and EI 25 for Tungsten (Figs.7 & 8). The only exterior scenes in *Invaders from Mars* were all night-for-night, include the sabotage of an industrial plant, the escape of military fifth columnists through a parking lot, and an attempted assassination. Otherwise, John Seitz photographed under studio lighting. He told Robert Skotak that the film was lit and photographed as if it were a Technicolor film.⁴ James Curtis tells us that "in Menzies' absence, the movie had been deemed too short to top a double bill and was artificially lengthened to a running time of seventy-eight minutes," still managing to gross \$780,000 in domestic rentals.⁵

3. James Curtis, *William Cameron Menzies: The Shape of Films to Come*. New York: Pantheon Books, 1998, p.339.

4. Robert Skotak and Scott Holton, "Invaders from Mars", *Fantascene* No.4, 1978.

5. Curtis, *op. cit.*



Figs.7 & 8. Eastman Kodak 5248 camera negative. Left: Cinecolor separation chart. Right: "Observatory Sequence".

Invaders from Mars release prints in SUPERcineCOLOR were paid for by National Pictures Corp. and delivered to distributor 20th Century-Fox. They were exceedingly complex to make, a three-color print-making process using duplicate Y-C-M printing negatives and metallic toning. The SUPERcineCOLOR printing process was even more complex than the Technicolor dye-transfer process. Black & white separation master positives were made from the Eastman Color negative onto Eastman 5216 Panchromatic Separation Film. From these three records, Y-C-M dupe negatives were made on Eastman 5203 Panchromatic Duplicating Film. These became the Cinecolor printing negatives.

The positive raw stock for SUPERcineCOLOR prints, manufactured by Du Pont, was duplitzed (coated with black & white emulsions on both sides). It featured color-blind positive emulsions impregnated with a water-soluble yellow dye coated on both sides of the base. Two of the three color records, the cyan and magenta, were step-printed at the same time on opposite sides of the film, along with the cyan soundtrack. The black & white latent images were developed into silver. Then the cyan was laid face down onto a solution that converted the soundtrack and cyan image into a cyan-toned pigment (Fig.9).

In an extremely complex chemical process, the magenta record remained undeveloped and embedded in the emulsion. The yellow component was then printed by the yellow printer negative. A bleach solution converted the silver in the yellow and magenta component images to dye mordants, with the film floated first on a yellow dye solution, then on a magenta dye solution. After a final wash, the film was dried and emerged as a finished three-color print⁶ (Fig.10).

Negative cutting for SUPERcineCOLOR was non-standard and would have serious downstream repercussions for the restoration. The titles and opticals were delivered as three-strip black & white dupes and were assembled in the dupe printing negatives. The Eastman Color negative was theoretically never to be used again. The dying Cinecolor Corp. became Color Corporation of America, was sold to Houston Color Film Laboratories, capitulated to Anscocolor, and was out of business by 1955.⁷

6. Alan M. Gundelfinge, "Cinecolor Three-Color Process", *Journal of the Society of Motion Picture and Television Engineers*, Volume 54, Issue 1, Jan.1950. <<https://archive.org/details/journalofsociety54socirich/page/74/mode/2up>>.
7. "Cinecolor" (2018) Wikipedia. <<https://en.wikipedia.org/wiki/Cinecolor>>.

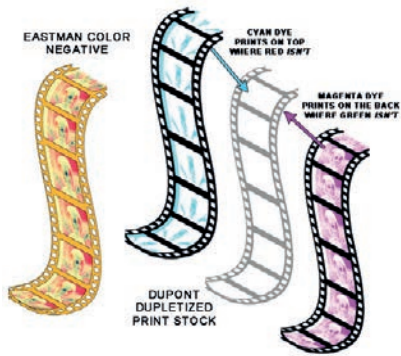


Fig.9. SUPERCineCOLOR first processing stage. From the Eastmancolor negative, Fine Grain Positive RGB color separations (not pictured) would be made to produce the YCM dupe negatives pictured here. The cyan and magenta records are printed simultaneously onto the dupletized Du Pont receiving film.

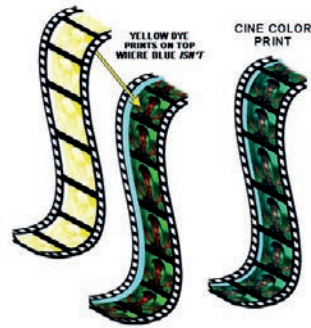


Fig.10. SUPERCineCOLOR second processing stage. With the cyan already processed and floated on a mordant bath, the yellow record is printed onto the film. After bleaching the film, first the yellow record and then the magenta record are independently floated on baths that convert the mordant images to toned colors for a final three-color print.

THE CONTINENTAL VERSION

Before the doors were locked, a last pass was made on *Invaders*. Five months after opening, *The Hollywood Reporter* announced,

... in order to enhance its foreign distribution, Edward L. Alperson will change the ending and add approximately eight minutes of scientific sequences to the 20th Century-Fox release, Invaders from Mars, which has been on the US market since last April. Big factor is that dream effects aren't too popular with foreign audiences, especially in Europe; this the producer will alter so that viewers can use their own imagination. Reporting for their respective roles on Wednesday at KTTV are Leif Erickson,⁸ Arthur Franz, Jimmy Hunt and Helena Carter, Wesley Barry⁹ will handle the additional scenes. No release has been set for the foreign market.¹⁰

Jimmy Hunt is noticeably a year older, his haircut is like new-mown hay, and he wears an idiosyncratic sweater vest over his white shirt. Three new camera set-ups show the principals hiding behind an army jeep, and a new optical makes the saucer appear to ex-

plode in the sky. A single take representing the doorway of his bedroom has David taken home and put back to bed. "The little man has had a busy day!", says Dr. Blake in a side-splitting understatement.

In addition to maiming the story, these changes wreaked physical havoc on the original camera negative (OCN): the recutting made it impossible to recover any semblance of the original version. Already missing its opticals, the OCN now lost virtually all the straight-cut photography of the original ending.

A 1955 domestic reissue of the film by Fox was likely serviced by rejuvenated exchange prints. Continental versions appear to have used positive assembly to integrate the new scenes into the old (now showing sloppy and dirt-riddled printing). The Continental version "End Title" deleted the 20th Century-Fox credit, and no distributor is named. The camera negative was trimmed of virtually the entire "all a dream" frame, and the trims were not kept. When the film was released in Italy in 1958 (as *Gli Invasori Spaziali*) by The Rank Organisation-RKO-Radio, an Eastman Color dupe negative was sent to Rome for release printing. National Pictures Company folded, and distributor Richard Rosenfeld bought the Alperson library. In 1975, Rosenfeld made a deal with Wade Williams, a Kansas City dilettante, who mounted a

8. Leif Erickson has no role in the new footage; indeed, the new script pages provide no action for the Father.

9. The director of the inserts, Wesley Barry, had been a freckle-faced kid actor in silent movies. He is best known for directing the low-budget, 1962 science fiction film *Creation of the Humanoids*, often said to be Andy Warhol's favorite film.

10. *The Hollywood Reporter*, 1 September 1953.



Fig.11. Positive color correct images from 5248 camera negative.

misbegotten theatrical reissue. He borrowed elements vaulted at UCLA. Inventoried items including *Invaders* optical soundtracks, SUPERcineCOLOR printing elements, and a 35mm master color print were subsequently loaned to and kept by Williams, who ignored all requests for their return. He continued to misrepresent non-existent ownership in the title until his death in 2023.

Ignite Films B.V. is legal successor in rights to Richard Rosenfeld. Controlled by Jan Willem Bosman Jansen, with offices in Amsterdam, The Netherlands, Ignite stores its North American holdings at the UCLA Film & TV Archives, where this writer met Bosman Jansen after joining UCLA as its Head of Restoration in 2012. *Invaders from Mars* and a path to its restoration were discussed at length. Answering inquires on the Home Theatre Forum message board, Bosman Jansen wrote, "Unfortunately we have not been able to release *Invaders from Mars* until now since all elements that were

stored in the name of Richard Rosenfeld were illegally taken from UCLA in the late 80's, this included the YCM and negatives and never returned."¹¹

Bosman Jansen then achieved a coup by purchasing the rediscovered Eastman Color camera negative from the Hollywood stock library that held it. Present were approximately 60 minutes of the 78-minute movie. It lacked one reel. The original ending was absent from Reel 9AB and, as customary for SUPERcineCOLOR, the cut negative has no titles or opticals. Footage had been added and subtracted to accommodate changes for the Continental version. The missing 18 minutes of the original Domestic version

11. See "Amsterdam Court Ruled: Copyright ownership of *Invaders from Mars* by Ignite b.v. – The Netherlands." In "An E-mail Appeal to Mr. Wade Williams" on the Home Theater Forum, 9 August 2016. <<https://www.hometheaterforum.com/community/threads/an-e-mail-appeal-to-mr-wade-williams.348711/page-4>>.



Fig.12. Australian SUPERCineCOLOR print .

would need to be sourced from 70-year-old worn release prints. A digital workflow was the only efficient way to restore this film.

SURVIVING ELEMENTS ON THE FILM

In restoring a complete, highest quality edition of the original Domestic version it was necessary to combine the extant camera original with the best original release prints that could be found. A worldwide search of archives located three 35mm Cinecolor prints – two overseas copies of the Foreign Version (of which more later) and one 35mm Cinecolor print of the Domestic version. Two other 35mm prints are known to this author but held by collectors who refused to cooperate. None of the available resources is complete and the physical condition of each is compromised. Our resources were:

1. 35mm Eastman Color 5248 Original Camera Negative, incomplete. Ignite Films. On deposit at UCLA Film & Television Archive (Fig.11)
2. 35mm SUPERCineCOLOR print. Continental version, Du Pont Stock. National Film and Sound Archive of Australia (NFSA) (Figs.12 & 13)
3. 35mm SUPERCineCOLOR print. Continental version, Du Pont Stock. George Eastman Museum (GEM) (Figs.14 & 15)



Fig.13. Same scene from restored camera negative.

4. 35mm SUPERCineCOLOR 35mm print. Domestic version, collector print, Du Pont Stock. On deposit at George Eastman Museum (GEM) (Figs.16 & 17)
5. 35mm Eastman Color 5381 print, 1976 Domestic reissue version, Ignite Films, color faded. On deposit at UCLA Film & Television Archive

1. 35mm Eastman Color 5248
Original Camera Negative, incomplete,
UCLA.

With a run time of 78 minutes, *Invaders from Mars* was completed in 9 x 1000ft reels, 1A through 5AB. The camera negative, representing perhaps only 75% of the Domestic version, is clean, orderly, and undamaged. It exhibits a reasonable amount of blue-layer fading (vendor tests done in 2016 show a yellow cast, correctable with today's digital Color Grading Suites). As described previously, all the opticals are absent. The United States Army stock footage and the repeated shots and floppers – including the dream montage – added to the film to increase the domestic run time are not there. Reel 1B is missing in its entirety.

2. 35mm SUPERCineCOLOR print.
Continental version, NFSA

This 4 x 2000ft print was distributed by RKO-Radio Pictures. It lacks much of the military stock footage, repetitions of the tunnel chases, and the silly moment when Captain



Fig.14. GEM SUPERcineCOLOR print with false coloration giving magenta cast to both neutrals and shadows.

Roth pats David on the head. It contains the tedious, newly shot Observatory sequence and substitutes the “happy ending” in lieu of the “dream frame” ending. Scenes of the army tanks as well as scenes inside the bedrooms of David and his parents exhibit solarization (tone reversal due to extreme overexposure). Dark shadows exhibit erratic bright blue in their maximum density. The print is well worn, with scratches, splices, and color dirt, much of which – including hairs that have prevented the orderly chemical processing of a color-separation record – appears to have been induced during printing. Overall, the color is sub-standard and variable.

3. *35mm SUPERcineCOLOR print.*
Continental version, GEM

This RKO-Radio print is a sister to the NFSA print with its own damage and printing defects. The 4K scans were problematic as shrinkage or perforation instability caused them to weave and jitter. As it required extensive stabilization, this resource was only used when shots were not present in the OCN or the NFSA print.

4. *35mm SUPERcineCOLOR 35mm print.*
Domestic version, collector print, GEM

Follow-up inquiries to the George Eastman Museum revealed that they housed a second Cinecolor print, not in their catalogue, but on deposit from a private collector who granted permission for it to be a resource. Once inspection confirmed it to be the domestic version, a scan was made of 5AB which was needed for a high generation copy of the original ending. It



Fig.15. The same image printed from the restored camera negative.

had heavy wear, emulsion flaws and scratches, and exhibited solarization with blue shadows throughout (Fig. 16). These conditions would require DRS (Digital Restoration System) for removal of dirt, debris and artifacts (Fig. 17).

5. *35mm Eastman Color 5381 print, 1976*
Domestic reissue version, Ignite Films, UCLA

This print was the only source available to us that contained two events: the Main Title sequence complete, with no splices or missing frames; and the shot of Captain Roth patting David on the head, removed from the negative in 1955 at the time of the Continental recutting. The yellow layer had completely collapsed leaving a magenta-hued image. The camera negative having been such a primitive dye-coupler element, its slow Exposure Index and early emulsion design makes the film moderately grainy, especially with indifferent material that is sixth generation. No grain-processing tools were used at any stage of the digital restoration as the penalty of the process is to soften and distort the image.

THE RESTORATION PROCESS

There are 667 events – individual shots but broken out by camera cuts – in *Invaders from Mars*. An optical containing multiple dissolves among three or four shots is considered a single event. Once the scans were received, QuickTime proxies were made with visible time code and the resources compared. An Edit Decision List (EDL) was created that re-



Fig.16. Solarization of emulsion on GEM Collector print causes shadows to exhibit false blue for Invaders.



Fig.17. Emulsion defect on GEM Collector print creating "minus red" condition.

flected our choices on a shot-by-shot basis. The OCN was the first resource, followed by the NSFA Cinecolor print, then the GEM Foreign print and the GEM Collector print. In last position was the 1976 faded Eastman print which was needed for two events.

Scans at 4K, 16-bit DPX, 4096×2160, were acquired from Australia, Poland, Rochester NY, and Hollywood CA. The sub-standard prints of both the Foreign and Domestic version were consulted. At Roundabout Entertainment, mastering producer Vincent Pirozzi oversaw scanning of the camera negative on a 6K Director to 4K DPX files. The 1977, color-faded Eastman Color reissue print in Ignite's UCLA holdings artlessly cobbled both versions into one; it was needed for two Domestic shots and nearly the entirety of the foreign Observatory sequence (being restored separately).

The EDL was provided to Roundabout's Flame editor, Vahe Giragol, who prepared a rough assembly. The Restoration Supervisor sat in with the editor and reviewed the rough cut. Some of the shots were still "missing", as compared to the original cut, and we quickly learned where most of the myriad repeats were pulled from – David attempting twice to escape and being caught by Sergeant Rinaldi, and Lock Martin's big mutant being shot and then reviving, twice. More difficult were flops and enlargements. Some repositions

were evident – soldiers and mutants running endlessly through the tunnels right-to-left, then left-to-right.

The most elusive shot was of a soldier standing on a parallel, guiding a searchlight. One such wide shot existed in the OCN, but this shot was much closer and with different orientation. We were resigned to pull it from one of the Cinecolor prints until we realized that it was a repositioned flopover, blown up by perhaps 30%. Consequently, we were able to use the first generation OCN to recreate this brief shot.

COVID restrictions and difficulties in obtaining the foreign scans encumbered the restoration for over a year. Final delivery was made as MXF files, SMPTE standard (ST 268-1:2014) for the final Digital Cinema Package and down-converted to Rec. 709, 10-bit color for Blu-ray.

AUDIO RESTORATION

At Roundabout, audio engineer Greg Faust repaired the soundtrack. The primary sources were the three Cinecolor prints bearing RCA Duplex tracks printed in the cyan emulsion. Compared to a similar track in black & white, these prints have a higher signal-to-noise ratio, and scratch much more easily than metallic silver tracks used in black & white and Technicolor. Consequently, they are noisy. Physical damage accounted for occasional



Fig.18. Eastmancolor faded Main Title from the spurious 1976 version created by Wade Williams.



Fig.19. The dreary Australian SUPERcineCOLOR element, a precarious starting point for Main Title reference.

distortion and overmodulation, as well as missing content due to fractures in the source prints. The audio captures were loaded in Pro Tools and then processed against the final picture assembly. The best sections from each print were used, pops and clicks were removed manually, and the track carefully denoised without removing the high frequencies. Perhaps the film would sound slightly better had we had access to the 35mm track negative purloined by the licensee. Limitations notwithstanding, this is the best this film has sounded in seventy years. A Music & Effects track became available to the project, but it was a cassette dub made over 30 years ago, several generations removed. It proved dull and muffled, and so was not used.

COLOR GRADING AND FINISHING

Simultaneously with the audio work, the final 4K version underwent DRS to remove weave, dirt, scratches, and artifacts. This included the application of proprietary software that permitted rebalancing of the blue shadow to deal with the random blue solarization shots, a task considered insoluble several years ago.

The 4K files then moved to the color suite where Greg Garvin, with the input of this writer, color graded the feature from top to bottom. With four sources, no two alike, the Cinecolor prints were impractical as reference. The Eastman Color camera negative scans were the real starting point. We followed its dictates based on normal flesh

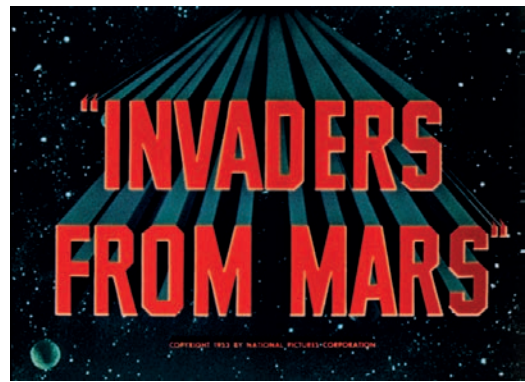


Fig.20. The faded 1976 Eastman Color, though largely magenta, proved capable of having the full original colors revived with sensible grading.

tones, neutral whites, and neutral blacks. This indicated how wonky and inconsistent the Cinecolor prints were, with frequent magenta shadows, yellow-hued faces, and cool neutral walls that ranged from grey to blue to magenta-violet (Figs.18 & 19; final version Fig.20). The film was meticulously color designed, so we remained sensitive to color effects such as the yellow light on Helena Carter's sleeping face as the Martian probe weaves to absorb her brain. The stock shots were much different, no design, and mismatched throughout. At the same time, Ignite held the original Eastman Color dupe negative for the Trailer in excellent condition. This was also scanned at 4K, the sound and picture cleaned for presentation in the Value Added section of the Blu-ray.



Fig.21. The 1976 faded Eastman Color print, before and after electronic regrading.

THE 1976 REISSUE VERSION CONTINENTAL SCENES

It was never our intention to repeat the folly of the 1976 version and add the foreign scenes into the film, but we felt they needed to be preserved and restored for presentation as Value Added supplements on the Blu-ray release. The GEM Cinecolor print, fourth generation, was the preferred color source for the Observatory scene but it was badly scratched and spliced and would require extensive stabilization in addition to automated DRS and hand-processing. Many splices meant many missing frames, the least offensive being two frames, the most offensive reaching 196 frames (eight seconds). With so much content and dialogue missing, only six shots could be salvaged from the George Eastman Museum SUPERcineCOLOR print. We then looked to the 1976 reissue print.

The 1976 faded Eastman Color print was our final resource for the Continental scenes and had the advantage of being free of splices and tears. The sequence was scanned by Roundabout at 2K and processed by Greg Kimble, using Digital Vision's Nucoda to address dirt and flicker, and Adobe After Effects for color and stabilization (Fig.21).

RENOVATION COMPLETED

The restoration of *Invaders from Mars* gestated for ten years before all the necessary elements fell into place. The research, inspection, and restoration took a full year, partially due to

COVID-19 restrictions. Final delivery was made as MXF files, SMPTE standard (ST 268-1:2014) for the final Digital Cinema Package, and down-converted to Rec. 709, 10-bit color for Blu-ray.

The restored film (Fig.22) was shown to the Menzies and Hunt families at Roundabout Entertainment in Burbank, California on April 10, 2022. Jimmy Hunt, the film's juvenile star (now 83 years of age) attended with his son, Ron, and granddaughter Haley. Pam Lauesen, granddaughter of William Cameron Menzies joined them. Mr. Hunt noted that he had seen the film several times over seventy years. "This is the best it's ever looked," he enthused. It premiered publicly at the TCM Classic Film Festival on April 23rd and became available as a standard Blu-ray and 4K Ultra HD Blu-ray in December 2022.¹² On 14 January 2023, the Martians entered the pantheon when the restored *Invaders from Mars* played The Museum of Modern Art in New York.

Motion picture restorers deal with many subjects and films in their careers, some requiring a substantial amount of effort. Sometimes a cherished project like *Invaders from Mars* arises. Professionally, few things are more satisfying than the recovery of a work that you have a personal affinity for. Supervising *Invaders from Mars* was the fulfillment of a dream for this writer. He takes great pride to have been the hands chosen to renovate Mr. Menzies's Martians, his compliant companions of six decades.

