



{ BnF

IFLA International Newspaper Conference

**“Newspaper Digitization and Preservation.
New prospects.
Stakeholders, Practices, Users and Business Models”**

**11-13 April 2012
BnF, Paris**

With the support of:



**BRITISH
LIBRARY**

Newspaper storage at the British Library

**IFLA International Newspaper Conference
Paris 11 – 13 April 2012**

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Head of Collection Care

Colindale Newspaper Library



British Library – St. Pancras



Basement storage at St. Pancras



Colindale storage



Colindale – red rot and loose boards

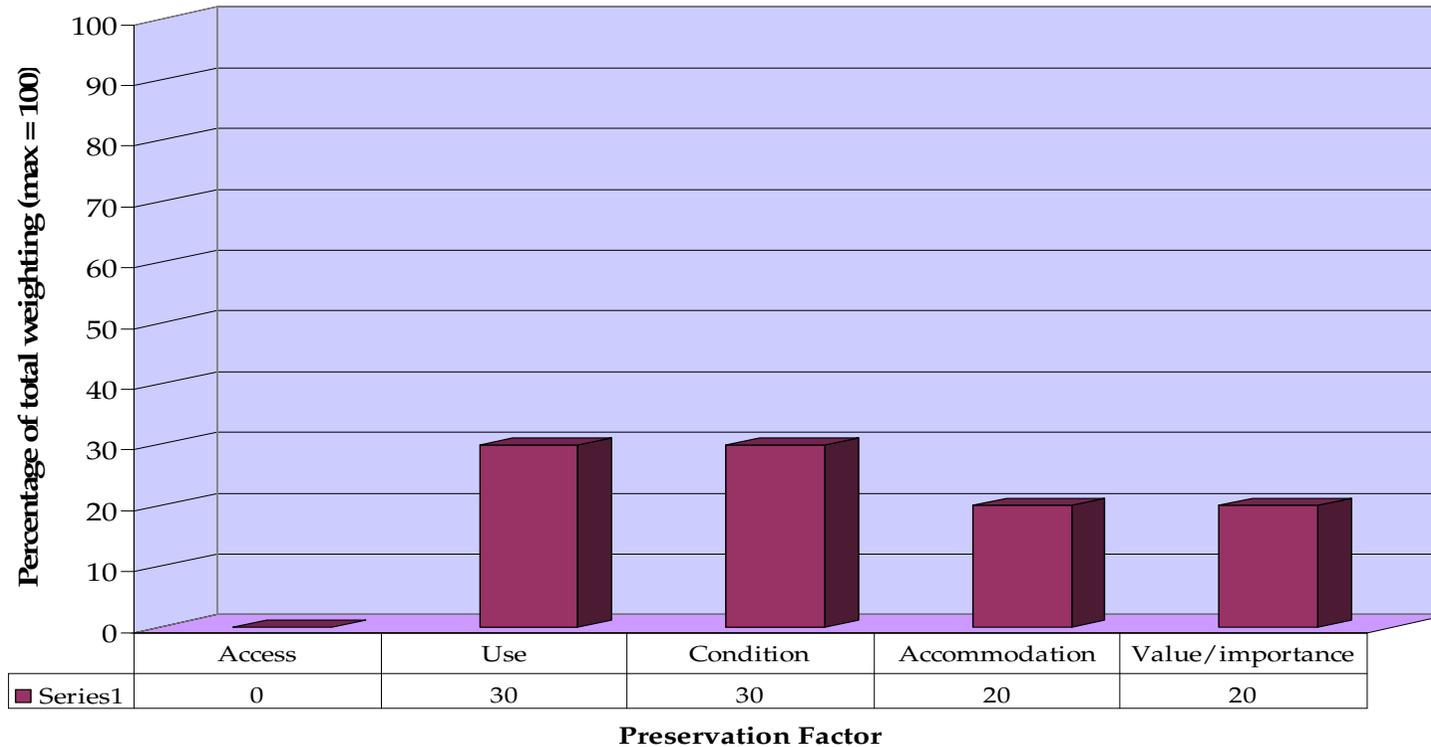


Brittle paper



PAS weighted scoring - survey

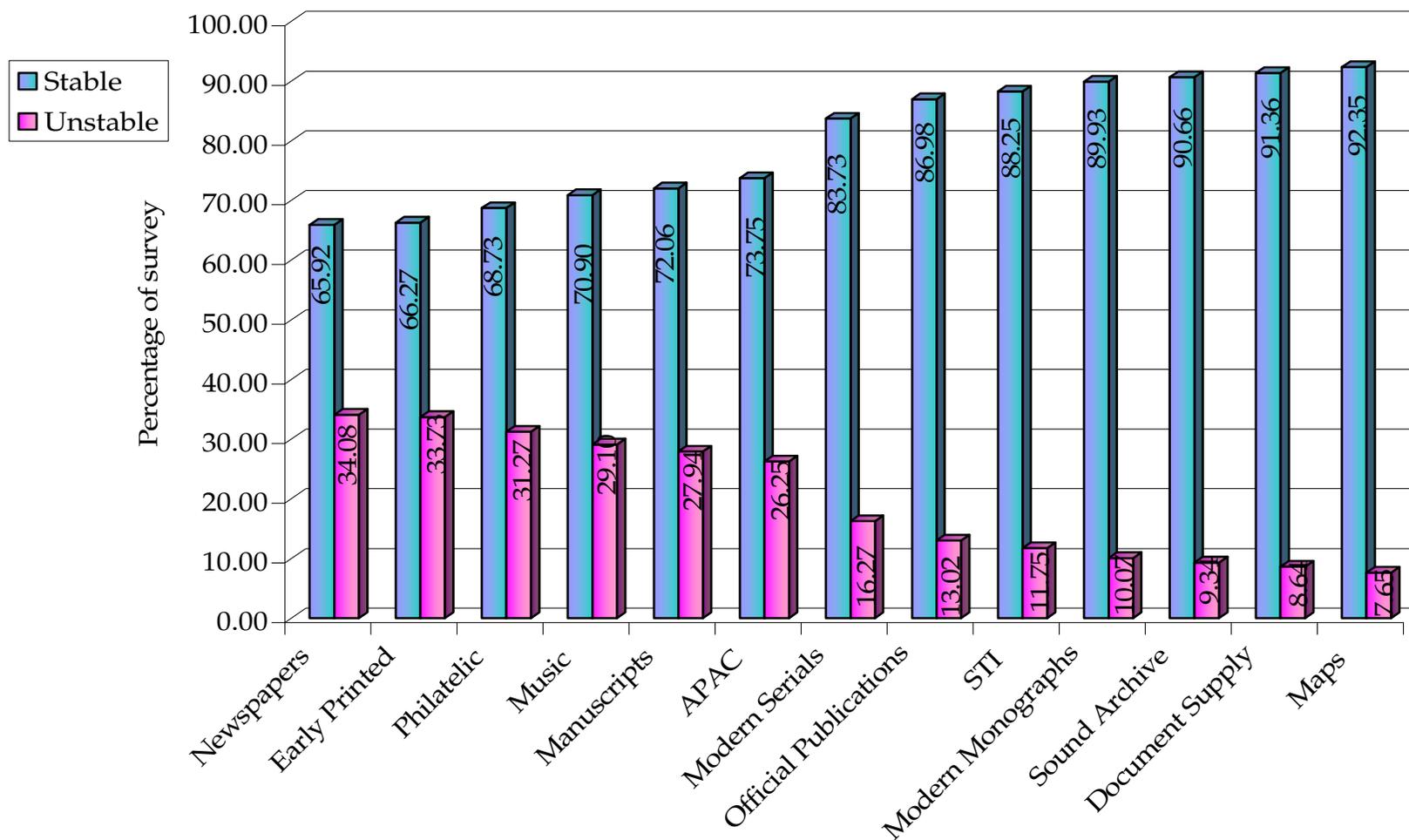
PAS Weighting Scores



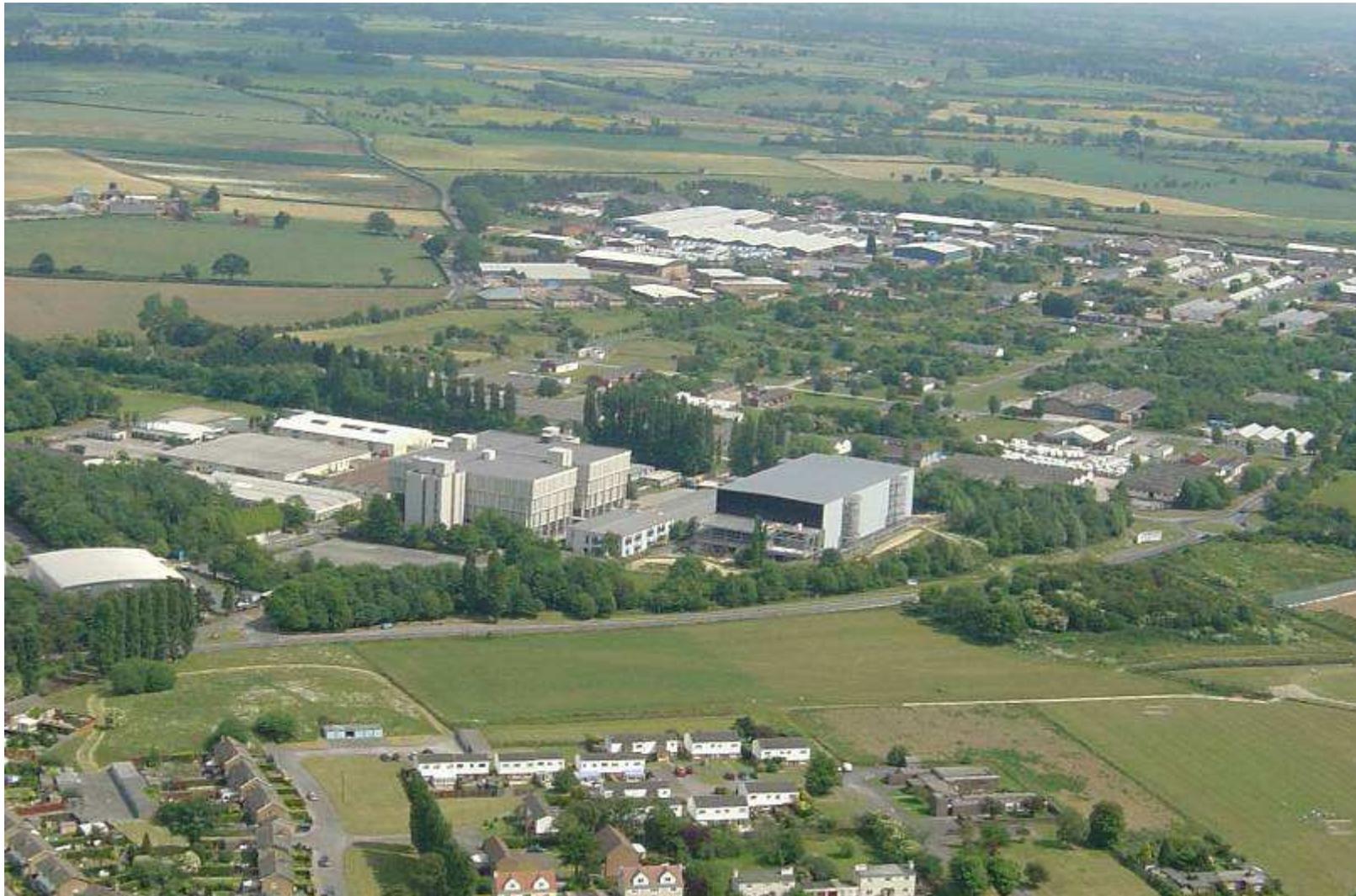
- Sample of c.400 items assessed (+/- 5% accuracy)
- Low score = low preservation need/low priority
- High score = high preservation need/high priority

BL results: condition (% STABLE / UNSTABLE)

Newspapers = 15% unusable 19% 'at risk'



Boston Spa



Newspaper Storage Building - facts

- Based on the design of additional storage building (building 31), but with a smaller footprint
- High density
- 24 metre high bay
- Fire prevention – reduced oxygen 14.9%
- Capacity 132 km to store some 750 million pages of local, regional and national newspapers

Construction January 2012



March 2012 construction newspaper building



March 2012



Architects model of racking and crane



Scale....



