







Fondazione Cineteca di Bologna Fédération Internationale des Archives du Film Association des Cinémathèques Européennes L'Immagine Ritrovata – Film Restoration and Conservation

# 2018 FILM RESTORATION / FIAF SUMMER SCHOOL PROGRAM

Welcome meeting: June 23<sup>rd</sup>

Film restoration online theory course: distance learning, May 9<sup>th</sup> to June 13<sup>th</sup> (on Wednesdays)

Theory lectures during Il Cinema Ritrovato film festival: Bologna, Cineteca facilites, June 24<sup>th</sup> to June 30<sup>th</sup>

Restoration practice classes: Bologna, L'Immagine Ritrovata, July 2<sup>nd</sup> to 13<sup>th</sup>



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#### 1. INTRODUCTION

#### **Past and future Summer Schools**

In 2018 the Film Restoration / FIAF Summer School is being held in Bologna for the eighth time. Once again the Fédération Internationale des Archives du Film (FIAF) and the Association des Cinémathèques Européennes (ACE) have combined their efforts with Cineteca di Bologna and L'Immagine Ritrovata film restoration and conservation laboratory to organize the Film Restoration / FIAF Summer School, held each year between 2007 and 2010, and every second year since 2012.

In 2013 for the first time the Summer School project moved from Bologna to Asia at the National Museum of Singapore to offer film restoration training in another area of the world. Following the success in Singapore, in 2015 the Summer School was held again in Mumbai in collaboration with the Film Heritage Foundation, and in 2017 in Buenos Aires in collaboration with the CINAIN — Cinemateca y Archivio de la Imagen Nacional. The three abroad Summer Schools (Singapore, Mumbai and Buenos Aires) were supported by the Film Foundation. The Film Heritage Foundation rerun the project twice in Pune (2016) and Chennai (2017).

In Bologna a total of 254 participants have taken part in previous years, representing 65 countries (Algeria, Argentina, Australia, Austria, Belgium, Brazil, Canada, China, Chile, Colombia, Croatia, Cuba, Czech Republic, Egypt, Estonia, Finland, France, Georgia, Germany, Greece, Holland, Hungary, Iceland, India, Indonesia, Iran, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kenya, Korea, Lebanon, Lithuania, Luxembourg, Macedonia, Malawi, Malaysia, Mexico, Montenegro, Morocco, Myanmar, New Zealand, Nigeria, Norway, Philippines, Poland, Portugal, Romania, Serbia, Singapore, Slovakia, Slovenia, South Africa, Spain, Sweden, Taiwan, Thailand, Tunisia, Turkey, United Kingdom, Uruguay, USA).

After the success of previous Summer Schools, FIAF, ACE, Cineteca di Bologna and L'Immagine Ritrovata are looking forward to running a new training course in the field of film restoration in Bologna aimed at specialists and film archive staff. During the selection process, priority will be given to candidates who work for FIAF and ACE institutions.

#### WHY DOES FIAF SUMMER SCHOOL FOCUS ON RESTORATION?

While there are many private and state film archives, specialized laboratories are quite few in number. Every year a considerable number of films are restored by numerous film archives. Therefore, it appears necessary for today's curators and their staff to be trained in the use of the newest digital equipment for the preservation and restoration of film heritage, and to learn about digital strategies for accessing materials. Furthermore, all students who are interested in working in a film archive and/or a film restoration laboratory in the near future should develop highly specialized digital and photochemical skills, which are the key know-how to enter this field.









#### IL CINEMA RITROVATO FILM FESTIVAL

Film restoration gives us the fantastic opportunity to bring great films back to the big screen and to the audience. Presenting and exhibiting restored films is a key part of the restoration process. For this reason the Film Restoration / FIAF Summer School project takes place mainly in Bologna, arm in arm with II Cinema Ritrovato film festival, a true meeting place for film researchers and experts (<a href="http://festival.ilcinemaritrovato.it/en/">http://festival.ilcinemaritrovato.it/en/</a>). In 2017 II Cinema Ritrovato film festival involved over 80 film archives, institutions, major film studios and productions companies from all over the world, reaching 100,000 people. The connection between learning about digital and photochemical restoration and an event such as II Cinema Ritrovato film festival is a very close one: while it is crucial to put restoration into practice and to learn how to restore a film, it is equally as important to understand how films, restored by different archives institutions, major film studios and productions companies, can be exhibited today.

### **TARGETS AND FINAL AIM**

The project's main objective is to teach and update participants on how to restore and preserve a film through the use of photochemical and new digital technologies. Participants will have the chance to experience everyday work in a highly specialized laboratory; they will follow every step of the process through all departments, from beginning to end. Film Restoration / FIAF Summer School 2018 participants are expected to develop and practice a specific set of skills: operating all digital and photochemical equipment in an archive and/or laboratory; following a complete restoration work-flow; performing all the primary necessary operations needed to restore a film; evaluating the state of conservation of a film and choosing the best practice to restore, reconstruct and preserve it.