12. <<https://www.ignite-films.com/products/invaders-from-mars>>.



Fig.22. Mr. Menzies's Martian: Final Color Corrected image from Eastmancolor 5248 Original Camera Negative.

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Film de science-fiction phare de la guerre froide, *Les Envahisseurs de la planète rouge* (*Invaders from Mars*, 1953), produit par Edward L. Alperson et réalisé par William Cameron Menzies, est tourné en 1952 sur négatif Eastmancolor, qui vient tout juste d'être lancé. Le tirage est effectué avec le procédé breveté SUPERcineCOLOR, ce qui sera à l'origine de la perte du film. Les vestiges - d'une durée totale d'une heure - du négatif couleur original seront rachetés par le détenteur des droits du film, Ignite Films, auprès d'une archive de films à Hollywood, des séquences ayant entre-temps été ajoutées et retirées afin d'apporter des modifications à une version Continentale. Les 18 minutes manquantes devront être extraites de copies anciennes et dégradées. Grâce à plusieurs laboratoires en Europe et en Amérique du Nord, des scans DPX 4K 16 bits, 4096 x 2160, sont réalisés afin de servir de sources d'images. Le son de trois copies composites Cinecolor, « piste bleue » (cyan), est transféré, comparé, puis monté afin d'obtenir la meilleure qualité de signal avant d'être nettoyé et normalisé. Au total, cinq sources 35 mm ont été utilisées pour la restauration et, en raison des restrictions liées au COVID et des difficultés concomitantes pour obtenir les scans, elle a pris plus d'un an. La livraison finale est effectuée, sous forme de fichiers MXF pour projection DCP Rec. 709, et DPX 10-bit couleur pour l'édition Blu-ray.

es

Invaders from Mars (1953) es una película de ciencia ficción clave de la Guerra Fría, producida por Edward L. Alperson y dirigida por William Cameron Menzies. Fue fotografiada en 1952 con el nuevo negativo Eastmancolor. Las copias de estreno se realizaron en el efímero SUPERcineCOLOR, un proceso patentado que sembró la semilla de la pérdida de la película. El titular de los derechos de la película, Ignite Films, compró restos del negativo en color original, de una hora de duración, a una filmoteca de Hollywood. Se habían añadido y eliminado secuencias para adaptarlas a una versión continental. Los 18 minutos que faltaban tuvieron que obtenerse de viejas y desgastadas copias de estreno. Aprovechando los recursos de Europa y Norteamérica, se adquirieron escaneados DPX 4K de 16 bits, 4096 x 2160 para las fuentes de imagen. Se transfirió el audio de tres copias Cinecolor con "pista azul" (cian), se comparó y se editó para obtener la mejor calidad de señal antes de eliminar el ruido y ajustar los niveles. En total, la restauración consultó cinco fuentes de 35 mm y debido a las restricciones del COVID y a las dificultades concomitantes para obtener los escaneados, tardó más de un año en completarse. La entrega final se realizó como archivos MXF para la proyección como Digital Cinema Package Rec. 709, y como archivos DPX con profundidad de color de 10 bits DPX para Blu-ray.



Slike iz života udarnika / Life of a Shock Force Worker (Bahrudin "Bato" Čengić, Yugoslavia, 1972).



Med ackja och ren i Inka Läntas vinterland / With Reindeer and Sled in Inka Länta's Winterland (Erik Bergström, Sweden, 1926).

Restoring and Distributing Films from European Archives: A Season of Classic Films

Paulina Reizi

Paulina Reizi is project manager at Eye Filmmuseum, the co-ordinator of ACE's Executive Committee, and co-ordinator of ACE's programme *A Season of Classic Films*.

The author would like to thank Sandra den Hamer, former ACE President and Director of Eye Filmmuseum, for her support.

A Season of Classic Films is an initiative of ACE – the Association des Cinémathèques Européennes (the Association of European Cinémathèques) – that features free screenings of restored films alongside parallel activities across Europe with the aim of developing new audiences for European film heritage. Through a series of live and online events that share a consistent publicity approach internationally, the programme raises awareness of the work of the European film archives, advocating the significance of film preservation and cinema culture, especially to younger generations. In addition to reaching new audiences, the programme is also an expression of connection and solidarity between the European film archives, something which is key to the preservation of our common film heritage.

The third *Season* was successfully completed in December 2022 and plans for the next one are in the making. The article describes the background to this collaborative

project that brought together more than 20 film heritage institutions for each of the two previous editions, and then discusses the funding situation, the initiative's concept, and its practical organisation at international level. Considering the positive reception from general audiences as well as from FIAF members, it is hoped that this programme may serve as an inspiration for similar joint projects in other regional groups, and further stimulate international collaboration among film preservation stakeholders.

ACE – ASSOCIATION DES CINÉMATHÈQUES EUROPÉENNES

ACE is a network of 49 national and regional film archives in Europe. All ACE institutions are also members of FIAF. ACE was created in 1991 and aims to safeguard the European film heritage and make it accessible to the public. The Association has initiated several projects to achieve these goals, including the renowned *Lumière* programme of the 1990s. Its latest initiative is *A Season of Classic Films*, arguably one of its most successful.

BRINGING EU CITIZENS TOGETHER AROUND FILM CLASSICS

A Season of Classic Films is supported by the European Commission through the MEDIA strand of the Creative Europe programme.¹ In the first edition, in 2019, European classics were screened at cultural heritage venues in Europe. The focus was on the location where the films were shown, by selecting iconic sites across the continent. At the time, only five film archives participated: the Danish Film Institute, DFF – Deutsches Filminstitut & Filmmuseum, the Cineteca di Bologna, the Museo Nazionale del Cinema, and Eye Filmmuseum. This was quite a modest result in terms of engagement of the European cinémathèques, but it was very successful in terms of audience reception. It was praised by citizens as well as cultural heritage professionals for being such a unique and engaging initiative.

During the 2019 Cannes Film Festival, a group of European cinémathèque directors² met with Lucia Recalde, Head of Unit, Creative Europe MEDIA, at the European Commission, to discuss the situation of our shared film heritage. The talks highlighted the need for supporting the restoration and digitisation of film heritage, for education and training, and for greater visibility. Following this constructive dialogue, it was decided that ACE would co-ordinate the next edition of *A Season of Classic Films*, focusing on the importance of safeguarding European film culture.

LOCAL SCREENINGS AND CROSS-BORDER ACCESSIBILITY

The enhanced concept of the second edition (2020-2021) gave a greater emphasis to curating a diverse mix of both known and

lesser known films, and aimed at supporting financially the films' restoration. Each archive participating in the project selected a film or film compilation from their own collection to restore and to present in their own cinema or local partner cinema theatre. From the five archives participating in the first edition, the programme grew to include 22 film heritage institutions, a remarkable achievement. The screenings in 19 European countries were the opportunity for the respective archives to provide the context of each film restoration for the benefit of local audiences. At the same time, emphasis was put on the joint promotion of the films and their circulation across borders, which resulted in attracting film curators from other archives, cinemas, and festivals to programme these films well beyond the end of the project.

To enable as many ACE members as possible to join the project, to celebrate the film heritage Europe-wide, it offered co-ordination support for the coherence and promotion of all activities, while each member was responsible for ensuring its local event and communications. Additional advice and research were provided for the selection of a suitable film and promotional activities, a service especially important for smaller, understaffed archives.

Another – unexpected – impact of the project was brought about by the COVID-19 pandemic. Even though their public venues were closed for long periods of time, European cinémathèques actively connected with their audiences through online screenings and hybrid events. At the time they originally registered for the project, most ACE members were not much in favour of online streaming: most had little prior experience or knowledge of how to organise online or hybrid events. Of course, financial backing available from the project was crucial, as was the existence of the archival network which created the possibility for film institutions to learn from each other and to share new practices. Nonetheless, the pandemic situation certainly encouraged the organisations to move

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1. More information may be found at <<https://digital-strategy.ec.europa.eu/en/news/season-classic-films-celebrating-european-film-heritage>>.
 2. Gian Luca Farinelli (Fondazione Cineteca di Bologna), Rainer Rother (Deutsche Kinemathek – Museum für Film und Fernsehen), Frédéric Maire (Cinémathèque suisse – FIAF President), György Ráduly (Hungarian National Film Institute – Film Archive) and Sandra den Hamer (Eye Filmmuseum – ACE President).



Aschenputtel / Cinderella (Lotte Reiniger, Germany, 1922).

towards curating more communal viewing experiences and, effectively, led to improvements in everyone's technical know-how about streaming services.

The combined programme of cinema, online, and hybrid events achieved excellent results in terms of outreach, audience development, and the shaping of best practice in different forms of engagement. The results were remarkable: the diverse selection of films reached more than 30,000 viewers across Europe and beyond. It is interesting to note that approximately 55% of the online viewers represented the national audience of each institution, while about 35% originated from other European countries, and about 10% were from outside Europe.³ These data highlight the need for cross-border accessibility of archival films.

3. Based on available statistics from ten film institutions.

INVESTING IN FILM RESTORATION

For the third edition, in 2022, the overall concept and format remained the same as for the second as that had been so successful. A substantial enhancement, though, was the joint restoration grant of €50,000 (\$54,120) offered by the European Commission. This was awarded to an initiative in which at least three film archives would collaborate on a single restoration. The objective of this grant from the European Commission is to underline the importance of preservation and restoration of film heritage through transnational collaboration of film institutions.

The grant was awarded to *Slike iz života udarnika / Life of a Shock Force Worker* (Bahrudin "Bato" Čengić, 1972). The jury – filmmaker Sergei Loznitsa, Pordenone Silent Film Festival director Jay Weissberg, and director of the Cinema-Fiction Department of ARTE Claudia Tronnier – selected this film from a raft of proposals submitted by



She Didn't Say No! (Cyril Frankel, Ireland/UK, 1958).

European film archives. Proposed by four film institutions, from Slovenia, Croatia, Austria, and Bosnia, the film is a wonderful example of Yugoslav New Cinema. Due to the complicated and still-ongoing process of state succession of Yugoslavia's immovable assets, large parts of the Yugoslavian film heritage are neither restored nor preserved. Besides shedding light on one of the blind spots on the map of European film heritage, the film touches on propaganda, a pertinent matter in our post-truth era.

The complete film programme and the grant winner were unveiled at the Cannes Film Festival, gaining even greater attention from both journalists and film programmers. Twenty-two film archives from 21 European countries (all ACE members) participated in the programme. The number of films for each of the last two editions was similar, but

2022 saw new participants such as Estonia, Poland, Romania, and Sweden. The screenings ran from June until the end of the year in European cinemas and online, and the films are available for re-programming in other archives, film festivals, and exhibition venues.

FILM CURATION AND THE CATALOGUE

Each year, once the funding is confirmed between the ACE and the EU, ACE members are invited to participate in the programme, and the funding is equally distributed among those which choose to take part. This, of course, means that the greater the number of institutions that participate, the lower is the budget available for each of them. At the same time, a larger number of participating institutions provides a more diverse film selection and stronger publicity across borders.

In practice, the participating institutions propose a film or compilation programme from their own collections, describing its conservation status and its significance in regional/national/international cinema. They must also set out explicitly how the film(s) could relate to and provide meaning for a younger generation.

The result of this curation shows a very diverse interpretation of the term *classic* by each organisation, with the representation of long and short feature films, documentary and fiction films, from almost all styles and themes, and with production years spanning the century from 1896 to 1997. In the last two editions, the programme has featured prestigious names such as Bertolucci and Pasolini, but also celebrated filmmakers of national or regional cinemas which are not always known across borders, such as the Estonian Leida Laius, whose oeuvre focused on portrayals of strong female characters, or Norway's first female director Edith Carlmar. Early cinema works included *Med ackja och ren i Inka Lántas vinterland / By Sledge and Reindeer in Inka Lánta's Winterland*, one of the first films to present a Sámi community in northern Sweden (1926), a unique visual document from the Bulgarian National Film Archive of the Balkan Wars, *Balkanskata vojna* (1913), and eight newly restored silhouette films – including *Aschenputtel / Cinderella* (1922) – by animation pioneer Lotte Reiniger.

The screenings take place in each institution's own cinemas, in partner national cinema theatres, and, in most cases, online for a limited time. Special attention is given to the presentation of these restored films, which includes dynamic elements designed to attract younger audiences and to contextualise the films and the conservation work that has been carried out. For instance, the Filmoteca de Catalunya organised a pre-screening walk in the locations where the film noir *Apartado de Correos 1001 / P.O. Box 1001* (1950) was shot. The organisers asked the guests to share their impressions on social media, in particular how this film made more than 70 years

ago connects to the realities of the neighbourhood today. Many institutions produced informative videos featuring film restorers, archivists, and/or film crew who explained particular aspects of a film, its context, and the film preservation activities connected to it. Several institutions organised attractive open-air screenings and invited special guests to introduce the films. The best-attended film screening so far – of *Il Conformista / The Conformist* (1970) – took place in Bologna, as part of the festival *Il Cinema Ritrovato*, attracting over 7,000 people. In terms of online free access, the audiences vary greatly per film, with the Albanian film *Koncert në vitin 1936 / Concert in the Year 1936* (1978) reaching over 12,000 unique viewers in one week, while Edi Rama, the country's prime minister, posted on social media about the importance of saving this film from inevitable discoloration.⁴

The connection between the different screenings organised locally by each film institution offers practical advantages. All the events (cinema and online) are promoted through the ACE network to reach bigger audiences internationally. Furthermore, ACE creates a catalogue for each edition with the aim of being a source of inspiration for programmers.⁵ This point is the most relevant to the project's legacy in programming archival films beyond the end of the funding support and enhancing collaborations between film archives and film programmers.

Based on the information provided by each institution at the start of the programme, the catalogue presents filmographic information, technical data about the physical characteristics of the first release, and details about the restoration work, together with film stills and other useful information such as copyright, as

4. Edi Rama, 27 December 2022: <<https://www.facebook.com/ediramaal/posts/pfbid02TvTGxTT9t4LAPjLPBprogLT2B3EUi-1AZbX85oBXAHnk4mKPu8G3DWE3NYJLcGaJl>>.

5. See the 2020-2021 programme catalogue at <https://ace-film.eu/wp-content/uploads/2022/04/A-Season-of-Classic-Films_Programme-catalogue-2022.pdf>, and the 2022 catalogue at <https://ace-film.eu/wp-content/uploads/2022/04/A-Season-of-Classic-Films_Programme-catalogue-2022.pdf>.

well as a contact point for each archive. It also mentions what subtitle languages are available (subtitles in English are provided for all films) to support an easy re-programming. As the context information for each film is easily accessible and the restorations are of the best quality, the package is highly attractive to programmers. The catalogue provides long-term visibility for these restored films and increases their discoverability by programmers of cinémathèques, film festivals, arthouse cinemas, and other exhibition venues, effectively facilitating film loans across borders.

FURTHER DISTRIBUTION – EXAMPLES OF RE-PROGRAMMING

The great success and visibility of the screenings alongside parallel networking activities has strengthened ACE's role as a key stakeholder for film heritage preservation and access. The collaboration between European film archives improves their visibility not only towards general audiences, but also towards relevant stakeholders such as the European Commission and film industry professionals, associations, and film programmers. As the legacy of this project, ACE has established collaborations with recognised organisations and film festivals for further distribution of the films in the catalogue and, ultimately, to promote interest in European film culture and its history, and to raise awareness of its value among European decision-makers and the audiovisual industry.

One of the most notable collaborations that emerged thanks to the programme's success is the partnership between ACE and ARTE.⁶ Starting in March 2022, ARTE and ACE together presented a programme of *ArteKino Classics*. As part of this new series, ARTE licensed feature films from ACE's *A Season of Classic Films* catalogue, complemented with additional titles selected in close consultation with ACE. The programme invites a young

European audience to (re)discover both popular classics and films that broke new ground in cinematography and social discourse. Last spring, 20 films from 14 countries were presented, covering the period from 1945 to 1995. These not only included titles from major film-making countries such as France, Italy, and the UK, but, thanks to *A Season of Classic Films*, there were also productions from countries such as Albania, Norway, and Ireland that rarely broadcast outside their own national borders. The *ArteKino Classics* films are available free of charge, with subtitles available in six languages (English, French, German, Italian, Polish, and Spanish). The initial timeframe for this programme is planned to last until the end of 2023, with efforts being made to extend this collaboration in the longer term to jointly offer restored films on TV, online, and in cinemas.

THE ROLE OF INTERGOVERNMENTAL FUNDING IN PRESERVING OUR SHARED FILM HERITAGE

...moving images created by the peoples of the world also form part of the heritage of mankind as a whole and consequently closer international co-operation should be promoted to safeguard and preserve these irreplaceable records of human activity and, in particular, for the benefit of those countries with limited resources.⁷

A unified effort at international level is necessary to safeguard our common film culture – past, present, and future. Nevertheless, film heritage is too often regarded solely as a national mandate, to be preserved and disseminated based on state funding and local sponsors.

For European film archives, the role of EU funding in preserving the cinematic legacy is undoubtedly crucial. Evidently, a significant

6. ARTE is a major Franco-German TV channel focusing on culture, which also offers some of its programmes online across Europe.

7. "UNESCO Recommendation for the Safeguarding and Preservation of Moving Images", 27 October 1980. <<https://www.unesco.org/en/legal-affairs/recommendation-safeguarding-and-preservation-moving-images#:~:text=To%20ensure%20that%20moving%20images,of%20their%20country's%20national%20production>>.

number of film elements, related materials, and knowledge are dispersed in various archives across several countries, and only good collaboration between them can achieve the optimal preservation and restoration of audiovisual heritage. Furthermore, capacity and financial resources are not equal between countries. Although film preservation is more secure in countries where national programmes are well established, most film archives in Europe have insufficient funding to meet the demands of film preservation. *A Season of Classic Films* allows all films from the European film heritage institutions an equal chance of being awarded preservation grants.

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A Season of Classic Films (Une saison de classiques du cinéma) est une initiative de l'Association des cinémathèques européennes (ACE), qui propose des projections gratuites de films restaurés ainsi que diverses activités parallèles dans toute l'Europe afin de sensibiliser de nouveaux publics au patrimoine cinématographique européen. Grâce à une série d'événements en salles ou en ligne partageant une approche promotionnelle cohérente à l'international, ce programme sensibilise le public au travail des archives du film européennes, en montrant l'importance de la préservation des films et de la culture cinématographique, en particulier auprès des jeunes générations. En plus de toucher de nouveaux publics, il exprime également l'interconnexion et la solidarité entre archives du film européennes, si essentielles à la préservation de notre patrimoine cinématographique commun.

La troisième édition s'est achevée avec succès en décembre 2022 et la prochaine est déjà en cours d'élaboration. L'article commence par décrire le contexte de ce projet collaboratif dont les deux précédentes éditions avaient associé plus de 20 institutions du patrimoine cinématographique, avant d'aborder la situation du financement, le concept de cette initiative et son organisation pratique au niveau international. Compte tenu de l'accueil positif du grand public comme des affiliés de la FIAF, il est à espérer que ce programme suscitera d'autres projets conjoints de nature similaire dans d'autres régions du monde, et stimulera la collaboration internationale entre acteurs de la préservation des films. Le programme de *A Season of Classic Films* est disponible ici <<https://ace-film.eu/projects/season-of-classics>>.

The fourth edition of *A Season of Classic Films* is being planned at the moment. Once funding is secured, ACE will continue with the same concept: ACE members will each select a film from their own collections to restore and present, while the joint restoration grant will further strengthen cross-border collaboration between film heritage institutions. It is clear that increased awareness achieved by collaborative efforts such as ACE's programme *A Season of Classic Films* has become key to greater and long-term funding support, at European level, for the preservation of our common film heritage.