Fire suppression – low oxygen



Nitrogen store



Air tightness

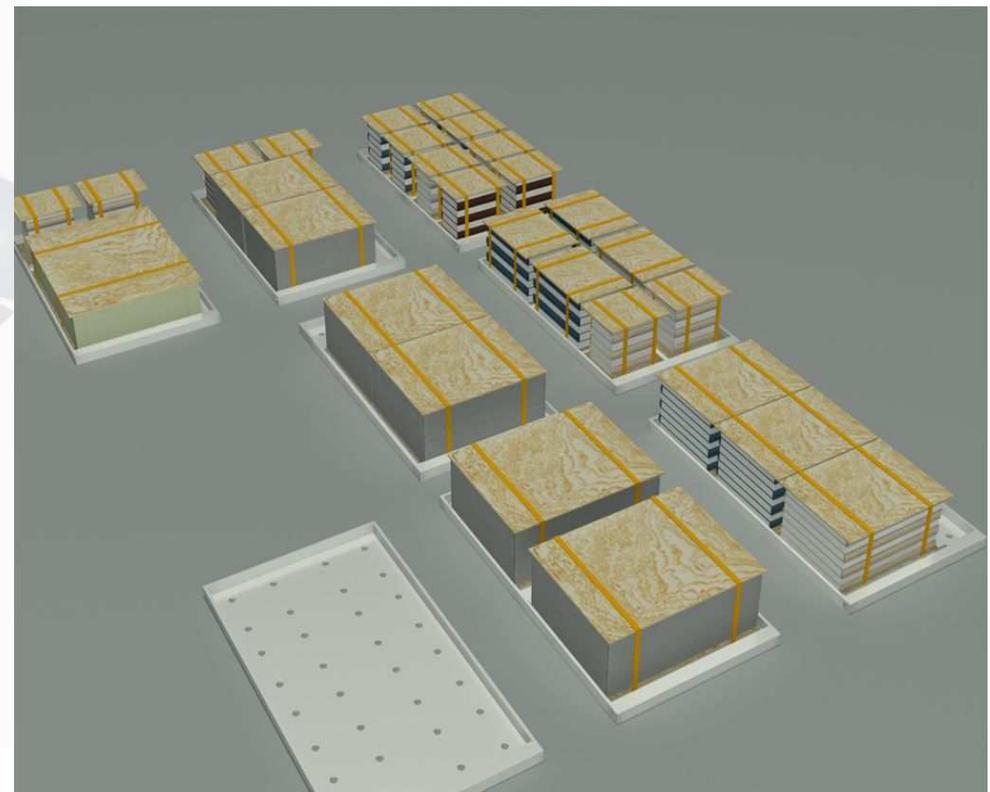
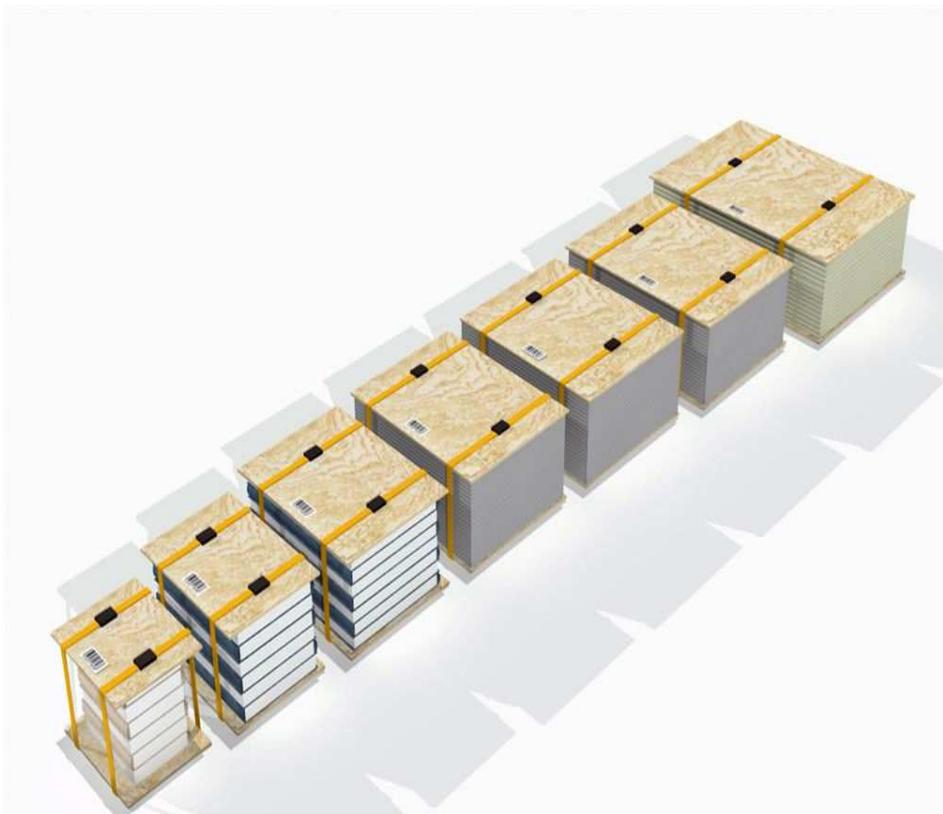


