

CEILING DESIGN

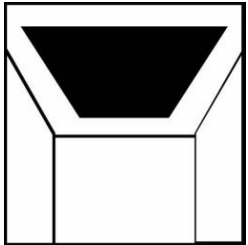


• ***“Design is a plan for arranging elements in such a way as best to accomplish a particular purpose.”***

~Charles Eames

In this Lesson

- What is Ceiling Design
- Purpose of Ceiling Design
- Ceiling Design Examples
- Types of Lighting
- Reflected Ceiling Plan



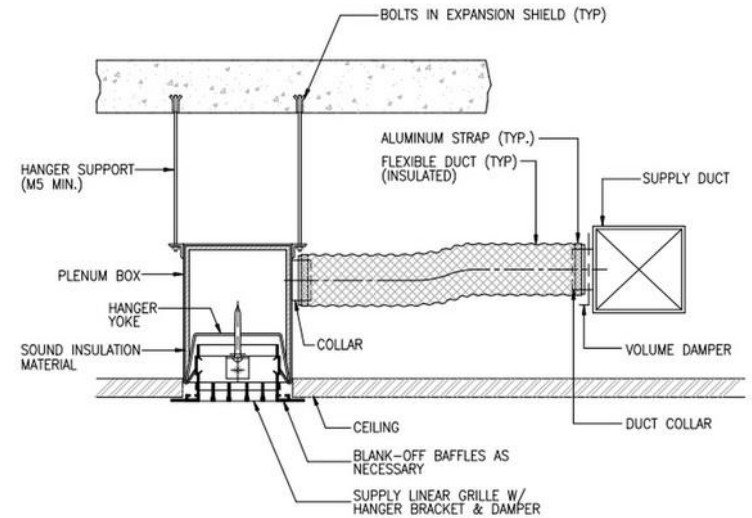
Ceiling Design

What is it.....

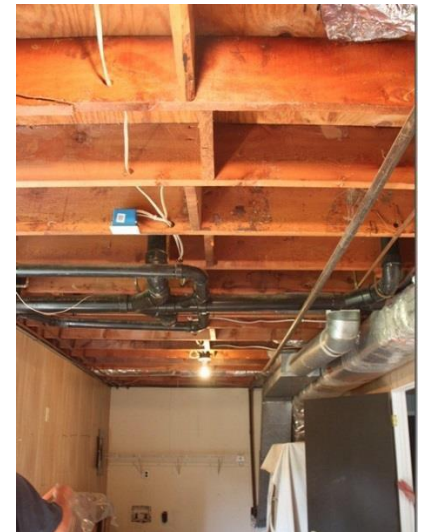
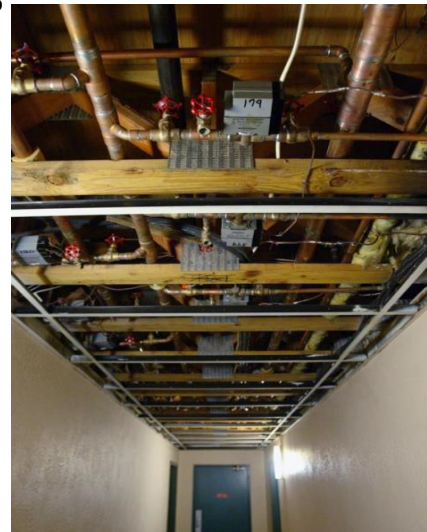
Ceilings are horizontal planes that provide a finish for space.

Ceilings are part of a system that accommodates:

- lighting
- partition attachments
- speakers
- supply and return air grilles and diffusers
- other construction components



Ceiling Assembly/Plenum Space



Types of Ceilings

Types of Ceilings

- Suspended Acoustical Ceilings
- Gypsum Wallboard Ceilings
- Plaster Ceilings
- Linear Metal Ceilings
- Decorative
- Suspended Ceilings
- Integrated Ceilings
- Abuse-Resistant Ceilings
- Metal and Wood Suspended Ceilings

Elements

- Planes
- Coves
- Coffers
- Slots
- Soffits
- Headers
- Slats

Materials

- Gypsum
- Plaster
- Acoustic Grids
- Wood
- Plastic
- Fabric
- Metal
- Glass

Design Functions

Function:

Supports lighting

Aids in acoustics

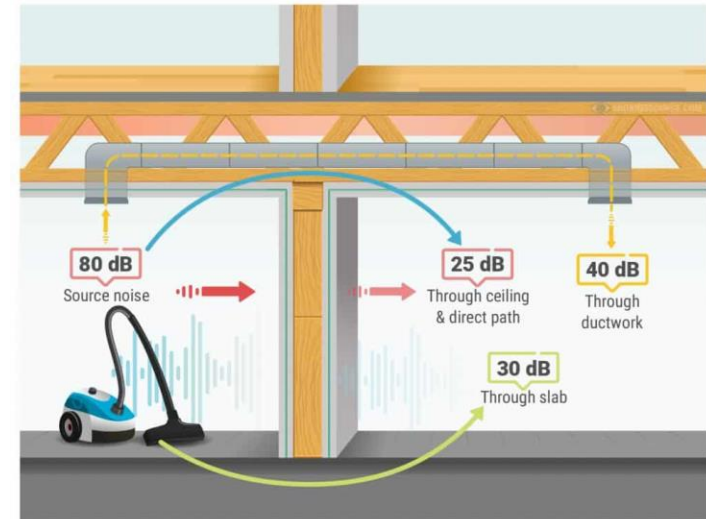
- sound transmission: how well a building partition attenuates airborne sound.
- sound reflection: the repetition of a sound resulting from reflection of the sound waves

Design:

