City & Guilds of London Art School
Conservation: Books and Paper

Condition Report, Treatment Proposal and Treatment Report

Hau Chi CHU, Tuffy

Identification details :

C&G object number: n.a.
Name/generic type/title: Japanese Movie poster pamphlet of 'The Getaway'
Maker/artist : Published by Toho-Towa Company Limited
Country of origin: Japan
Style/date/period: 1972
External dimensions (mm): 339 mm(height) x 887 mm(width)

Owner's name: Tuffy Chu
Owner's accession number: 00001
Owner's correspondence address/email: tuffychc@gmail.com
Conservator: Tuffy Chu
Date: 10 November 2024

Provenance :

The object is a Japanese movie poster pamphlet for ' The Gateway', an American action thriller film released in 1972. The pamphlet was printed in Japan in 1972 to promote the movie and includes a movie poster, an introduction to the movie plot, and details about the actors and actresses. It also features reviews from movie critics.

The client acquired the object from a second-hand bookshop in Japan in 2023.

Client's brief :

The objectives of this conservation project were discussed and agreed by the client on 10 November 2024. The aim of the project is to stabilize and consolidate the object, preventing further degradation. Additionally, to make the object appear less aged and stable enough for display.

Existing report:

There is no existing conservation report.

Photographic record – before treatment

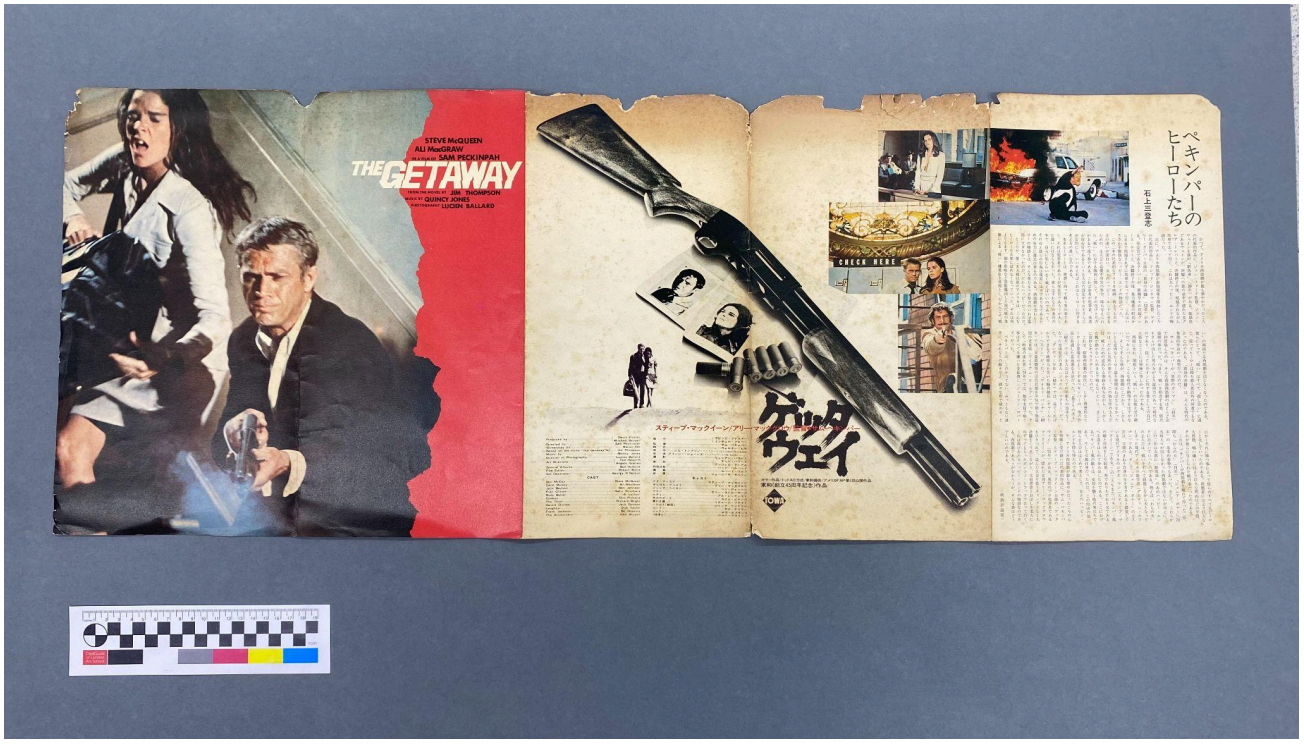

Fig.1 Object recto under studio light

Fig.2 Object verso under studio light

Fig.3 Object recto under raking light

Fig.4 Object verso under raking light

Fig.5 Object format when acquired

Description:

The object is a double-sided printed poster pamphlet used as a promotional tool. Both the recto and verso of the object are in landscape orientation. The primary support is medium-weight wood pulp wove paper with high-quality printing and a glossy finish. The surface is also textured. When acquired, the object was folded into five sections, with visible folding lines present. Due to this folding, the object cannot lie flat when fully opened (fig.6).

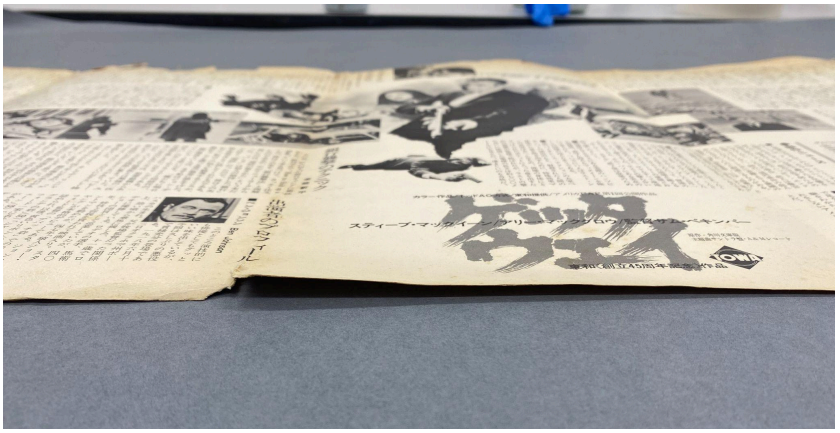

Fig.6 Side View of the object before treatment

Printed text and images are found on the object.

Recto:
The recto side is printed in colour, featuring images and the poster design of the movie. Printed inscriptions are located on the right side of the object. Two purple nylon-coloured marks are visible (fig. 7, 8), and a fingerprint is also present on the surface (fig. 9).

