



# Phoenix

Phoenix restores revered classic  
*Les Enfants du Paradis*



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LES ENFANTS  
DU  
PARADIS

# Éclair, one of the world's leading film and digital laboratories, was tasked by film giant *Pathé* to restore 1940s French masterpiece *Les Enfants du Paradis* in 4K.

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Directed by Marcel Carné and written by famous poet Jacques Prévert the much loved film was shot in Paris and Nice during World War II's German occupation of France. The film centres on the Parisian theatre scene in the 1820s and '30s and tells the story of a beautiful courtesan and the four men in love with her – a mime artist, a criminal, an actor and an aristocrat. In 1995 *Les Enfants du Paradis* was voted "Best French Film Ever" in a poll of 600 French critics and professionals.

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Screened at the 2011 Cannes and Bologna Film Festivals (Il Cinema Ritrovato) the film is more than three hours long, divided into two epochs: *Boulevard du Crime*, set in the mid-1820s; and *L'Homme Blanc* seven years later. The restoration project was vital as the physical condition of the original negative, owned by Pathé was badly damaged and in danger of falling apart.

The feature, which was shot on nitrate film stock, had decomposed so much it had traces of moisture and mould on each reel, missing frames and many scratch and dirt issues. Due to the popularity of the film it had also been copied numerous times further adding to its demise.

The film was scanned at 4K at L'immagine Ritrovata, an Italian state-of-the-art film restoration and conservation laboratory and part of the Cineteca di Bologna facility. After a painstaking process of repairing and scanning the film, Éclair received the original negative held in 11 film cans housing approximately 2,000 feet of material and the digital DPX files stored on hard disk from L'immagine Ritrovata in the second half of 2010.

Christian Lurin, Éclair manufacturing manager explains, "We received many digital files. What is important to bear in mind is that because this is 4K the file is 45 MB per frame and this feature has something like 300,000 frames. That's about 12TB of data without any corrections or rendering of any kind."

The team at Éclair first had to replace a number of missing frames, Lurin says, "At the time of making, when they made a new splice, they would have lost one frame and there's no way to avoid that. Some of these missing frames were probably also due to accidents through manipulation of the film elements but there's no real way of knowing."



The facility managed to reconstruct the missing scenes by comparing the original neg and two other copies that were made at the same time. Lurin says, "We could literally grab the frames from the copy and insert them back into the neg digitally."

Éclair used Image Systems' Phoenix Refine restoration system to restore the material. Lurin says, "We have a very powerful Phoenix system, which includes a 4K look-up table in 64-bit. We asked Image Systems to develop this for us specifically for this project and it's worked incredibly well."

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Phoenix Refine provides Éclair with a range of high-end restoration image processing tools to repair the damaged material. Combining the best in automated, semi-automated and manual restoration tools, Phoenix adds editorial and effects processing to create a single system delivering pristine images ready for mastering or preservation.

Due to the nature of the project and the historical value of the film, Éclair had a large team working on the restoration of *Les Enfants du Paradis*. They began the process by inputting each reel into Phoenix and stabilising the material. They then applied an automatic pass to fix some of the easier problems such as dust and dirt on the frame. Then a second pass removed some of the more difficult problems such as scratches and following that they used the system's auto fix and paint tools for repair and touch up, removing further imperfections. To give an idea of the enormity of the project, one reel consists of 18 minutes of film, which equates to four days' work.

Charlotte Quemy, head of Éclair's digital restoration department, explains,

"This was new territory for Éclair as it's the first restoration project that we've completed in 4K. Phoenix provides the starting point for a project like this and straightaway we were able to use the system's automated toolset to remove a number of imperfections. Problems that we couldn't repair with the paint tool we repaired with the auto fix tool, which is very powerful as it allows us to accurately rebuild parts of the image. Being able to set several defaults on the same image, such as stabilise and scratch, is extremely efficient and significantly speeded up the workflow. Once we completed the rendering function we had the real-time 4K version."

Lurin concludes, "In my opinion Phoenix played one of the most important roles in this process because our schedule was very tight. We started in January and we had to deliver the film for Cannes in May. It was extremely well received in Cannes and was shown in front of a panel of restoration specialists. Image Systems' restoration technology played a big part in that success."

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Before restoration. Image courtesy of Pathé



After restoration. Image courtesy of Pathé



Les Enfants du Paradis is as loved by audiences now as it was during the forties. An interview with Marcel Carné by Christophe D'Yvoire was published recently in a booklet issued by Pathé detailing the restoration of Les Enfants du Paradis.

In the interview Carné spoke about the conception of the film he said, "Jean-Louis Barrault was the origin of Les Enfants du Paradis. Jacques Prévert and I were on the Riviera, at Saint-Paul-de-Vence, in 1942 or 1943. We went down to Nice, where we met Barrault. We talked a lot about the theatre, and went for a drink, and he told us a story about the mime actor Debureau, which enchanted us.

Debureau, at the height of his fame was walking along the Boulevard du Crime arm-in-arm with his mistress. A drunkard called out to the lady, Debureau pushed him away with his walking stick, with drunken stubbornness the guy came back calling the woman all sorts of dreadful names. Debureau, in a rage, gave the man a second hit with his cane, so violently that the man dropped down dead. And all Paris rushed to the trial to hear Debureau speak!"

To lose such cinematic greats such as Les Enfants du Paradis is a tragic prospect and highlights the urgent need to restore these classic works of art.

New software restoration techniques like Phoenix can restore these films to their former glory whilst staying true to the era and the vision of the Director at the time the film was made.

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