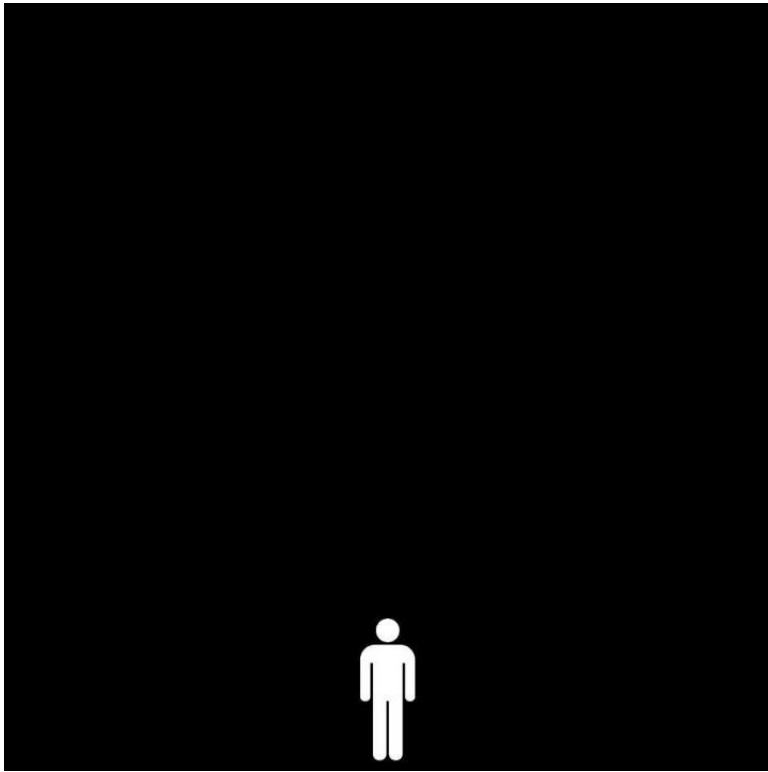
Supports scale

Reinforces spatial definition

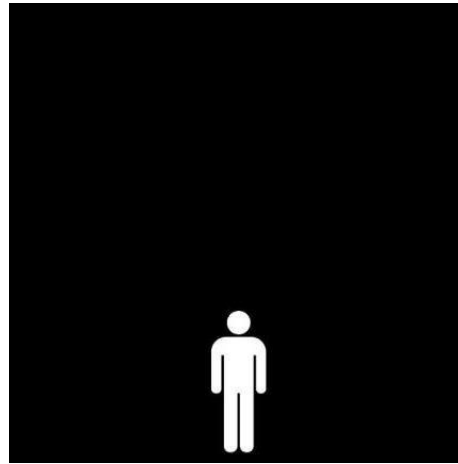
- Creates edges conditions that imply enclosure
- Provides texture
- Creates rhythm
- Supports hierarchy/emphasis



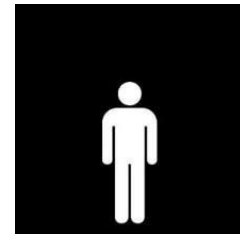
Design Scale



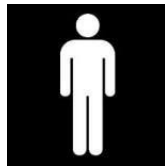
MONUMENTAL



GENEROUS

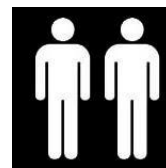
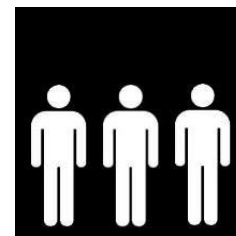
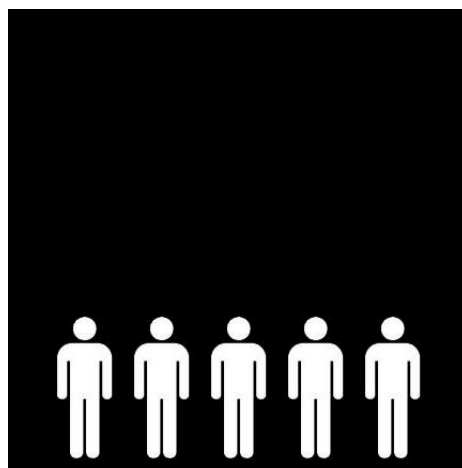
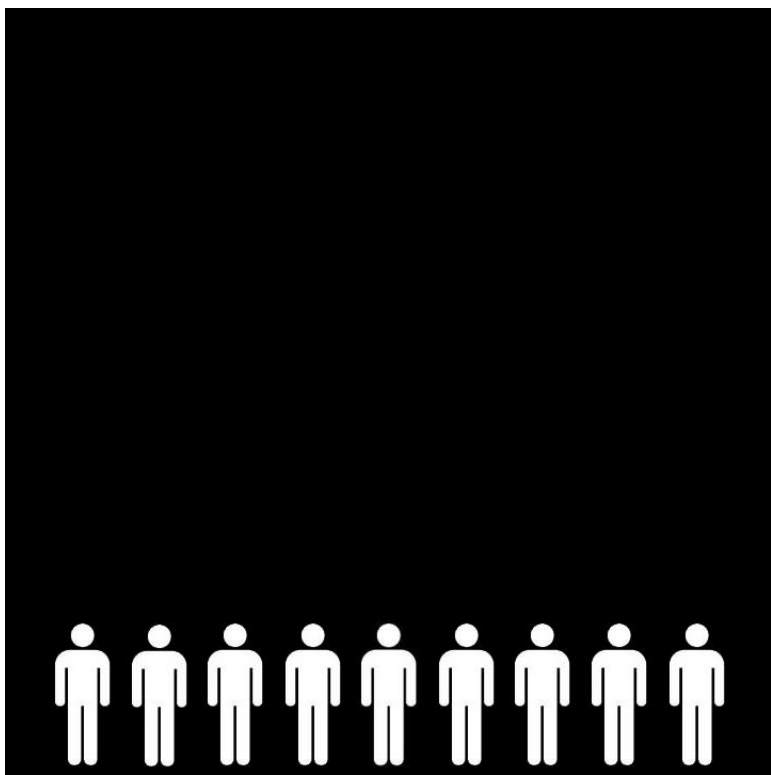