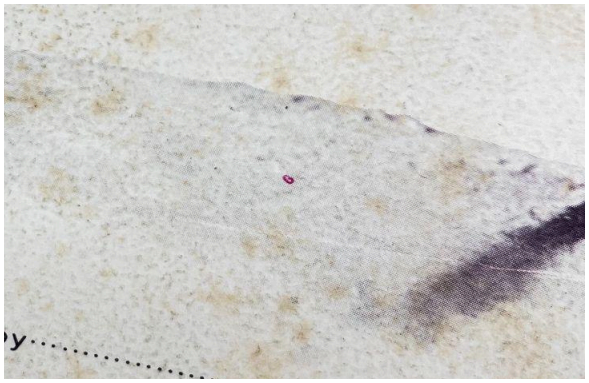

Fig.7 Purple nylon-coloured mark A

Fig.8 Purple nylon-coloured marks B

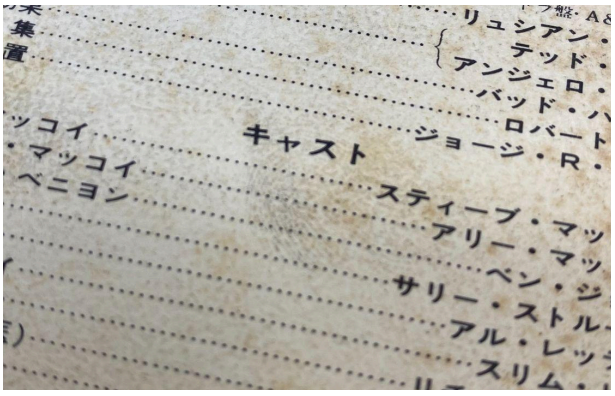

Fig.9 Fingerprint

Verso:
The verso side is printed in black and white, including movie images and inscriptions.

The function of the object has not changed. However, there may have been a modification to its original format. It is possible that the pamphlet was originally folded only once. This may be supported by the evidence of folding lines on the surface.

Fig.10 Diagram showing the folding lines of the object

-Folding lines A and C are less pronounced than folding lines B and D, which suggests that the object was originally folded once.

- A comparison with another copy of the pamphlet, found through online resources, may further support this conclusion (please refer to this resource: https://www.ebay.com.my/itm/176023325509 for reference).

Materials and structure:

- Support : Medium-weight wood pulp wove paper
- Medium: Printing ink (cyan, magenta, yellow and black)
- Surface (media, pigments, layers, coatings): Glossy finishing
- Historical changes to the materials and structure: n.a.
- No previous conservation interventions or treatments have been done to the object.

Condition:

- Condition Score: C - Poor
- Stability: Unstable
- Treatment Priority: Urgent

The overall condition of the object is poor and unstable, requiring urgent conservation treatment.

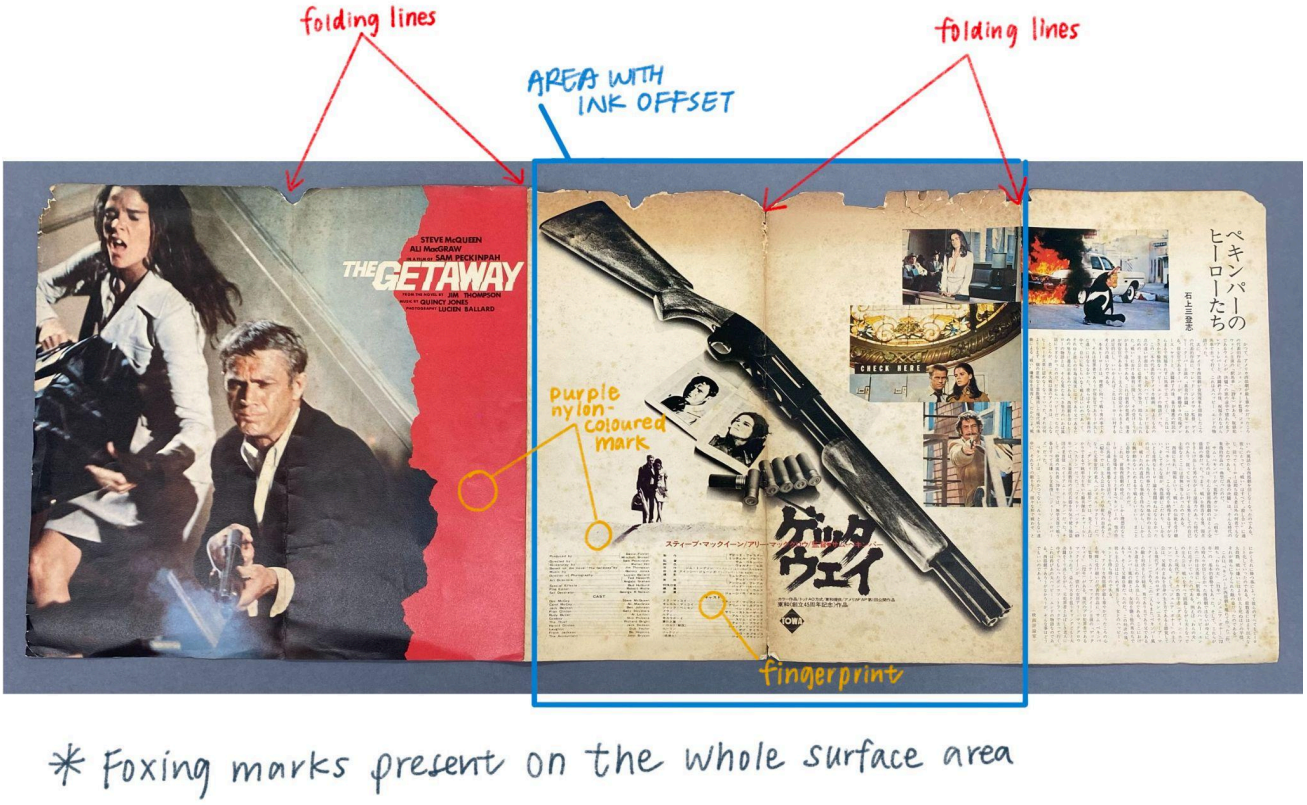

Fig.11 Diagram illustrating the overall condition of the object - recto (A)

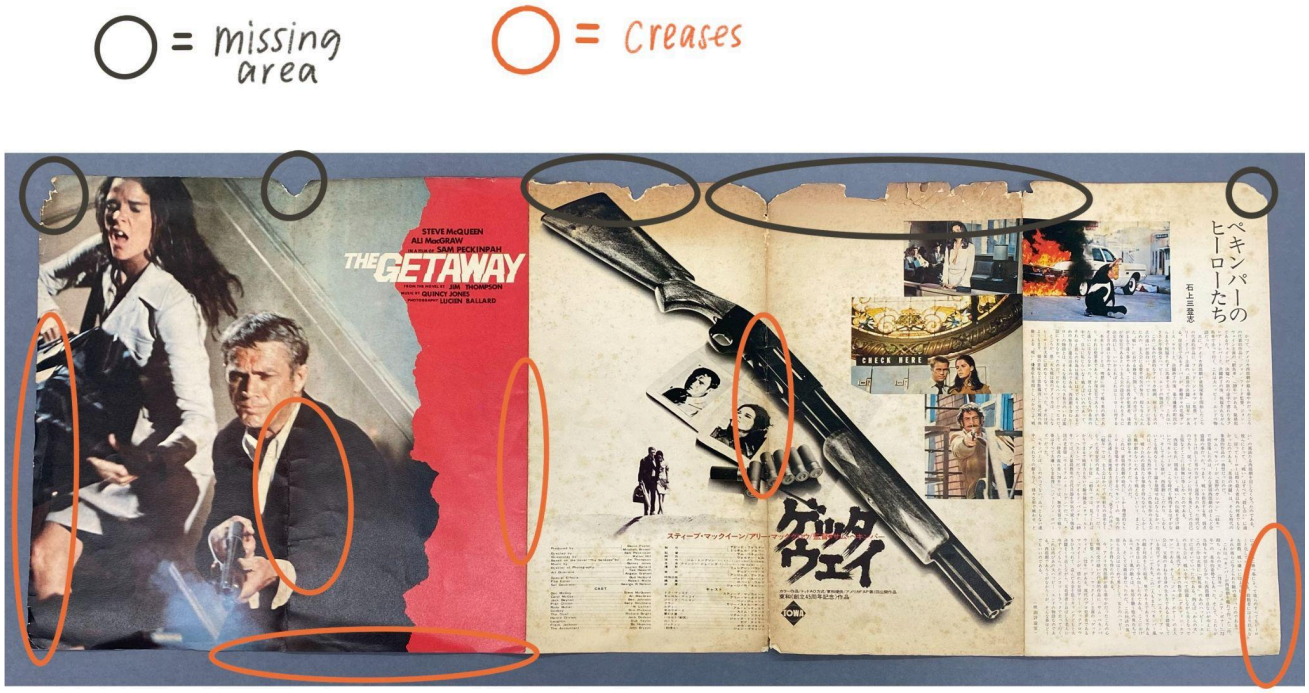

Fig.12 Diagram illustrating the overall condition of the object - recto (B)