After completing the Film Restoration Summer School participants will:

- know how a film can be restored using new digital and analogue technologies in a modern, flexible work environment;
- be able to manage a complete restoration work-flow;
- know how to choose the best format to restore a film and have it digitized from film support to 35mm, DCP, HD and SD broadcasting until DVD support;
- be able to discuss each step of a restoration project in detail with a restoration laboratory;
- know the various approaches to restoration of different FIAF archives;
- know how to manage a film restoration project budget.









Finally, past editions of the Film Restoration / FIAF Summer School have proved to be an excellent meeting ground for people working in the same field. It represents a great opportunity for participants to initiate collaborations on possible future restoration projects.

## 2. Program

#### PHOTOCHEMICAL AND DIGITAL RESTORATION

The innovative Film Restoration / FIAF Summer School is dedicated to teaching digital and photochemical techniques for the restoration of film heritage. While digital technologies have a well-established role in the contemporary film industry, their importance in the restoration of films has been somewhat neglected as a teaching/learning experience. At L'Immagine Ritrovata laboratory participants will follow the entire restoration process: photochemical, digital (4K, 2K and HD) and sound restoration, from repairing to printing preservation material, from film scanning to film recording, from sound digitization to final sound restoration.

#### **TRAINING PROGRAM**

L'Immagine Ritrovata laboratory's highly specialized staff will be closely involved in the intensive 2-week training program and internship. Participants will be divided into groups and will work in each of the laboratory's departments:

- Film identification
- Film repair, chemical treatment and washing
- Film comparison
- Film scanning and telecine
- Digital restoration
- Colour correction
- Sound scanning and sound restoration
- Mastering and Digital Cinema
- Data and Network management and back-up strategies
- Film recording
- Photochemical preservation and restoration
- Analogue grading
- Print and processing









### A THREE STEP COURSE

The 2018 Film Restoration / FIAF Summer School is structured along three main course steps:

- 1. Film restoration online theory course: distance learning, May 09<sup>th</sup> to June 13<sup>th</sup> (on Wednesdays)
- 2. Theory lectures during Il Cinema Ritrovato film festival: Bologna, Cineteca facilites, June 24<sup>th</sup> to June 30<sup>th</sup>
- **3.** Restoration practice classes: Bologna, L'Immagine Ritrovata, July 2<sup>nd</sup> to July 13<sup>th</sup>

## 1. Film restoration online theory course: distance learning

For one month before the beginning of classes in Bologna, participants will be provided with theory lessons, downloadable from the Internet on a weekly basis (each Wednesday). This distance learning will include lessons on new digital film restoration techniques, access to materials, and conservation. These online lessons will run from May 9<sup>th</sup> until June 13<sup>th</sup>, 2018.

## 2. Theory lectures and Il Cinema Ritrovato film festival: meetings with experts

The first week will be entirely devoted to the XXXII<sup>nd</sup> Il Cinema Ritrovato film festival, Cineteca di Bologna's main international event. Since 1986, the festival has been investigating the most remote territories of cinema history, screening the best in "Recovered and Restored Films" from archives around the world. Some screenings will be part of the Summer School's program. Daily meetings of one hour or more with international specialists will be included in the schedule. During the festival week meetings will tackle more general issues, such as film house and archive management, the conservation and preservation of film heritage, cataloguing and other non-film issues. Meetings will also focus on film restoration theory. In particular they will deal with working in a film restoration laboratory and analysing specific pieces of restored works. These meetings will introduce the 2-week long internship; daily topics will reflect restoration stages.

#### 3. Restoration practice classes:

During the internship participants will be supervised by international experts and laboratory staff as they put into practice what they have learned during their first week of theory.

A considerable amount of time will be devoted to restoration practices. For 2 weeks, participants will be offered handson experience, working in each of the laboratory's departments.

During the internship participants are expected to be in the premises of the L'Immagine Ritrovata laboratory 8 hours a day, for 10 days. Participants will have access to all of the laboratory's departments.

Each department will accommodate a maximum of 5 participants. This is considered the right ratio of students per piece of equipment to allow each student the possibility of interacting directly.









#### **INTERNSHIP SUBJECTS**

Film Identification

This very first step involves the identification, study and analysis of film materials, different elements (negative, positive, intermediate), trademarks, edge codes and marks, shape and size perforation, etc.

Film Repair, Chemical Treatment and Washing

Film handling and inspection: how to fix tears and breaks using adhesive film tape; analysis of old splices; restoring splices by hand with cement; repairing film to prepare it for cleaning and scanning or printing; cleaning of film nitrate, triacetate and polyester manually and with an ultrasonic cleaning machine.

**Film Comparison** 

Film comparison and analysis to choose the best prints for restoration.

Film Scanning and telecine

Scanning and telecine of a motion picture image from 35mm and 16mm negative, positive and intermediate materials to a digital file (4K and 2K).

**Digital Restoration** 

Digital treatment of images using dedicated software to eliminate physical damage to the film resulting from usage and the manual handling of film, as well as the restoration of visual clarity of images by working on problems like grain, instability and flicker without affecting the original material. Digital restoration has a wide range of tools and possibilities; therefore it is vital for archivists to know what can be done in order to establish their specific restoration work-flow.