FUNCTIONAL

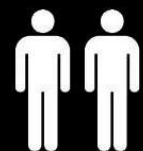
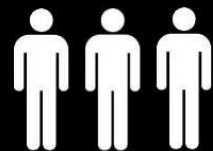
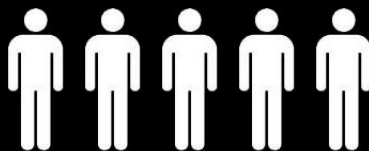
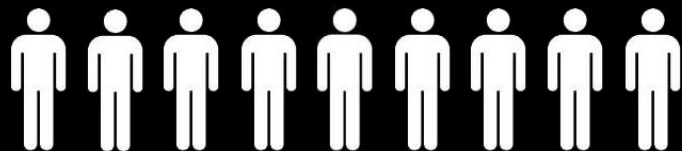
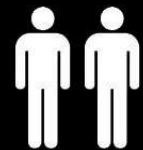
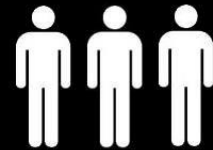
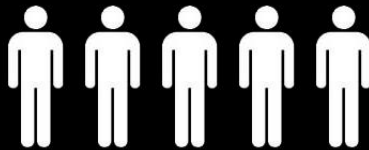
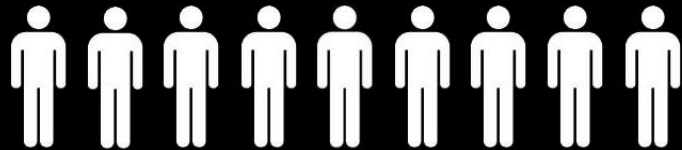


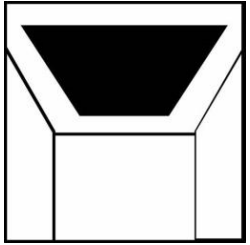
INTIMATE

CROWDING



PROPORTION





Ceiling Design Examples

MONUMENTAL



DEFINITIONS:

Elements:

Planes

Coves

Slots

Soffits

Coffers

Headers

Materials

Gypsum

Plaster

Acoustic grids

Wood

Plastic

Fabric

Metal

Glass

Concrete

GENEROUS



DEFINITIONS:

Elements:

- Planes
- Coves
- Slots
- Soffits
- Headers

Materials

- Gypsum
- Acoustic grids
- Wood
- Plastic
- Fabric
- Metal
- Glass

FUNCTIONAL



Elements:

Planes
Coves
Slots
Soffits
Headers
Slats

Materials

Gypsum
Acoustic grids
Fabric
Metal
Glass

INTIMATE



Elements:

Planes
Coves
Coffers
Slots
Soffits
Headers
Slats

Materials

Gypsum
Plaster
Acoustic
Grids **Wood**
Plastic
Fabric
Metal
Glass

SPATIAL DEFINITION



Elements:

Planes
Coves
Coffers
Slots
Soffits
Headers
Slats

Materials

Gypsum
Plaster
Acoustic grids
Wood
Plastic
Fabric
Metal
Glass

SPATIAL COHESION



Elements:

- Planes
- Coves
- Coffers
- Slots
- Soffits**
- Headers**
- Slats

Materials

- Gypsum
- Plaster
- Acoustic grids
- Wood
- Plastic
- Fabric**
- Metal
- Glass

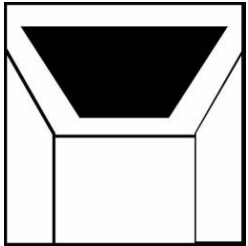
HVAC



EXPOSED



SEMI-EXPOSED



Lighting Design

What does it do.....

- Sets the desired mood for the space
- Directs and concentrates attention where you want it
- Aids users in seeing texture and materiality by controlling light and shadow
- Emphasizes and modifies spatial perception