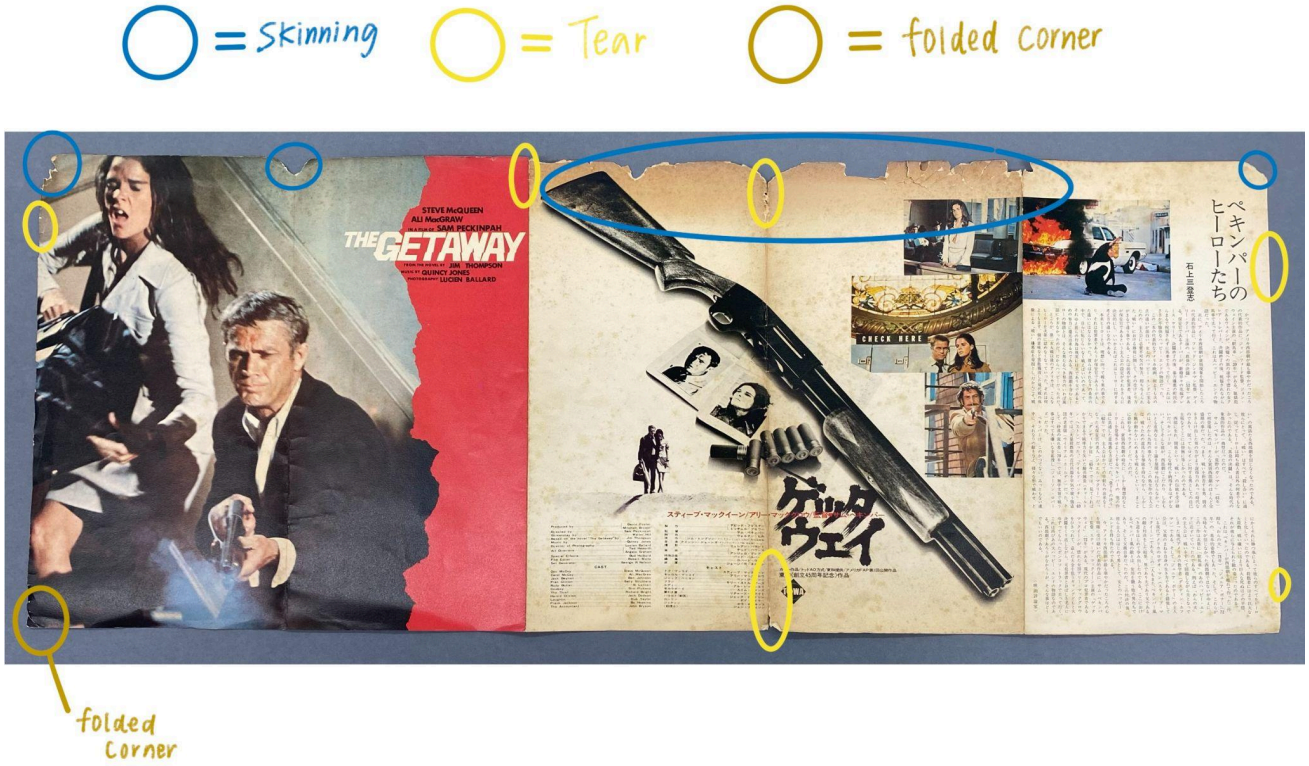

Fig.13 Diagram illustrating the overall condition of the object - recto (C)

The general surface of the object is discoloured and yellowed, with foxing marks present on both the recto and verso. The top part of the paper substrate is friable and soft, tending to break down. Most of the damages to the object are historic.

Fig.14 Close up image of the recto

Fig.15 Close up image of the verso

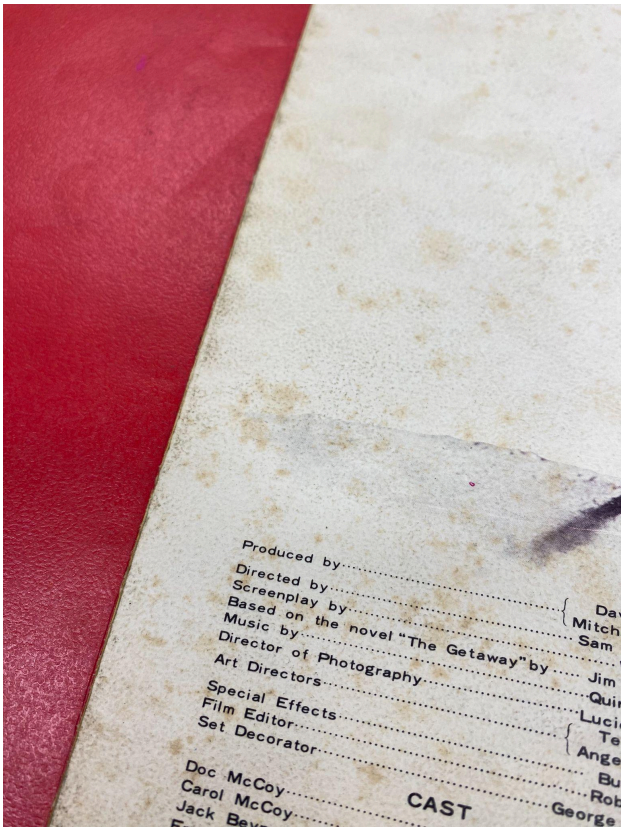

Fig.16 Close up image of the foxing marks

Although the object as a whole is in poor condition, the top edge shows the most significant damage. This includes severe discolouration, yellowing, missing areas, skinning, and the breakdown of paper fibers.

Fig.17 Close up image of the top edge

Ink offset is visible on the recto surface, possibly transferred from the same object when folded.

Fig.18 Image showing the Ink offset

Damage along the folding lines is also evident. Dirt has accumulated along these lines, and there are large tears and missing areas. Cockling is noticeable along some of the folding lines and all are very fragile.

Fig.19 Detailed image of one of the folding line

Small tears and creases are present along most edges of the object. Creases are also observed at the bottom corners.