**Colour Correction** 

Film colour correction and colour fade restoration. From Tint and Tone to Technicolor. 4K, 2K, HD, SD conforming, Mastering, Colour references.

**Sound Scanning and Restoration** 

Sound technology history: 150 years of sound on film.

Sound transfers: optical, magnetic and soundtrack scanning.

The sound restoration work flow: from analogue to digital (to analogue).

**Mastering and Digital Cinema** 

Quality Control, finalization and export of output formats: Digital Cinema Packages, HDCAM tapes, video files.

Data and Network Management and Back-up Strategies

How a machine room works and how all the machines are connected to workstations, and interconnected with each other. Data processing and data transfer, to make a copy of a film on digital support.









Film Recording How to set a film recorder to generate master negatives.

Analogue Grading

Use of the Colour master to set printing values to print from negative to

interpositive for preservation, or a positive for screening.

Study of the Desmet Method and practical application to recreate tinting and

toning.

Print and Processing Principles of optical and contact printing and their differences; study of different

printers, printer loading and usage. Basics of film processing and the analysis of

the relationship between and parameters shared by printing and film

processing.

Application of Lad, Strip, and other quality-control tools to check the correct

operation of printing and development. Quality control.

#### 3. WHERE AND WHEN

- June 23 $^{\rm rd}$  in the afternoon: Bologna, Cineteca facilities  $\Rightarrow$  Welcome Meeting

- June 23 $^{\rm rd}$  to July 1 $^{\rm st}$ : Bologna, Cineteca facilities  $\rightarrow$  <u>II Cinema Ritrovato film festival</u>

- June 24<sup>th</sup> to June 30<sup>th</sup>: Bologna, Cineteca facilites → Theory lectures

- July  $2^{nd}$  to  $13^{th}$ : Bologna, L'Immagine Ritrovata  $\rightarrow \frac{\text{Restoration practice}}{12}$ 

#### 4. PARTICIPANTS

The training is conceived for an international target group, and will be taught by an international panel of the best experts from different countries. The Film Restoration / FIAF Summer School 2018 is aimed at staff working at film archives, institution or organization, as well as students in that field. The aim is to foster a shared knowledge in the field for current and future generations and world film archives.

All classes will be in English.

Participants will be selected according to C.V., commitment and motivation.

The course will be divided into different levels and participants will be grouped according to their skills and expertise according personal C.V. and past experience in that field.

A special commission composed of representatives from FIAF, ACE, and Cineteca di Bologna will examine all applications.

The commission will officially release the names of the 40 selected participants via e-mail and the Cineteca di Bologna and

L'Immagine Ritrovata website on March 19<sup>th</sup>.









#### 5. FEES

Participation fee: 3.000 Euros.

The participation fee includes: registration, festival accreditation, accommodation for 21 nights and lunch for 19 days.

Lunch will be provided every day from June 24<sup>th</sup> to June 30<sup>th</sup>.

From July 1<sup>st</sup> to July 13<sup>th</sup> lunch will be provided Mondays to Fridays only.

Accommodation is provided from June 23<sup>rd</sup> (check-in) to July 14<sup>th</sup> (check-out).

If applications exceed the maximum number of participants allowed, a selection will be made. The list of selected participants will be announced on March 19<sup>th</sup>. Selected participants must confirm their attendance by paying their fee in advance and not later than April 6<sup>th</sup>. Selected participants who do not pay their fee by the due date will be excluded and replaced by the next eligible candidate in the waiting list.

### **Notes about Scholarships:**

We are currently processing scholarships and have not yet received all necessary confirmations.

Candidates will be notified of all news in due time.









## 6. DEADLINES

2018 DATES	WHERE	ABOUT MATERIALS
February 26 <sup>th</sup>		Deadline for application form submission
February 27 <sup>th</sup> – March 16 <sup>th</sup>		A special commission composed of FIAF, ACE and Cineteca di Bologna members will examine all application forms, select 40 participants and release their names.
March 19 <sup>th</sup>		Announcement of participants' names. All candidates will receive a communication via e-mail concerning the selection results. The list of selected participants will be published on Cineteca di Bologna and L'Immagine Ritrovata websites.
April 6 <sup>th</sup>		Deadline for payment of registration fee
May 9 <sup>th</sup> - June 13 <sup>th</sup>	Online	Film Restoration / FIAF Summer School 2018 distance learning
June 15 <sup>th</sup>		Definitive program of the theory lessons, names of international tutors
June 23 <sup>nd</sup>	Bologna, Cineteca facilities	Welcome Meeting 2018
June 23 <sup>rd</sup> - July 1 <sup>st</sup>	Bologna	Il Cinema Ritrovato film festival
June 24 <sup>th</sup> - June 30 <sup>th</sup>	Bologna, Cineteca facilities	Film restoration theory course
July 2 <sup>nd</sup> - July 13 <sup>th</sup>	Bologna, L'Immagine Ritrovata film lab	Film restoration practice









## Film Restoration / FIAF Summer School 2018 partners

### Cineteca di Bologna

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