LIGHTING TYPES

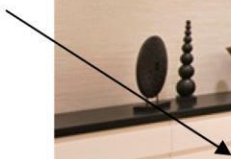
Cove Lighting



Recessed Lighting



Under Cabinet Lighting



LIGHTING TYPES

TERMINOLOGY

Recessed Directional

Ceiling Mounted Fixture

Wall Sconce



LIGHTING TYPES

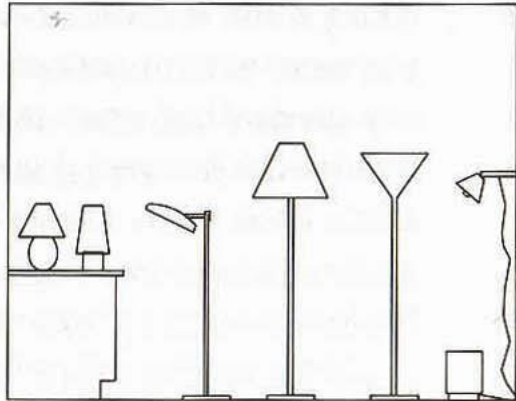
Cabinet Lighting

Shelf Lighting

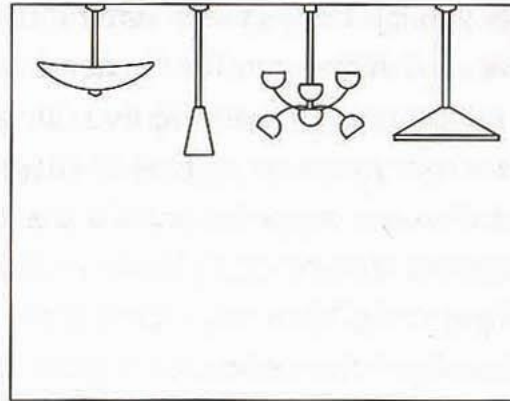
Track Lighting



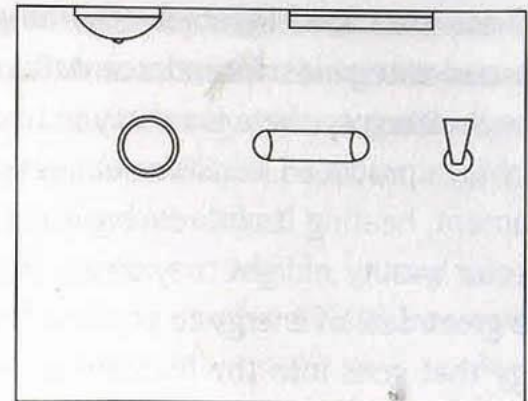
PORTABLE



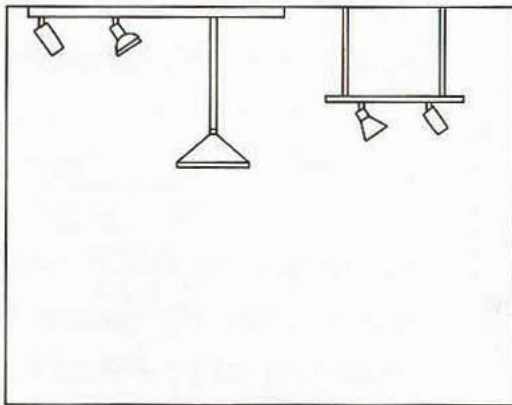
PENDANT MOUNTED



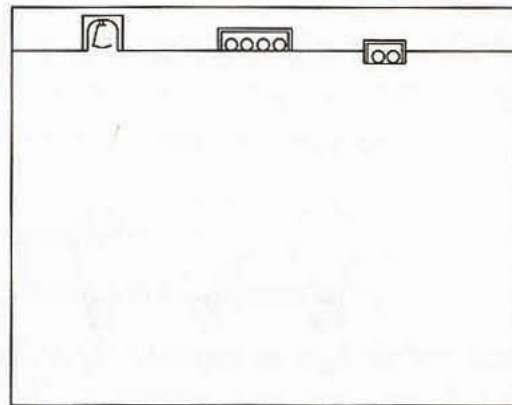
SURFACE MOUNTED



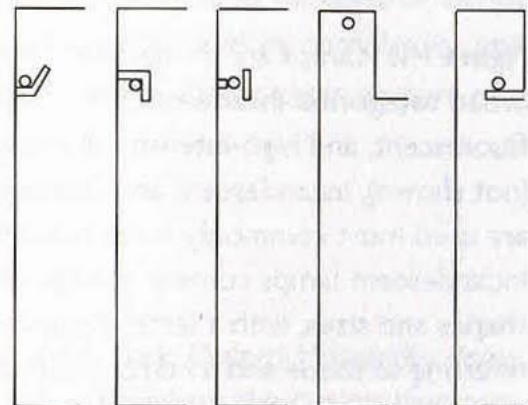
TRACK MOUNTED



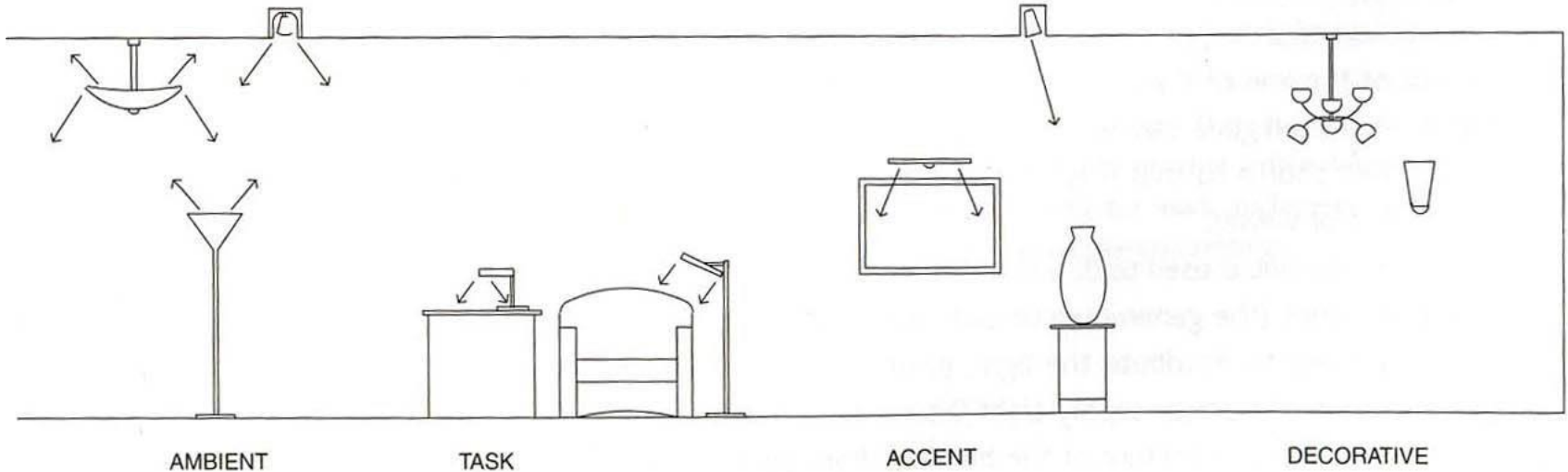
RECESSED AND SEMIRECESSED



ARCHITECTURAL



LAYER METHOD

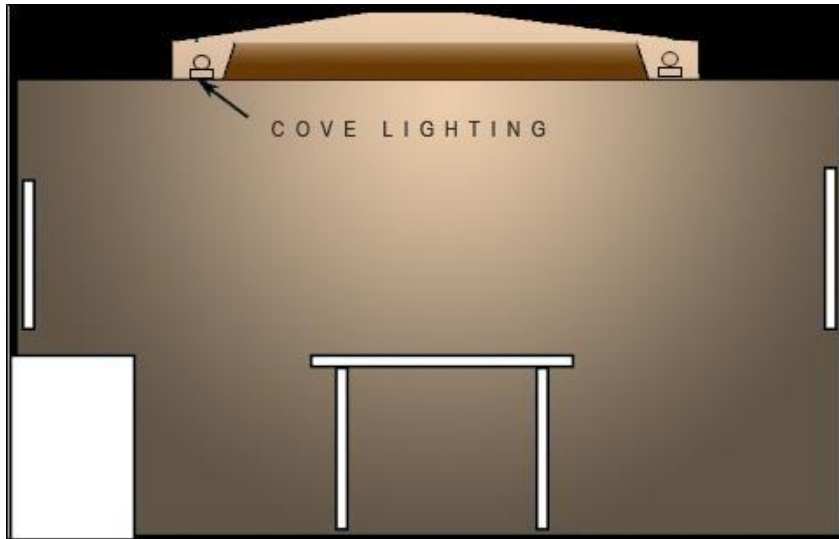


AMBIENT LIGHT LAYER

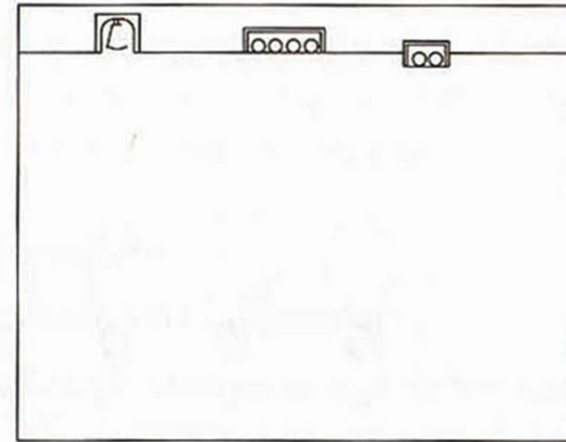


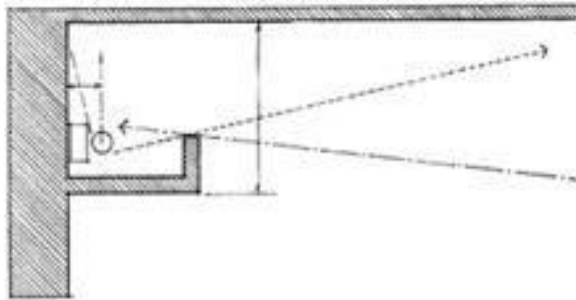
- Establishes mood.
- THINK low or high ambient light levels.
 - Called “general lighting”
 - at task levels (30-50 fc or more).