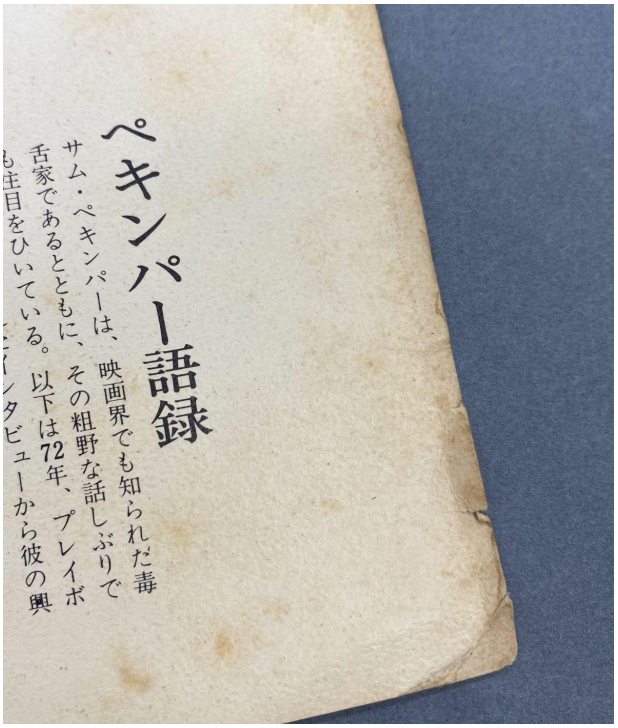

Fig.20 Detailed image of the edge

Additionally, the top left and top right corners are missing, and the bottom left corner is folded.

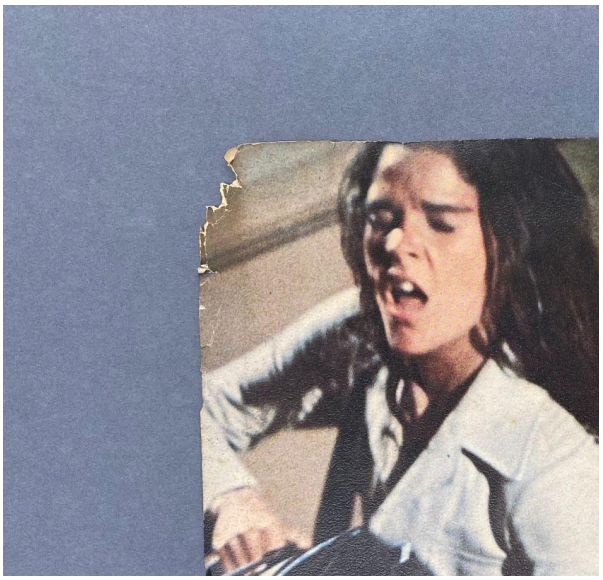

Fig.21 Detailed image of top left corner

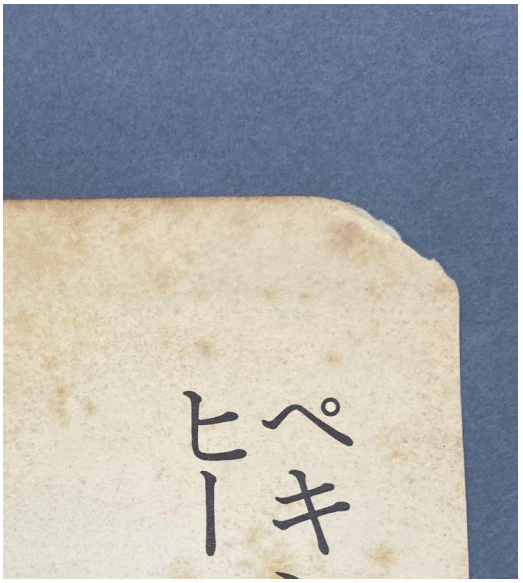

Fig.22 Detailed image of top right corner

As discussed with the client, given the already poor condition of the object, the client has accepted minor to major degradation during the conservation process.

Context and risks:

Potential Risk of the object:

Due to prolonged folding, the folding areas have become fragile. The paper substrate is soft and brittle, increasing the risk of further damage.

Currently, the object is stored in a non-archival plastic sleeve and housed in a typical household environment with no monitoring of relative humidity (RH) or temperature. However, it is stored away from direct sunlight, which mitigates some risk of light damage.

Following the treatment, the object should ideally be rehoused in an archival mount or a Melinex folder. This will help to mitigate any further damage and ensure the object's long-term stability.

Examination, testing, and analysis:

A visual examination and pigment solubility test were performed on the object's surface.

For the solubility test, water droplets were placed on areas of coloured and black ink for durations of 1 minute, 5 minutes, and 10 minutes respectively. The results of the test indicate that none of the printing ink is movable or fugitive.

Treatment proposal:

The component needing treatment or intervention:

Component	Description
Primary Support	The surface is fragile and discoloured . Foxing marks , creases and fold marks are visible.

Proposed Treatment Step:

1. Dry Cleaning
2. Aqueous treatment (immersive wash with hot water)
3. Spot bleaching and area bleaching with hydrogen peroxide
4. Reinforce folding lines with Japanese tissue
5. Repair the small tears with Japanese tissue
6. Infill missing parts with similar weight paper
7. Colour matching and colour toning of infills
8. Pressing the object

Since the printing ink is not movable nor fugitive, aqueous treatment is safe to use for the object.

Reason for treatment:

The object is fragile and weak, making handling impossible in its current condition. The proposed treatments, including reinforcement and infilling, will consolidate the object and restore its structural quality, allowing it to be handled safely.

Dry surface cleaning will help to remove the ink offset and the dirt of the surface ; Aqueous treatment to reduce discolouration and strengthen the paper's hydrogen bonds, thereby reinforcing the structure; Bleaching is to reduce foxing marks and tone down the severe discolouration on the top edge, as requested by the client.

Choice of Material:

- Japanese Tengujo tissue paper roll (7.3 gsm) - reinforce and repair area
    - Strong, acid-free, and lightweight, making it ideal for reinforcing tears and folds without obscuring details, images, or inscriptions.

- Medium weight (about 150 gsm) western wove paper - inlaying the missing area
    - Similar in weight to the original paper, preventing pulling or cockling. Suitable for inlaying missing areas.

- Hydrogen peroxide - use for spot and area bleaching.
    - A minimally invasive bleaching agent, suitable for spot and area bleaching to reduce foxing marks and discolouration.

Estimated Treatment time:

10 hours

Treatment Report:

List of Treatment Performed:

1. Dry Cleaning with smoke sponge and rubber erasers
2. Aqueous treatment (immersive wash with hot water, pH 7.2 tap water) - two wash
3. Spot bleaching and area bleaching with 3% and 6 % hydrogen peroxide
4. Reinforced folding lines with Japanese tissue strip
5. Small tears were repaired using the same Japanese tissue
6. Infill of missing parts with Western paper of similar weight
7. Colour matching and toning of infills using water-soluble pencils
8. Pressed

Actual Treatment time:

13 hours

Treatment details:

The smoke sponge successfully removed surface dirt, but it was not very effective in removing the ink offset. As an alternative, rubber erasers have been used to remove the ink offset, which proved quite successful. The fingerprint was also removed. However, the eraser did remove some of the colour from the black and red printed images (see Fig.24). The eraser is best suited for use on natural or white-coloured backgrounds, and its use was limited to certain areas.

