

CEILING

DESIGN:

WHAT is it? and what DOES IT DO?

What is it.....

“Large horizontal surface attached to or suspended from building structure”

Elements:

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

Materials

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



What does it do.....

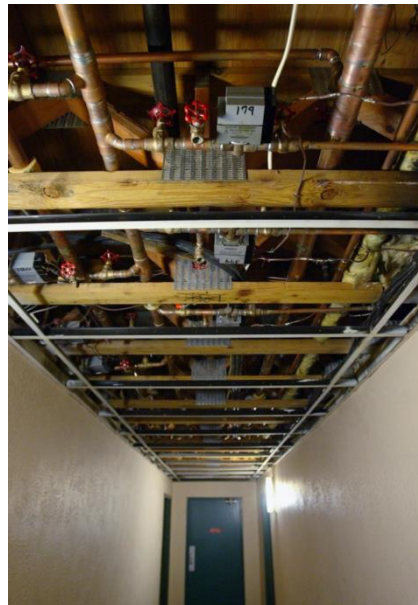
Function:

- Supports lighting
- Aids in acoustics
 - sound transmission
 - sound reflection

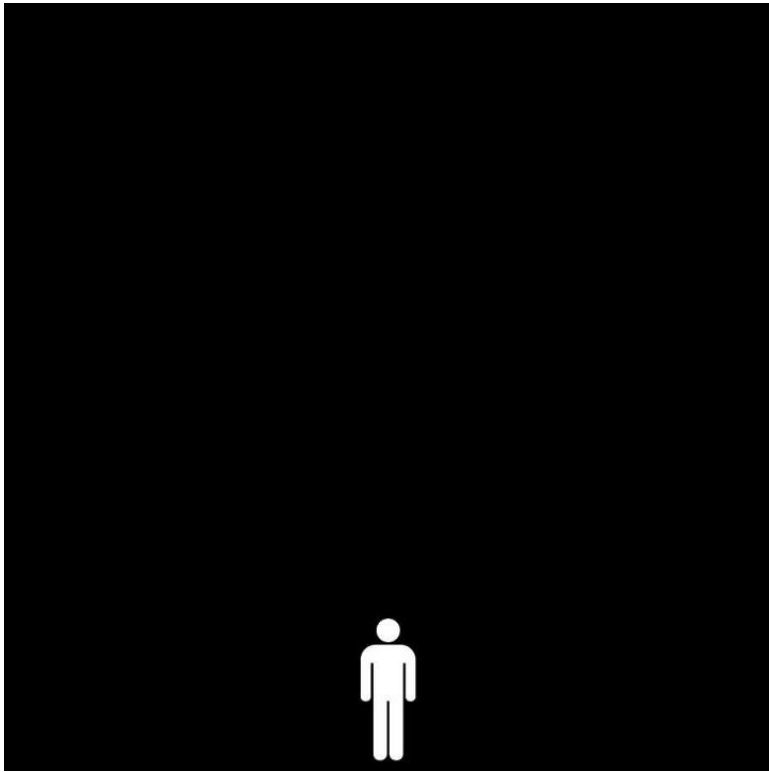
Design:

- Supports scale
- Reinforces spatial definition
 - Creates edges conditions imply enclosure
 - Provides texture
 - Creates rhythm
 - Supports hierarchy/emphasis