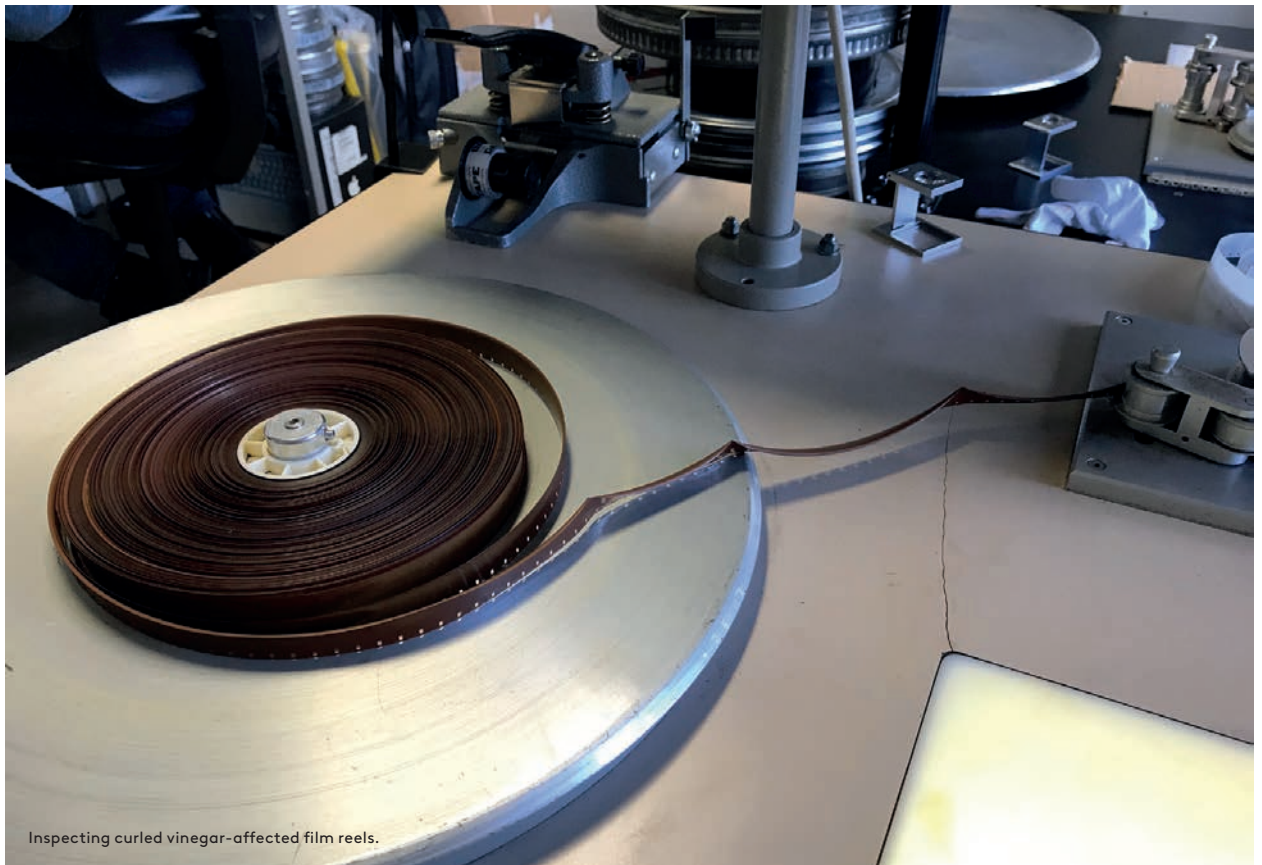
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A Season of Classic Films es una iniciativa de ACE – Asociación de Cinémathèques Européennes (Asociación de Cinematecas Europeas) que ofrece proyecciones gratuitas de películas restauradas junto con actividades paralelas en toda Europa con el objetivo de desarrollar nuevos públicos para el patrimonio cinematográfico europeo. A través de una serie de eventos cinematográficos y en línea que comparten un enfoque publicitario coherente a escala internacional, el programa da a conocer la labor de los archivos cinematográficos europeos, defendiendo la importancia de la conservación de las películas y la cultura cinematográfica, especialmente entre las generaciones más jóvenes. Además de llegar a nuevos públicos, el programa es también una expresión de conexión y solidaridad entre los archivos cinematográficos europeos, lo cual es clave para la preservación de nuestro patrimonio cinematográfico común.

La tercera edición concluyó con éxito en diciembre de 2022 y ya se están haciendo planes para la siguiente. El artículo describe en primer lugar los antecedentes de este proyecto de colaboración que reunió a más de 20 instituciones del patrimonio cinematográfico en cada una de las dos ediciones anteriores, y a continuación analiza su financiación, el concepto de la iniciativa y su organización práctica a escala internacional. Teniendo en cuenta la buena acogida del público en general, así como de los miembros de la FIAF, se espera que este programa pueda servir de inspiración para proyectos conjuntos similares en otros grupos regionales, y estimular aún más la colaboración internacional entre las partes interesadas en la preservación del cine. Página del programa de *A Season of Classic Films*: <<https://ace-film.eu/projects/season-of-classics>> .



Vinegar-affected films are given priority in large digitisation projects.



Inspecting curled vinegar-affected film reels.

Flemish Non-Fiction Film Heritage Mapped Out.

A Collaboration on Registering, Depositing and Digitising the Fragmented Flemish Non-Fiction Film Heritage.

Bruno Mestdagh and Céline Vermeire

Bruno Mestdagh has worked at the Cinémathèque royale de Belgique since 1987, and is now head of its digital film collection, co-ordinating film restoration and digitisation projects. He has been involved in DVD publishing, including 24 volumes of non-fiction subjects (2008-2020) and, from 2012 to 2014, was co-ordinator of the European funded project EFG1914. He also curates programmes of silent and classic films in Ghent and his home town of Bruges.

Céline Vermeire holds MAs in Art History and Curating Art and Cultures, and an MS in Digital Humanities. She has been collection manager and digitisation co-ordinator for the art collections of the Flemish Government's Department of Culture, Youth and Media, and, since 2021, has been digitisation project manager for meemoo, the Flemish Institute for Archives.

Much of the world's cultural film heritage is kept by archives, museums, heritage libraries, arts organisations, and government agencies. The knowledge, skills, and infrastructure of specialised film archives are indispensable tools to help safeguard it. In 2013, the overall condition of Flemish audiovisual heritage was extensively surveyed, and the results revealed several weak spots. For film, these included, for example, fragmentation in the management of film heritage, unfavourable preservation conditions, insufficient attention being paid specifically to film collections, and a lack of infrastructure and substantive and technical knowledge.

This situation was the starting point for a collaboration that meemoo entered into with the Cinémathèque royale de Belgique.¹

In Flanders, meemoo is responsible for the digitisation, sustainable digital archiving, and access to the audiovisual heritage preserved by more than 172 "content partners": archives, museums, heritage libraries, government organisations, and performing

1. A high-level overview of this collaboration may be found at <<https://meemoo.be/en/projects/collaboration-with-cinematek-regarding-registration-and-deposit>>.

arts organisations.² Sixty-one of them have film materials in their collections, from just a few to thousands of reels.³ It is this unique approach to preservation of the film heritage from meemoo's content partners' collections, with special focus on assessment, cataloguing, and content description activities that is covered in this article.

1. THE FRAGMENTED LANDSCAPE OF NON-FICTION FILM HERITAGE IN FLANDERS

A large survey of non-fiction film heritage in 2013

Commissioned by meemoo, Noortje Verbeke and Rony Vissers (employed by PACKED, the Flemish expertise centre for digital heritage and one of meemoo's forerunners) conducted a study on the state of film heritage in Flanders in October 2013. In their conclusions, they focused on the importance of digitising film heritage with a view to preserving and making the material accessible. What was probably the most important part – certainly that which would later turn out to be the most influential – lay at the very end of the report: a plan of action for the analogue conservation and the digitisation of Flemish film collections.

Verbeke and Vissers pointed out the challenges in preserving the films, bringing into focus the issue of selection and prioritisation in digitisation, and referring to the technical choices to be made to facilitate the process. Their report clearly outlined the state of film heritage in Flanders and also laid the groundwork for a concrete plan of

action for its analogue preservation and its digitisation. They estimated the total number of preserved reels to be around 74,000, spread across some 25 of the 40 collection-managing organisations among meemoo's content partners at the time. VRT was the only broadcaster in Flanders with a film collection, estimated at about 66,000 reels or about 89% of the total quantity. For all other cultural heritage organisations, the number of reels was estimated at around 8,000.

Verbeke and Vissers did not just provide estimates on numbers in their report. They also exposed a number of weak points concerning the state of film heritage. Four significant issues from their conclusions were:

1.1. Unsuitable storage conditions

Most of the cultural heritage organisations surveyed indicated that they did not have suitable storage conditions for film material. Not only were the temperature and humidity in their stores inappropriate for film preservation, but it was also impossible to keep those conditions stable. Poor packaging materials contributed significantly to the rapid deterioration of the elements held: films were often stored in rusty film cans, sometimes difficult to open.

1.2. Limited knowledge and expertise in film preservation

Although some of the cultural heritage organisations surveyed had already deposited film material with the Cinémathèque, the film heritage was very scattered. Film archiving was not a core activity for any such institutions. Film reels were usually not kept separate, but in close proximity to archival materials related to them in terms of subject matter. Most organisations had little specific knowledge, resources, or infrastructure to view, register, or repackage film materials. Knowledge of the collections themselves was limited. When it came to estimating numbers and technical characteristics, there was often nothing left but reasonable guesswork.

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2. The working model of meemoo is based on co-operation within a network of partners. Meemoo uses the term content partners because the organisations are partners who entrust meemoo with their content. Content partners participate in digitisation projects or store their digital material at meemoo with agreements concerning accessibility. An overview of all current meemoo content partners may be found at <<https://meemoo.be/en/our-collaborations-with-content-partners>>.
 3. The public broadcaster VRT owns a large film collection but, since they have the expertise, the equipment, and suitable storage facilities, it was agreed that they would restart their registration project themselves with meemoo's support. In 2021, this project was completed with a total of 53,221 registered films.



Transporting all film objects to the Cinémathèque royale's vaults.

1.3. No opportunities to watch the films and hardly information about the content of the collections

Because of the lack of proper equipment and viewing tables, few organisations could play all the picture formats to be found in their collections. Since there were such limited playback options, information about the content of the films was also very limited. In most cases, knowledge was reliant on information on the film cans.

1.4. Widespread vinegar syndrome

Verbeke and Vissers asked collection managers to use pH-testing to measure the deterioration of acetate-based film as no organisation systematically carried out such tests on its collections. Extrapolations of the samplings suggested that no less than 60% of the acetate material in the cultural heritage sector was affected with vinegar syndrome (pH 5.0 or

lower), 9% even beyond the autocatalytic point (pH 4.6 or lower). We should note here that, in many cases, the films had already been in poor condition at the time of their acquisition. In addition, affected films were rarely kept separate from the unaffected ones.

2. A UNIQUE ROADMAP

To meet the challenges listed by Verbeke and Vissers, meemoo and the Cinémathèque royale de Belgique signed their first co-operation agreement around the deposit, registration, and preservation of films held by meemoo's content partners.

Rapid action had to be taken to at least improve the storage conditions and apply preventative and curative conservation for a large part of the material simply to slow the progress of vinegar syndrome. A substantive overview would not only allow decisions to be made based on an organisation's own collec-

tion policy. Additionally, it would make it possible to compare content partners' collections with each other, as well as make comparisons between the partners' collections and those of the Cinémathèque royale, something that would assist in the choice of best copy for digitisation. An overview of technical characteristics would enable meemoo to start the digitisation project with the most endangered films. The conservation process has since followed a set roadmap.

2.1. Inventory

Each content partner is asked to list the number of each type of audiovisual carrier held, particularly for film, plus its gauge and whether or not it was accompanied by separate magnetic sound reels. Initially, the information was transmitted by post, but, from 2021, meemoo has been using an inventory tool, through which each organisation can update its own data at any time.

2.2. Transport

After initial information on films has been uploaded to the inventory tool, meemoo contacts the appropriate content partner to arrange transfer of the materials to the Cinémathèque royale. Content partners provide a collection number and package the films for transport which is undertaken by meemoo.

2.3. Registration

In 2012, meemoo developed a database (an AMS, or Archive Management System) to register the carriers to be digitised and to record their logistical follow-up. Collections specialists at the Cinémathèque royale log the films by means of a persistent identifier and barcodes, along with a technical and content description. The descriptive and technical metadata allow for identification of different versions or copies of the same film. The database is also used by the collections specialists at the Cinémathèque to provide an advisory content-value judgement in the form of a five-point score, based on their knowledge



Film collections as they sometimes arrive at the Cinémathèque royale.

of Flemish film history. Content partners can use the metadata and the advice as a guide in their assessment of whether a particular film is worth digitising, but they are, of course, free to overrule the Cinémathèque's advice if, for example, the film is significant within their own collection.

2.4. Preventive preservation actions

Each film is recorded by the Cinémathèque, viewed on a viewing table, and rewound; the process quickly reveals the main preservation issues. In addition to recording and description, the Cinémathèque royale also carries out several preservation tasks. The films each receive a new leader and end tape if these are missing, the film core is replaced if necessary, and each film is given a new, ventilated film can. In some cases, broken splices may be repaired. Any original paperwork in the old can is photographed, and the original cans themselves are scanned. All the information thus



Ensuring long-term preservation.

collected is then permanently digitally preserved along with the digitised film. Original cans will be returned to the content partner if required, but, in most cases, they have low heritage value and are destroyed. A pH measurement is carried out on acetate films. Nitrate films are transferred to a fireproof storage facility outside Brussels.

2.5. Long term storage

Content partners are not obliged to deposit their films at the Cinémathèque, though most do. The deposit agreement is concluded between the content partner and the Cinémathèque royale; meemoo is not involved in this agreement but always encourages it. Meemoo's content partners are not charged for any of this since the preservation of Belgian film heritage is one of the Cinémathèque royale's core tasks. After registration, the films belonging to content part-

ners who have concluded a deposit agreement are stored in the Cinémathèque royale's secure, climate-controlled vaults.

Any on-going decay is considerably slowed by these preservation activities as well as by subsequent storage in controlled conditions. A large-scale vinegar measurement programme is currently being planned, which will, in future, provide more insight into deterioration rates.

3. DIGITISATION PROJECTS AND RE-USE

Since 2015, meemoo has initiated several large digitisation projects, always putting the work out to tender with external digitisation companies. As the main focus of all the projects is the survival of the material, the most threatened films – acetic elements with a pH value of 5.0 and below – are digitised first. The current digitisation project for threatened acetate film will finish at the end of 2023, by which time all vinegar-affected films put forward by the content partners will have been digitised. Although acetic films will continue to be registered and digitised after 2023, this approach allows meemoo to begin to digitise the less endangered materials from 2024 onwards.

Digitising these films is one thing, but providing access to them is just as important. On the one hand, meemoo is committed to supporting its partners in making digitisation materials accessible online through their own meemoo channels. On the other hand, there are examples where the partners themselves reuse the digitised films in new contexts and for new audiences. One example is ANGLES, an exhibition organised in 2022 by KU (Katholieke Universiteit) Leuven KADOC, the university's Documentation and Research Centre on Religion, Culture and Society. For this, three contemporary Congolese artists worked with the missionary films from the collection of the White Fathers, and offered their interpretation of the impressions left on them by their interaction with this collec-



Newsreel element showing King Baudouin of the Belgians at Melsbroeck military airport.

tion.⁴ It is also worth mentioning that dozens of digitised films are also offered by meemoo on the educational platform Het Archief voor Onderwijs (Archives for Education), through which Flemish teachers and pupils can use selections of audiovisual archive content tailored to their learning objectives.

4. REGISTRATION IN NUMBERS

Many films have been registered in the seven years since meemoo and the Cinémathèque royale started their collaboration, and this article is an ideal place to provide an interim summary of the data collected so far. The most outstanding results are highlighted below. This, however, is not the end point for film registration. Many content partners are still acquiring films and therefore film registration continues. There are at least 2,000 films on the radar yet to be registered, and it is expected this number will continue to grow, albeit more and more slowly.

4. <https://kadoc.kuleuven.be/english/3_research/31_ourresearch/angles>.

THE PARTNERS

Meemoo currently has 172 content partners, all of which have now had the opportunity to submit their material and 61 of which have at least one film in their collection. Of those, 26 archives (66%), 22 museums (29%), 8 performing arts organisations (2%), 3 government institutions (2%), and 2 heritage libraries (1%), all chose to collaborate with meemoo to register their films and make them available for digitisation.

GENERAL FIGURES

- In April 2022, the number of registered films was 14,060, 95% being held in archives and museums.
- On average, a registered film consists of 1.2 “objects”.
- Roughly 1,000 films are being registered each year.
- The most common gauge – 60% – is 16mm, while 35mm and 8mm are each recorded as 14%. Super-8 accounts for 11%, and the fifth most common film format is 9.5mm – 2% of the total.
- Looking at data on gauges by sector, the largest numbers are recorded as being held in museums and archives, some 77% of all recorded 16mm are in archives, which also hold the largest quantity (62%) of 35mm material. Interestingly, the largest numbers of small-gauge films – 55% of 8mm and 51% of Super-8 – are to be found in museums.
- The most frequently recorded material type is original positive, at 42% of the total, followed by prints at 39%.
- Sound is present in 5,488 films or 39% of the total. There are also 838 films (6%) where there is a sound reel but no accompanying picture. In addition, 6,987 films (50%) are silent films. Finally, 747

(5% of the total) are image reels most likely originally associated with sound which is no longer present. Thus, 55% of all films are without sound.

- Colour films constitute 49%, while 40% are black & white, and 4% consist of both black & white and colour fragments. It is not known for 7% – 951 films – if they are black & white or colour as this was not indicated at registration.
- Looking at the number of vinegar-affected films by gauge, it is clear that 16mm reels are the most affected, 85% of 16mm acetate films having a pH value between 4.2 and 5.0, though 9.5mm follows with 79%. The numbers are slightly lower for 8mm and Super-8, which have degradation rates of 74% and 71% respectively. Finally, the best percentages were measured in the 35mm films: only 69% were found to be affected by vinegar syndrome.
- Of the 6,315 acetic films selected for digitisation, 2,954 of them (47%) had already been digitised at the time of this study (April 2022).
- Acetate base accounts for 97% of the film registered, with 3% are on nitrate stock. To date, only 50 films registered have a polyester base. Nitrate and polyester carriers are found solely in archives and museums.
- When selecting a film for digitisation, a content partner can specify if it should be digitised in high or low resolution. High resolution has been chosen for 32% of cases and low resolution for 26%. Roughly 34% of the films were not selected for digitisation.

The resolutions for digitisation are:

Gauge	Low resolution	High resolution
8mm, S-8mm, 9.5mm	SD (720x576px)	HD (1140x1080px)
16mm	HD (1140x1080px)	2K (2048x1556px)
35mm	2K (2048x1556px)	4K (4096x3112px)

THREATENED FILMS

From 2015 until the end of 2023, meemoo's digitisation projects focus on safeguarding threatened films. As noted, this primarily involves endangered nitrate film and acetate reels affected by vinegar syndrome.

Nitrate film

In 2022, 84 nitrate films were digitised. These had never been protected before, either through digitisation or by copying to acetate or polyester film. Fifteen content partners are involved in the project.

Acetate film

Prioritising the most affected films has meant that all films selected by the content partners and found to be beyond the autocatalytic point have now been digitised. As long as registration continues, of course, more films may be discovered in this condition, but, to date, content partners have chosen not to digitise 40% of those titles deteriorated beyond this point.

A total of 2,954 vinegar-threatened films have already been digitised. Tests undertaken by the Cinémathèque royale's registrars showed that as many as 79% of the 13,618 acetate films were affected with vinegar syndrome. Of these 79%, 8% had deteriorated beyond the autocatalytic point. This means that the figures are even worse than the es-

timates of 60% affected, with 9% beyond autocatalytic point, suggested in Verbeke and Vissers's report.

CONCLUSION AND CHALLENGES FOR THE FUTURE

With 14,060 films registered from 61 content partners, the first seven years of collaboration between meemoo and the Cinémathèque royale can be regarded as a success. Since 2015, following Verbeke and Visser's alarming 2013 report, the partnership has relied on a broad approach to registration of the film collections, stabilising their condition through conservation and deposit, and drawing up a structural digitisation plan with endangered films as its primary focus. Unfortunately, it has turned out that the acute danger of acetic damage to the Flemish film heritage is even worse than conjectured.

The technical and content metadata collected provide a unique and valuable working tool for future digitisation plans and allow us to find and prioritise the most endangered

materials. By the end of 2023, all acetic films selected for digitisation will have been processed. For those not so much physically at risk, tools will be developed that will allow emphasis on subject matter to influence what is digitised first. The broad technical overview provided by initial registration makes it possible to consult and reuse these collections.

Despite all this, it is important to note that Flanders is home to important film collections which are not controlled by meemoo's content partners. It is entirely possible that their conservation and storage environments might not be ideal, and that their physical condition could be deteriorating. Nevertheless, it is safe to say that, thanks to this collaborative project by meemoo and the Cinémathèque royale, step by step, Flanders is mastering the conservation of its film heritage quite well. The partnership offers a solid base for conservation and digitisation of very diverse and dispersed film collections, on a regional scale, and with a unique approach that could be applicable to other countries.

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La collaboration entre meemoo, l'Institut flamand des archives, et la Cinémathèque royale de Belgique a débuté en 2015, et porte sur l'inventaire, la préservation et la numérisation du patrimoine cinématographique détenu par les bibliothèques, archives, musées, organisations d'arts du spectacle, institutions gouvernementales et archives municipales de Flandre. Le premier projet entrepris par ce partenariat était un rapport de recherche de grande envergure sur l'état du patrimoine cinématographique en Flandre en 2013. Y étaient identifiés plusieurs points de vigilance majeurs, dont des conditions de stockage inadaptées, une expertise limitée en matière de préservation des films au sein des institutions concernées ou de fréquents cas de syndrome du vinaigre. Ce partenariat s'avère essentiel pour s'attaquer à ces problèmes, ouvrant la voie à d'ambitieux projets de numérisation et à la réutilisation des films ainsi numérisés. L'article décrit précisément la situation constatée en 2013, détaille la stratégie développée par meemoo et la Cinémathèque royale et présente certains des résultats de ces sept ans de collaboration. Il souligne enfin l'importance de ce partenariat en tant que fondation solide pour la conservation et la numérisation, à l'échelle d'une région, de collections de films diverses et dispersées.