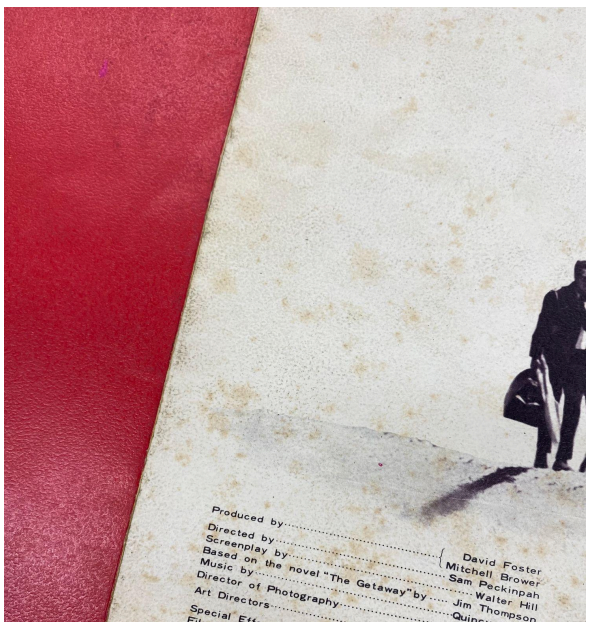

Fig.23 Object before dry cleaning

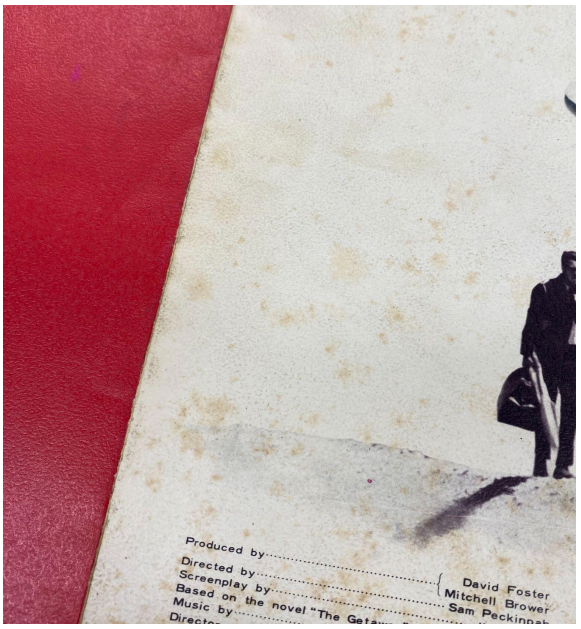

Fig.24 Object after dry cleaning

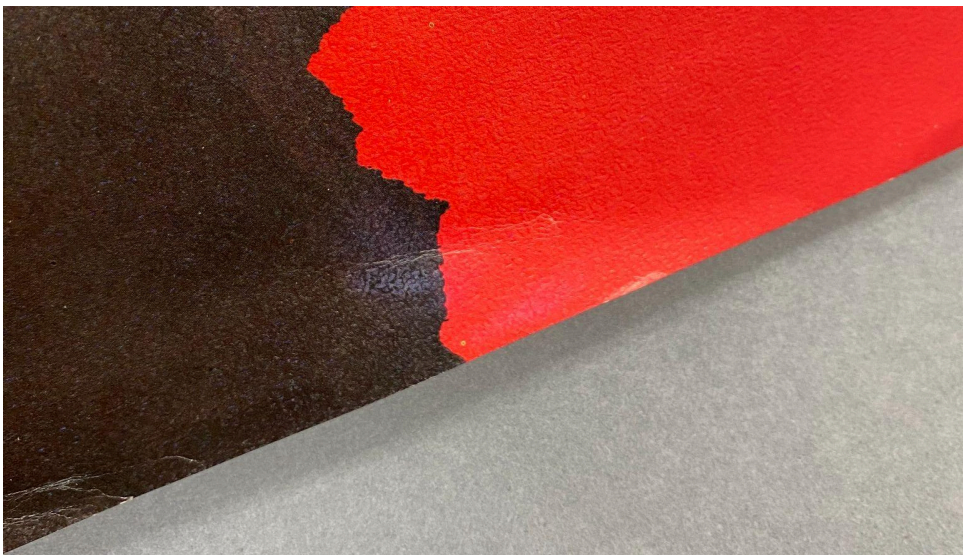

Fig.25 Colour loss caused by the use of eraser

After dry cleaning, the object was humidified on both sides , supported by bodina and immersed in a hot tap water bath (pH 7.2) for 20 minutes. A significant amount of discolouration leached out during this treatment. A second wash was carried out, and much of the remaining discolouration was removed through the two immersive washes. Some of the fragile areas along the top edge detached during the washing process.

Fig.26 Object during the first hot water wash

The object was left to dry on a rack overnight after the washes.

Fig.27 Object after aqueous treatment and air dried

Hydrogen peroxide was then prepared, with ammonia added to a 3% hydrogen peroxide solution to reach and maintain a pH of 10.5. A 6% hydrogen peroxide solution was also prepared by diluting a 12% hydrogen peroxide solution with deionized water and adding ammonia to maintain a pH of 10.5 for the bleaching of the object.

For area and spot bleaching of the foxing marks, slight moisture was introduced before applying 3% and 6% hydrogen peroxide to avoid creating halos around the bleaching areas. 6% Hydrogen Peroxide was brushed onto the top part of the object and immediately blotted off with blotting paper.

Fig.28 Area bleaching

6% hydrogen peroxide was also applied with a smaller brush to specific areas, then blotted off with blotting paper. This process was repeated three times.

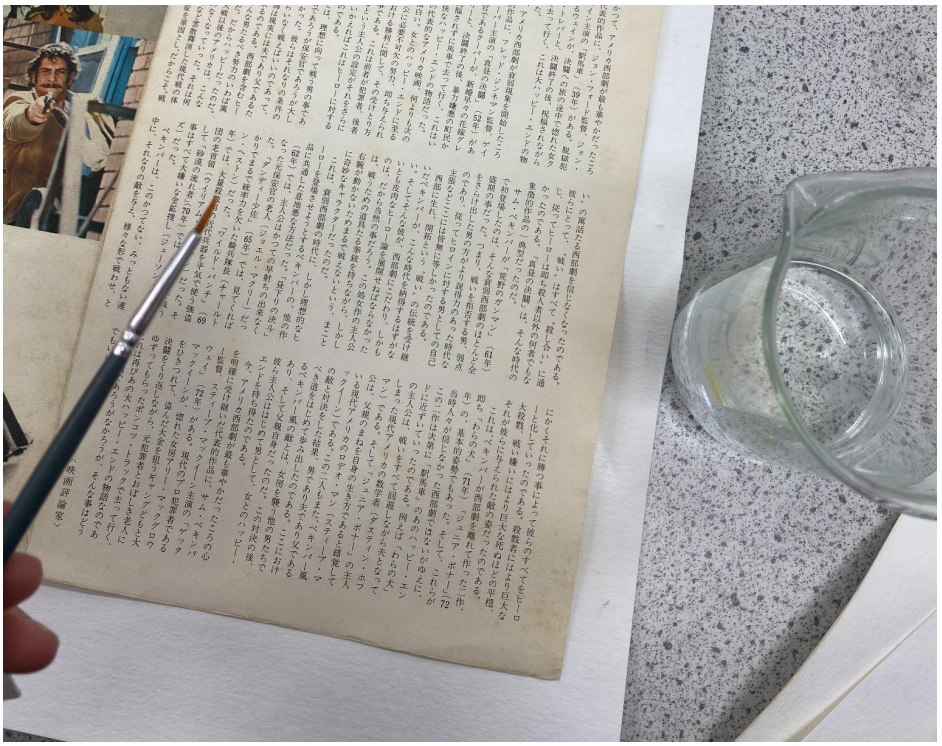

Fig.29 Spot bleaching

Once all the spot and area bleaching was completed, 3% hydrogen peroxide was sprayed evenly across the entire surface. The object was then left on the bench to dry for around 3 hours.