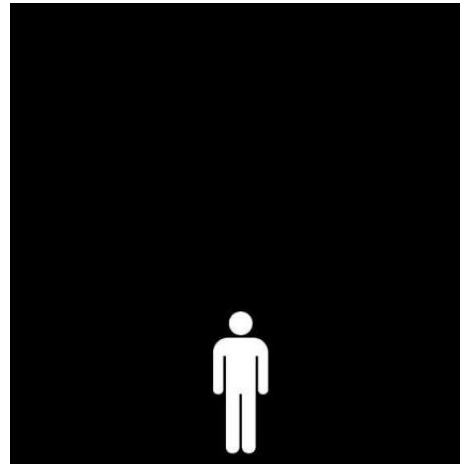
WHAT'S UP THERE



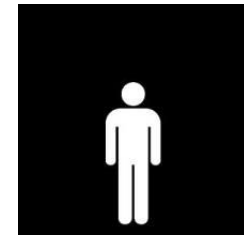
DESIGN: SCALE



MONUMENTAL



GENEROUS

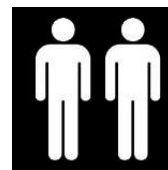
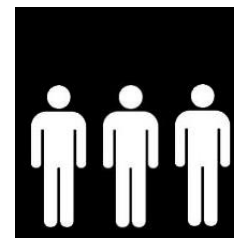
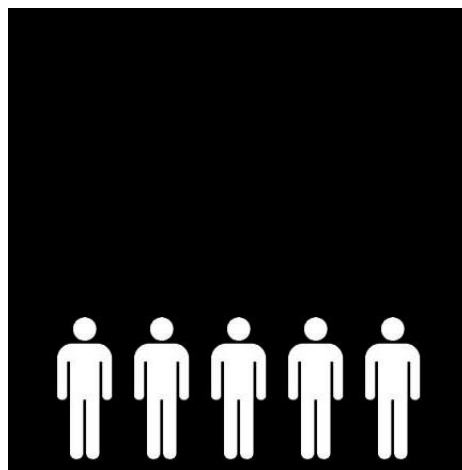
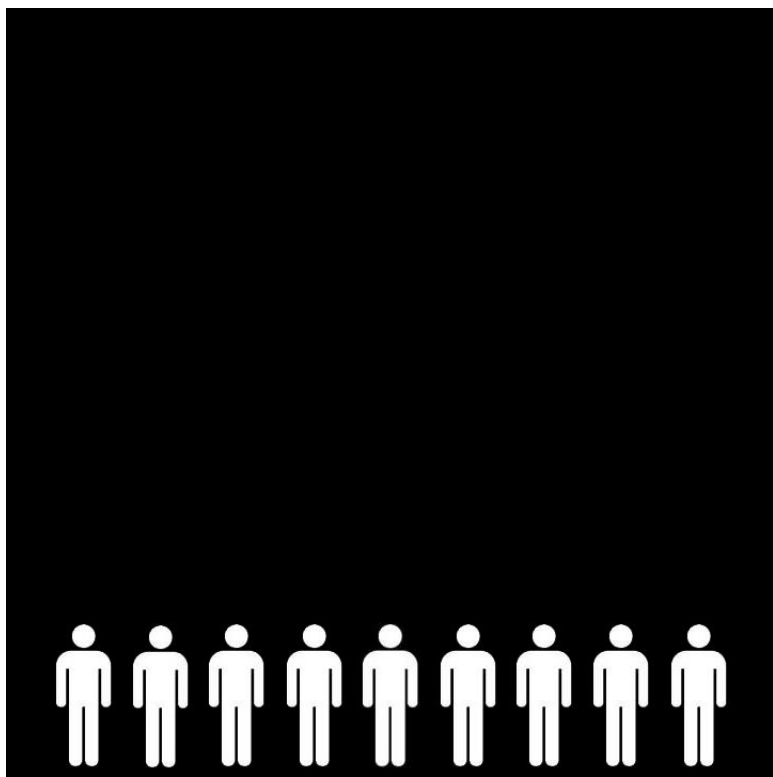


FUNCTIONAL

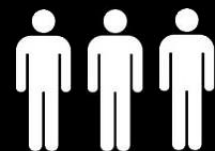
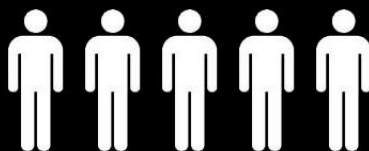
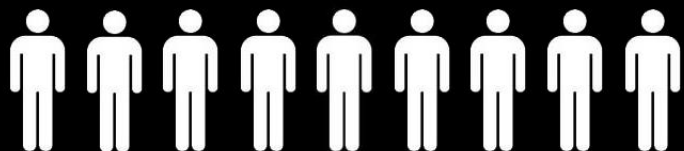
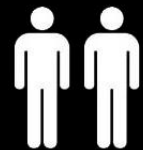
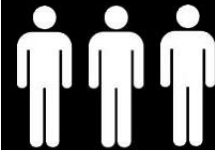
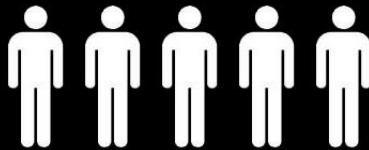
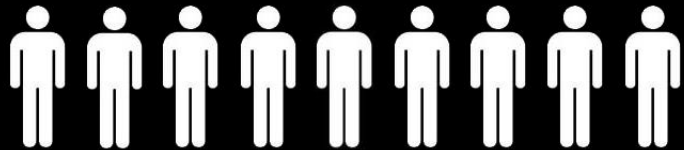