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La colaboración entre meemoo, el Instituto Flamenco de Archivos y la Cinemateca Real de Bélgica se remonta a 2015. Se centra en el registro, la conservación y la digitalización del patrimonio cinematográfico propiedad de bibliotecas, archivos, museos, organizaciones de artes escénicas, instituciones gubernamentales y archivos municipales flamencos. El proyecto inicial emprendido por ambos fue un informe de investigación a gran escala sobre el estado del patrimonio cinematográfico en Flandes en 2013. En él se identificaron algunos puntos débiles importantes, como condiciones de almacenamiento inadecuadas, conocimientos y experiencia limitados sobre conservación de películas en las instituciones afectadas, síndrome del vinagre generalizado...El partenariat fue vital para abordar estos obstáculos y allanó el camino para grandes proyectos de digitalización y la reutilización de películas digitalizadas. Este artículo presenta una descripción detallada de la situación tal y como se identificó en 2013, además de centrarse en el enfoque desarrollado por meemoo y la Cinemateca Real y presentar algunos de los resultados de esta colaboración de siete años. Destaca la importancia del partenariat como base sólida para la conservación y digitalización de colecciones de películas muy diversas y dispersas a escala regional.

L'Immagine Ritrovata

Film Restoration & Conservation
Bologna • Paris • Hong Kong

Éclair Classics

Haghefilm

L'Immagine Ritrovata is a highly specialized film restoration laboratory created and developed in Bologna (Italy) thanks to Fondazione Cineteca di Bologna.

Since its very inception, L'Immagine Ritrovata has been investing in digital as well as analog technologies in order to respond to the ever-growing demand for the preservation of the film heritage from film archives worldwide, for which the analog workflow and the long-term preservation are key.

With that in mind, Haghefilm, a historic and leading brand in the photochemical industry in Europe and around the world, has recently joined L'Immagine Ritrovata group.

Today the group includes four branches: L'Immagine Ritrovata's headquarters in Bologna, L'Image Retrouvée and Éclair Classics in Paris, Haghefilm in the Netherlands, and L'Immagine Ritrovata Asia in Hong Kong.



Raymond Borde et Jacques Ledoux au Congrès de la FIAF à Lausanne en 1979.

Reviews



Voyage au Congo (Marc Allégret, 1927).

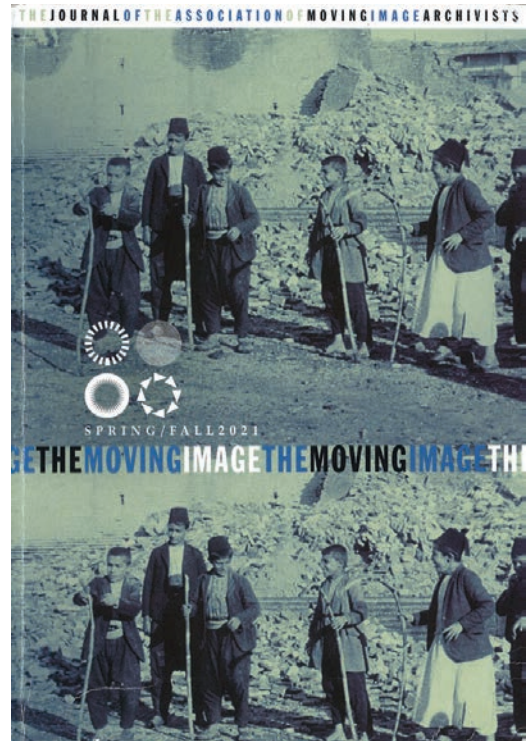
Activating the Archive: A Call to Action

Maral Mohsenin

Maral Mohsenin is a film restorer and curator at the Cinémathèque suisse. In parallel, she is working towards a PhD at the University of Lausanne and the University of Amsterdam on *The Evolution of Discourses on Digital Technology in European Film Archives*. Her academic background is in both engineering and film studies.

Comprising a dozen articles exploring the new possibilities of archival access, this special issue of AMIA's *The Moving Image* was inspired by the 2018 Eye International Conference, "Activating the Archives", which questioned their social function (memory, activism, alter-nativity, diversity, etc.), while also serving as a precursor to the 2022 Eye Conference, dedicated to the archives of the Global South, the exchange between North and South and alternative forms of archiving. Instead of the popular archival trend of focusing on technological changes and their ontological impact on the nature of archival film, this volume takes a more strategic and conceptual approach to the changing status of archives, resulting from – among other things – dig- itisation. "Activating" the "social potential" of archives understands archival access not only in the sense of enabling the visibility of films, but also reflects on how access poli- cies might ignite social changes, as stated by Rick Prelinger: "Three great transitions have dominated archival discussions over the past twenty years: the digital turn, the recognition of archivists as social actors, and the effort to expand access to archival collections. More recently, a fourth transition is evolving: the emergence of archives as incubators of social change and justice." (p.145).

Emphasising the aspect of social change, the articles gathered here describe situations where archival access is menaced, unknown,



less visible, or partial; they illustrate possi- ble solutions, whether based on authors' or- ganisational practices and experiences or on theoretical reflections. They single out cases within the Global South or less institution- alised archival organisations, which do not corroborate the dominant access policies. A continuation of the current situation brings about "inequalities" and "hierarchies" in "the visibility of audiovisual heritage" worldwide. To me, the contribution of this ensemble of studies is a re-questioning of the relations between archival holdings and the (global) society to which they belong. As the editors underline, the concept of access itself seems to have undergone a transformation. The au- diovisual heritage – whether as a work of art, a cultural commodity or an historical object – is not anymore available only on a curated basis but seems bound to answer to wider de- mands. Attempts to unleash the audiovisual memory of the world need to go beyond exist- ing policies and englobe alternative practices and geographies. Current archival national models, implemented in many European and

North American countries, do not seem to suffice, and the volume launches a call for more “participatory forms of archiving”.

The collection includes several case studies, as well as theoretical articles (on public policies and the role of communities). Prelinger theorises access as an act which need not contradict works’ ownership and copyright, while Luca Antoniazzi situates archival access in a realm between the two trends of “neoliberalism” and “digital populism”. The former represents, at its extreme, a purely curated and institutional access and the latter an “inclusive bottom-up cultural engagement” thanks to digital channels (p.157), a realm whose potentials and audiences need to be further explored by the archives. The case studies offer examples from audiovisual archives, with a deliberate focus on archiving in the Global South and alternative practices. This way, they go beyond the national film archives’ discourses, abundant within FIAF and revisited often at archival gatherings.

In this direction, Juana Suarez proposes an article on the state of Latin American and Caribbean archives, in all their diversity, and depicts the complexities of devising a set of (digital) access practices which help to activate the Latin American memory from these heterogeneous institutions. More unconventional archiving is highlighted in Nicholas Avedisian-Cohen’s study of the Syrian Archives: a web-based, citizen-driven, militant archive which conserves and investigates the Syrian war memory through the audiovisual documents of the events in Syria since the breakout of the conflict. Naturally, this archive is not government-related, nor based within the national borders of Syria, and its objects are digital artefacts. The author analyses how such an activist archive relates to, or contradicts, the better-known, more traditional models of archiving by engaging directly in the global socio-political context.

Redirecting the attention to the flow between the North and the South, and the necessity of refocusing on audiovisual her-

itage as a global concept rather than independent national ones, Vinzenz Hediger, Didi Cheeka, and Sonia Campanini introduce a transnational collaborative archival project between Germany and Nigeria, proposing a “rethinking of the conceptual frameworks of audiovisual heritage policy and practice in the Global North as well as the Global South” (p.56). Through a case study of African film archiving initiatives, they claim that a merely national model would not suffice in rendering the world’s audiovisual memory visible to global societies. Moreover, a model which singles out “auteur” films from the Global South based on European selection criteria would not solve the problem either. This view accords with the recent *Sight & Sound* list of the “Greatest Films of All Time”,¹ released in November 2022, which includes not one Egyptian or Arabic film, despite the region’s historically rich and popular cinematographic culture, and only one Indian film (European favourite Satyajit Ray’s *Pather Panchali*) out of one of the largest popular film industries around the world.

The shortcomings of a national film archive model are also explored in an article by Elif Rongen-Kaynakci and Asli Özgen, who study the Ottoman film heritage, which is “multi-ethnic, multilingual and polycentric” by definition (p.78). How to define the “national” heritage in a situation where the “nation” does not exist anymore, and, what’s more, was never an homogeneous entity to begin with? In-place national policies, according to the authors, lead to “gaps, absences and silences” in the film history of the region, and make this part of the world memory invisible, and impossible to activate. The notion of the “transnational archive” returns – boundaries and specifications to be set – to highlight the cross-cultural formations and flows. Such an archive is not realistically impossible, as the example of Asian Film Archive (founded in 2005) shows. Portrayed in this collection, thanks to an interview with its director Karen

1. <<https://www.bfi.org.uk/sight-and-sound/greatest-films-all-time>>.

Chan by Martino Cipriani, the AFA, based in Singapore, collects, restores, and presents film heritage from South East Asian countries such as Singapore, Malaysia, the Philippines and Myanmar.

FIAF archives may not all face every one of the challenges described here but they do face some resembling them where access is concerned. The alternatives practices and understandings proposed in the articles of this number of *The Moving Image* can be seen as a call to action, or an inspiration for the whole FIAF community, as regards their policies and activities, through a redefinition of their social function, not only within their "own" national borders but rather on a more transnational framework which maps better

the global world in which we live. In sum, to become a "living archive", whose audiovisual collections engage in active social interactions, serving, at the same time, as both keeper of past memories and source of inspiration for further creations: "Activating the conceptual archive means opening up possibilities to rethink the archive and to imagine alternatives and how they enable us to think and act differently." (p.17).

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Minneapolis: University of Minnesota Press.
<<https://www.jstor.org/stable/10.5749/movingimage.21.issue-1-2>>.

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Ce numéro spécial de *The Moving Image*, la revue de l'AMIA, constitué d'une douzaine d'articles explorant les nouvelles possibilités d'accès aux archives, a été inspiré par la conférence internationale Eye de 2018, intitulée «Activer les Archives», dans le prolongement de laquelle s'est inscrite celle de 2022, consacrée aux archives des pays du Sud, aux échanges entre Nord et Sud et aux modes d'archivage alternatifs. Ce volume adopte une approche stratégique et conceptuelle de l'évolution du statut des archives, induite notamment par la numérisation. «Activer» le «potentiel social» des archives implique une conception de l'accès aux archives allant au-delà de la simple possibilité offerte au public de voir les films, pour s'intéresser également aux façons dont les politiques d'accès pourraient contribuer aux avancées sociales.

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Compuesto por una docena de artículos que exploran nuevas posibilidades de acceso a los archivos, este número especial de *The Moving Image* de AMIA se inspira en la Conferencia Internacional Eye de 2018, "Activating the Archives", precursora de la Conferencia Eye de 2022 dedicada a los archivos del Sur Global, al intercambio entre el Norte y el Sur, y las formas alternativas de archivo. Este volumen adopta un enfoque estratégico y conceptual de la cambiante situación de los archivos, provocada, entre otras cosas, por la digitalización. "Activar" el "potencial social" de los archivos entiende el acceso a los archivos no sólo en el sentido de permitir la visibilidad de las películas, sino que también reflexiona sobre cómo las políticas de acceso podrían desencadenar cambios sociales.

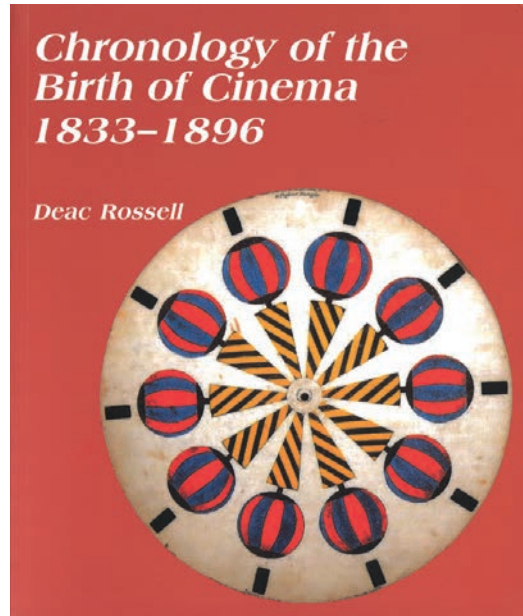
Chronology of the Birth of Cinema 1833-1896

Charles Musser

Charles Musser is Professor of American Studies, Film & Media Studies, and Theater Studies at Yale University, and teaches courses on film and media historiography, American cinema, and documentary film – both production and critique. He is the author of numerous books on early cinema and on documentary.

Deac Rossell has been committed to this chronological endeavor for much of his adult life: the current undertaking is an expanded version of a special issue of *Film History* entitled *A Chronology of Cinema 1889-1896* (1995). This current iteration evokes a quaint if problematic term – “the birth of cinema” – and so clearly revisits an area that was defined by earlier book-length studies such as George Sadoul’s *L’Invention du cinéma, 1832-1897* (1948), C. W. Ceram’s *Archaeology of The Cinema* (1965), and Jacques Deslandes’s *Histoire comparée du cinéma: volume 1: de la cinématographie au cinématographe 1826-1896* (1966). And before these film historians, there were the patent lawyers who had their own version of cinema’s “birth.” Rossell draws heavily on decades of substantial scholarship as well as select areas of his own original research. By combining passion with rigor, the current rendition proposes to update, expand, and correct.

Rossell’s remarkable achievement raises two important questions for this reviewer. The first is both theoretical and historiographic. A history of “pre-cinema” properly includes everything that occurred before about 1896: performance culture, art, politics, economic activity, and social life, as well as more specific technological practices (photography, projection, the production of celluloid). For anyone to claim that they were providing “the chronology” of the birth of cinema would be presumptuous. But Rossell has also stepped



back from his former title, now providing “a chronology” that is, one of many. He leaves off the defining article to make us think. Certainly, his chronology is narrower in scope than those of many of his predecessors. His throughline is the evolving technologies that generated a series of still images and turned them into moving pictures involving what has often been called the persistence of vision.

As someone who has pursued two different, narrowly defined pre-cinema histories that flow more or less seamlessly into the era of cinema, I respect Rossell’s framework. It may be worth noting that my variants were the history of screen practice going back to Christiaan Huygens and a history of documentary’s *longue durée* – which transcends any specific media form and goes back to lectures with illustration emerging around 1700 (suggesting that the documentary tradition is a product of the Enlightenment). Focusing on apparatuses that break down and then recreate the illusion of motion, Rossell starts with Plateau’s phenakistoscope and goes through the first year of commercial, projected motion pictures, providing us with dates and achievements in telegraphic form, accompanied by numerous illustrations. Some of these achievements are well-known. Others have remained

obscure and, in some cases, involve propositions (often in the form of patents) that were never successfully reduced to practice.

Each of these partial histories has its strengths and limitations – its limitations being perhaps key to its strengths. Rossell's chronology excludes many of the milestones of photography and projection, with a substantial portion of the book focused on chrono-photography, which was largely absent from his earlier effort. In this respect, the chronology reveals particular interests: Rossell lists virtually every presentation of Muybridge's zoopraxiscope and is equally interested in Etienne-Jules Marey and Ottomar Anschutz. The resulting chronology raises one intriguing question that may have a simple answer. He notes that Thomas Anschutz was a university student working as Muybridge's assistant in 1884. Then, using substantial primary-source research, he details Ottomar Anschutz's various inventions that are all post 1884. Was there some kind of connection between these two Anschutzes? Were they related? Did they correspond?

Rossell's chronology is filled with other provocative tidbits. It was news to me, at least, that Thomas Edison attended a dinner of the Société Française de Photographie in Paris on August 19, 1889 – not only with Etienne-Jules Marey (often noted), but also Jules Janssen, Albert Londe, Paul Nadar, and the three *Lumières* (Antoine and his two sons August and Louis). Did I never know this or had I just forgotten? Likewise, he lays out a number of "events" that almost certainly did not take place. For instance, he relies on the research of Peter Domankiewicz, to challenge the assertion that Henry Heyl exhibited his phasmatrope at Philadelphia's Academy of Music in February 1870. This raises the question: was Heyl a fraud or guilty of faulty memory? His phasmatrope survives: perhaps it was shown in a more modest setting on a different date?

Among its impressive achievements, Rossell's chronology effectively traces and interlaces the concurrent activities of vari-

ous inventors whose devices synthesized still images into motion pictures. They were being exhibited internationally more or less simultaneously. In this regard I am tempted to offer another biological analogy. Rather than cinema's birth, it would be the way Neanderthals and Denisovans co-existed for a period with Homo Sapiens (here the Edison motion picture system). The sharing of technological DNA is unmistakable even though it was the last that became dominant.

Inevitably, there are elements of Rossell's chronology with which one can quibble. He makes much of the sciopticon in the United States, but it was really the stereopticon that deserves better documentation. This was the American term for a distinctive technology that combined photographic lantern slides, a projector with a strong light source (lime-light), and a sharp lens. Its equivalent term in the United Kingdom would be the "optical lantern", though this was never embraced to the same degree. The sciopticon was a low-cost substitute. Furthermore, the films shown on the Vitascope in spring 1896 were roughly 42ft in length – not 20ft. Here there is a double problem: 20 feet in 16mm would be 50ft in 35mm. Although Edison advertised his films for the Vitascope at a length of 50ft, they were in fact significantly shorter than that.

Having Rossell's chronology conveniently at hand in book form has many virtues. Readers who leaf through its pages can make an array of connections across space and time. However, its index faces an impossible task and one can spend considerable time trying to locate a choice entry discovered in the course of reading the chronology from cover to cover. As Stephen Bottomore remarked when the book was unveiled at the 2022 Giornate del Cinema Muto, there would be many virtues in putting this achievement on the web. Not only making possible handy random word searches, it could be crowd-sourced with Rossell playing the role of web-master. Many of us would argue for our favorite additions. Mine would include the many different motion-picture exhibition services

(many originating in England and France) that were active in New York City on 3 November 1896 – election night. Or the integration of Lumière films and lantern slides to create an evening-length illustrated lecture the following month – the topic was “Bicycling Through Europe.” Many scholars of 19th-century audio-visual culture would be eager to jump on the Deac Rossell bandwagon, and there are several recent enterprises in both the UK and the United States that might host/sponsor such an undertaking. That said, books are

useful in unique ways, and this reference work has value as a document in and of itself—a testimony to Deac Rossell’s dedicated pursuit.

Deac Rossell, *Chronology of the Birth of Cinema 1833-1896*. New Barnet: John Libbey/Bloomington: Indiana University Press, 2022, 200pp, illus. ISBN: 9780861967162

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Rédigé selon une perspective internationale, le récit par Deac Rossell des origines du cinéma – version augmentée d’un numéro spécial de *Film History* datant de 1995 – débute en fait avant 1889, puisqu’il s’intéresse d’abord aux précurseurs du cinématographe (des jouets optiques reproduisant le mouvement), retrace et entrelace les tentatives parallèles de divers inventeurs pour créer des dispositifs capables de transformer des images fixes en images animées, et se conclut par une étude détaillée de l’année 1896, la première à avoir vu sur toute sa durée des projections d’images animées. Le critique suggère que le contenu du livre aurait eu plus d’utilité comme ressource en ligne, ce qui aurait entre autres vertus celle de faciliter la recherche par mots-clés en lieu et place d’un index complexe.

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Escrito desde una perspectiva internacional, el relato de Deac Rossell sobre los orígenes del cine -una versión ampliada de un número especial de 1995 de *Film History* – comienza en realidad antes de 1889, ya que primero examina los precursores del cine (juguetes ópticos para reproducir el movimiento). Después rastrea y entrelaza eficazmente las actividades concurrentes de diversos inventores cuyos dispositivos sintetizaron imágenes fijas en imágenes en movimiento, y termina con un examen exhaustivo de 1896, el primer año completo de proyección de imágenes en movimiento. El crítico sugiere que el contenido del libro sería más útil como recurso en línea, lo que tendría una serie de virtudes, entre ellas la de facilitar la búsqueda por palabras en lugar de requerir un complejo índice.

The Optilogue: An Internet Treasure Chest

Laurent Mannoni

Laurent Mannoni is scientific director of the collections of the Cinémathèque française. He is the author of the comprehensive *Histoire de la Cinémathèque française* (Gallimard, 2008), and of various books on pre-cinema and early cinema, and film technology, on which he has curated many acclaimed exhibitions. A great specialist on the life and work of Georges Méliès, his latest book on the subject is the celebrated *Méliès, la magie du cinéma* (Flammarion, 2020).

