

For discussion
on 20 January 2020

Legislative Council Panel on Home Affairs

**Preservation of Hong Kong's Film Heritage by
the Hong Kong Film Archive**

Purpose

This paper aims to report to Members the work and challenges of the Hong Kong Film Archive (the Archive) in preserving Hong Kong's film heritage through digitisation and restoration with a view to providing a younger generation of audiences with the opportunity to appreciate the precious old Hong Kong movies and allowing them to get to know the history and culture of Hong Kong through these old films.

Background

2. Having enjoyed a number of golden ages, the Hong Kong film industry has an accumulated production of more than 10 000 film titles over the course of a century including numerous award-winning classics. Being a major form of mass entertainment, film is an indispensable part of Hong Kong's popular culture. At the same time, film is an important record of Hong Kong now and then. Documentaries and feature films alike capture the changing Hong Kong society and people's way of life in different eras through the camera lens and preserve the images for posterity.

3. In an effort to preserve Hong Kong's treasured film heritage, the Government established the Archive and set up its Planning Office back in 1993 to begin acquiring Hong Kong films and related materials both locally and abroad. Since the inauguration of its building in Sai Wan Ho in January 2001, the Archive has been promoting Hong Kong films to the public even more actively through organising a variety of thematic exhibitions, screening programmes and educational activities. The Archive also conducts research into the history of Hong Kong cinema and shares its research through publications to enhance the public appreciation of the historical and cultural significance of Hong Kong films as well as their awareness of the importance of preserving Hong Kong's film heritage.

Acquiring and Preserving Celluloid Film

4. Over the past two decades or so, the Archive has acquired more than 1.3 million items related to Hong Kong cinema, housing the largest collection among all LCSD museums. In addition to celluloid film of some 4 000 titles produced in Hong Kong, the Archive preserves a huge amount of audio-visual materials, posters, film stills, photos, documents, scripts, manuscripts, magazines, books, trophies, costumes, props, movie cameras, projectors and film processing equipment, etc.

5. Celluloid film is the most important collection of the Archive which must be stored in a steady, cold and dry environment. If preserved properly, celluloid film can enjoy a life span of over a hundred years. Hong Kong's hot and humid sub-tropical climate, however, makes celluloid film vulnerable to degradation from colour fading, shrinkage, warping, embrittlement, cracking to even decomposition. Owing to the unfavourable storage condition prior to acquisition by the Archive, quite a number of celluloid films in the Archive's collection are already in a deteriorating state and those in an advanced state of deterioration may even be irreparable or inaccessible. Once degradation has begun, the process is irreversible. To slow down the degradation process, the Archive makes its best efforts to store the celluloid films in a climate-controlled environment and monitor their condition on a regular basis.

6. A single composite film print of a 90-minute film already comprises 9 to 10 reels of celluloid film. But to properly preserve one film title, the Archive also needs to acquire the original picture negative, internegative, optical soundtrack negative and subtitle negative, etc. All these materials can easily add up to over a hundred reels of celluloid film that require a lot of storage spaces. Since in-house collection stores are insufficient to meet the huge storage needs, the Archive has set up several off-site stores including a couple located in rented space in industrial buildings that have been turned into climate-controlled storage spaces suitable for preserving celluloid film and other artefacts. The need for more storage spaces is anticipated to increase as the Archive's collection continues to grow.

Pressing Need for Digitisation in the New Age of Digital Cinema

7. In recent years, the Archive has been facing a major challenge brought by the fast-changing technology in film production, distribution, screening as well as preservation and restoration. Digital film has quickly replaced celluloid film as the standard screening format worldwide. In Hong Kong or any part of the world, only few cinemas can project celluloid film prints, making it necessary to digitise celluloid film of old Hong Kong movies for screening outside of the Archive.

8. Digital technology, on the other hand, has opened up new possibilities

in film preservation and restoration. Every time a film print in the Archive's collection is projected, the celluloid film will be subjected to a certain degree of wear and tear. Digital technology enables the Archive to strike a proper balance between film preservation and access. Through digitisation, the images and sounds recorded on deteriorated celluloid film can be transferred into another format and preserved in a new carrier. Image and sound defects caused by deterioration of the original celluloid film can also be digitally restored as far as technology permits.