After, the hydrogen peroxide on the object was washed off in a cold immersive wash twice. The object was then placed in a press overnight to prepare it for repair and inlaying.

Fig.30 Result of area and spot bleaching

The folding lines were reinforced with Japanese Tengujo tissue strips on the verso side. Small tears were also repaired using the same Japanese tissue.

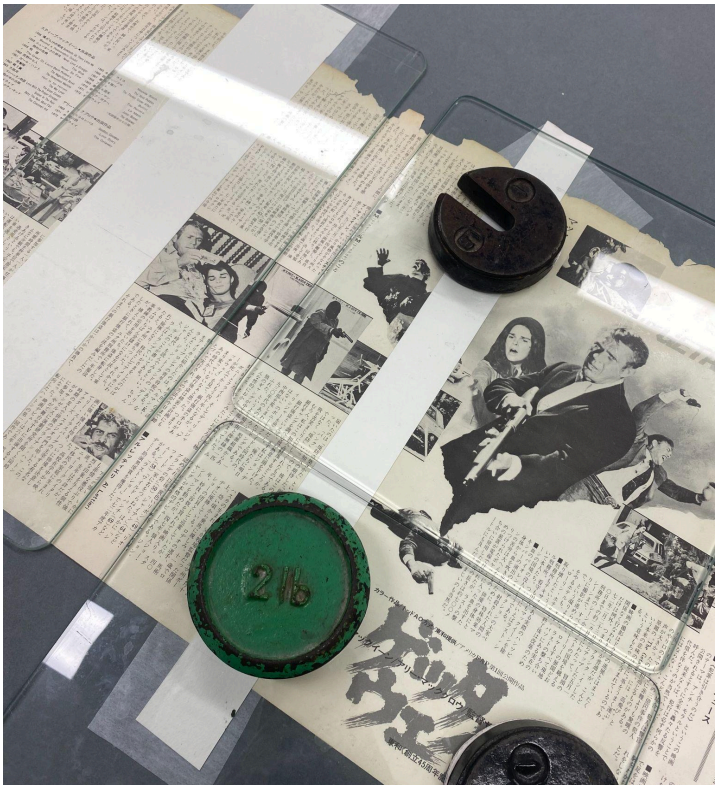

Fig.31 Reinforcing the folding lines with Japanese tissue

Fig.32 Result of the reinforcement

The missing areas were inlaid with paper of similar weight to the original object. The inlays were backed with a thin layer of Japanese tissue to further consolidate the fragile areas.