As we know, the Internet is both a gigantic trash can and, sometimes, a treasure chest full of surprises and wonders. It is the latter which is true of *The Optilogue* website (<<https://theoptilogue.wordpress.com>>), managed since 2020 by one of the greatest experts in film archaeology and technology, Stephen Herbert, who introduces it as follows: "This blog explores historical visual media, especially those with an 'optical' element – including magic lanterns, early cinema, dimensional picture books, stereoscopic images, zoetropes, early flip books, anamorphics, peepshows and transparent dioramas. Art, Science, Technology and Sociology."

Stephen Herbert has long been known to moving-image historians. He was one of the mainstays of the Museum of the Moving Image which opened in London in 1988 but, sadly, closed in 1999. With his partner Mo Heard, he founded his own publishing house, The Projection Box, through which he published the works of well-known Anglo-Saxon historians: John Barnes (*Dr. Paris's Thaumatrope or Wonder-Turner*, 1995), Barry Anthony (*The Kinora*, 1996), Deac Rossell (*Ottomar Anschütz and his Electrical Wonder*, 1997), Vanessa Toulmin (*Randall Williams, King of Showmen*, 1998), Mervyn Heard (*Phantasmagoria*, 2006), and Stephen Bottomore's fabulous *The Titanic and Silent Cinema* (2000). He also published facsimiles of long-unavailable material such

as the catalogue issued around 1911 by Bond's Ltd., *The Kinora Library: A Descriptive List of Moving Pictures That You May See in Your Own Home* (2001), John Henry Pepper's 1890 *The True History of the Ghost* and a collection of *Victorian Film Catalogues* (both 1996), as well as *A Yank in Britain: The Lost Memoirs of Charles Urban, Film Pioneer*, edited by Luke McKernan (1999).

Not only is he responsible for all this monumental work, but Stephen Herbert has also published his own research – always precise, scholarly, and accurate: *When the movies began...* (1994), *Theodore Brown's Magic Pictures* (1997), *Wordsworth Donisthorpe's Kinesigraph* (1998 and 2017), and *Eadweard Muybridge, The Kingston Museum Bequest* (2004). He has also, with Luke McKernan, edited the indispensable *Who's Who of Victorian Cinema* for the British Film Institute (1996), as well as the huge reprint volumes published by Routledge: *A History of Pre-Cinema* (2000), *A History of Early Film* (2000), and *A History of Early Television* (2004). Finally, he has been a regular contributor to scholarly journals such as *Film History* and *The Optical Magic Lantern Journal*.

As his bibliography and *The Optilogue* show, Stephen Herbert has a special affection for a few heroes: the inventor Theodore Brown, author of *Stereoscopic Phenomena of Light and Sight* (1903), and the wonderful anaglyphic 3-D children's book, *The Little Green Man of the Sea* (1926), where the word "cinemascope" probably appears for the first time. On another forgotten but very important inventor, Wordsworth Donisthorpe, Stephen Herbert is truly the acknowledged expert.

The Optilogue returns to these characters and, additionally, brings a flood of new and absolutely essential information on the baffling William Friese-Greene (and also on his collaborator Frederic Varley), the immensely important Robert William Paul or the mysterious Louis Le Prince, the circumstances of whose death never cease to captivate researchers worldwide. On Friese-Greene

alone, Herbert has published a series of ten pieces of fundamental research. He also examines difficult and little-explored subjects: moving-image photographic discs from the 1890s, “Life Models” published in France by the Maison de la Bonne Presse, flip books, 3-D cinema, Will Day and television, and even daguerreotypes depicting Charles Dickens. We hope that the research to be found in *The Optilogue* will soon be collected into a book.

There are always revelations in each issue and even the most experienced historian on these subjects must admit his surprise and delight, when, for example, in November and December 2022, Stephen Herbert delivered two astonishing and delightful posts on “Peep-Viewer Toys of the 20th Century”, and “3-D Toy Viewers of the 20th Century”. Illustrations for the former include a “Baby Cinema” film clip peep viewer made in India during the 1980s, a Peewee Viewer made in England c.1950, and a Cigarette Lighter Viewer made in Hong Kong in the same decade; the lat-

ter includes a Weetabix-branded VistaScreen viewer from the 1950s or 1960s. Many such items are from Herbert’s personal collection. In the December 2022 issue, there is a photo of a young Stephen Herbert posing with a smiling Ray Harryhausen. Herbert has in his hand the keys of the Museum of the Moving Image which he would tour meticulously every day to check that everything was all right...

An insatiable and generous researcher, Stephen Herbert has also posted fascinating films on YouTube: for example, <<https://www.youtube.com/watch?v=JoTYp7rcqj0>>, where he shows his visit to the Barnes brothers’ museum in St Ives, Cornwall, during the summer of 1971.¹ It is a unique and very moving document, illustrating the fervour and intelligence of the English collectors and historians coming from the Will Day school: John and William Barnes, David Francis, David Robinson, and now Stephen Herbert. Thanks to him and to them!

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The Optilogue, site Web créé par Stephen Herbert en 2020, est une malle au trésor remplie de surprises et de merveilles. Herbert est un expert reconnu des « médias visuels historiques, en particulier ceux qui comportent un élément ‘optique’... » Il a publié les travaux de plusieurs historiens de l’image en mouvement ainsi que les résultats de ses propres recherches, qui ont été largement saluées. *The Optilogue* regorge d’informations sur des pionniers comme William Friese-Greene, R.W. Paul et Louis Le Prince, ainsi que sur l’histoire et les aspects technologiques de sujets aussi divers que les *flip books*, le cinéma en 3D ou les daguerrotypes de Charles Dickens. Herbert a également mis en ligne des films sur YouTube, dont un de sa visite de 1971 au Barnes Museum of Cinematography, document aussi unique qu’émouvant.

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The Optilogue, un sitio web creado por Stephen Herbert en 2020, es un cofre del tesoro lleno de sorpresas y maravillas. Herbert es un reconocido experto en “medios visuales históricos, especialmente aquellos con un elemento ‘óptico’...”. Ha publicado la obra de varios historiadores de la imagen en movimiento, así como los resultados de sus propias investigaciones, que gozan de gran prestigio. *The Optilogue* está repleto de información sobre pioneros como William Friese-Greene, R W Paul y Louis Le Prince, y también sobre la historia y la tecnología de temas como los *flip books*, el cine en 3-D e incluso los daguerrotipos de Charles Dickens. Herbert también ha colgado películas en YouTube, incluida una de su visita en 1971 al Barnes Museum of Cinematography, un documento único y muy emotivo.

1. See also <https://youtu.be/aHo_cH65GQA>.

Sguardi Privati. Teorie e prassi del cinema amatoriale

Paolo Simoni

Paolo Simoni is Director of the Fondazione Home Movies – Archivio Nazionale del Film di Famiglia, Bologna.

For someone like myself who has always enjoyed the fruits of Paolo Caneppele's study and research through reading his articles and talking to him at various events, *Sguardi Privati. Teorie e prassi del cinema amatoriale* (*Private Gazes. Theory and Practice of Amateur Cinema*) is a fulfilling and enriching read. The book, full of original and sometimes even paradoxical positions, is first and foremost a useful tool for both researchers and archive curators.

As Caneppele says in the introduction, his aim is "to offer scholars new conceptual categories to better understand the genesis and evolution of the multiform phenomenon of non-professional film and video shooting",¹ and there is no lack of methodological proposals to be used as practical tools to fill gaps for those who face the daily work of archiving home movies.

Private gazes – and the "objects" of archiving and study – are a passion shared by the author of the book and the writer of this enthusiastic review. I believe that Caneppele's point of view is particularly original when compared to those of scholars from academic backgrounds who deal with film studies, for two primary reasons. First, Caneppele is an archivist (he works at the Film Museum in Vienna); he makes daily physical contact with reels of film, those "containers of mem-



ory" to echo Walter Benjamin, and in focusing his attention on those, reveals himself to be an unparalleled philologist (see Chapter 4, "The Most Beautiful Container"). Second, Caneppele is a modernist historian by training; the valuable lessons offered by Marc Bloch and Fernand Braudel resonate in his words. Furthermore, he is a cultural historian able to relate home movies to the private gazes of all epochs preceding the cinema, examining the subject from a long-term historical perspective (Chapter 3, "At the Origins of the Intimate and Private Gaze"). Above all, however, right from the Foreword and throughout his twelve, very dense chapters, Caneppele reveals himself to be an historian of emotions, interested first and foremost in the human, anthropological, and even universal aspects of which the home movie is both a document and a trace. "Emotions are contagious", says Caneppele in the wake of Lucien Febvre, advocating an empathetic and affective approach for those who address amateur images as an added value and not as a hermeneutic, let alone cognitive, limitation. The inherent dangers of becoming emotionally

1. Reviewer's translations throughout.

overwhelmed by the object studied, without maintaining the necessary detachment, are, in my opinion, overcome by the position the scholar must set out. From this perspective, the wisest strategy for the historian, following the path indicated by Carlo Ginzburg, is to insert himself into the narrative by assuming the role of the one who interrogates and tries to answer the questions posed by the sources with speculations and conjectures to fill the inevitable gaps in meaning and narrative.

The private gaze Caneppele refers to is obviously related to the gaze provided by privately made cinema, but the term “private” in Italian also refers to the want of contextual information and the lack of data on the makers. Caneppele proposes to shift the focus from things to practice, from objects to people: it is indeed necessary to “interpret home movies as traces of humanity”. In this sense, the author proposes the creation of amateur filmographies, of empathic-emotional reconstruction, as a sort of narrative strategy (to weld the filmic and material aspect with the biographical aspect of authors and families), and as an antithesis to the “cold” principle of database and cataloguing which, for the author, are inadequate for this purpose. The proposal seems as daring as it is interesting. In my view, it should not be either/or. Rather, a complementarity should exist among the different strategies to be adopted when faced with an archive of home movies, while the concept of family filmography (Chapter 9) remains to be

discussed. It is easy to support the idea that family films should not be viewed as individual fragments – or, at least, not only as such – but rather as long-term documentation of a family’s history (Chapter 10). Caneppele’s outlook is wide-ranging, from an attempt to revive the debate on the aura of the family film (Chapter 1) to the definition of the animated portrait (Chapter 2), to case-studies on cine-surveillance, voyeuristic views, and the concepts of diary and ego-document.

The book closes with something approaching a decalogue of “slight as well as brief warnings” on the viewing of home movies that, again with the subtle irony that characterises the whole volume, shows how much the field can widen and how a new humanism can grow around the reading of these images.

In conclusion, Caneppele’s interdisciplinary approach is very fruitful, so much so that this volume, by dealing with the characteristics of home movies that have remained “under the radar”, exposes them from an original point of view that enriches the panorama of the numerous studies on amateur cinema and poses a new possibility for comparison. For this reason, and for the extreme pleasure that reading this book gives, it is to be hoped that it will be translated into other languages.

Paolo Caneppele, *Sguardi Privati. Teorie e prassi del cinema amatoriale*. Milan: Meltemi, 2022. 424 pp. ISBN: 9788855194983.

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L'ouvrage de Paolo Caneppele est un outil précieux tant pour les archivistes du cinéma amateur que pour tout chercheur œuvrant dans ce domaine. L'auteur est à la fois archiviste et historien de la culture, et adopte également une approche anthropologique et émotionnelle. Tout en prodiguant des conseils pratiques, il propose également d'« interpréter les films amateurs comme des traces d'humanité ». Son livre adopte ce point de vue et envisage les films amateurs comme des portraits animés, tout en examinant leur relation avec la ciné-surveillance, le voyeurisme et les concepts de journal intime et d'ego-document.

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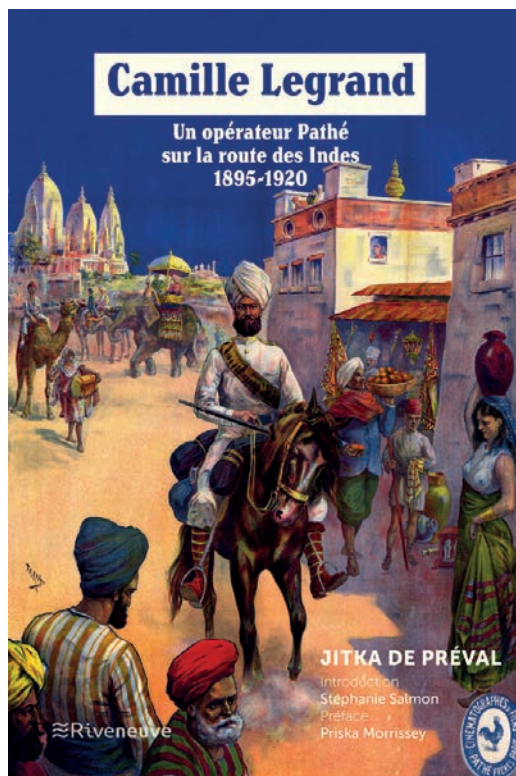
El libro de Paolo Caneppele es una herramienta muy útil para los archiveros de cine amateur, así como para cualquier persona que investigue en este campo. El autor es a la vez archivero e historiador cultural y se interesa también por un enfoque antropológico y emocional. Además de ofrecer consejos prácticos, propone “interpretar las películas caseras como huellas de humanidad”. Su libro aborda tal punto de vista, además de considerar el cine amateur como retrato animado y examinar su relación con la cinevigilancia, la visión voyeurista y los conceptos de diario y ego-documento.

Camille Legrand. Un opérateur Pathé sur la route des Indes, 1895-1920

Jean-Claude Seguin

Jean-Claude Seguin est professeur émérite de l'université de Lyon. Il est l'auteur de plusieurs ouvrages sur le cinéma espagnol et sur les origines du cinématographe. Il est responsable du site « Cine 1896-1906 », la principale base de données sur la question.¹

La vie des opérateurs constitue, encore aujourd'hui, l'une des zones d'ombre les plus importantes pour qui s'intéresse aux premiers temps du cinématographe. Si l'on exclut les pionniers qui eurent l'heureuse idée de laisser quelques traces, comme Félix Mesguich et ses *Tours de manivelle*, il faut bien admettre que la grande majorité de ces figures restent encore pratiquement inconnues. Rendons donc hommage à la poignée de chercheurs et de chercheuses qui ont tenté de lever le voile sur ces cinématographistes oubliés par l'histoire, dont Jitka de Préval, qui vient de consacrer un beau livre à Camille Legrand, « un opérateur Pathé sur la route des Indes, 1895-1920 ». Il a fallu faire preuve d'un vrai courage pour entreprendre de raconter la vie de quelqu'un dont on ne savait pratiquement rien et dont il ne restait même plus la moindre photographie. Car le premier mérite de cet ouvrage, et non des moindres, c'est que l'auteure nous invite à partager ce qu'il faut bien appeler une enquête brillamment conduite. Le lecteur est pris par le désir de retrouver ne serait-ce qu'une image de celui qui travailla pendant tant d'années pour la marque au coq. D'analyses en intuitions, avec une rigueur qui ne se dément jamais, la passionnante



énigme nous conduit aux portes de la révélation de ce visage tant recherché. Nous voilà donc tenus en haleine du début à la fin de cette passionnante narration.

Mais l'aventure de la photo perdue sert aussi à glisser le lecteur dans les pas de Camille Legrand, ce personnage encore obscur d'origine modeste qui va devenir un collaborateur de premier plan et intime de Charles Pathé, au mariage duquel, en 1893, il est d'ailleurs invité. Autant dire qu'il participe à l'aventure du cinématographe dès les origines. C'est là que le destin individuel va croiser celui du septième art naissant. Ce qui caractérise Pathé, c'est qu'il est un homme du XX^e siècle et que ce « parvenu », comme il se plaît à se décrire, comprend immédiatement que le cinématographe va révolutionner le monde du spectacle et de l'industrie. Dès le second chapitre, le livre nous emporte aux Indes, nouvel Eldorado pour les ambitions commerciales d'Émile et Charles Pathé. Après le son, ce sera l'image. Nous voilà donc plongés dans la vie bouillonnante de cette colonie britannique

1. Consultable sur le site Web <<https://grimh.org>>



Photogramme du film *De Naples au Vésuve* (c. 1904), dans lequel apparaît Camille Legrand.

grâce à un récit qui bascule avec aisance du destin individuel à l'histoire collective. Jitka de Préval nous fait souvent naviguer avec bonheur de l'un à l'autre. Nous partageons ainsi cette conquête de l'Est et parcourons les multiples emporiums cinématographiques disséminés non seulement en Inde, mais dans tout l'Extrême-Orient. Car Camille Legrand, qui y effectue son premier voyage en 1906, n'est pas seul sur ces terres promises à un bel avenir et dont on partage avec passion la progressive éclosion. C'est un monde grouillant de noms, pour la plupart inconnus du lecteur, que Jitka de Préval nous invite à découvrir.

Et pourtant, tout cela se fait avec bien peu de moyens. On est ainsi étonné de constater que l'historienne ne dispose que d'un nombre très restreint de sources. Rien du côté de la famille – un fils disparu prématurément et un second dont on perd la trace –, quelques articles de presse souvent laconiques, quelques dossiers d'archives et une utilisation judicieuse des ressources en ligne : voilà presque les seuls

matériaux dont disposerait l'auteure si elle n'avait pu compter sur l'aide précieuse de la fondation Jérôme Seydoux-Pathé et ses irremplaçables *Journaux comptables*, base très minutieuse – mais souvent lapidaire et absconse pour le néophyte – où figurent les noms des multiples collaborateurs de la maison Pathé. Il faut tout le savoir-faire de Jitka de Préval pour dénouer les multiples écheveaux et déjouer les traquenards à répétition que contiennent ces outils indispensables pour le chercheur. Grâce à un travail précis, l'ouvrage nous permet de connaître au centime près les dépenses engagées par Camille Legrand et les émoluments que ces missions lui rapportent. Après deux voyages en Inde, ce globe-trotter renonce en 1907 à ces lointaines expéditions pour prendre, sur proposition de Ferdinand Zecca, la direction du théâtre de prises de vues de Montreuil. Même s'il s'acquitte de sa tâche avec dévouement, on sent pourtant, au fil des pages, que l'attrait irrésistible de l'Orient et plus fort que tout et voilà notre homme repartant en 1909 sur la route, et il

n'aura de cesse de filmer l'Extrême-Orient, l'Inde bien sûr, mais également le Tonkin, le Japon, Java, Manille, Singapour, la Chine... Finalement, après de nombreuses années de bons et loyaux services, Camille Legrand quitte Pathé pour devenir, en 1920, metteur en scène de films bengalis, et entrer aussi dans l'histoire du cinéma indien. Livre rare et précieux, l'ouvrage de Jitka de Préal est désormais une pièce essentielle tant pour le simple lecteur passionné

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The lives and work of camera operators still constitute one of the most important grey areas of the early days of cinema. Tribute must therefore be paid to the handful of researchers who have tried to lift the veil on some of the many cinematographers forgotten by film history. One of them is Jitka de Préal, whose book on the Pathé cameraman Camille Legrand is a brilliantly conducted and rigorous investigation of someone about whom we knew practically nothing and of whom not even a single photograph survives.

A close collaborator of Charles Pathé, Legrand was, between 1905 and 1920, the first operator to go hunting for picturesque moving images in India (the new Eldorado for the commercial ambitions of Émile and Charles Pathé) and the Far East. The author makes the most of the scarce documentary sources at her disposal (a few press articles and archival documents, online resources that the author uses judiciously, and the help of the Fondation Jérôme Seydoux-Pathé and its essential *Journaux comptables*) to tell the story of Legrand's picturesque adventures, through a narrative that switches effortlessly from individual destiny to collective history.

Jitka de Préal's rare and precious evocation will be enjoyed in equal measure by readers with a passion for adventure and by film historians interested in the forgotten "crank turners" of early cinema such as the great adventurer that was Camille Legrand.

d'aventures que pour l'historien, qui en fera vite un livre de référence sur les temps anciens des tourneurs de manivelle oubliés, comme ce singulier voyageur qu'a été Camille Legrand.

Jitka de Préal, *Camille Legrand. Un opérateur Pathé sur la route des Indes, 1895-1920*, Paris: Riveneuve, 2021, 471 p. ISBN: 9782360136230.

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La vida y el trabajo de los operadores de cámara siguen constituyendo una de las zonas grises más importantes de los inicios del cine. Por ello, hay que rendir homenaje al puñado de investigadores e investigadoras que han intentado arrojar luz sobre algunos de los muchos directores de fotografía olvidados por la historia del cine. Una de ellas es Jitka de Préal, cuyo libro sobre el camarógrafo de Pathé Camille Legrand es una investigación brillante y rigurosa sobre alguien de quien no sabíamos prácticamente nada y de quien no se conserva ni una sola fotografía.

Estrecho colaborador de Charles Pathé, Legrand fue, entre 1905 y 1920, el primer operador a la caza de imágenes pintorescas en movimiento en la India (el nuevo Eldorado para las ambiciones comerciales de Émile y Charles Pathé) y en Extremo Oriente. La autora aprovecha al máximo las escasas fuentes documentales disponibles (algunos artículos de prensa y documentos de archivo, recursos en línea que la autora utiliza juiciosamente, y la ayuda de la Fundación Jérôme Seydoux-Pathé y sus imprescindibles *Journaux comptables*) para contar las aventuras pintorescas de Legrand, a través de una narración que pasa sin esfuerzo del destino individual a la historia colectiva.