NSB - statistics

New building footprint =

- Will contain approximately 287,000 volumes of newspapers on 35,000 stacks
- There are 7 different stack footprints, from 380mmx310mm for the smallest, to 1020mm x 770mm for the largest
- Stacks are stored and transported on carrier trays, with multiple stack configurations on all trays except the largest

Newspaper on trays – 7 sizes with different configurations



Test Cell 2011



40cm high stack



Moving the newspapers



Newspaper how to..... condition and



Methodology – shrink-wrapping



Shrink-wrapping



Shrink-wrapped volume

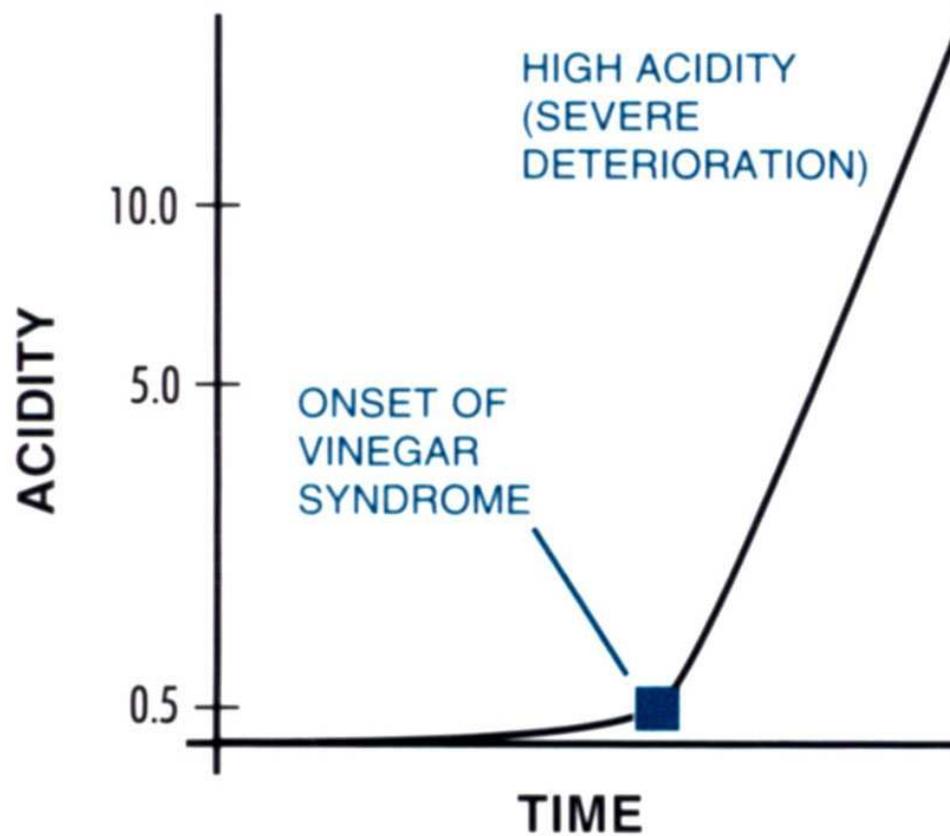


Shrink-wrapped parcels



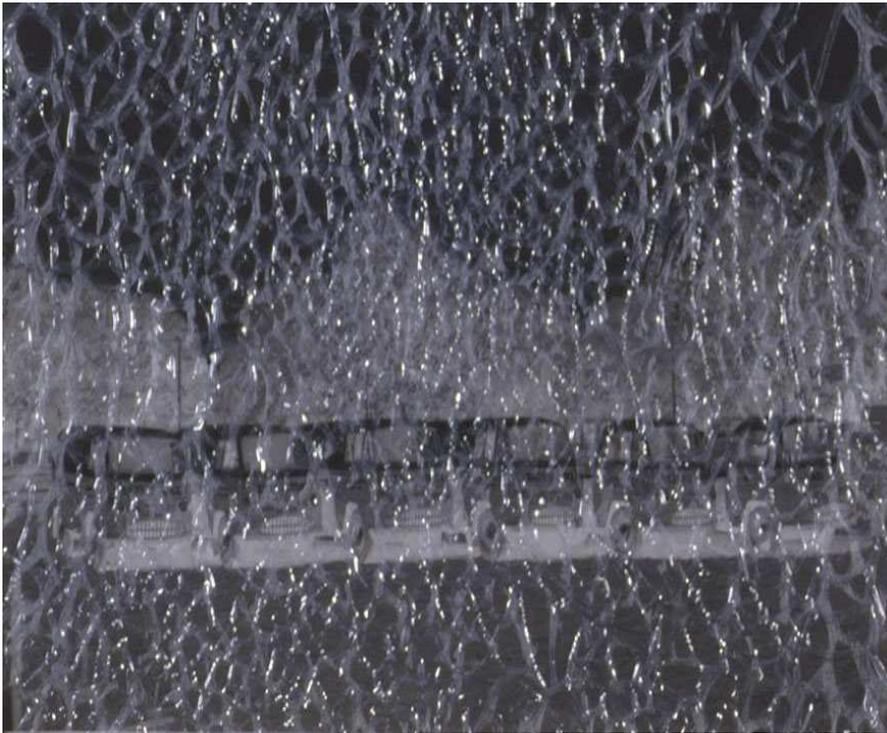
Assets and Acetate degradation – the path of decay