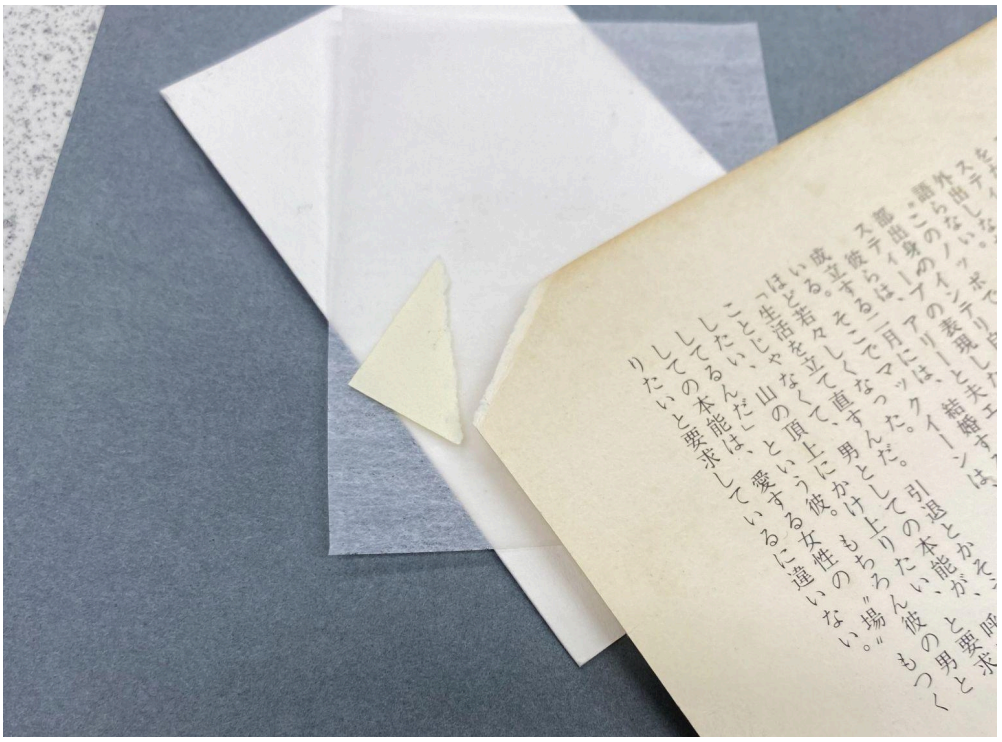

Fig.33 Inlaying the missing corner

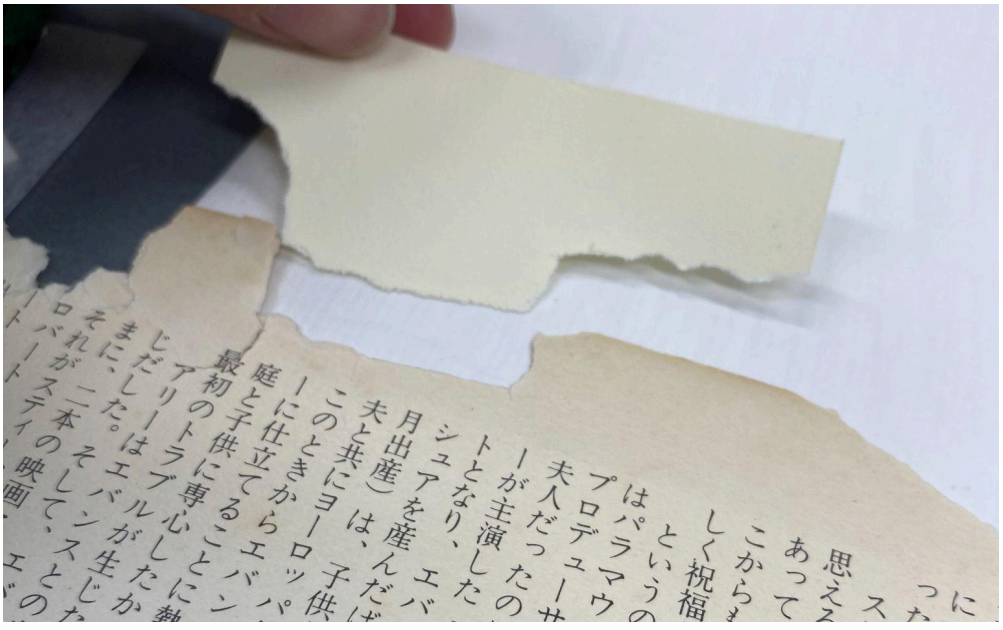

Fig.34 Inlaying the missing area

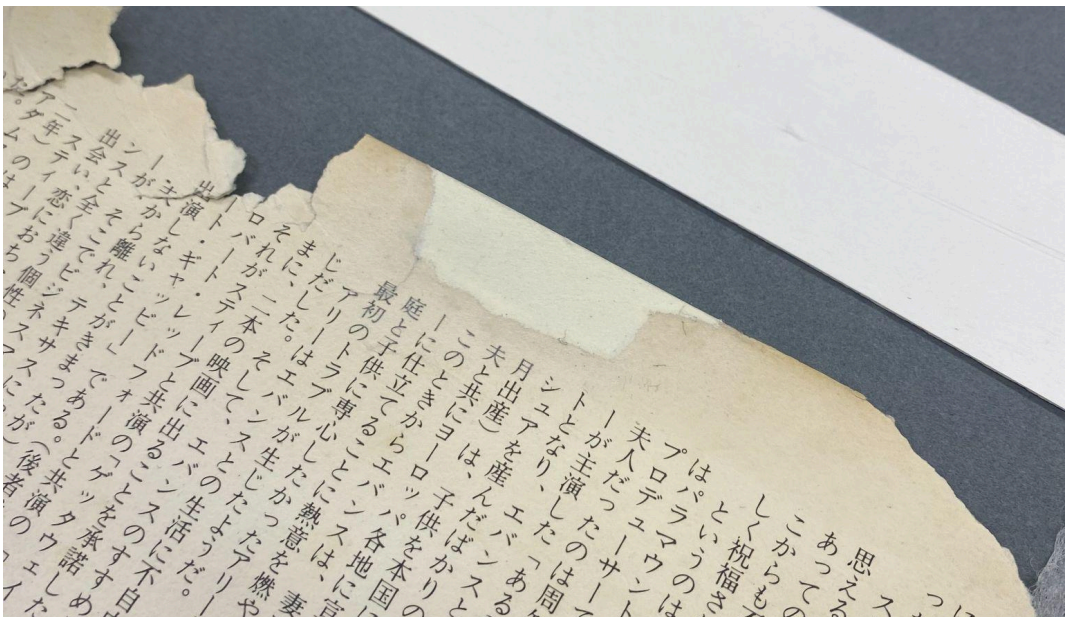

Fig.35 Inlaying the missing area

Fig.36 Object after inlay work

After completing the inlaying of the object, the inlays were then colour-matched and toned using water-soluble coloured pencils.

The following Faber-Castell colours were used:
176, 177, 178, 106, 180 , 235, 231, 234, 172, and 157.

And the following Caran d'Ache colours were as well used:
504, 745, and 748.

Fig.37 Colour pencils used for toning the inlays

Fig.38 Colour pencils used for toning the inlays

The object was then placed in a press overnight to reduce tension from the repairs and ensure the object remained flat.

Fig.39 Detailed image of toned inlay

The repairs and infills on the verso of the object remain untoned intentionally, to adhere to conservation ethics and demonstrate that the object has undergone conservation treatment.

Fig.40 Detailed image of the Verso of the object after treatment

Photographic record – after treatment

Fig.41 Object recto under studio light after treatment

Fig.42 Object verso under studio light after treatment

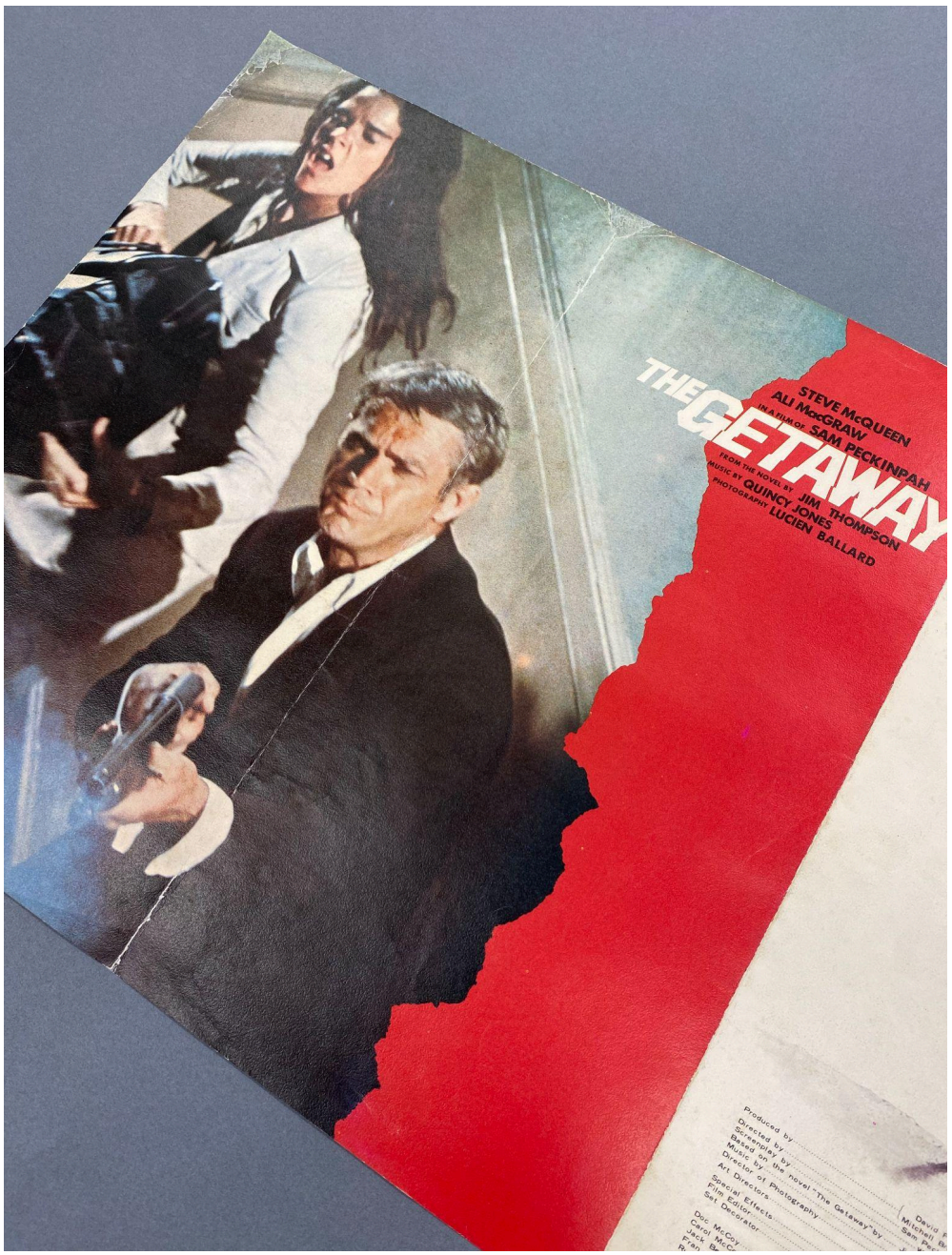

Fig.43 Detailed image of the recto after treatment

Fig.44 Detailed image of the recto after treatment

Fig.45 Detailed image of the verso after treatment

Fig.46 Detailed image of the verso after treatment

Fig.47 Detailed image of the side view after treatment

Reflection:

Most of the treatments carried out have been successful, with a few exceptions. One of the issues was the slight misuse of erasers on the coloured printing areas. To prevent this from happening again, the eraser should be used more gently and with greater care.