INTIMATE

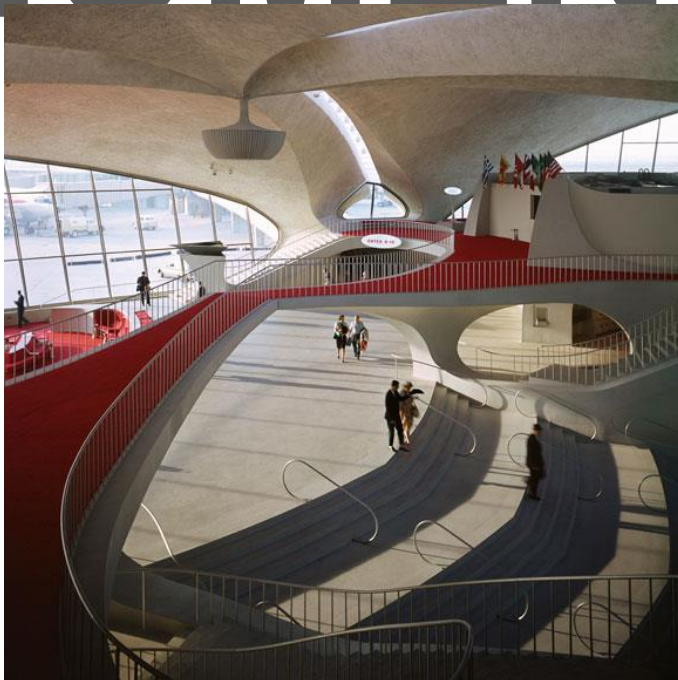
CROWDING



PROPORTION



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
- Wood**
- Plastic**
- Fabric
- Metal
- Glass

INTIMATE



Elements:

Planes

Coves

Coffers

Slots

Soffits

Headers

Slats

Materials

Gypsum

Plaster

Acoustic grids

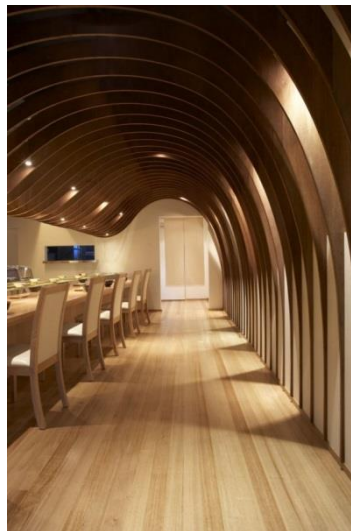
Wood

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



IMBALANCE



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

TERMINOLOGY

Lighting Types

Recessed Directional

Ceiling Mounted Fixture
(Pendant)

