ART POST GALLERY

ORIGINAL ART & FINE FRAMING

Construction/Renovation Tips for Lighting Your Art

<u>Principle</u>: *Think about lighting your art when your walls/ceilings are open*. Many of the ideas noted below can be employed in your existing space. [NOTE: While the primary focus of our comments is recessed can lighting, all the points related to line-voltage vs. low voltage; bulb types; Kelvin ratings; distance from the wall; and cone size apply equally to track lighting.]

Build the following guidelines into your electrical plan.

- Use slightly higher "Kelvin" rated bulbs (a measure of whiteness) for lighting art. The bulbs most comfortable for living (e.g. lamps) are a bit yellow with Kelvin ratings of 2400 to 2700. Yellow lighting distorts the color of art. For your art, only use bulbs with about 3000 to 3500 Kelvin ratings that produce a somewhat purer white light. Any higher Kelvin rating will appear too harsh or cold, particularly when compared to nearby table lighting.
- Recessed lighting is good for general area lighting, task lighting, such as counter tops, and accent lighting, such as artwork and walls. 3.5"-4" recessed ceiling lighting fixtures designed for an MR-16 bulb are ideal and can be used for any of these lighting needs. They offer the following advantages:
 - They're smaller (less obtrusive) than conventional 6" recessed ceiling lighting and are easily adaptable to varying situations.
 - MR-16 bulbs are available in a variety of Kelvin ratings (2400 to 6000) that produce a "cone" of light as narrow as 10° and as wide as 60°. There are also lenses that can be used in front of the bulb to change the shape of the "cone" of light. The "right" cone size depends on the size of the painting being lit and the distance the light is from the painting. In a home setting, a wider cone is generally more versatile.
 - The ideal fixtures are directional, i.e. they can be adjusted to exactly target the painting being lit. The price differential between adjustable and fixed fixtures is negligible. For maximum flexibility we recommend purchasing all adjustable fixtures and simply point the bulb straight down for general lighting.
 - You can use either "line-voltage" (120V) fixtures or low voltage (12V) fixtures. Both will accommodate LED bulbs (see below) and will easily meet energy conservation regulations that went into effect in 2023. Make sure you order LED bulbs that are compatible with the line vs. low-voltage fixtures you use.
 - We have had particularly good results with <u>Recesso Lighting Clear Adjustable reflector trim</u> for 3.5" recessed cans. Destination Lighting (800-653-6556) sells new construction housings (#736258) and remodel housings (#637355) and a wide range of MR-16 bulbs. They are our primary supplier, are highly knowledgeable and are price competitive. They will guide you to the best product configuration for your unique situation. [NOTE: Only use clear (i.e. highly polished chrome) reflectors. It's counter-intuitive, but white reflectors are very bright and attract the eye. The clear reflectors just become part of the ceiling.]

[Note: If you already have larger can lights in your ceiling, there are replacement kits available that are adjustable. Larger bulbs with the specifications noted above are available for this application.]

- LED bulb technology has come a long way in recent years; we now strongly recommend using 9watt LED bulbs (plus...LED bulbs are now the law!). We have had very good experience with Soraa Vivid series MR16 bulbs (see attached pictures) with the following specifications:
 - **3000 Kelvin rating** (produces a slightly whiter light without being cold or harsh). 2700 Kelvin is too yellow, and 4000+ Kelvin is too blue.
 - **95% Color Rendering Index (CRI)** The light is nearly identical to outdoor natural light.
 - 36° to 60° cone (versatile for most home applications). [NOTE: If a can is going to be used strictly for down lighting, use the 60° bulb to cover a wider area and avoid light "spots" on the floor. Use the 36° bulb to illuminate paintings and other wall art. There is rarely an application in a home setting for a tight spot (10°) bulb.]
 - **7.5 to 9 watts** (very economical and environmentally friendly).

Soraa Vivid MR16 bulbs come with two base options: (1) the GU10 has a ridged base and is used in 120-volt housings; (2) the GU5.3 has two straight prongs and are used in a low voltage housing. We highly recommend the GU10 base over bulbs with two pins. The holes in the pin-type light fixtures tend to enlarge when bulbs are replaced, often requiring replacement of the fixture.

• If possible, locate ceiling fixtures at the "appropriate" distance from the wall trying to achieve a 30-degree angle of the light on the artwork, thereby minimizing glare. Here is a shorthand formula to achieve this objective:

Ideal distance = ¹/₂ (*height of ceiling – distance from middle of the painting to the floor*)

Example: Height of ceiling = 8'; distance from middle of painting to floor = 5' Ideal distance = $\frac{1}{2}(8' - 5') = 18''$

There are competing variables to consider.

- Most adjustable can lights have "stops" that limit how high one can target the light on a wall. In this circumstance, we recommend erring on a distance slightly closer to the wall, so the uppermost part of the painting is illuminated.
- If a painting has a deeper frame profile, you can avoid having the profile of the top rail of the frame cast a shadow on your art by ensuring the can is far enough away from the wall.
- The further away a fixture is located from the wall, the more circular the cone of light on a painting becomes. Given the angle created by the light being higher than painting, all cones will be somewhat elliptical in shape.
- Whenever possible, use two lights to illuminate a painting rather than just one.
 - Two lights create more intensity, allowing the natural colors in a painting to "pop."
 - Large paintings or wide paintings are often difficult to light with a single light. In some situations (e.g. very large walls), three or more lights may be necessary to cover the entire width of a painting or a group of paintings.
- MR-16 fixtures work best in situations where maximum ceiling height is about 10'-12'. [NOTE: Use a slightly narrower slightly less than 36° to compensate for the wider diameter of the cone emanating from a higher ceiling.]

- Vaulted ceilings create a particular problem as recessed lighting cannot be aimed down the slope of the ceiling. In this situation or when ceiling lighting is otherwise impractical, use either a frame-mounted picture light or track lighting. A frame-mounted picture light requires installation of *recessed* duplex plugs in the wall behind the painting to avoid having a chord dangling down from behind the painting. We recommend House of Troy, which has an attractive "Slimline" line of picture lights in a variety of finishes. The following guidelines apply specifically to picture lights:
 - Match the finish of picture lights to the finish of the frame.
 - Ideally, the width of the picture light should be about two-thirds of the width of the painting.
 - House of Troy uses higher Kelvin halogen tube-lights that appropriately produce whiter light.
 - *Never* use battery-operated lights; lighting intensity is poor and batteries require frequent recharging or replacement.
 - Connect the picture light to a nearby but separate switch, preferably with a dimmer. You don't want to have to reach around the edge of a painting to turn the light on/off.
- Think about the location and functionality of switches *in advance*.
 - Ideally, all art lighting should be on a separate switch from other room lighting *and* should be on a dimmer. Dimmers create all sorts of opportunities for mood lighting and even night-lights.
 - *Never* allow your electrician to locate a light switch where it might interfere with art. This also applies to HVAC contractors (thermostats & supply/return vents), home security control pads, speaker volume switches, etc.
 - Our rule-of-thumb is that one should rarely use more than a "two-gang" switch plate. A threegang plate is barely acceptable...too clunky. Programable switches are available to minimize visible switches and create different pre-determined moods. They're very nice, but expensive.

Lighting can make or break the presentation of your art. If you think ahead and follow these guidelines, we're confident you will be happy with the result! Good luck!!

<u>PRO TIP</u>: While the focus of this article is lighting, if you have walls and ceilings open during new construction or a major renovation, think about installing speakers, individual room volume controls and appropriate equipment to drive an all-house (or most-of-house) sound system. There's nothing like walking through your home enjoying the art on your walls and your favorite sounds in the air!