Path of autocatalytic decay

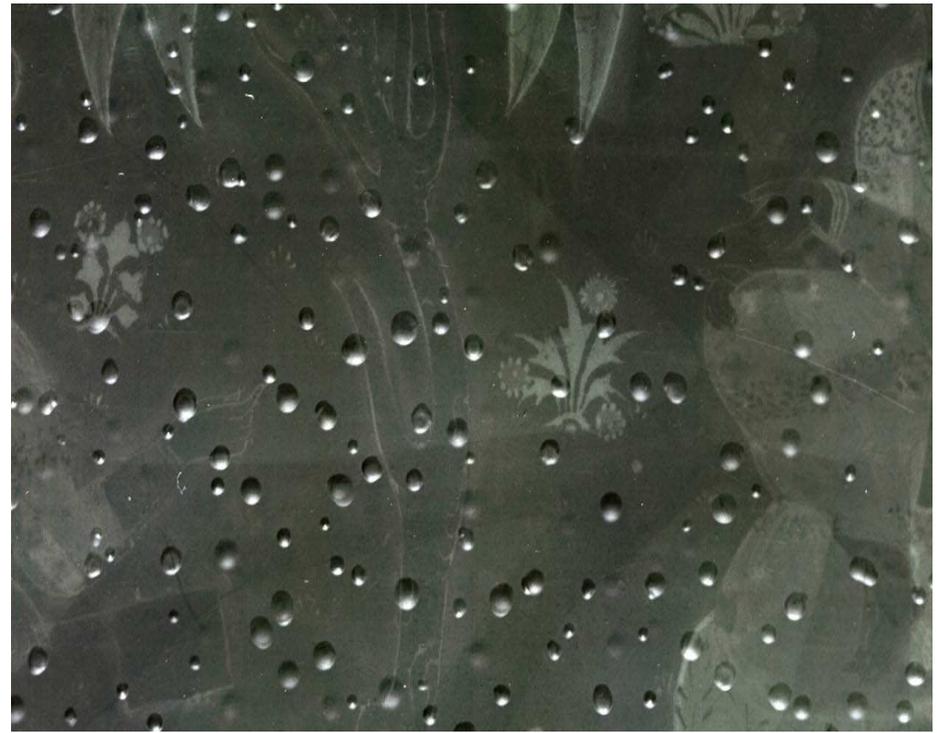


Acetate degradation

Cracking/crazing of the film base



Bubbles of acid in the film base



Vindon Scientific Ltd – (Rochdale, Lancashire) Science & Pharmaceuticals



BL Preservation Cold Store at Vindon Facts & figures

- Steady controlled temperature at 5°C (1° tolerance)
- Steady controlled RH at 35% (3 % tolerance)
- 24hr secure monitoring with emergency back-up and disaster recovery