La rara y preciosa evocación de Jitka de Préal gustará por igual a los lectores apasionados por la aventura y a los historiadores del cine interesados en los olvidados "torneros de manivela" del primer cine, como el gran aventurero que fue Camille Legrand.

De l'assemblage au montage cinématographique. Instauration et standardisation d'une pratique

Paolo Cherchi Usai

Paolo Cherchi Usai is Senior Curator of the Cineteca del Friuli in Gemona and Senior Curator-at-large of the George Eastman Museum in Rochester, New York. He is the founder of The Nitrate Picture Show (established in 2015), and author of *Silent Cinema: A Guide to Study, Research and Curatorship* (2019).

In a brief but seminal essay published in 2002 ("Le Collage magique chez Edison et Méliès avant 1901", in *CinémAction* n.102, pp.96-109), film historian Jacques Malthête identified four basic reasons for joining two pieces of motion picture film in the early days of cinema. In its unsurpassed clarity, Malthête's analysis has been the most concise and reliable overview of the subject, one of those unassuming texts that gradually achieve the status of a "classic" in film studies. Twenty years later, André Gaudreault and Laurent Le Forestier have come close to reaching the same goal in what can be rightfully hailed as the most comprehensive reflection on the origins of a fundamental component of the artificial moving image: the organisation of cinematic time in a meaningful sequence of discrete components.

For Gaudreault in particular, this book is the embodiment of a long-cherished dream, a general history of film editing ("montage"), an aspiration that has informed much of his work from the 1970s to the present. Whether or not such a magnum opus will ever see the light, this book may be regarded either as its introductory tome or as its foundational statement. There is no exaggeration in claiming that this is the crowning instalment in Gaudreault's



prolific output, the synthesis of almost half a century of research in the field. By joining their forces, Le Forestier and his eminent colleague have given their readership considerably more than the sum of their respective expertise.

After a foreword by film editor Hervé de Luze (a longtime collaborator of Roman Polanski and Alain Resnais) and an illuminating preface by Walter Murch (*The Conversation*, *Apocalypse Now*, *The English Patient*), the book tackles the question of how the practice of cutting and splicing film stock gave birth to the concept of film editing. It does so by focusing on the first three decades of cinema – from the Lumière brothers to Chaplin's *City Lights* (1931) – in six chapters structured along dual concepts such as "mending and patching up", "accumulating and pruning", and "arrange and connect". The working hypothesis behind Gaudreault's and Le Forestier's dense narrative is that there is no point in asking who came up with the idea of editing films, and when: "as a process of assembling and juxtaposing fragments of

film, editing was not born out of a conscious project, nor of any intention whatsoever. It came out of necessity... no 'inventor(s)' can be claimed for film editing, as editing is a phenomenon that – rather than being invented – establishes itself progressively and collectively” (pp.29–30, my translation).

The trajectory of this phenomenon is described by Gaudreault and Le Forestier along the parallel paths of history and theory. In the former sense, the book provides the most detailed and insightful account of the beginnings of film editing ever to be found in scholarly literature since Barry Salt's writings on the subject. As a theoretical treatise, it demands familiarity with the authors' intricate lexicon: terms such as “unipunctuality”, “heteroframing”, and “techneme” have required the creation of a glossary at the end of the volume, and are likely to be a challenge for the reader, not to mention any potential translator. The two strands are deeply intertwined, thus requiring a slow, methodical approach to the appreciation of the wealth of knowledge displayed in 150,000 words of dazzling analytic virtuosity. Not for the faint-hearted, *De l'assemblage au montage cinématographique* rewards patience and multiple readings with a cornucopia of ideas, and a powerful stimulus to look at cinema under the combined lenses of technology, philosophy, and linguistics.

An effort of such magnitude would have warranted a better editorial treatment; in this sense, the authors were indeed badly served by their publisher. The absence of an Index in a book of such intricacy is particularly unfortunate, as it makes it hard to connect the

many conceptual threads linking the six chapters and the absorbing epilogue that follows them without a prior cover-to-cover reading. The authors deserved neither this lamentable oversight, nor the appalling quality of the illustrations, largely derived from commercial DVD releases and so poorly reproduced to make them at times almost incomprehensible. They are accountable, however, for the very decision not to use frame enlargements from actual prints and negatives, something they could have obtained through the network of archival and museum collections they have worked with for many years, and whose curators would have been happy to assist them in their endeavours. For instance, the cuts and splices (on the positive elements) they are writing about may or may not have been made at the time of the films' first releases: only a close analysis of their shape, consistency, and strength would have been able to corroborate their case. This flawed approach to a subject matter so dependent upon the tangible evidence of the film was avoidable and ought to be corrected, all the more so in a work of such ground-breaking scope and depth. It is to be hoped that the authors will remedy this in the event of publication in other languages, which Gaudreault's and Le Forestier's intellectual *tour de force* so amply deserves.

André Gaudreault and Laurent Le Forestier, *De l'assemblage au montage cinématographique. Instauration et standardisation d'une pratique. Cinéma et technologie series. Montreal: Les Presses de l'Université de Montréal, 2022. Illus. 372 pp. ISBN: 978-2-7606-4648-3.*

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Cet important ouvrage de Gaudreault et Le Forestier aborde la problématique de comment la pratique du découpage et du collage de pellicules a donné naissance au concept de montage cinématographique. Pour ce faire, les auteurs se concentrent sur les trois premières décennies du cinéma, des frères Lumière aux *Lumières de la ville* (1931) de Chaplin. Leur analyse complexe aurait gagné à être accompagnée d'un index des sujets abordés et pâtit en outre d'illustrations médiocres. L'ouvrage n'en constitue pas moins une puissante incitation à examiner le cinéma sous les angles combinés de la technologie, de la philosophie et de la linguistique.

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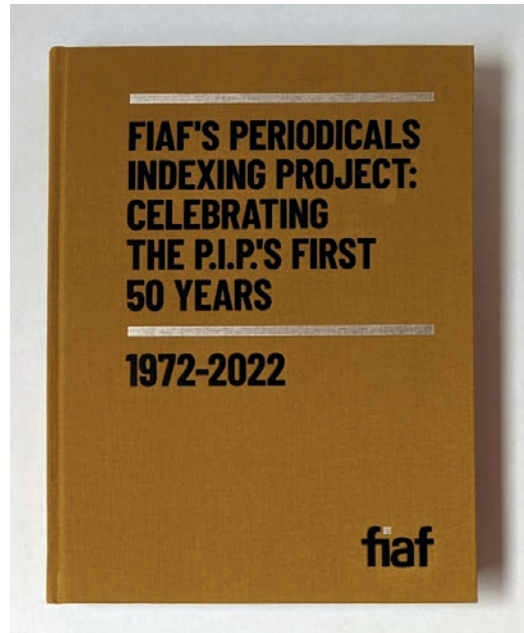
La importante obra de Gaudreault y Le Forestier aborda la cuestión de cómo la práctica de cortar y empalmar material filmico dio origen al concepto de montaje cinematográfico. Para ello se centra en las tres primeras décadas del cine, desde Lumière hasta *Luces de la ciudad* (1931) de Chaplin. Aunque el intrincado análisis de los autores se habría beneficiado de un índice de temas, y se ve empañado por ilustraciones deficientes; el volumen ofrece un poderoso estímulo para observar el cine desde la perspectiva combinada de la tecnología, la filosofía y la lingüística.

FIAF's Periodicals Indexing Project: Celebrating the P.I.P.'s First 50 Years 1972-2022

Thelma Ross

Thelma Ross served as Head of FIAF's Cataloguing and Documentation Commission from 2015 to 2021. She has worked with moving image collection metadata for a number of years for institutions such as the Academy Film Archive and The Museum of Modern Art's Department of Film. She is currently employed as a Metadata Specialist for the UCLA Film & Television Archive.

At its core, the International Federation of Film Archives (FIAP) connects people to information, and to each other. A shining example of this is FIAF's Periodicals Indexing Project (P.I.P.), a co-ordinated effort to index film periodicals from across the globe. As indicated by its title, this book is part celebration and part historical chronicle of the P.I.P. There can be little doubt it is a niche publication. Like the P.I.P. itself, it is a labor of love undertaken by lead author and editor (and current P.I.P. Editor) Rutger Penne, as well as the many contributors to the text. Its clear and orderly structure is tantamount to a love letter to information organization professionals: the neat title pages capping each section, the placement of Milestone cross-references, and the Appendices, which include a Timeline and listings of P.I.P. staff, editors, and supporters. Everything is considered down to the last detail, including the cover and sturdy, oversized format, which are inspired by the first printed volume of the *International Index to Film Periodicals* (1972). It is a book that could lend itself to display or casual flipping-through in the style of coffee-table books. This is perhaps hinted at in Penne's Introduction, which directs the more incurious reader to a prefa-



tory two-page condensed account, "The History of the P.I.P. in a Nutshell". But those who opt not to explore the history of the P.I.P. in depth will miss out on Penne's handling of primary source materials and first-hand knowledge to provide a rich recounting of the P.I.P. from a variety of perspectives. The text is well-balanced by the incorporation of more than 150 images, including photographs, artifacts, documents, records, and correspondence. The images personalize and give form to the narrative while signaling the degree of research that went into piecing it together.

The bulk of the book is made up of two parts that echo its title: "50 Milestones" and "50 Personal Testimonies". The 50 Milestones chart significant points of the P.I.P.'s evolution from its beginnings in 1966 to its present-day form in 2022. Rather than straightforwardly broken into decades, the variable timespans covered by the Milestones illustrate the uneven track of the P.I.P.'s development and expansion. Penne doesn't shy away from presenting the hurdles faced: financial struggles that threatened to shut down the P.I.P. more than once, advances in technology that necessitated a move from print to microfiche to CD-ROM to the Internet, difficulties in finding



FIAF Secretary-General Jacques Ledoux and Karen Jones during the joint meeting of the FIAF Documentation Commission and the FIAF Cataloguing Commission in Wiesbaden, October 1969.

and keeping staff. These challenges make the P.I.P.'s hard-won position of strength and recognition even more remarkable.

Among the Milestones, "Special Inserts" feature selected topics, including the recollections and experiences of some of the early pioneers and supporters of the P.I.P. without whom there would be no celebration. Karen Jones, the book's dedicatee, whom Penne dubs the "Mother of the P.I.P.," provides some of the most detailed reports of the P.I.P.'s humble and formidable beginnings, including dreadful working conditions and a painfully slow, manual production process. It is due to her vision, perseverance, and willingness to make personal sacrifices that the P.I.P. weathered this time of instability.

While the Milestones tell the story of how the P.I.P. was established and the collective effort needed to keep it going, the Personal Testimonies tell the story of the scope of the P.I.P.'s impact on people and learning. These

50 personal statements come from professionals who interacted with the P.I.P. or its products in various capacities, from P.I.P. staff and indexers to publishing partners, librarians, and film researchers. They are a fascinating mix, but some of the most memorable come from the P.I.P. indexers themselves (both freelance and volunteer). Several of them, such as Noemí Maya (Filmoteca de Catalunya – ICEC, Barcelona) or Vivienne Jones (BFI National Archive, London), address how the P.I.P. tangibly fulfills access needs, relating the ways in which it enables them to serve their users, whereas others, including Jason Sanders (UC Berkeley Art Museum & Pacific Film Archive, Berkeley), are more philosophical or esoteric in tone, reflecting on the P.I.P.'s ability to rescue scholarship and scholars from "the oblivion of time". These practitioners also convey the experience of contributing to the P.I.P. For the uninitiated: indexing is painstaking and intellectually challenging work, requiring a high level of precision and accuracy. Particularly

striking is the characterization by Susan Petersen (freelance indexer based in France) of indexing as “antlike work”, which perfectly captures the industriousness and largely hidden nature of such efforts. Similarly, Mariana Hristova (freelance indexer based in Spain) describes it as “invisible but relevant” and “unglamorous”. But, both attest, it brings rewards such as a sense of fulfillment and a greater appreciation for cinema.

Sandwiched between the Milestones and Testimonies, space is devoted to interviews with the first three P.I.P. Editors: Karen Jones, Michael Moulds, and Frances Thorpe, and a personal account from its fourth and current Editor, Rutger Penne. Each has left their mark. If Jones, who conceived and nurtured the idea, is the “Mother of the P.I.P.”, Moulds, who instigated and oversaw many of the P.I.P.’s technological advances, might be considered its “father of innovation”. Thorpe claimed that her “major contribution was to keep the P.I.P. afloat” during a time of funding and staffing inadequacies (itself no mean feat), yet still managed to launch the *International Index to Television Periodicals*. Penne, editor since 1998, has been with the P.I.P. for nearly half of its existence. His abil-

ity to speak four languages is but one reason he is so suitably placed for a project built on international cooperation. Like his predecessors, Penne possesses the required tenacity for the job. His legacy, though, may well be his business acumen, which secured the financial viability of the P.I.P.

FIAF’s Periodicals Indexing Project: Celebrating the P.I.P.’s First 50 Years 1972-2022 is a fitting salute to both the project itself and the people involved. Its publication was officially presented (and celebrated) in late September 2022, at a two-day event at the Danish Film Institute in Copenhagen. This brought together 48 participants and included a symposium covering topics such as indexing online film journals and using film-related databases/resources, thus offering a present-day reminder of the P.I.P.’s and FIAF’s commitment to connecting people to information, and to each other.

**Rutger Penne (Editor/Lead Author),
*FIAF’s Periodicals Indexing Project:
Celebrating the P.I.P.’s First 50 Years
1972-2022.***

**Brussels: FIAF, 2022. 261pp., illus.
ISBN: 9780906973738.**

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FIAF’s Periodicals Indexing Project: Celebrating the P.I.P.’s First 50 Years 1972-2022 est une documentation et une célébration de ce programme coordonné d’indexation des périodiques consacrés au cinéma. L’ouvrage retrace les étapes importantes de l’évolution du P.I.P., de ses débuts en 1966 à sa forme actuelle en 2022. On y trouve des témoignages, des entretiens et des déclarations des principaux concernés, qui mettent en lumière l’impact considérable du P.I.P. tant sur les personnes que sur les apprentissages.

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FIAF’s Periodicals Indexing Project: Celebrating the P.I.P.’s First 50 Years 1972-2022 documenta y rinde homenaje a este programa coordinado de indexación de publicaciones periódicas cinematográficas. El libro traza puntos significativos de la evolución del P.I.P., desde sus inicios en 1966 hasta su forma actual en 2022. Incluye testimonios, entrevistas y declaraciones personales de las personas implicadas, que arrojan luz sobre el alcance del impacto del P.I.P. en las personas y en el aprendizaje.

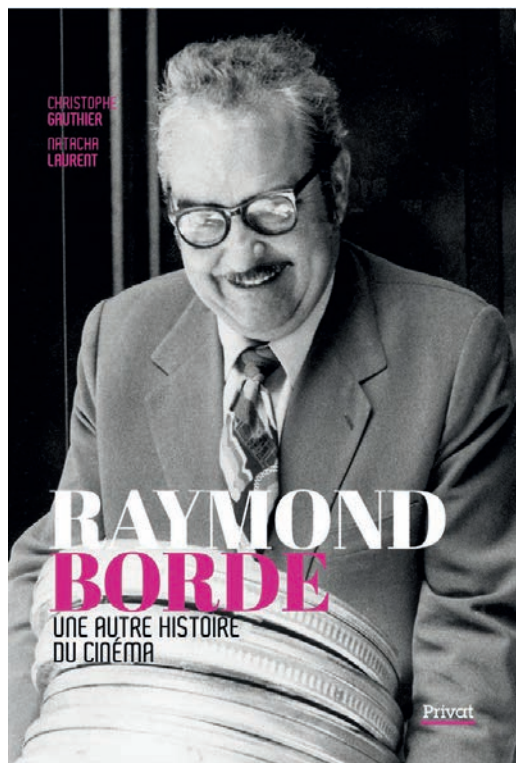
Raymond Borde. Une autre histoire du cinéma

Donata Pesenti

Donata Pesenti Campagnoni a été, jusqu'en décembre 2020, conservatrice en chef du Museo Nazionale del Cinema – Fondazione Maria Adriana Prolo (Turin). Historienne du cinéma, commissaire d'exposition et commissaire du parcours expographique du Musée dédié à l'archéologie du cinéma, elle est l'auteur, entre autres, de *Quando il cinema non c'era. Storie di mirabili visioni, illusioni ottiche e fotografie animate* (UTET Università, 2007) et de *Lanterne magique et film peint. 40 ans de cinéma* (Editions de la Martinière, 2009), co-signé avec Laurent Mannoni. Elle enseigne actuellement le cours « Muséologie et archives du cinéma » à l'Université de Turin et collabore au journal *la Repubblica*.

Le beau livre que Christophe Gauthier et Natacha Laurent ont consacré à Raymond Borde n'est pas une simple biographie. Cela transparait dès son sous-titre – *Une autre histoire du cinéma* – qui résume en quelques mots l'itinéraire humain et intellectuel de Borde, encore peu connu, et surtout les nombreuses batailles qui ont marqué sa vie, son action et ses multiples rôles : cinéphile collaborant à l'activité des ciné-clubs de Toulouse, critique cinématographique, auteur prolifique d'importantes monographies et collaborateur des *Temps modernes* et de *Positif*, deux revues qui indiquent son engagement intellectuel à gauche, membre jusqu'en 1958 du Parti communiste français et militant anticolonial ; mais aussi proche du mouvement surréaliste et d'André Breton ; et bien sûr fondateur, conservateur et président (jusqu'en 1990) de la Cinémathèque de Toulouse, et encore protagoniste actif de la FIAF, dans diverses fonctions, de 1966 à 1991.

Cette reconstruction détaillée s'éloigne de toute démarche hagiographique. Au contraire, elle met en évidence toutes les ruptures et ambiguïtés qui ont caractérisé la vie de Borde. Elle nous présente un portrait plus ressemblant de sa personnalité kaléidoscopique, parfois même indéchiffrable, et nous fait comprendre ce que révèlent finalement



ses « apparentes collisions ». C'est le portrait d'un combattant impliqué dans d'incessantes batailles, poussé par son enthousiasme sans borne pour le cinéma et par la conviction qu'on ne peut en garantir la mémoire qu'en préservant et en gardant le patrimoine de films et des matériaux extra-filmiques. C'est pourquoi la « collection » pourra être considérée comme l'« héroïne » de cette biographie (pour paraphraser Honoré de Balzac dans *Le Cousin Pons*) en tant que pierre angulaire pour fonder et réécrire l'histoire du cinéma, comme l'a du reste démontré Raymond Borde pendant toute sa vie.

Que l'on pense à son attaque contre la politique des auteurs, mise en opposition à la politique des films parfaitement conforme à son projet de patrimoine : attaque sans appel qui l'enfermerait dans une image, à la limite de la caricature, d'adversaire résolu, incapable de partager la force que les « jeunes turcs » de la Nouvelle Vague revendiquaient ; mais qui fait transparaitre aussi la vision politique de Borde, celle qui orienterait tous ses choix.

On pense aussi à son conflit acharné et très significatif avec Henri Langlois : le livre retrace toute l'histoire, restée célèbre surtout à cause de l'article de Borde « L'Affaire Langlois » (*Le Monde*, 5 mars 1968), dont la version n'était pas d'ailleurs complète ; en effet Gauthier et Laurent précisent qu'à l'époque, la rédaction du journal avait coupé quelques passages, avec comme résultat de « personnaliser le débat », « provincialiser son auteur » et « mettre en exergue sa hargne vengeresse ». Ils reconsidèrent la relation entre Langlois et Borde de façon moins anecdotique et analysent sa véritable complexité ; peut-être pour guérir une blessure pas encore cicatrisée. De cette façon ils permettent au lecteur de dépasser la simple antinomie entre *montrer* et *préserver* le patrimoine cinématographique. Il est évident que quand il s'oppose à Langlois, Borde revendique l'autonomie de son action à Toulouse, la province de l'empire parisien (« je suis colonisé », se plaint-il dans une lettre à Buache le 30 avril 1965), il refuse toute soumission à la Cinémathèque française et à son créateur. Mais surtout il met en œuvre un « conflit fondateur », qui indique en fait la naissance d'une réflexion, de plus en plus profonde au fil des années, sur l'objectif ultime d'une collection de cinéma et sur le rôle des institutions qui en préservent le patrimoine. Borde souligne avant tout que la création d'une collection est étroitement liée à un constant travail de recherche, afin de mettre en œuvre le bon exercice, le

juste savoir-faire qui en garantit la préservation au cours des années : idée qui prend forme grâce aussi à sa relation étroite avec Freddy Buache et Jacques Ledoux. Ce dernier lui ouvre les portes de la FIAF, l'institution à laquelle il peut se confronter, sur laquelle il peut prendre exemple pour son travail de conservateur et qui représente pour ce partisan d'une « utopie mondialiste », défenseur d'une « cinémathèque universelle », un horizon international qui lui permettra, en fait, de concrétiser ce projet de cinémathèque que Langlois lui refusait.

