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Article: GUIDELINES FOR EXHIBITION LIGHT LEVELS FOR PHOTOGRAPHS

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# GUIDELINES FOR EXHIBITION LIGHT LEVELS FOR PHOTOGRAPHS

BY

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## EXTRAORDINARILY LIGHT-SENSITIVE

**Exposure:** Only facsimiles should be displayed.

MATERIAL TYPE	DESCRIPTION AND NOTES*
<b>Autochromes and Other Early Dye Processes</b>	-
<b>Experimental processes</b>	e.g., early unfixed salted paper
<b>Stabilized Silver Gelatin Print</b>	Sensitized silver halide may print out.

## VERY LIGHT-SENSITIVE

**Exposure:** Total exposure per year (unless otherwise noted) - 5,000 ft-c hours (50,000 lux hours); e.g. 3 ft-c for 5 months at 10 hours per day or 5 ft-c for 3 months at 10 hours per day. Rest for 3 years minimum between display cycles.

MATERIAL TYPE	DESCRIPTION AND NOTES*
<b>Any Poorly Processed or Deteriorated Print</b>	e.g. fixer stained, yellowed, deteriorated emulsion, extremely faded.
<b>Architectural Plans or PhotoReproductions</b>	e.g. blueprint (cyanotype), diazotypes, brownlines, van dykes, photostats, pellet prints 3 months at 3 ft-c maximum; consider using facsimile.
<b>Carbon Print</b>	With non-earth, colored pigments (not carbon black or earth pigments) or on poor quality paper.
<b>Color Photographic Processes</b>	e.g. pre- 1990 transparencies, pre- 1990 prints, instant prints (Polaroid types). Dye transfer, Ciba/Ilfo-chrome and post- 1990 prints are more stable to light. Higher light levels may be necessary to see color well; consider higher light level category for shorter duration.
<b>Computer-Generated Prints</b>	The dye set, printer, and support all influence the fading rate; unless the exact combination is known and has been tested (very few are stable), the light stability must be assumed to be poor. Cyanotype (Blueprint) 3 months at 3 ft-c maximum; consider using facsimile.
<b>Gum Bichromate Print</b>	With non-earth, colored pigments (not carbon black or earth pigments) or on poor quality paper.
<b>Resin-coated Supports</b>	Pre- 1980 RC papers may be prone to cracking and b-and-w RC papers may be prone to image oxidation in light and should not be displayed if recently processed, unless toned for preservation. Optical brighteners (dyes visible under UV) may be fugitive. Optically brightened papers will not appear as white under incandescent light, or when the brightener has faded or exhausted. Use of facsimiles is recommended.
<b>Woodburytype</b>	With non-earth, colored pigments (not carbon black or earth pigments) or on poor quality paper.
<b>Cased Objects where the Case is Exposed</b>	Colorants in case components may be fugitive - velvet or other cloth in the case interior and dyed leather/leatherette covering.
<b>Colored Paper and Mounts</b>	e.g. colored construction or dyed paper.
<b>Hand Colored Photographs of All Types Modern Inks</b>	e.g. ballpoint, felt tip, purple manuscript ink.
<b>Photographs with Tinted Base or Binder</b>	Pink or blue baryta layer or binder contains fugitive dyes. 3 months at 3 ft-c maximum; consider using facsimile.

## MODERATELY LIGHT-SENSITIVE

**Exposure:** Total exposure per year - 10,000 ft-c hours (100,000 lux hours); e.g. 3 ft-c for 10 months or 5 ft-c for 6 months at 10 hours per day. Rest for 2 years minimum between display cycles.

MATERIAL TYPE	DESCRIPTION AND NOTES*
<b>Albumen Print</b>	If concerned about the impact of an unknown processing/toning or coating history, move to the very light-sensitive category. Faded prints may be less likely to fade much more.
<b>Collodion Printing-Out-Paper Print (POP) Gelatin Printing-Out-Paper Print (POP) Platinum or Palladium Print</b>	And combinations of Pt, Pd, and/or silver. No pinkish or yellow staining; paper support in good condition. However, if signs of image or paper deterioration are present, place in the "very light-sensitive" category.
<b>Salted Paper Print</b>	If concerned about the impact of an unknown processing/toning or coating history, move to the very light-sensitive category. Faded prints may be less likely to fade much more.
<b>All Manuscript Inks</b>	Except black India.

## LESS LIGHT-SENSITIVE

**Exposure:** Total exposure per year - 30,000+ ft-c hours (300,000 lux hours); e.g. 10 ft-c for 9 months at 10 hours per day. Rest for 1 year minimum between display cycles.

MATERIAL TYPE	DESCRIPTION AND NOTES*
<b>Black-and-White Fiber-based Silver Gelatin Developed-Out Paper Print (SGDOP)</b>	Well processed. No hand-coloring, color toning, or optical brightener; otherwise, place in the "very light sensitive" category. Post- 1980 RC papers that have been toned for preservation (e.g. silver converted to stable compound) may also be included in this category. Optical brighteners (dyes visible under UV) may be fugitive. Optically brightened papers will not appear as white under incandescent light, or when the brightener has faded or exhausted.
<b>Carbon Print</b>	Support paper in good condition and light stable; colorant known to be carbon or other earth pigment Otherwise, place in "very light sensitive" category.
<b>Cased Photographs (Daguerreotype, Ambrotype, Tintype)</b>	No hand coloring; no non-metal case components exposed.
<b>Gum Bichromate Print</b>	Support paper in good condition and light stable; colorant known to be carbon or other earth pigment Otherwise, place in "very light sensitive" category.
<b>Photomechanical Prints</b>	e.g. Photogravures, Halftones, and Collotypes. Coated paper stock and black earth pigment; paper support of good quality and in good condition. Otherwise, place in "very light sensitive" category.
<b>Woodburytype</b>	Support paper in good condition and light stable; colorant known to be carbon or other earth pigment Otherwise, place in "very light sensitive" category.

- \*• These guidelines are based on the experience and opinions of the authors only.
- If a particular process is in one light level category but does not meet all of the qualifications, it should be moved to the next more sensitive category.
- The tables suggest the maximum light exposure an object should receive in one display cycle.
- Any combination of light level/duration giving the maximum exposure or less may be used: For example:  
 3 ft-c x 10 hr/day x 10 mos (300 days) = 9,000 ft-c hrs  
 5 ft-c x 10 hr/day x 6 mos (180 days) = 9,000 ft-c hrs  
 10 ft-c x 10 hr/day x 3 mos (90 days) = 9,000 ft-c hrs
- These standards assume that all other environmental conditions meet conservation standards: e.g., UV light and IR radiation has been filtered out; RH at or below 45-50%; air contaminants filtered out; exhibition materials pass the Photographic Activity Test, etc.
- Cases, mounts, hand coloring, coating, toning, inscriptions and other manipulation and attachments may increase the light sensitivity of a photograph as a whole.