- Online retrieval process
- Secure remote access to database of holdings
- Dedicated acclimatisation room to allow film to be retrieved and processed safely
- Dedicated work space for BL staff for collection management activities

BL Preservation Cold Store at Vindon - the space (appx. 900m²)



BL Preservation Cold Store at Vindon - the cold rooms



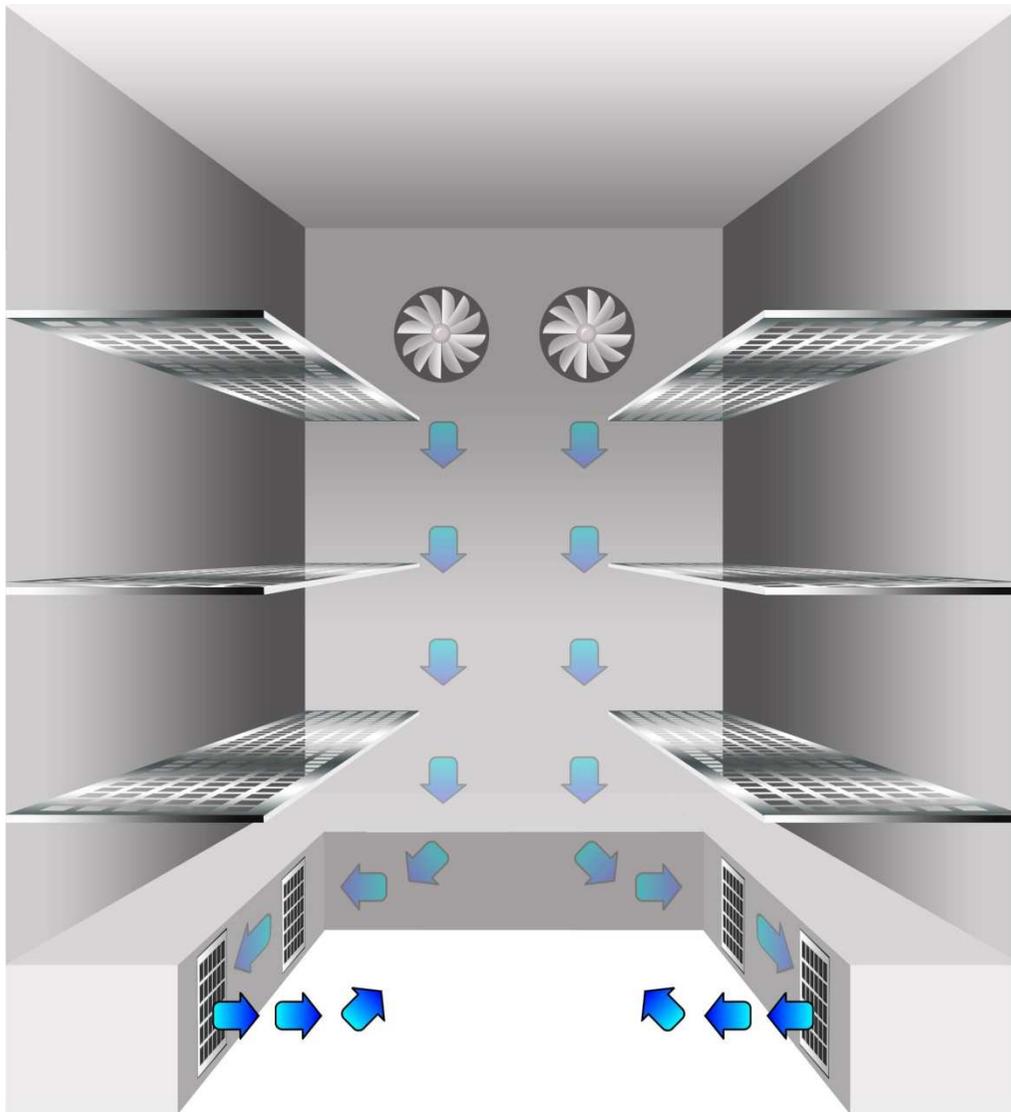
BL Preservation Cold Store at Vindon - the cold rooms