Wall Sconce



Lighting Types

Cove Lighting

Recessed Lighting

Under Cabinet Lighting



Lighting Types

Cabinet Lighting

Shelf Lighting

Track Lighting

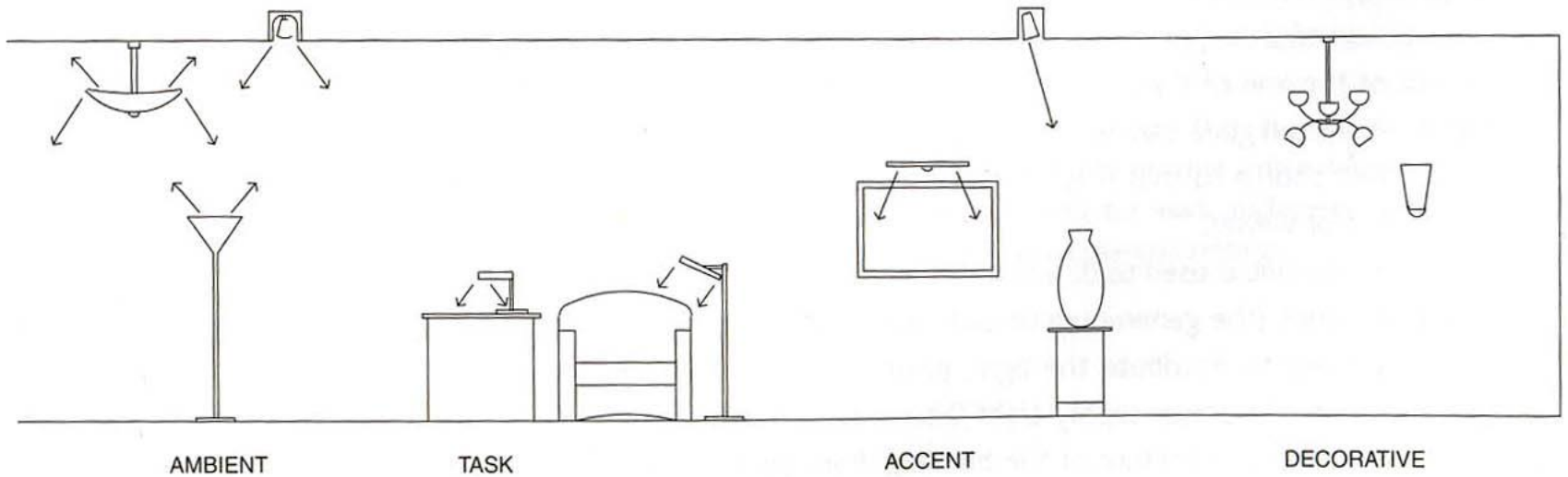


LAYER METHOD

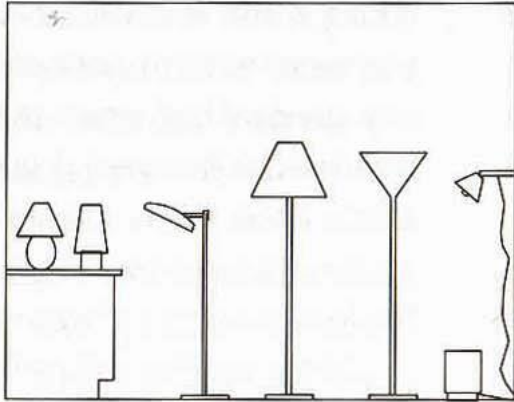


AMBIENT
FOCAL
TASK
DECORATIVE

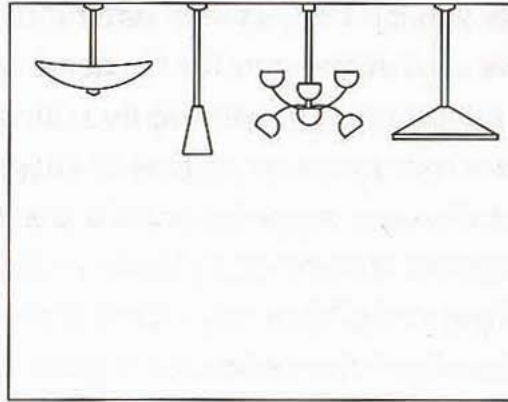
LAYER METHOD



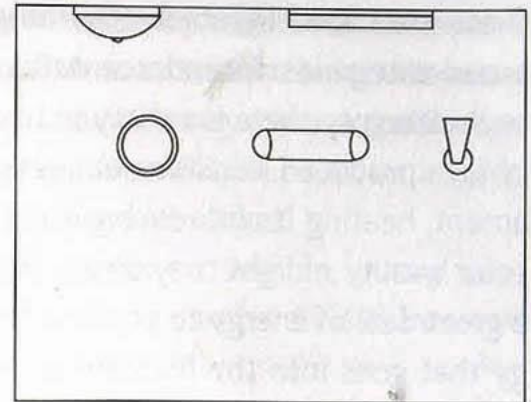
PORTABLE



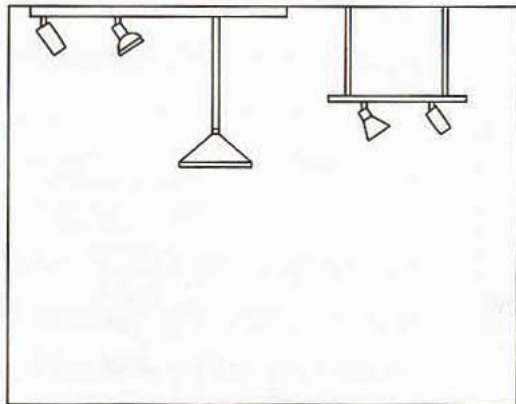
PENDANT MOUNTED



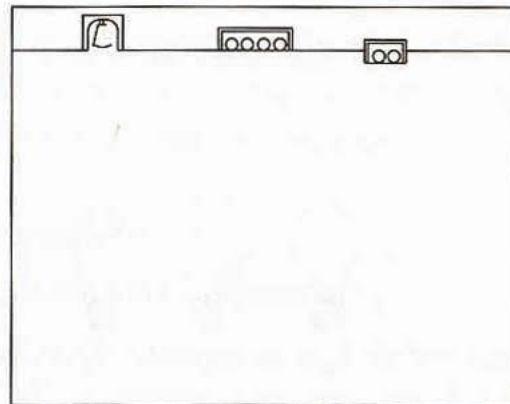
SURFACE MOUNTED



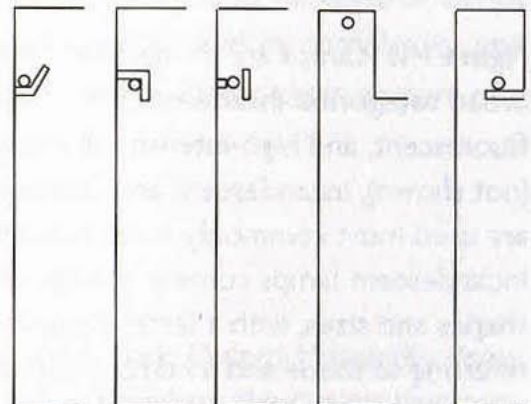
TRACK MOUNTED



RECESSED AND SEMIRECESSED



ARCHITECTURAL



AMBIENT LIGHT LAYER

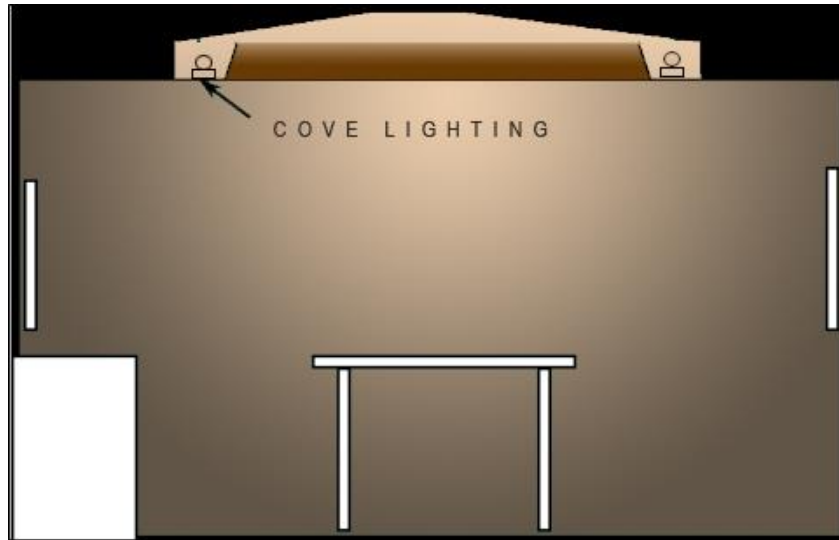


- Establishes mood.
- THINK low or high ambient light levels.