 - Called “ambient lighting”
 - lower than task levels
- Techniques :
 - uniform downlighting,
 - indirect lighting
 - Uplighting
 - Slot lighting
 - Cove lighting

Ambient Layer: Cove Lighting | Up lighting | Uniform Down lighting

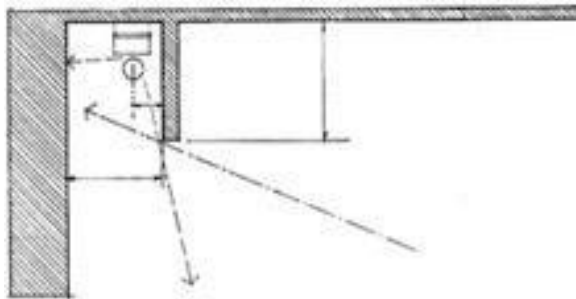


RECESSED AND SEMIRECESSED



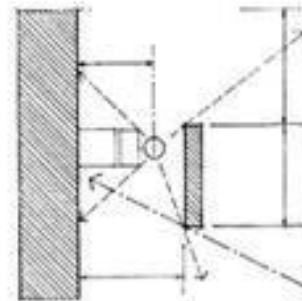


Cove lighting directs the light upward from an interior cornice at the edge of a ceiling.



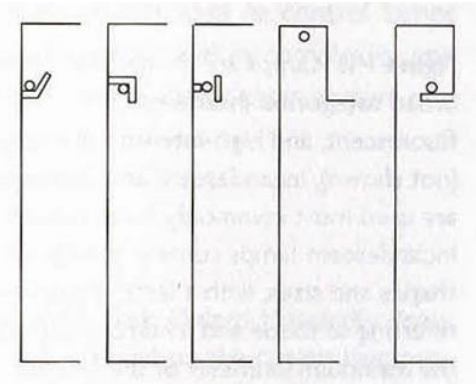
Cornice lighting directs the light downward from an interior cornice at the edge of a ceiling.

for illuminating a space indirectly from within an architectural detail or a manufactured fixture. They give a soft, indirect glow to the area they illuminate and are often used to highlight ceiling details or wall textures.

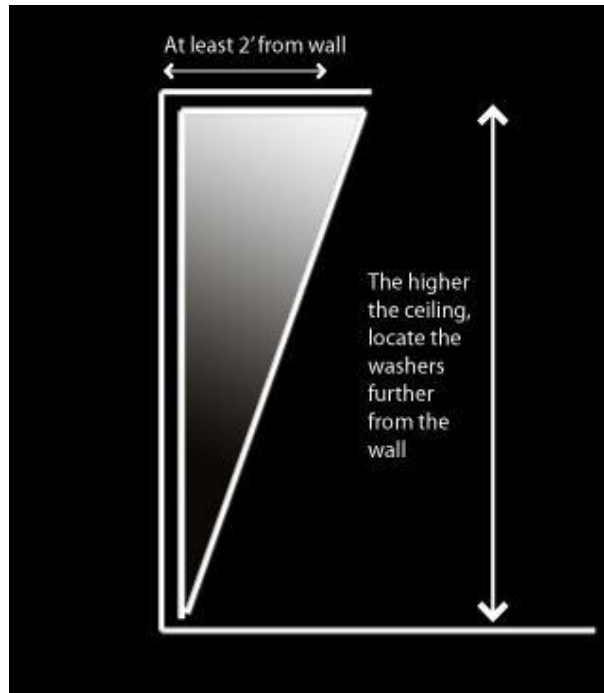


Valance lighting directs the light upward or downward from a light source concealed by a horizontal board or band.