BL Preservation Cold Store at Vindon - the cold rooms



BL Preservation Cold Store at Vindon - the cold rooms



- rooms designed & built on site
- shelving & ducting is grade 304 stainless steel
- vertical rear plenum located at the rear of each room
- air is attracted at high level through this plenum by fan(s).
- air is then passed over the cooling coils to floor mounted ducting system where the “conditioned” air passes into the room through adjustable vents.
- shelves are perforated for maximum exposure to conditioned air

From this...



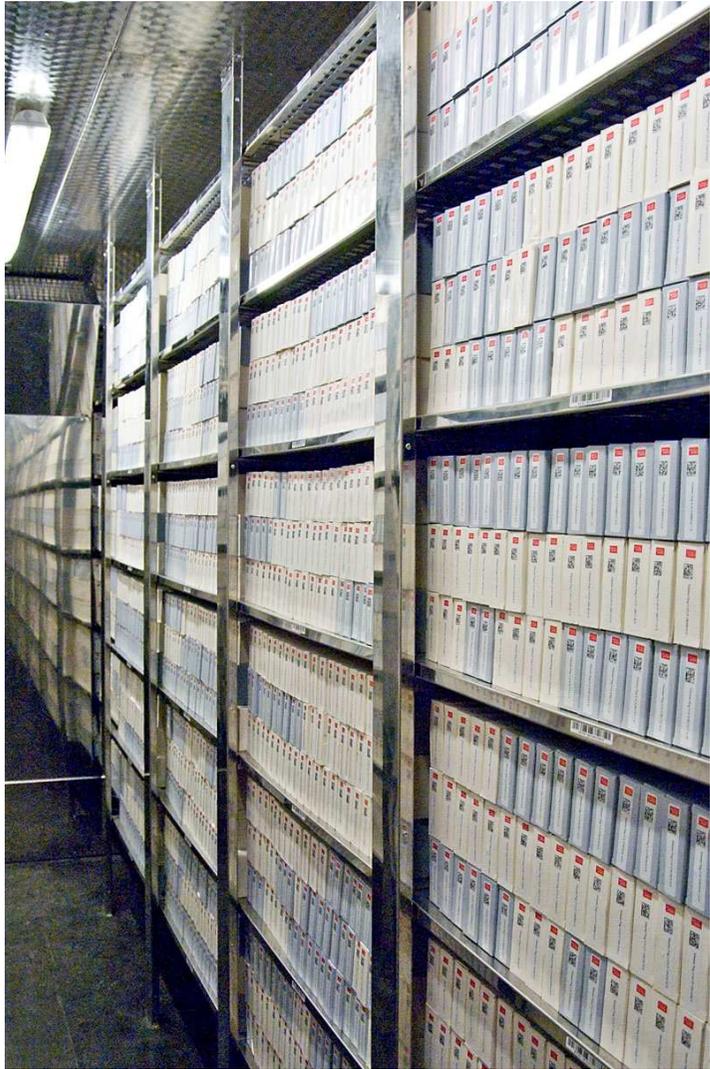
...to this



From this...



...to this



The preservation impact

Moving the microfilm collection into the new storage suite at Vindon has had a major impact on the preservation of the collection

- The doubling of free acidity in actively degrading film
→ Increased from 10 years to 200 years
- The development of acidity in films not actively degrading
→ Increased from 80 years to 350 years
- Natural age rate (non-acetate)
→ Reduced from “moderate” to “very slow”
- Preservation Index (PI = units = years, the higher the PI the better conditions are for preserving organic material)
→ Increased from 63 years to 488

Thank you

Happy to take questions?