 - Called “general lighting”
 - at task levels (30-50 fc or more).
 - Called “ambient lighting”
 - lower than task levels
- Techniques :
 - uniform downlighting,
 - indirect lighting
 - Uplighting
 - Slot lighting
 - Cove lighting

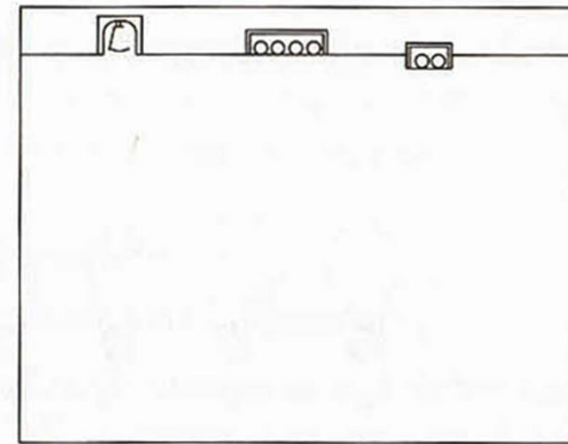
COVE LIGHTING



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



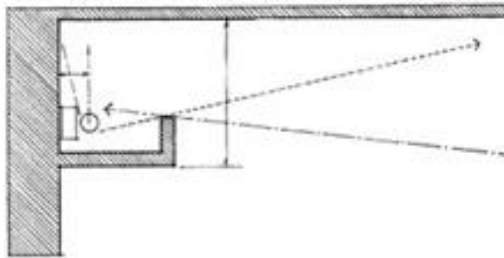
RECESSED AND SEMIRECESSED



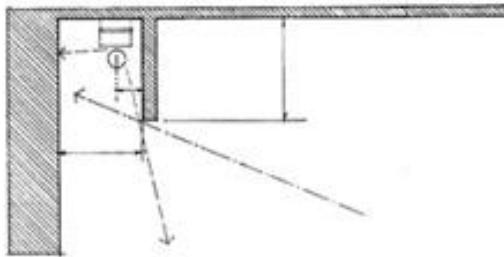
AMBIENT LIGHT LAYER



uniform downlighting,
indirect lighting
Uplighting
Wall washing
Slot lighting
Cove lighting

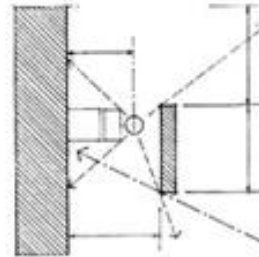


Cove lighting directs the light upward from an interior cornice at the edge of a ceiling



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.