WALL LIGHTING



BAD WALL WASHING



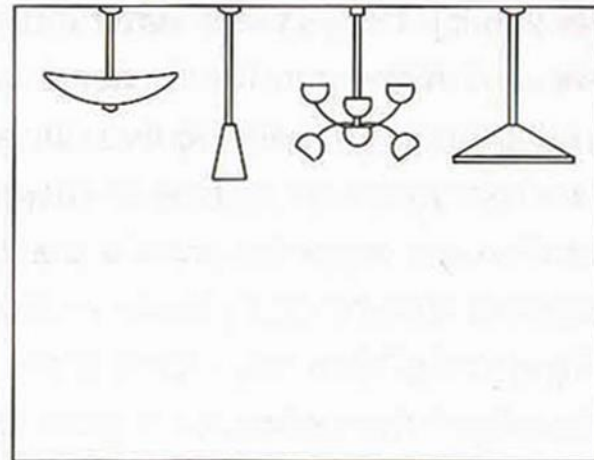
WALL LIGHTING TECHNIQUES



FOCAL LAYER



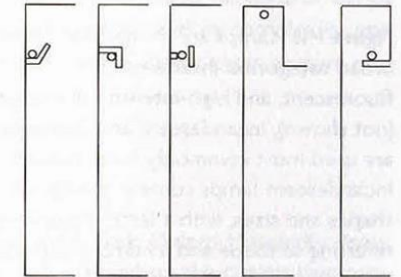
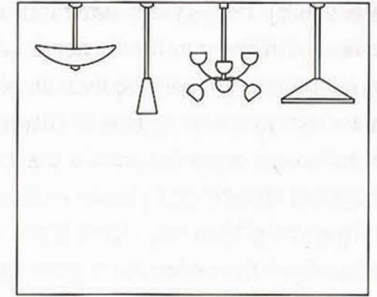
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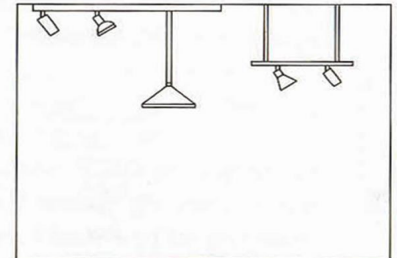
BARS



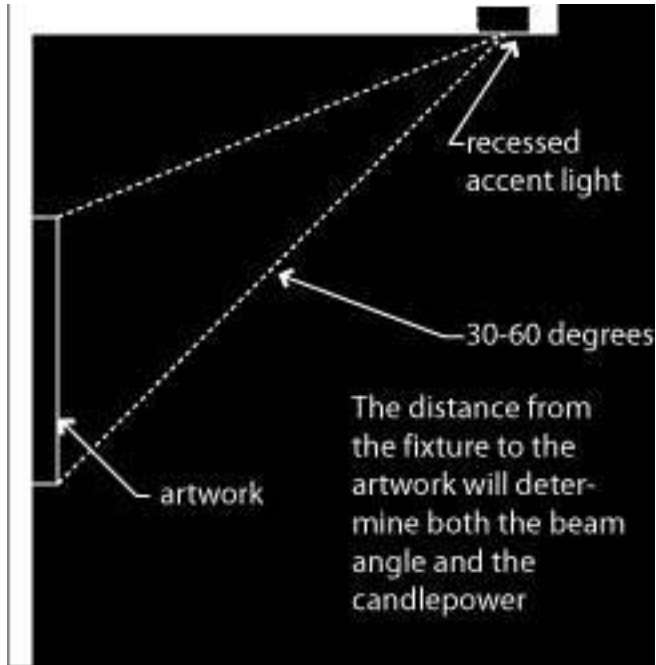
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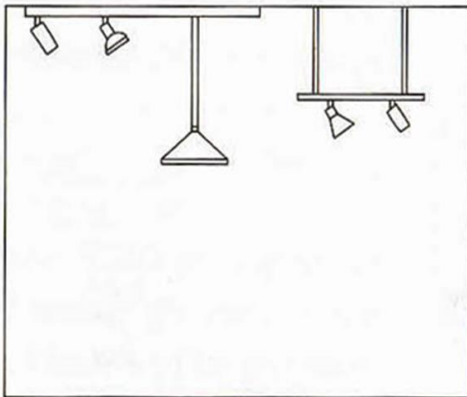
TRACK MOUNTED