Digitisation of the Archive's Film Collection

9. The Archive's Conservation Unit is staffed by 3 Assistant Curators and 6 Laboratory Technicians who are tasked with safeguarding 1.3 million collection items including the provision of conservation support to exhibitions, screenings and publication work. Since 2016, the Archive has been digitising and restoring its film collection in-house using a newly installed film scanner with an add-on digital restoration system. Prior to digitisation, conservation staff has to meticulously inspect and document the condition of every reel of celluloid film. A standard film reel has about 16 000 frames of film. To ensure that the celluloid film can be safely scanned, every film frame has to be carefully cleaned and all damaged perforations and film edges, splits, tears and splices manually repaired.

10. One film title usually comprises a variety of celluloid film materials including original picture negative, internegative, optical soundtrack negative, subtitle negative and composite prints, etc. All the materials have to be meticulously inspected before deciding which materials are the most suitable for scanning. The inspection and repairing process is hence very time-consuming and often takes weeks or even months to complete. Scanning the materials frame by frame is also a lengthy process. Depending on the conditions of the materials, it may take days or weeks to finish scanning one film title. After scanning is done, the original film materials have to be checked again to ascertain that none of the materials has been damaged in the process. The quality of all digitised images and sounds has to be checked as well and digital restoration work may need to be performed. On average, it takes about 3 months to complete the entire digitisation process from film inspection, cleaning and repair, scanning to digital restoration.

11. Up till now, there are some 4 000 film titles in the Archive's collection and 210 of them are available in digital format including the ones acquired from film companies and the ones digitised by the Archive over the years. In order to speed up the Archive's digitisation pace, the Government announced in the 2019-20 Budget Speech that \$20 million would be allocated to the Archive in the next five years for digitising approximately additional 150 film titles. Priority will be given to film titles with only a sole copy in the Archive's collection and celluloid film in unsatisfactory conditions that demand

urgent preservation. Part of the funding will also be used to procure IT equipment for storing and managing files of the digitised films.

Progress and Challenge of Film Digitisation

12. The Archive will make use of the \$20 million funding to engage additional manpower to assist in film inspection and repair work as well as commission film laboratories to provide film digitisation service, making it possible for the Archive to digitise a total of 50 film titles each year. By the end of 2023-24, the Archive will more than double the number of digital films in its collection from 210 to 460 titles. However, the Archive's celluloid film collection continues to grow at a speed much faster than the speed at which the celluloid film can be digitised and restored. Additional resources can surely help accelerate the digitisation pace but the most pressing issue that needs to be resolved in the long run is the shortage of technical manpower. The emergence of digital cinema has made traditional celluloid film instantly obsolete. Newcomers to the film industry do not have the chances to handle celluloid film while technicians originally working in the film processing business have been forced to change careers. There are now fewer than 20 experienced film technicians still active in the labour market and most of them are retirees in their 60s and 70s. If there is no injection of new blood into the market, it will become more difficult for the Archive to continue recruiting film technicians from the market to assist in film inspection and repair work.

The Way Forward

13. To promote Hong Kong's film culture through making more precious old Hong Kong movies accessible to audiences both local and worldwide, the Archive is actively exploring ways to speed up the digitisation pace by resolving the problem of in-house restoration manpower shortage. With the objective of grooming a new generation of film conservators for the Archive, the possibility of collaborating with local tertiary institutions or the Vocational Training Council to offer film preservation courses is being explored. The Archive is also in discussion with Mainland and overseas film archives and seeking internship opportunities for local tertiary students in the hope of raising their awareness of and interest in film preservation work. Creation of new positions within the Archive is being considered at the same time with a view to absorbing these new talents into the field of film preservation. Through on-the-job training as well as training and internship programme at film archives abroad, a pool of in-house experts can be trained up to provide long-term and sustainable manpower support to the Archive's film preservation work as well as pave the way for succession of film expertise. With sufficient manpower to conduct on-going film inspection and repair work and the provision of additional funding in the long run, the Archive will be able to commission more local and overseas film laboratories to assist in digitising and

restoring its film collection at a much faster pace.

Home Affairs Bureau
Leisure and Cultural Services Department
January 2020