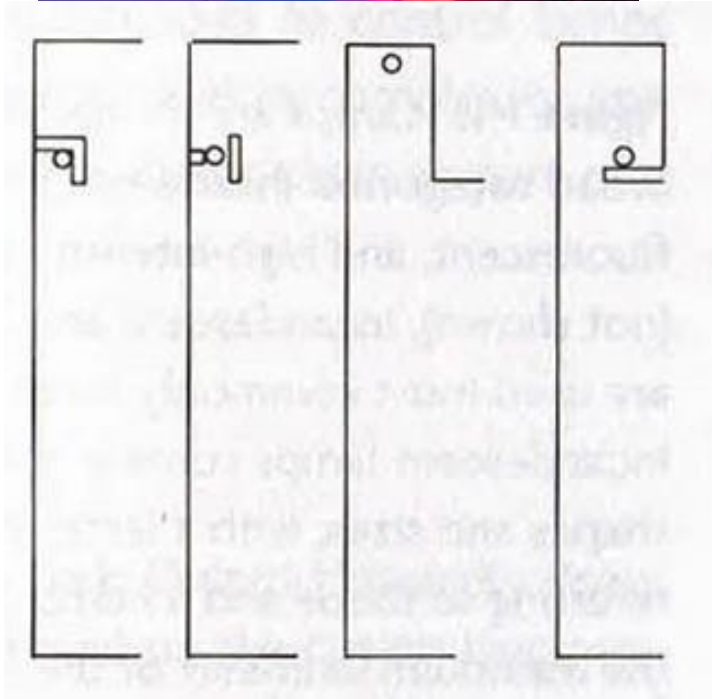
Ambient Layer: Uniform Downlighting



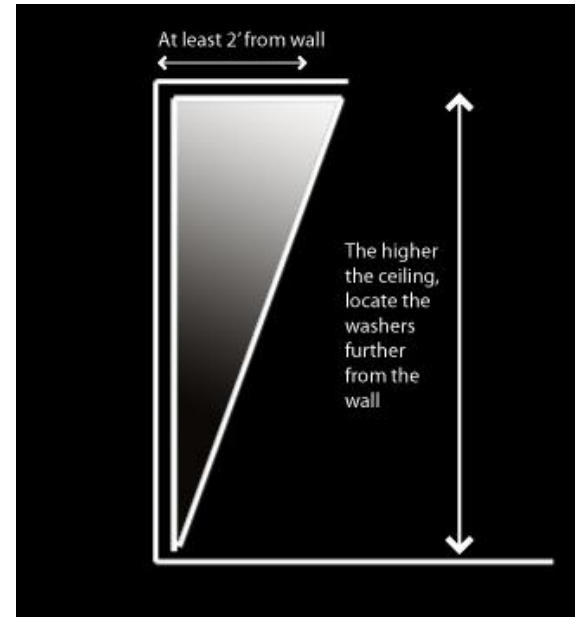
Ambient Layer: Specialized Downlighting



WALL LIGHTING

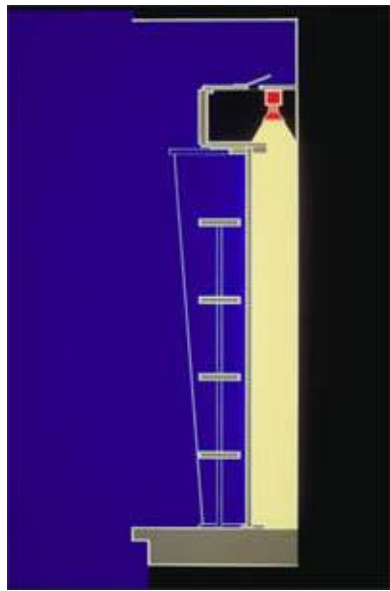
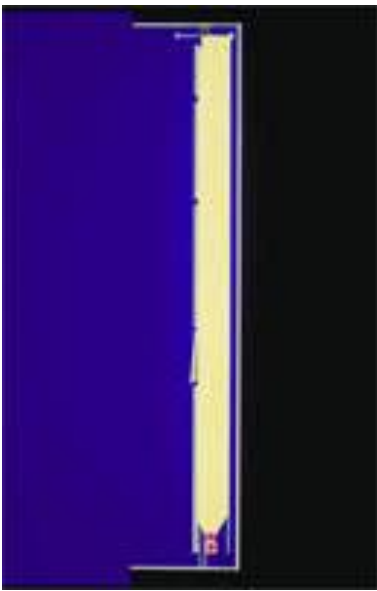