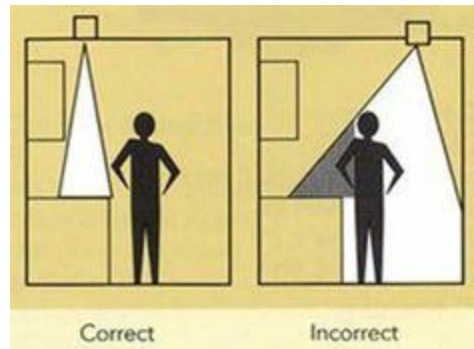
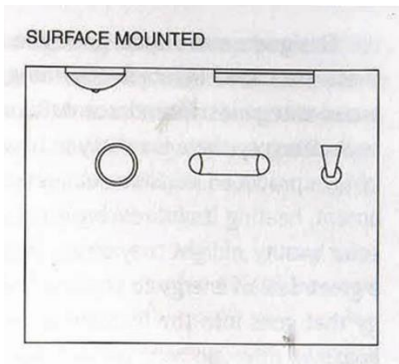
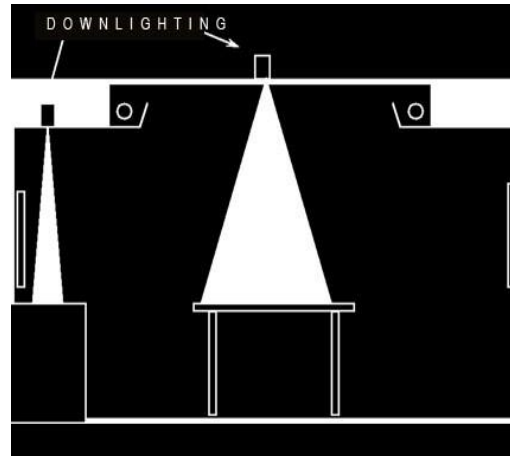
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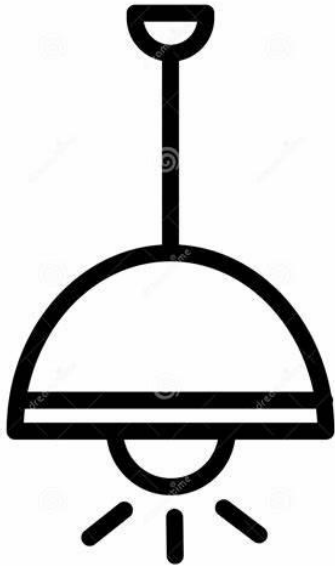
TRACK MOUNTED



TASK LAYER



MORE LIGHTING INFORMATION



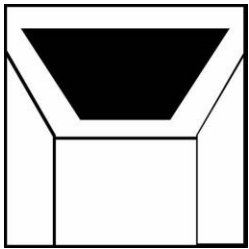
IES

Architectural Lighting Design Textbooks

IIDA lighting design awards

Manufacturers' websites

Specification Sheets

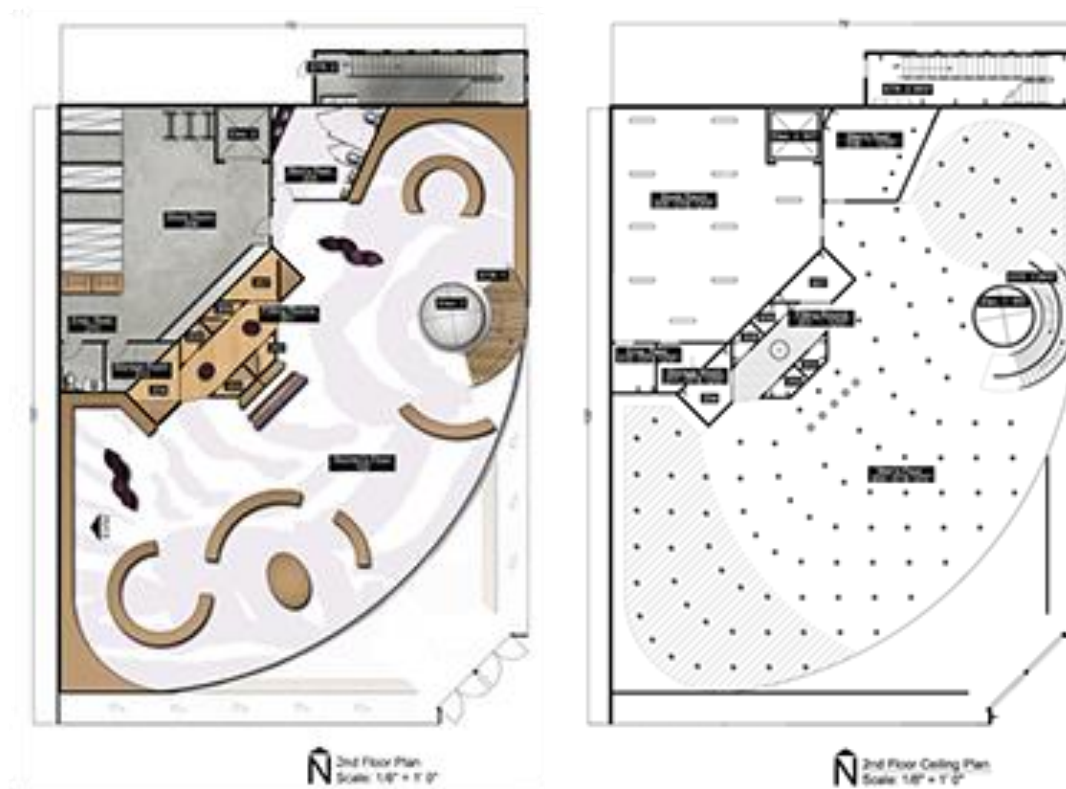


Reflected Ceiling Plan (RCP)

REFLECTED CEILING PLAN

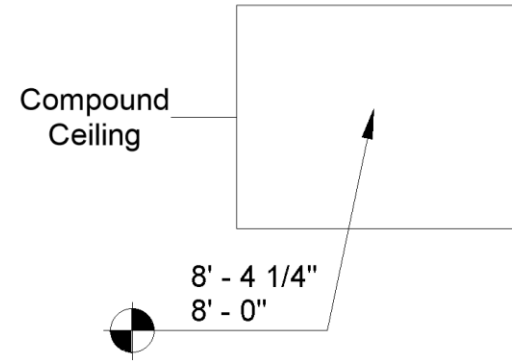
shows a view of the room as if looking from above, at a mirror installed below the ceiling level, which shows the *reflected* image of the ceiling above.

The orientation of the floor plan and the rcp are the same.