Christophe Gauthier et Natacha Laurent déclarent ouvertement accepter l'héritage de Borde : ils prennent le relais et ils s'inscrivent « dans la continuité du travail et de l'action engagés par lui ». Et, sans aucun doute, cet hommage représente une excellente prolongation du grand travail de recherche historique sur le patrimoine cinématographique que ces auteurs poursuivent : un travail qui, comme Borde l'avait configuré, trouve toujours son centre d'intérêt dans la collection, à savoir l'« héroïne » qui, malgré tous les changements de notre époque numérique, continuera de préserver la mémoire du cinéma.

Christophe Gauthier & Natacha Laurent, Raymond Borde. Une autre histoire du cinéma. Toulouse : Editions Privat, 2022. 270 p., illus. ISBN : 9782708984219

en

As is clear from its subtitle – *Another History of Cinema* – this beautiful book is not a simple biography. In addition to his many roles as cinephile, critic, and author, Raymond Borde was a member of the French Communist Party, a militant anti-colonialist, and close to the Surrealist movement and André Breton. He was also founder, curator, and first president of the Cinémathèque de Toulouse, and an active member of the FIAF community from 1966 to 1991. The book highlights all the ruptures and ambiguities that characterised Borde's life and career. It also outlines his constant battles to uphold principles of preservation, his conflicts with Henri Langlois, and his role as supporter of a "globalist utopia".

es

Como se desprende de su subtítulo – *Another History of Cinema* – este hermoso libro no es una simple biografía. Además de cinéfilo, crítico y escritor, Raymond Borde fue miembro del Partido Comunista Francés, militante anticolonialista cercano al movimiento surrealista y a André Breton. También fue fundador, conservador y primer presidente de la Cinemateca de Toulouse, y miembro activo de la comunidad de la FIAF de 1966 a 1991. El libro pone de relieve todas las rupturas y ambigüedades que caracterizaron la vida y la carrera de Borde. También describe sus constantes batallas en defensa de los principios de conservación, sus conflictos con Henri Langlois y su papel como partidario de una "utopía globalista".

Skřivánci na niti/ Larks on a String

Michael Brooke

Michael Brooke is a freelance writer and multimedia producer. A former BFI National Archive curator, he regularly contributes to *Sight & Sound* and is currently the technical producer for the Indicator Blu-ray label.

It's not often that the top prize at a major festival goes to a film that is already two decades old, but Jiří Menzel's fourth feature had to wait that long for its world premiere after being censored and then banned outright by the Czechoslovak Communist authorities upon its completion in 1969. Disinterred soon after the November 1989 Velvet Revolution, it shared the Golden Bear at the 1990 Berlin Film Festival with Costa Gavras's *Music Box* (1990).

This could have been a fashionably tokenistic political gesture were it not for the film's own considerable and lasting merits. Indeed, if anything, its message of humanity, tolerance, and the necessity of collective opposition to ideology-driven repression is just as valid today in the era of cancel culture, "alternative facts", and vacuous management-speak. It's not surprising that it was banned; it tackled by far the most politically contentious topic that Menzel had broached up till then, the compulsory "re-education" of various individuals during the early 1950s Stalinist era.

It was Menzel's third collaboration with the novelist Bohumil Hrabal, an ostensibly unlikely double act (they were separated by 24 years and markedly different backgrounds), but one which flowered into one of the cinema's most fruitful filmmaker-writer partnerships, with one short and five features (*Smrt pana Baltazara / The Death of Mr Balthasar* (1965), *Ostře sledované vlaky / Closely Observed Trains* (1966); *Larks on a String*; *Postřižiny / Cutting It Short* (1980), *Slavnosti sněženek / Snowdrop Festival* (1983), and *Obsluhoval jsem anglického krále / I Served the King of England* (2006).



On the evidence of the films that Menzel made without Hrabal, good though many were, his fundamentally sweet-natured view of humanity was at its most effective when blended with Hrabal's own distinctive brand of tart black comedy and raucous garrulousness, both in abundance here.

Most of *Larks on a String* is set in a junkyard, involuntarily staffed by assorted "bourgeois reactionary elements" whose "crimes" range from teaching philosophy, to attempting to flee the country, to an excessive fondness for the saxophone. Familiar Czech-film faces are dotted amongst the towering scrap piles: Václav Neckář, Jitka Zelenohorská, Vlastimil Brodský, and Ferdinand Krůta will be immediately recognisable from Menzel's Oscar-winning international breakthrough *Closely Observed Trains*, as will Karel Mareš (*O slavnosti a hostech / The Party and the Guests* (1966) and Zdeněk Svěrák (*Kilja / Kolya* (1996).

Above all, there's the great Rudolf Hrušínský in his second consecutive film for Menzel (after 1968's *Rozmarné leto / Capricious Summer*) as the one member of the team who's both an authentic scion of



Skřivánci na niti/Larks on a String (Jiří Menzel, 1969).



Skřivánci na niti/Larks on a String (Jiří Menzel, 1969).

the working classes and a true believer in Czechoslovakia's socialist project (which was, at the time of the film's setting, only just under way). It's a great tribute to Hrušínský's (and Hrabal's) subtlety that, even when his character is spouting empty slogans in lieu of meaningful conversation, he's never allowed to lapse into crude caricature.

The same is true of *Anděl the guard* (Jaroslav Satoranský), whose onscreen marriage to Terežka (Tereza Galiová), a member of the local Roma community, leads to numerous culture-clash comedy moments. But when Terežka explores the newlyweds' prefab apartment, turning lights on and off and repeatedly flushing the toilet, her sense of wonder is so palpable that there's no question of mockery: this is, after all, part of the brave new modern world that they're all helping to build. And Hrabal and Menzel never forget this, which is why their film is far more resonant than a simplistic us-against-them approach would have achieved.

This 2021 restoration by the Czech National Film Archive is the first video edition that brings out the film's visual virtues, with its subtle colour palette of gentle greens and blues and the occasional vivid splash of sloganising red against a backdrop of greys and rusty browns. At the 85-minute mark, the picture quality dips somewhat for a sequence that was censored in 1969, with that portion of the negative being destroyed. Fortunately, editor Jiřina Lukešová kept the work print, and effort has clearly been

made to match this footage to the rest of the film, but, without a better-quality source to hand, the restorers could only go so far.

Second Run significantly expands on its 2011 DVD release, which only offered a booklet (with an essay by critic Peter Hames and a reminiscence by cinematographer Jaromír Šofr) plus *Seven Questions*, a charmingly ramshackle self-filmed "interview" by Menzel. Both are included in this new edition, along with Menzel's FAMU graduation film *Umřel nám pan Foerster / Our Mr Foerster Died* (1963), a lovely, lyrical vignette which name-checks Pierre-Auguste Renoir but also owes much to his son Jean in its ability to tease unexpected beauty out of the simplest ingredients. A more recent interview with Menzel (this time conducted by *CzechMate* director Shivendra Singh Dungarpur), a notably well-researched audio commentary by Jonathan Owen and Mike White, and a trailer for the restoration round out a typically impressive package.

Skřivánci na niti/Larks on a String (Czechoslovakia, 1969)

Second Run, 2022

Single-disc Blu-ray, no region code, 95:54, Czech dialogue, optional English subtitles.

Special features: audio commentary (Jonathan Owen, Mike White, 2022), Jiří Menzel: *Seven Questions* (2011, 10:01), *Jiří Menzel on Larks on a String* (14:36 mins), short film, *Umřel nám pan Foerster/Our Mr Foerster Died* (1963, 15:23), trailer (1:21).

fr

Réalisé en 1969 mais interdit jusqu'en 1990, le quatrième long métrage de Jiří Menzel aborde un sujet inhabituellement politique pour lui: la «rééducation» obligatoire des «éléments réactionnaires bourgeois» sous le stalinisme. Troisième d'une série de six collaborations entre Menzel et le romancier Bohumil Hrabal, le film se déroule en grande partie dans une casse automobile où travaillent des personnes tombées en disgrâce auprès des autorités. Cette nouvelle édition Blu-ray signée par *Second Run* propose la restauration de 2021 effectuée par le Národní filmový archiv de Prague. Les suppléments comprennent deux entretiens avec Menzel, le court métrage qu'il réalise en 1963 pour obtenir son diplôme de la FAMU, ainsi qu'un commentaire audio et un livret bien documentés.

es

Realizado en 1969, pero prohibido hasta 1990, el cuarto largometraje de Jiří Menzel aborda un tema inusualmente político para él: la "reeducación" obligatoria de los "elementos reaccionarios burgueses" durante la era estalinista. La tercera de las seis colaboraciones entre Menzel y el novelista Bohumil Hrabal, se desarrolla en gran parte en un desguace en el que trabajan personas que han caído en desgracia. La nueva edición en Blu-ray de *Second Run* se basa en una restauración de 2021 realizada por el Národní filmový archiv de Praga. Los extras incluyen dos apariciones personales de Menzel, su película de graduación de la FAMU de 1963, un comentario bien documentado y un ensayo en el libreto.

Cinema's First Nasty Women

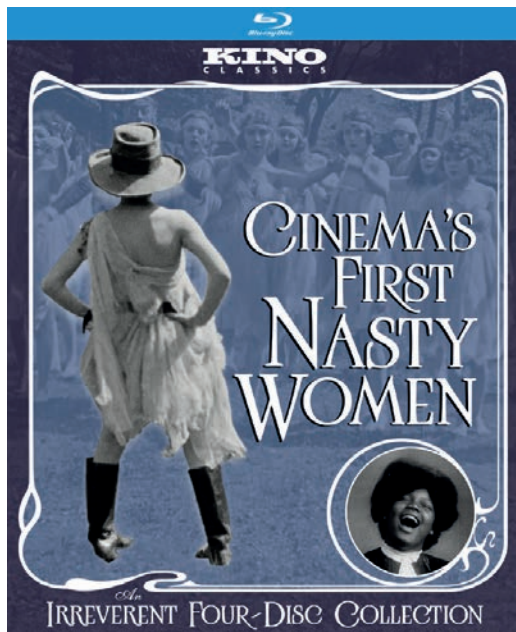
Tami Williams

Tami Williams is President of Domitor and Associate Professor of Film Studies at the University of Wisconsin-Milwaukee. Her publications include *Germaine Dulac: A Cinema of Sensations* (2014), *Early Cinema and the Archives* (*Moving Image*, 16.1, 2016), *Provenance and Early Cinema* (2020), and *Germaine Dulac: What is Cinema?* (2019, 2020 CNC Prix du livre).

Women are taught early on to be pleasant and accommodating in exchange for approval, and media representations have long supplied and perpetuated this charge. In recent years, feminist scholars, allied with forward-looking archivists and curators, have sought to uncover, and increase access to films that offer alternative, non-conformist, and anti-institutional representations, and points-of-view by under-represented artists. As female-driven projects often show, it takes a conscious act of will or defiance to create change, and *Cinema's First Nasty Women*, a transatlantic archival collaboration, directed by Laura Horak and Maggie Hennefeld, and co-curated by Elif Rongen-Kaynakçi does just that.¹

Cinema's First Nasty Women,² sourced from 13 international film archives and libraries (in conjunction with restoration labora-

1. *Cinema's First Nasty Women* is a collaboration by project directors Laura Horak (Carleton University) and Maggie Hennefeld (University of Minnesota), co-curated with Elif Rongen-Kaynakçi (EYE Filmmuseum). It was produced by Bret Wood (Kino Lorber) in partnership with Giornate del Cinema Muto Director Jay Weissberg, Kate Saccone and Jane Gaines of Columbia University's Women Film Pioneers Project, and Enrique Moreno Ceballos and Cecilia Ramírez Morales of the Festival Internacional de Cine Silente México, and many others.
2. The project takes its title from a misogynist slur that went viral following a 2016 televised debate in which U.S. Presidential candidate Donald Trump called his opponent a "nasty woman," a catalyzing term for the 21st-century women's movement. With the international reverberations of 2011 Occupy Wallstreet, the 2017 Women's Marches (#metoo), and 2020 Black Lives Matter (#BLM) demanding accountability for individual actions across social domains, the curators of *Cinema's First Nasty Women* boxset, in releasing in wildly annotated form, a mass of rarely seen silent shorts, featuring anarchic women and their allies, speaks vividly to this clarion call. As the curators note, "to be a #NastyWoman means refusing to be silenced."



tories, many of which are women-run), is awe-inspiring in its range and scale.³ It brings together 99 rarely seen silent films, produced in France, Italy, Sweden, Denmark, the U.K., and the U.S., across the medium's first three decades (1896 to 1926), a period marked by rapidly changing social and gender roles. The project prioritizes lesser known, outright ignored, and often unidentified international performers, many of whom had prolific careers, and, embracing the period's often-contradictory perceptions of race, class, gender, and sexuality, the curators offer a rare, expansive panorama of early cinematic representations of women, including many actresses of color.

For example, in *Laughing Gas* (1907), African American actress Bertha Regustus (as Mandy Brown) explodes our understanding of the complexity of caricature and agency in America's early segregated industry. Several featured indigenous performers shift our point

3. Participating institutions included British Film Institute, Blackhawk Films, EYE Filmmuseum, Library of Congress, Jérôme Seydoux-Pathé Foundation, GP Archives, George Eastman Museum, Library and Archives Canada, National Library of Norway, Swedish Film Institute, San Francisco Silent Film Festival, Museum of Modern Art, Harvard Film Archive, and Princeton University Library.

of view. A middle-aged native Arapaho and Cheyenne comedienne, Minnie Devereaux, born into the world of General Custer's atrocities, performed in over a dozen films, alongside household names Mabel Normand and Roscoe "Fatty" Arbuckle. Providing a refreshing contrast to the common tendency of *Up to Date Squ*w* (1911) in which a white actress performs in red-face, even with its unusual female mobility and unexpectedly defamiliarizing critique of the world of women's fashion, *Fatty and Minnie He-Haw* (1914), whose title characters flirt with interracial romance, challenges indigenous stereotypes, offering a vital and all-too-rare representation of indigenous female agency and sexual desire.

In *The Red Girl and The Red Child* (1910), Ho-Chunk actress Lillian St. Cyr plays the unyielding heroine who dresses as a man and flees on horseback across mountain and gully to rescue a child. On the same disc, Edna "Billy" Foster complicates our view of Griffith's early melodramas in the good/bad boy (anti-) hero role in four glorious Biograph shorts (*A Country Cupid*, 1911, *The Adventures of Billy*, 1911, *A Terrible Discovery*, 1911, and *The Baby and the Stork*, 1912).

Meanwhile, the apparently British Little Chrysia, an ex-circus performer, dazzles us in several shorts – eight as Cunégonde (France's original "nasty woman," in *Cunégonde femme crampon* (1912), one as Gisèle in *Gisèle a manqué le train* (1912), and two as the magnificently clumsy Bréton maid in *Zoé à la main malheureuse* and *Zoé et le parapluie miraculeux* (both 1913). In the last she steals a magic umbrella that reproduces goods and commodities to compensate for her clumsy mistakes, a scenario that soon turns to a proto-Dadaist scene of beautiful chaos.

Cinema's First Nasty Women project unabashedly models innovative approaches to film preservation and exhibition, from its inclusivity in film curating and musical scoring, to its anti-racist approach to presenting the films. It features a variety of expert inter-

views.⁴ Recalling Paolo Freire's call for critical pedagogies, the compilation is accompanied by a 114-page, open-access booklet (included only with the Blu-ray, but available online), which includes text on topics like "Anti-Racist Approaches to Curating Silent Cinema," while the films themselves carry pertinent content warnings.

The collection's movement from social rebellion to role reversal to social renewal is carried out not only by the film's heroic characters/heroines, but also by its curators, and inspires us as scholars, archivists, historians, and curators to move beyond canonical works and/or to recontextualize them in a broader landscape. It invites us not only to rethink canon formation, but also to see and recognize a wholly different social landscape than had been previously acknowledged.

This project, realized over the course of six years, reignites debates over the politics of preservation and aligns the work of the archivist with that of the activist. What does it mean to prioritize the preservation and accessibility of films that represent progressive and underrepresented points-of-view? And what does it mean to use these politics as a guideline for its curation and presentation? And how does one build international partnerships or pipelines amongst archives, scholars, and curators in order to facilitate public-facing archive activism? *Cinema's First Nasty Women* answers these questions in spades.

4. Musical curator Dana Reason provided scores for *The Snowbird* (1916), one of the sets' two features, and for several shorts including *Le Rembrandt de la rue Lepic* (1911) and *Ventilateur breveté* (1911). In the extras, she addresses what she calls a "myth of absence" (or unconscious perception that women music producers do not exist) and cites the results of a 2018 decade-long study (2007-2017) showing that only 2% of all films have been scored by women. Reason and the curators saw their chance to empower women and BIPOC (black, indigenous, and people of color) composers and musicians, and, working with producer Bret Wood of Kino-Lorber, she hired a remarkable number of female musicians to score and accompany the films. In a transformative reversal that reflects the spirit of the boxset's audacious and enterprising heroines, approximately 80% of its 43 composers are women and 20% are people of color.



Little Chrysis in *Cunégonde Jalouse* (Lux, France, 1912).

CUNÉGONDE JALOUSE



Sarah Duhamel in *Rosalie et son phonographe* (Pathé Comica, France, 1911).

Cinema's First Nasty Women, U.S.A., 2022
4-Disc DVD and Blu-ray, all regions. Includes
99 original films and 11 filmed introductions.
Disc 1: *Disastrous Domestic & Anarchic*
Tomboys with Léontine (actress unknown),
Lea Giunchi, Bertha Regustus, Laura Bayley,
Mistinguett, Florence Lawrence, and others.
Disc 2: *Queens of Destruction: with Little*
Chrysia, Sarah Duhamel, Florence Turner,
Alma Taylor, Chrissie White, and others.
Disc 3: *Gender Rebels: with Gene Gauntier,*
Edna "Billy" Foster, Texas Guinan, Lillian St.
Cyr, and others.
Disc 4: *Female Tricksters: includes two*
features: Phil-for-Short (1919, with Evelyn
Greeley) and The Snowbird (1916, with Mabel
Taliaferro).

For full details of all titles, including information on provenance and musical accompaniment, as well as commentaries on each title, see <https://www.dropbox.com/s/0cwexgqmo52bhgz/NastyWomen_Booklet_Integrated_v1.pdf>.

fr

Cinema's First Nasty Women impressionne par sa diversité et son ambition. Cette collection réunit 99 films muets produits en Europe et aux États-Unis sur trois décennies (1896-1926), période marquée par une évolution rapide et souvent contradictoire de la perception des rôles sociaux. En donnant la priorité à des acteurs moins connus, voire non identifiés, les responsables éditoriales présentent un panorama rare et riche des représentations des femmes (et hommes travestis) dans les premières décennies du septième art. Puisant sa matière dans treize archives internationales, cette collection propose une approche novatrice en matière de préservation et présentation des films, grâce à son inclusivité à l'endroit des femmes et personnes de couleur dans le processus de conservation, l'écriture musicale et la pédagogie critique (essais, introductions vidéo, commentaires audio).

es

Cinema's First Nasty Women es asombrosa por su alcance y escala, ya que reúne 99 películas mudas producidas en Europa y Estados Unidos a lo largo de tres décadas (1896-1926), un periodo marcado por la rápida evolución y las percepciones a menudo contradictorias de los roles sociales. Dando prioridad a los intérpretes menos conocidos, e incluso no identificados, las responsables editoriales ofrecen un panorama amplio y poco común de las representaciones de las mujeres (y los hombres travestidos) en el cine antiguo. La muestra, procedente de 13 archivos internacionales, modela enfoques innovadores para la conservación y exhibición de películas a través de la inclusión de mujeres y personas de color en el comisariado, la música y la pedagogía crítica (ensayos, presentaciones, pistas de comentarios).

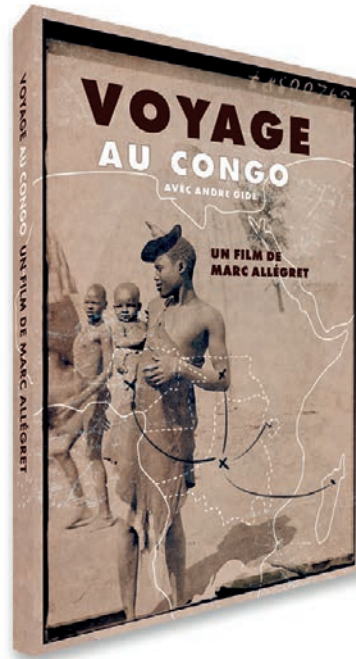
Voyage au Congo

Jean-Michel Frodon

Jean-Michel Frodon, critique et journaliste, a notamment dirigé la rubrique cinéma du *Monde* et été directeur de la rédaction des *Cahiers du cinéma*, il écrit désormais pour *Slate.fr*, *AOC* et de nombreuses revues étrangères. Il est professeur associé à Sciences Po, et professeur honoraire de l'université de St Andrews (Ecosse). Auteur ou directeur d'une trentaine d'ouvrages sur le cinéma, il est également programmeur et commissaire d'expositions.

