



Cultural Heritage Agency
Ministry of Education, Culture and Science

Strategies for the Conservation of a Cellulose Acetate book

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2. CITAR

3. Universidade Católica Portuguesa, Porto

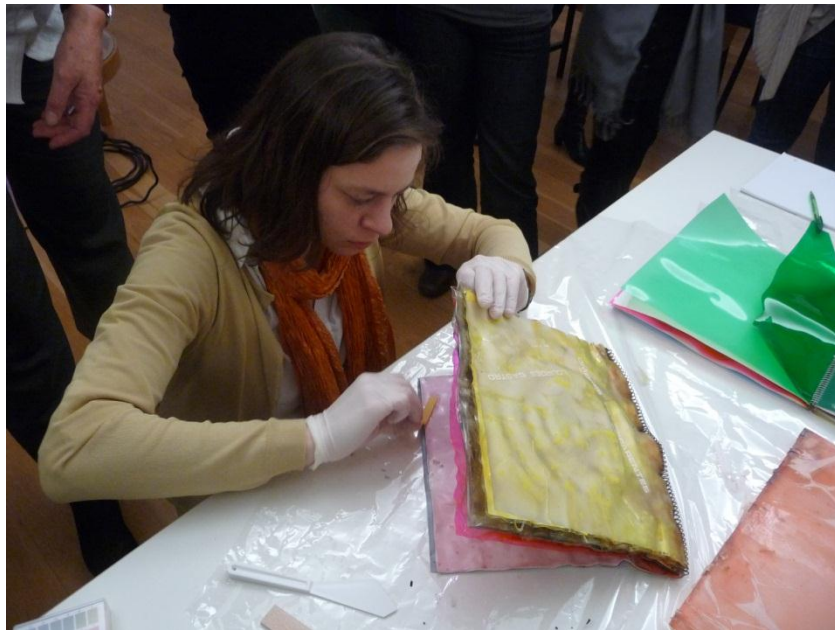
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7. Inês Venade

8. Fundação de Serralves – Museu de Arte
Contemporânea, Porto



Plastics Course, March 2010, Fundação
de Serralves – Museu de Arte
Contemporânea, Porto, Portugal

Condition



Ombres transparentes,
30 x 28.5 x 2cm,
CA, 1967, Lourdes Castro

Book A

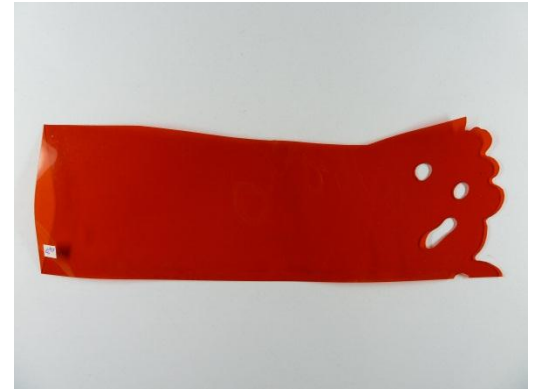


- Warping and shrinkage of the material caused by the lost of plasticizers
- weeping (acetic acid and plasticizers)
- Corrosion of the metal spiral, caused by the acidity released by the CA

Book B



Spare sheets



Set up research

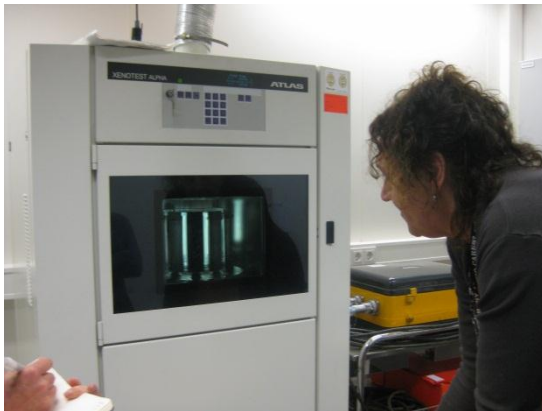


- Identify all materials using FTIR (books and spare CA sheets)
- Assessing degradation (FTIR – Pyrolysis GCMS – Artificial Ageing)
- Research cleaning materials and agents
- Research methods for flattening warped CA sheets
- Research storage condition
- Conservation treatment (CITAR Universidade Católica Portuguesa)

Identification



Assessing degradation



Xenotest, Alpha High Energy (Atlas®)
(105 Klux, T 50°C, 40 %RH)



Vötsch Vc 0200, climate chamber

Cleaning



Cleaning techniques:

- Mechanical
- Aqueous
- Non-aqueous

Evaluation:

- Long term effect
- Stability
- Effectiveness at removing soiling

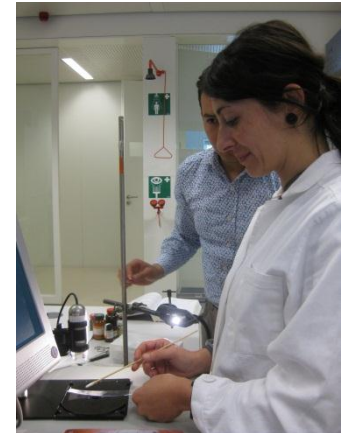
Techniques to evaluate changes:

- Visual observation
- Microscopy
- Contact angle measurements
- Gloss measurements

POPART Cleaning, RCE



Cleaning BOOK A.
5-6-7 July 2011, CITAS, Porto



Cleaning
spare sheets

Flattening



Gilding press
(conservation
studio of the
book the
Rijksmuseum)



Laminator



Flattening, Spare sheets and
BOOK A.
7 July 2011, Oporto

Liquid crystal flexible thermometers
from LCR Hallcrest.



To be continued...



- . Restoration
- . Storage condition

Results:

- ICOM-CC
Lisbon
September
2011
- POPART book
March 2012