REFLECTED CEILING PLAN

- Show ceiling height variety
- Include light fixture location and type
- Show finish materials such as wood or grid panel
- Show wall thicknesses that touch the ceiling
- *Same direction as the floor plan (left-right)*



SYMBOL LEGEND

	SECTION REFERENCE		DOOR NUMBER
	DETAIL REFERENCE		SPOT ELEVATION
	EXTERIOR ELEVATION		DATUM
	INTERIOR ELEVATION		NORTH ARROW
	CALLOUT REFERENCE		KEYNOTE
	ROOM NAME / NUMBER		MATERIAL KEYNOTE

Not included in this project










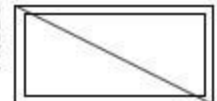





(Exhaust fans or exhaust hoods, Air diffusers and vents/HVAC, Speakers from stereos

or other communication devices,

Smoke/fire/carbon monoxide/fire protection/alarm

devices)

Always Include Lighting Legend Symbols and ceiling height symbol

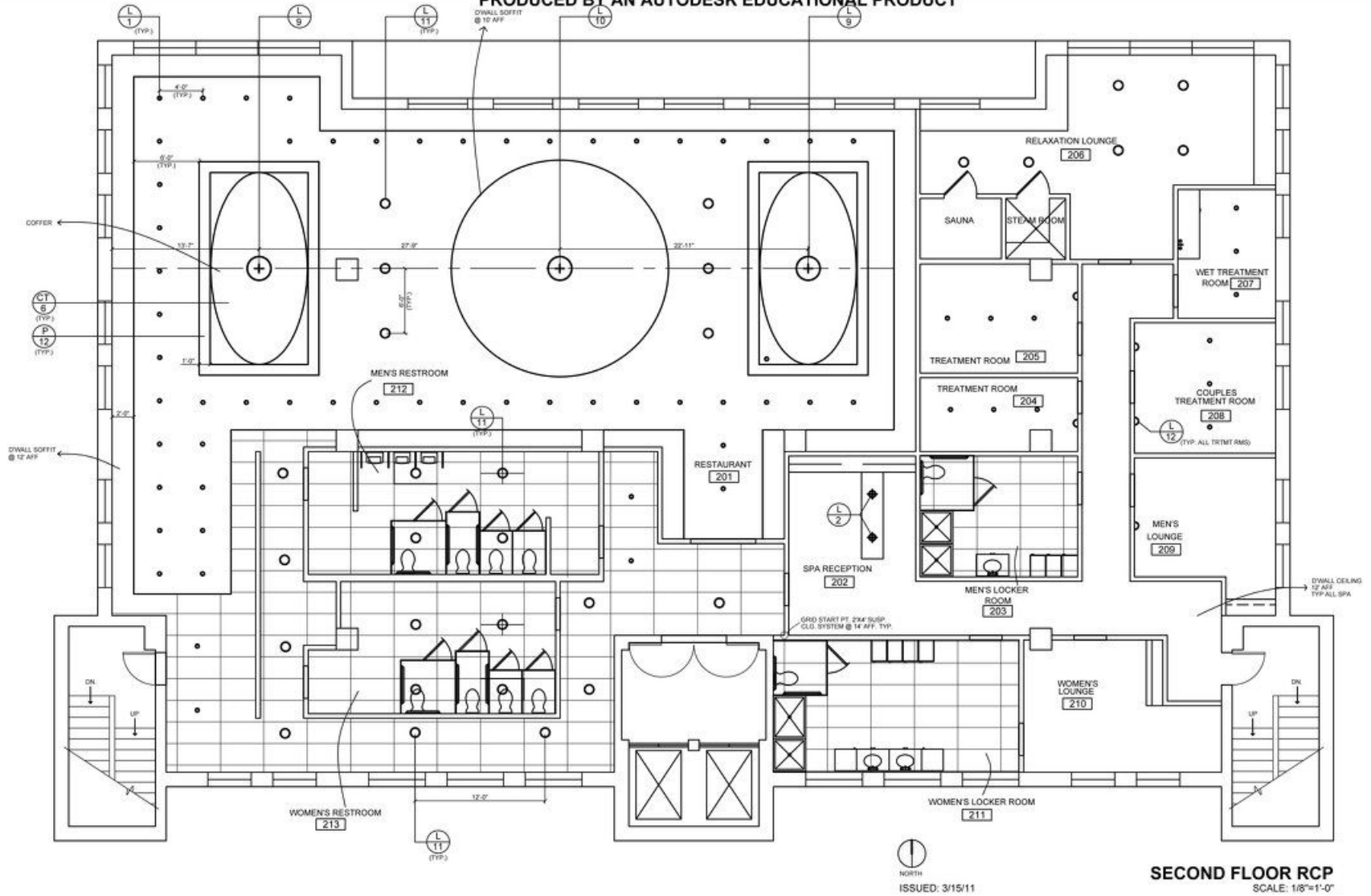
COMMERCIAL LIGHTING LEGEND LIGHT TYPE SYMBOLS	
	Wall sconce - A Light Mounted on Wall at 5'6"± Off Floor
	Recessed Light - Directional
	Recessed Light - A Light Installed in the Ceiling
	Under Cabinet Light As Long as Necessary - Goes under any Cabinet, Shelf, In Cabinet
	Ceiling Mounted Fixture - Attached to the Ceiling- Also use for Track Lighting
	Ceiling Mounted Fan - Will need more support in Ceiling
	Bath light and fan
	Track Lighting Add Lights as Necessary
	Cove Light As Long as Necessary
 	2'x4' or 2'x2' Fluorescent Troffer
	Cable Location TV
	Cable Location For Internet Service For Computer
	Motion Detector
	Speaker

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SECOND FLOOR RCP
SCALE: 1/8"=1'-0"

PROJECT DESIGNER:
CORY SCHMIDT

FIDM | LOS ANGELES | INTD 2860

COASTAL GARDEN INN
STINSON BEACH

A.8

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