BAD WALL WASHING



WALL LIGHTING TECHNIQUES





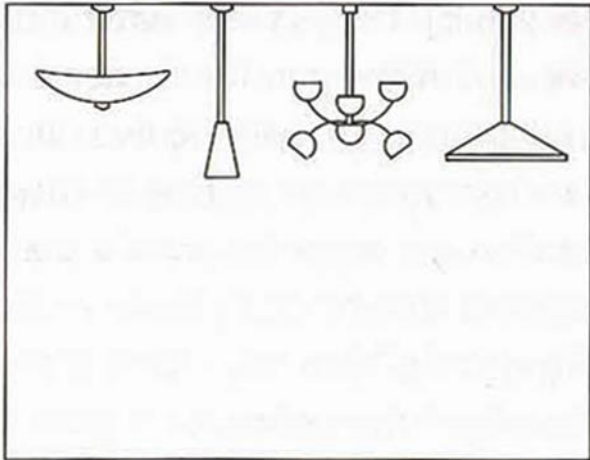




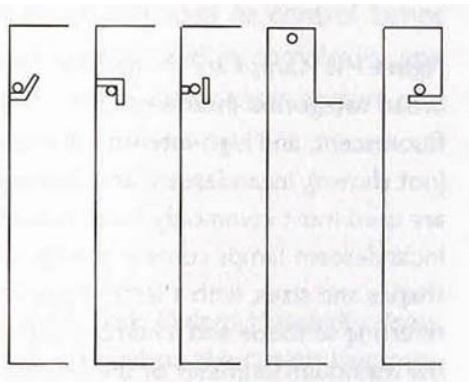
FOCAL POINT



PENDANT MOUNTED



BARS



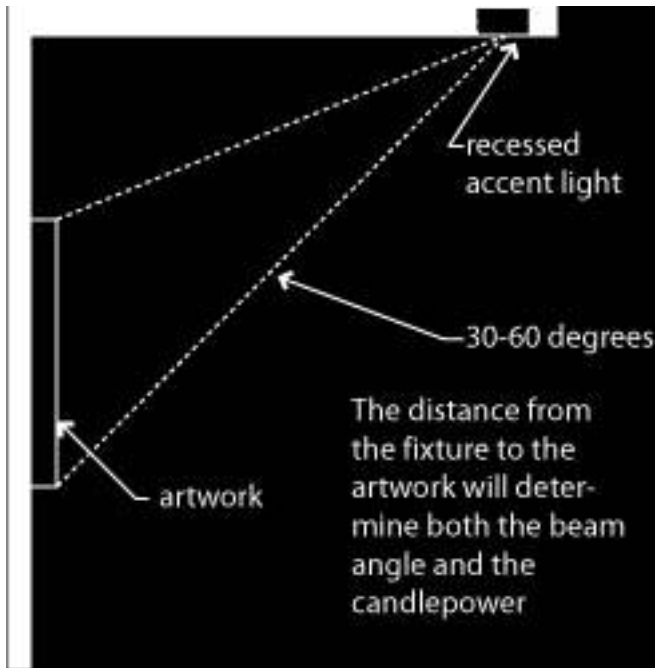
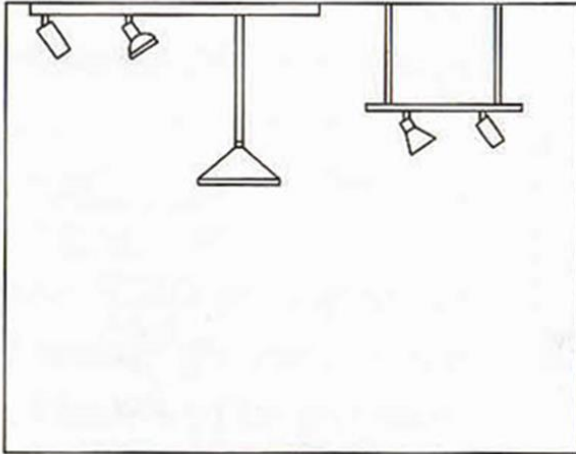
BARS