Découvrir, ou même d'ailleurs revoir aujourd'hui le film de Marc Allégret grâce à la version restaurée éditée en DVD par Doriane est à la fois passionnant et stupéfiant. Passionnant par les questions actuelles qu'il soulève, à propos de ce qui n'y figure pas tout autant que ce qui y est montré. Stupéfiant de beauté, stupéfiant par les partis pris de réalisation qui s'y affirment, Et stupéfiant, d'abord, que ce film soit l'œuvre d'un débutant de 24 ans, seul à prendre en charge la réalisation et toutes les opérations techniques au cours d'un voyage extrêmement compliqué de onze mois et de 3000 kilomètres effectué en 1925 à travers ce qui s'appelait alors l'AEF (Afrique équatoriale française) – ainsi que du montage effectué au retour à Paris par le même novice.

Ce périple a eu lieu à l'initiative du mentor, ami et amant du jeune homme qui n'est pas encore cinéaste, André Gide, alors figure majeure de la vie intellectuelle en Europe, et futur Prix Nobel. C'est le goût de l'aventure et de l'exotisme qui pousse surtout l'auteur des *Faux Monnayeurs* à entreprendre ce voyage, dont il reviendra habité d'une ferme volonté de dénoncer certains des aspects de l'oppression coloniale qu'il a découvert sur place – ce sera l'enjeu des deux livres qu'il publiera alors, *Voyage au Congo* et *Retour du Tchad*, et de son combat contre les crimes des sociétés d'exploitation des ressources et de l'administration coloniale. S'il a emporté une caméra (une Debie à manivelle) et un appareil photo (Plaubel Makina, dont il fera aussi grand usage) offerts par l'« oncle André », Marc Allégret est surtout l'organisateur du voyage, le chef de convoi de cette expédition com-



plexe, et marquée d'un amateurisme certain. Ce que donne à voir *Voyage au Congo* est d'autant plus remarquable que le film est né dans de telles conditions.

Le voyage, parti de Brazzaville se déroule principalement dans ce qui est aujourd'hui le Gabon, la Centrafrique et le Tchad (et un peu au Cameroun). Hormis deux brèves séquences au début et à la fin (on arrive, on repart), le cinéaste choisit de ne rien montrer de l'équipée dont il fait partie ni des Européens présents sur place, et pratiquement rien des conditions du voyage – pas plus qu'il ne montre Gide, alors une célébrité¹. A l'opposé, exemplairement, de *La Croisière noire* de Léon Poirier, sorti en 1926 et que Marc Allégret n'a donc pas pu avoir vu avant son voyage, le seul enjeu, le seul sujet, ce sont l'Afrique et ses habitants tels qu'il les découvre, avec une double visée, esthétique et ethnographique.

1. En revanche, Allégret et Gide ont décidé que le nom de ce dernier figurerait comme co-auteur du film, pour aider à attirer l'attention du public sur lui – ce qui n'eut qu'un succès mitigé.

Ethnographique la description attentive de pratiques quotidiennes des différentes ethnies rencontrées (nourriture, habitat, rapports familiaux et communautaires, fêtes et rituels...) – et à cet égard le film est largement innovant pour l'époque, du moins en ce qui concerne les Français, comme le souligne la grande spécialiste de l'histoire africaine Catherine Coquery-Viderovitch dans le texte qui occupe la place centrale du livret qui accompagne l'édition DVD, « Marc Allégret au Congo, un précurseur du film ethnographique ». On sait bien désormais combien la présence d'un regard aussi extérieur peut modifier ce que donnent à voir ceux qui sont ainsi observés, cela ne change rien à l'attention évidente d'Allégret aux détails, au non spectaculaire, à ce qu'il peut voir et comprendre des comportements ordinaires, aux antipodes des effets d'exotisme généralement recherchés par les films tournés dans des conditions comparables. Pour rendre vivante la description de certains aspects de l'organisation sociale, aussi bien que parce qu'il regarde celles et ceux qu'il filme comme des personnes, le réalisateur met en scène (ou reconstitue) une idylle entre une jeune femme et un jeune homme de l'ethnie Sara, Kaddie et Djimta, leurs jeux de séduction aussi bien que la négociation entre les familles pour que le mariage ait lieu. Grand amateur de films, Marc Allégret avait vu *Nanouk l'esquimau* de Flaherty, qui a pu servir de modèle pour mobiliser des fictions au sein d'un travail documentaire. Mais son attention aux matériaux et aux architectures des différents types d'habitations, à la répartition des rôles entre les hommes et les femmes, à la manière de préserver les récoltes, etc., témoigne d'un intérêt attentif qui se révèle étonnamment communicatif.

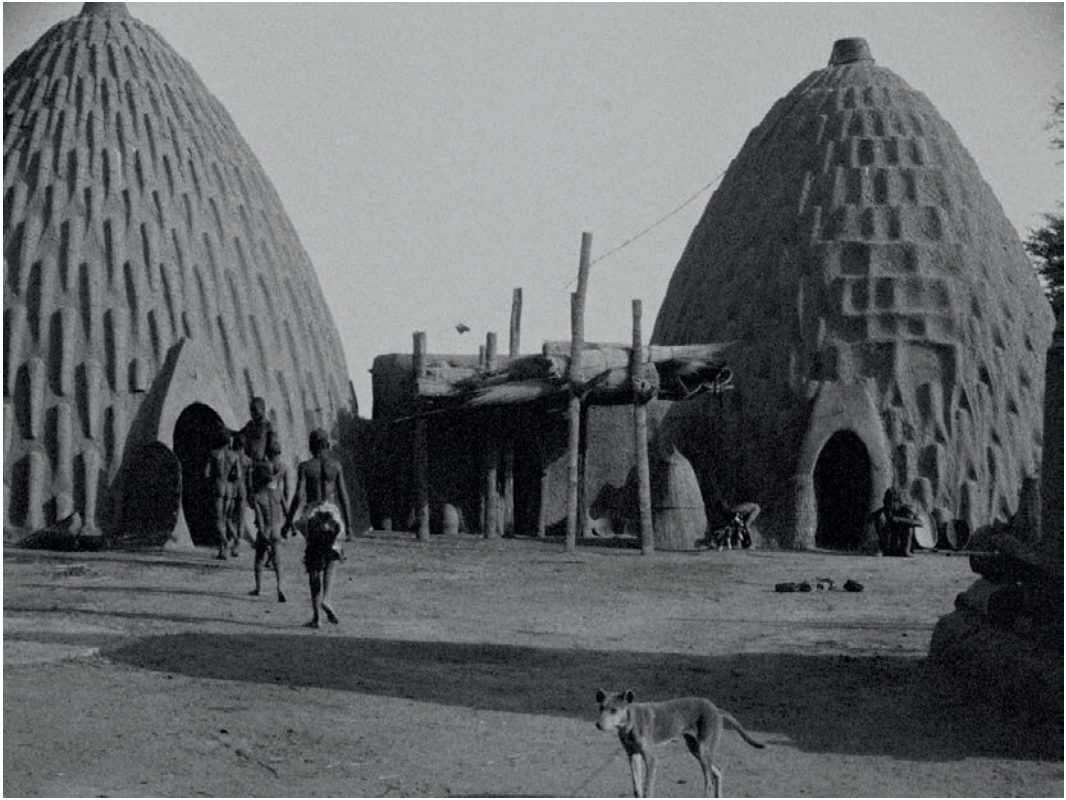
Cela tient, un siècle après et pour des spectateurs n'ayant pas de penchant particulier pour l'ethnographie, au parti pris de partager le sentiment éprouvé à l'évidence par le cinéaste, d'être face à non pas « la beauté » comme absolu mais des formes innombrables et en grande partie méconnues de beauté. Les corps, les visages, les lieux, les gestes, les jeux de lumière et d'ombre, les végétaux, les sols, les cours d'eau sont regardés et mon-

trés avec une sensibilité extrême, qui trouve d'innombrables et remarquables traductions quant au choix des cadrages, des angles de prise de vue, des distances, et aussi au montage. Le résultat est à cet égard d'autant plus remarquable qu'on sait qu'une part significative de la pellicule, vierge ou impressionnée, a été transportée dans des conditions très éloignées de ce qu'auraient dicté la chaleur et l'humidité ambiantes, avec à l'arrivée de nombreuses bobines inutilisables.

Il faut ici prendre acte de la réponse alors donnée à un sujet devenu, à juste titre, problématique, celui de la nudité et singulièrement de la nudité des jeunes filles, très présente à l'écran. Chacun.e jugera selon sa sensibilité, mais il semble évident que le choix (pas forcément conscient) d'Allégret consiste à prendre acte frontalement, sans détourner le regard ni le charger d'aucun commentaire, qu'il soit coquin ou moraliste, du fait que la plupart des personnes qu'il filme vivent quasiment nus. Cela, qui est sur l'écran, ne dispense pas de savoir aussi que Marc Allégret comme d'ailleurs André Gide ont eu de très nombreux rapports sexuels, avec des jeunes filles pour le cadet, avec des garçon pour l'ainé². Cet aspect du voyage figurait dans la première rédaction du livre publié parallèlement à la sortie du film par André Gide, *Voyage au Congo*. L'écrivain les a supprimés³ afin que cet aspect n'interfère pas avec ce qui est devenu l'enjeu principal de l'ouvrage, une dénonciation du colonialisme et de ses atrocités, à laquelle l'écrivain se consacrera avec énergie à son retour de voyage. Il recevra entre autres le soutien du député et patron du journal *Le Populaire* Léon Blum – sans parvenir à ce que des décisions soient prises pour modifier significativement les pratiques des colons et de l'administration. *Voyage au Congo*, le livre, est à cet égard très différent de *Voyage au Congo*, le film. Les violences extrêmes dont sont victimes les Africains n'y

2. Cf. Pierre Billard, *André Gide et Marc Allégret, le roman secret*, Plon, 2006, pp 234-239.

3. Elles figurent en revanche dans les « Notes et variantes » du volume des œuvres complètes de la Pléiade *Souvenirs et voyages*, Gallimard, 2001.



Voyage au Congo (Marc Allégret, 1927).

apparaissent absolument nulle part, ce que souligne Catherine Coquery-Viderovitch dans le livret précédemment cité. S'il y a tout lieu de le remarquer, on peut aussi considérer que l'approche d'Allégret réalisateur, dépourvue du message anticolonialiste qu'on serait en droit d'attendre au vu des positions adoptées par Gide, offre une relation qui a le mérite de déplacer les points de vue vis-à-vis de ceux et celles qu'il montre, de manière plus sensible que discursive, loin d'être sans enjeu.

Le livret, donc, réunit de multiples informations utiles quant au film redevenu accessible grâce à Laurence Braunberger, qui dirige Les Films du Jeudi créés par son père, Pierre Braunberger, présenté comme le producteur de *Voyage au Congo* dont il fut surtout le distributeur, avant de produire effectivement plusieurs des films suivants de Marc Allégret. Dans le même document figure également l'utile notice historique d'Hervé Pichard, chef des projets de restauration des films à la

Cinémathèque française. Cette restauration, effectuée par Hiventy grâce à une copie de la CF et aux apports complémentaires fournis par une copie du BFI, est visuellement absolument splendide, rendant parfaitement justice à l'œuvre d'origine, en tout cas pour un usage normal d'un DVD. Reste la complexe question de l'accompagnement musical, jamais vraiment résolue lorsqu'il s'agit de s'ajouter à un film muet. Les partitions de Mauro Coceano font le choix, courageux, de ne jamais prétendre paraphraser ce qu'on voit à l'écran, de ne pas imiter une « musique traditionnelle africaine » dont on ne sait d'ailleurs pas très bien ce que cela désignerait exactement.



Voyage au Congo (Marc Allégret, 1927).



Voyage au Congo (Marc Allégret, 1927).

Voyage au Congo (Marc Allégret, 1927)**Doriane Films, 2022.****DVD 5, noir et blanc, 4/3, son mono, 111 minutes. Film muet avec accompagnement musical de Mauro Coceano. Intertitres français et version anglaise optionnelle.****Restauration et numérisation 2K par les Films du Panthéon en collaboration avec les Films du Jeudi, avec le soutien du CNC, de la Cinémathèque française et du British Film Institute.****Livre illustré de 48 pages avec des textes de Marc Allégret et André Gide, ainsi qu'Hervé Pichard, chef de projet des restaurations de films à la Cinémathèque française, Catherine Coquery-Vidrovitch, historienne, Pierre Bergounioux et Mauro Coceano.**

en

(Re)discovering Marc Allégret's film through Doriane's DVD of the newly restored version is fascinating because of the questions it raises about what is not in it as much as what is shown. Furthermore, it is staggering to realise that the film is the almost-singlehanded work of a 24-year-old novice on a 3,000-kilometer journey through French Equatorial Africa in 1925.

The aim of the film is both aesthetic and ethnographic, the latter – with its careful descriptions of the daily practices of the different communities encountered – being largely innovative, particularly with respect to French cinema of the time. Today's viewers may be disturbed by the on-screen nudity – especially that of young girls – and there is nothing, perhaps surprisingly, given what is known of the attitudes of André Gide, Allégret's mentor and lover, about the violence inflicted on Africans by European colonisers.

The accompanying booklet brings together a great deal of useful information, including a detailed contextualising essay by Catherine Coquery-Vidrovitch, specialist in African history, and a useful historical note by Hervé Pichard, head of film restoration projects at the Cinémathèque française. The restoration is visually splendid, doing full justice to the original work, while Mauro Coceano's score makes the courageous choice of never attempting to paraphrase what is on the screen.

es

(Re)descubrir la película de Marc Allégret a través del DVD de Doriane de la versión recién restaurada es fascinante por las preguntas que plantea tanto sobre lo que no aparece en ella como sobre lo que se muestra. Además, es asombroso darse cuenta de que la película es el trabajo casi en solitario de un novato de 24 años en un viaje de 3.000 kilómetros a través del África Ecuatorial francesa en 1925.

El objetivo de la película es a la vez estético y etnográfico, siendo este último -con sus minuciosas descripciones de las prácticas cotidianas de las diferentes comunidades encontradas- ampliamente innovador, sobre todo con respecto al cine francés de la época. A los espectadores de hoy puede molestarles la desnudez en pantalla -especialmente la de las chicas jóvenes- y no aparece nada, quizá sorprendentemente, sobre la violencia infligida a los africanos por los colonizadores europeos, dado lo que se sabe de las actitudes de André Gide, mentor y amante de Allégret.

El libreto que acompaña la película reúne una gran cantidad de información útil, incluido un detallado ensayo contextualizador de Catherine Coquery-Vidrovitch, especialista en historia africana, y una útil nota histórica de Hervé Pichard, jefe de proyectos de restauración en la Cinemateca Francesa. La restauración es visualmente espléndida y hace plena justicia a la obra original, mientras que la partitura de Mauro Coceano toma la valiente decisión de no intentar nunca parafrasear lo que aparece en pantalla.

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Cinema 1900–1906: An Analytical Study

Proceedings of the FIAF Symposium held at Brighton, 1978. Vol. 1 contains transcriptions of the papers. Vol. 2 contains an analytical filmography of 550 films of the period. FIAF 1982, 372p., 44€

The Slapstick Symposium

Dealings and proceedings of the Early American Slapstick Symposium held at the Museum of Modern Art, New York, May 2–3, 1985. Edited by Eileen Bowser. FIAF 1988, 121p., 24€

Manuel des archives du film – A Handbook For Film Archives

Manuel de base sur le fonctionnement d'une archive de films. Coordonné par Eileen Bowser et John Kuiper. / Basic manual on the functioning of a film archive. Edited by Eileen Bowser and John Kuiper. FIAF 1980, 151 p., illus., 30€ The English version is now out of print but the PDF file is available at www.fiafnet.org/other-books.

50 Years of Film Archives / 50 Ans d'archives du film 1938–1988

FIAF yearbook published for the 50th anniversary, containing descriptions of its 78 members and observers and a historical account of its development. / Annuaire de la FIAF publié pour son 50^e anniversaire, contenant une description de ses 78 membres et observateurs et un compte rendu historique de son développement. FIAF 1988, 203p., illus., 27€ Out of print.

Rediscovering the Role of Film Archives: to Preserve and to Show

Proceedings of the FIAF Symposium held in Lisboa, 1989. FIAF 1990, 143p., 30€

American Film-Index, 1908–1915 American Film-Index, 1916–1920

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Glossary of Filmographic Terms

This new version includes terms and indexes in English, French, German, Spanish, Russian, Swedish, Portuguese, Dutch, Italian, Czech, Hungarian, Bulgarian. Compiled by Jon Gartenberg. FIAF 1989, 149p., 45€

International Index to Television Periodicals

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by Michael Moulds. 2nd Ed. revised and enlarged, ed. by Karen Jones and Michael Moulds. FIAF 1992, 50€

Bibliography of National Filmographies

Annotated list of filmographies, journals and other publications. Compiled by D. Gebauer. Edited by H. W. Harrison. FIAF 1985, 80p., 25€

Règles de catalogage des archives de films

Version française de "The FIAF Cataloguing Rules of Film Archives" traduite de l'anglais par Éric Loné, AFNOR 1994, 280 p., ISBN 2-12-484312-5, 25€

The LUMIERE Project: The European Film Archives at the Crossroads

Documents the restoration projects and initiatives of the LUMIERE Project (1991–1995), celebrating the first major pan-European film archive collaborations. Edited by Catherine A. Surowiec. The LUMIERE Project, Lisbon, 1996; English, 264 p. 50€

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Handling, Storage and Transport of Cellulose Nitrate Film

Guidelines produced with the help of the FIAF Preservation Commission. FIAF 1992, 20p., 17€

Preservation and Restoration of Moving Image and Sound

A report by the FIAF Preservation Commission, covering in 19 chapters the physical properties of film and sound tape, their handling and storage, and the equipment used by film archives to ensure for permanent preservation. FIAF 1986, 268p., illus., 42€

ACCESS TO COLLECTIONS

FIAF Digital Projection Guide

by Torkell Sætervadet. This guide addresses the technical challenges that cinémathèques, archival and repertory cinemas encounter in the paradigm change from analogue film projection to digital cinema. The guide is an extension of, and update to, *The Advanced Projection Manual*, a book covering the craft of projecting film classics with modern equipment. Published by FIAF, 2012, 120pp., color illustrations, paperback, 19€. Available for purchase from the FIAF Secretariat and Indiana University Press. Visit www.fiafnet.org/best-sellers. ISBN 9-7829600296-28

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OTHER PUBLISHERS

Newsreels in Film Archives

Based on the proceedings of FIAF's 'Newsreels Symposium' held in Mo-i-Rana, Norway, in 1993, this book contains more than 30 papers on newsreel history, and on the problems and experiences of contributing archives in preserving, cataloguing and providing access to new film collections. Edited by Roger Smither and Wolfgang Klause. ISBN 0-948911-13-1 (UK), ISBN 0-8386-3696-9 (USA), 224p., illus., 49€

Archiving the Audiovisual Heritage: a Joint Technical Symposium

Proceedings of the 1987 Technical Symposium held in West Berlin, organised by FIAF, FIAT, and IASA. 30 papers covering the most recent developments in the preservation and conservation of film, video, and sound. Edited by Eva Orbanz. Stiftung Deutsche Kinemathek, Berlin, 1987, 169p. Out of print. PDF file available at www.fiafnet.org/jts

Archiving the Audiovisual Heritage: Third Joint Technical Symposium

Proceedings of the 1990 Technical Symposium held in Ottawa, organised by FIAF, FIAT, and IASA, Ottawa, 1992, 192p. Out of print. PDF file available at www.fiafnet.org/jts.

Image and Sound Archiving and Access: the Challenge of the Third Millennium: 5th Joint Technical Symposium

Proceedings of the 2000 JTS held in Paris, organised by CNC and CST. Out of print. PDF file available at www.fiafnet.org/jts.

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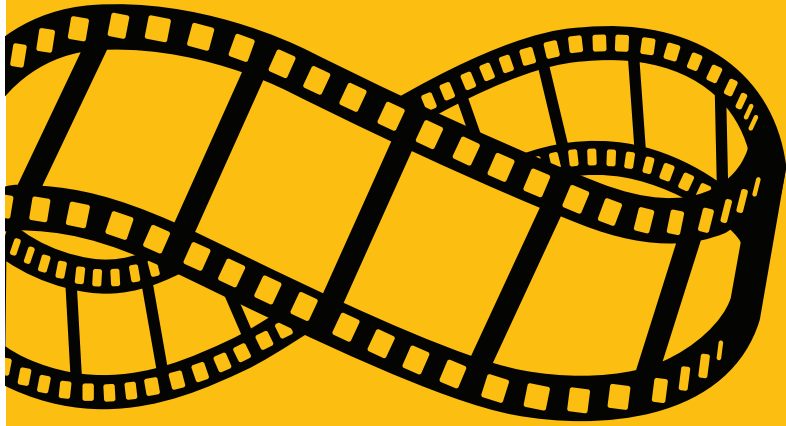
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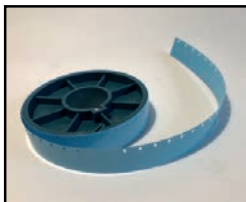
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