There was some overworking of the inlaid paper during the toning process. Repeated cycles of removing and reapplying colour may have overworked the paper. To avoid this, toning the paper before inlaying may be a better approach in the future.

The results of the spot and area bleaching are particularly significant. These treatments helped reduce the discolouration and foxing marks, with especially noticeable improvement on the top edge of the object.

Overall, the conservation results are satisfactory. The object is now stabilised and can be safely handled.

Requirements/future recommendations:

General: Keep track of the storage environment, to avoid any possible damage.

Storage : The object is suggested to be stored in a Melinax folder or conservation grade mount.

Light: The object should be kept away from direct sunlight. If displayed , UV filtered glass should be used, and it is recommended that the light level be kept below 50 lux to prevent any potential discolouration and light damage.

Temperature and Humidity: The ideal environment of a paper object would be cool and dry, with a relative humidity of 45-65% and a temperature of 10-20 degrees. This will help maintain an environment that is free from pests and mould.

Materials and suppliers:

Tengu Japanese tissue paper roll (7.3gsm) , Supplier: Pels
https://www.preservationequipment.com/Catalogue/Conservation-Materials/Paper-Board/Japanese-Papers/Japanese-Paper-Tape-Deckled-edge-feathered

Hydrogen Peroxide 3%, Supplier: APC Pure
https://apcpure.com/product/hydrogen-peroxide-3-food-grade/HP3-D?device=c&network=g&creative=677009731851&placement=&gad_source=1&gclid=CjwKCAiA6t-6BhA3EiwAltRFGGpZsA8BOulO163o_3_j1KtJxeSsRAYdOn7XfkA-MSqR-nCwM4Oc_RoCvIQQAvD_BwE

Hydrogen Peroxide 12%, Supplier: APC Pure
https://apcpure.com/product/hydrogen-peroxide-12-food-grade/HP12-D?device=c&network=g&creative=677009731851&placement=&gad_source=1&gclid=CjwKCAiAjeW6BhBAEiwAdKltMrXmVx_11W64tINJN8PGc1jPHv0Myg8qop7kVkS_YjO2JY2MEhuUlhoCQFoQAvD_BwE

Faber-Castell water-soluble colour pencil, Supplier: Jacksons art
number 176, 177, 178, 106, 180 , 235, 231, 234, 172, 157.
https://www.jacksonsart.com/

Caran d'Ache water-soluble colour pencil ,Supplier: Jacksons art
number 504, 745, 748.
https://www.jacksonsart.com/

Glossary:

n.a.

Bibliography:

Japan horror movie mania (seller) , eBay. (2024). Steve McQueen THE GETAWAY original MOVIE Press poster japan 89x34cm japanese. [online] Available at: https://www.ebay.com.my/itm/176023325509 [Accessed 9 Dec. 2024]

Health & Safety:

COSHH RISK ASSESSMENT – C&G

Student	Tuffy Chu.
Tutor	Graeme. Gardiner
Module	Paper Conservation
Name of Hazardous Substance	Hydrogen peroxide 3%
Description of Activity/Process (describe controls already in place ie wearing nitrile gloves)	bleaching paper object
Name of person carrying out activity	Tuffy, maria.wallace, jean.Charlotte, Soyeon
Who else will be affected	everyone in the studio
Have colleagues been informed of the substance you are using. Are they aware of the hazards involved on your particular condition?	YES YES

Hazardous chemical(s)	H-phrases	P-phrases	OEL/WEL (TWA)
Oxidizing. Corrosive. Irritant.	H272. H302 H318	P220 P310 P280 P301 + P330 + P331 P304 + P340 P305 + P351 + P338	STEL: 2ppm 15min STEL: 2.8mg /m³ 15 min TWA: 1ppm 8hr TWA: 1.4 mg /m³ 8hr.

Describe company and date of the MSDS consulted. If in any doubt about content, refer to 2 or more MSDS sheets: Thermo Fisher Scientific (9 Feb 2024)
ROTH (28 Feb 2023)

Identify the hazard level:

Category		Yes	No
Extreme	Substances of known or suspected exceptional toxicity (eg carcinogens) H350 (R45)		✓
High	Substances classified as very toxic/toxic		✓
Medium	Substances classified as corrosive, harmful, irritant H314, H332, H302, H319, H335, H315 (R34, 35 , 20, 21, 22, 36, 36, 38)	✓	
Low	Substances not classified above		✓

Identify your exposure potential:

	Circle all that apply below:		
Score	**1**	**2**	**3**
A - **Quantity**	≤ 1g/ml	1-100g/ml	≥ 100g/ml
B - **Physical Characteristics**	Dense solid	Dusty solid	Highly volatile liquids
	Non-volatile liquids	Volatile liquids	Aerosols, fumes, gases
	No skin absorption	Skin absorption	High skin absorption
C - **Enclosure**	Mainly enclosed	Partially open	No physical barrier

Multiply your highest score from (A x B x C) to get an estimate of exposure potential = 18

8≤ Low Potential **9-12 Medium Potential** **≥ 13 High Potential**

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Evaluation of risk and further control determination:

Exposure Potential:	Low	Medium	High
Hazard			
Extreme	Refer to supervising tutor	Refer to supervising tutor	Refer to supervising tutor
High	LEV/PPE	LEV/PPE	LEV/PPE
Medium	Good Practice	LEV/PPE	LEV/PPE
Low	Good Practice	Good Practice	Good Practice
LEV: Local exhaust ventilation/ PPE: Personal Protective equipment			

Controls and safe use:

Identify if a different material can be used:

State PPE Required (for use of material on p1):

Gloves: Nitrile chemical-resistant gloves.

Eye Protection: Safety glasses or goggles.

Respirator: ensure good ventilation. Use a respirator mask with a filter

Clothing: Lab coat or apron

Describe First Aid Procedures (for use of material on p1):

General Advice: If symptoms persist, call a physician.
Eye contact: Rinse immediately with plenty of water. also under the eyelids, for at least 15 mins.
Skin contact: Wash off immediately with plenty of water for at leaft 15 mins.
Ingestion: Clean mouth with water and drink afterwards plenty of water.
Inhalation: Remove to fresh air, If not breathing, give artifical respiration.

Describe Spillage Procedures (for use of material on p1):

Do not breathe gas / mist / vapours. Provide adequate ventilation.
Remove all sources of ignition. Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents) Place in appropriate containers for disposal.
Report the spill to the supervisor immediately.

Describe material disposal procedures: (for use of material on p1):

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

Do not flush to sewer, waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not let this chemical enter the environment.

Describe material storage requirements (for use of material on p1):

Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep refrigerated. Do not store in metal containers.
Containers should be vented periodically in order to overcome pressure buildup.
Do not store near combustible materials.

Signed Student: e. **Date:** 14 Oct 2024

Signed Tutor: **Date:** 14 Oct 2024.

Keep this form easily accessible at your workbench when you are using the hazardous material

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Appendices:

n.a.