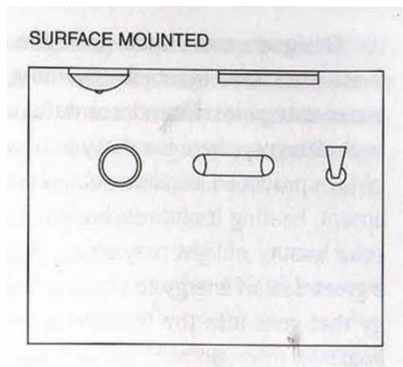
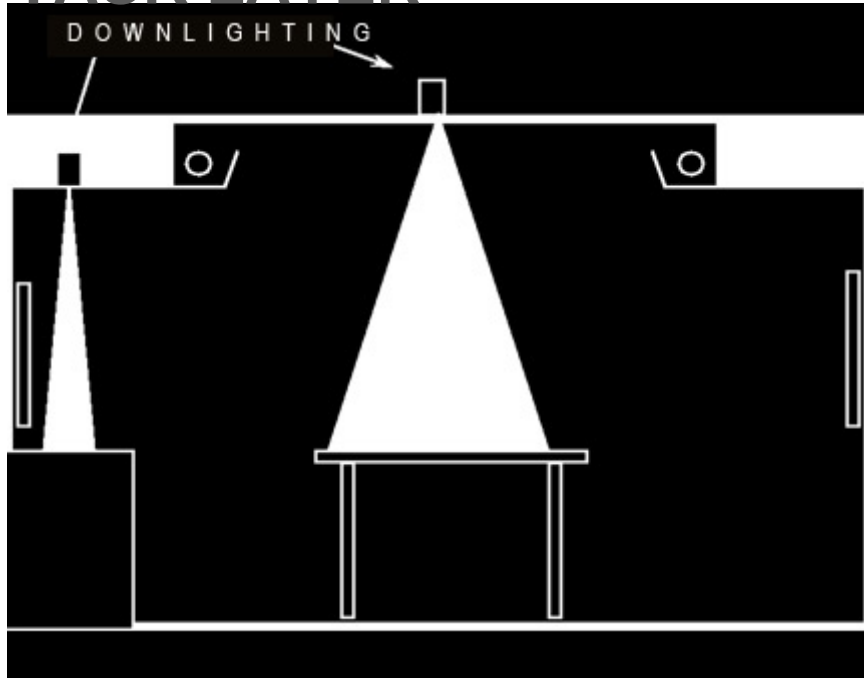
TASK LAYER



TRACK MOUNTED



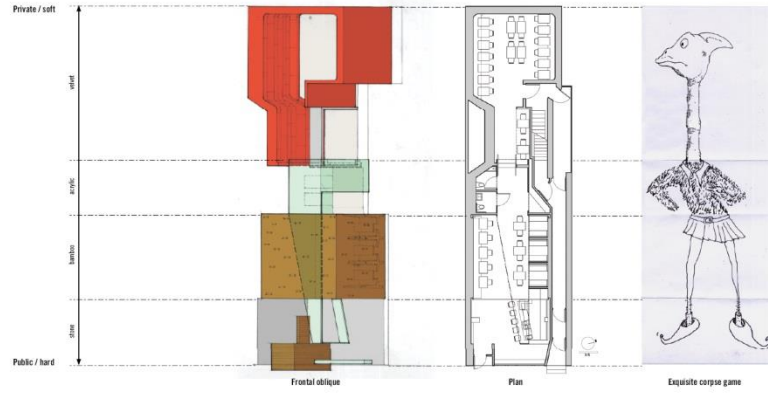
TASK LAYER



DECORATIVE LAYER



DECORATIVE LAYER





BATHROOM LIGHTING



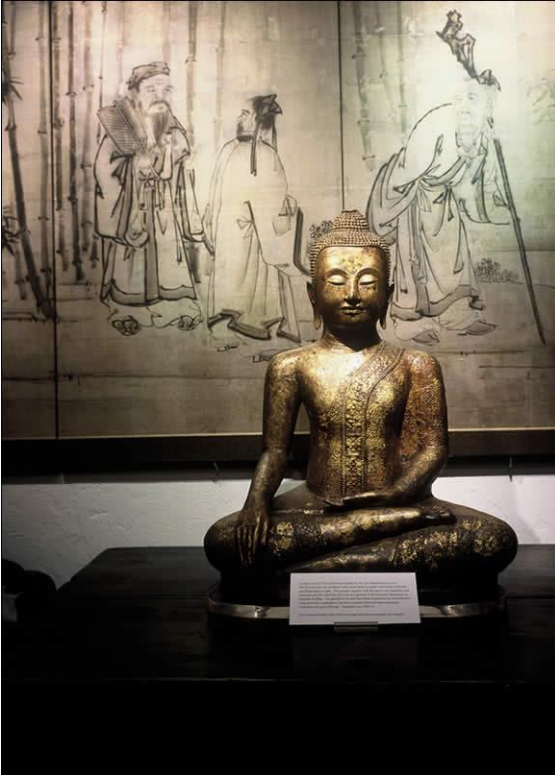
BATHROOM LIGHTING



BATHROOM LIGHTING



MORE LIGHTING INFORMATION



Architectural Lighting Design

Textbooks

IIDA lighting design awards

IALD

IESNA

Manufacturers' websites

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

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.

1. Showing ceiling height variety
2. Including light fixture location and type
3. Showing finish materials such as wood or grid panel
4. Including wall thicknesses that touch the ceiling
5. *Same direction as the floor plan (left-right)*

(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)



