

Lighting

Lecture 7

Designing with lights

The beauty of installing creative lighting is that you can design an entirely different look for your garden at night. More theatrical styling is possible with the wide range of specialist lighting equipment available. There are important aspects of safety and security to be considered, and you should always discuss your plans with an electrician.

LIGHTING IN THE GARDEN

Flooding the garden with light from above creates too harsh an effect, and can cause trouble to neighbors and add to the problem of light pollution. Avoid strong lights that may shine directly into the eyes of an onlooker. By maintaining areas of shadow, you can accentuate the theatrical effect of any garden illumination, and make the nighttime experience all the more enchanting. Draw up a plan, taking into account the type of lighting required in each area, such as recessed lighting for a deck, directional spotlighting for a barbecue grill, or underwater lighting for a fountain.



NIGHTLIFE

Outdoor rooms used for relaxation and entertaining can be lit in a similar way to indoors with low-level lamps, and mini spots to highlight decorative elements.



WAYS WITH WATER

Moving water features such as cascades are easier to light than static pools, as the surface disturbance masks the light source, while planting can hide cables.



COLORED GLOW

In contemporary settings, restrained use of colored lights can create stylish effects. Programmed, color-changing fiber optics are an option for dynamic shows.

PRACTICAL CONSIDERATIONS

Unless you plan to use solar-powered lights, you need a convenient power supply. Special waterproof outdoor sockets must be installed by a qualified electrician, and any power cables will need armored ducting to prevent accidents. When using low-voltage lights that run from a transformer, house the transformer in a waterproof casing or locate it inside a building. A transformer reduces the voltage from the mains to a lower level at which many garden lighting products works. The size of transformer you will need depends on the power and number of lights you plan to use.

Ask your electrician to install an indoor switch so that you can turn the lights on and off easily. Consider using long-life, low-energy bulbs for areas that will be lit for extended periods: wall lights on the front of buildings, for example. Elsewhere, use energy-efficient LED (light-emitting-diode) lights and, if an area is sufficiently sunny, solar-powered lighting.



SAFE PASSAGE

If you plan to use the garden at night, illuminate pathways, steps, and changes in level using low-level lighting, and angled recessed lights to avoid glare.

PATH LIGHTING

Post lights come in a wide variety of designs, including many solar-powered models, and sets that run from a transformer. Position in the border to light pathways.



FLICKERING FLAMES

Candles, lanterns, and oil lamps create a magical atmosphere. Never leave them unattended, and take care to keep naked flames away from flammable materials.

LIGHTING EFFECTS

Tiny LED twinkle lights running from a transformer is simple to install, and create a romantic ambience when woven through climbers on a pergola. Mini spots are great for up lighting an architectural plant or a piece of statuary, or for highlighting textured surfaces. Recessed, low-level lighting in steps, walls, and decks casts gentle light without glare, and colored lighting can be used to create contemporary effects, floodlight trees or rendered walls, or to light pools.



MIRRORING A single source of illumination bathes this poolside terrace in soft light and produces a perfect reflection in the black, unlit surface.



UPLIGHTING Matt black mini uplighters are inconspicuous during the day, but can be angled to reveal the shape and texture of plants, decorative elements, walls, and screens at night.



FLOODLIGHTING Bright, even lighting is mainly used for security and can be triggered by infrared sensors. Mini halogen floods can also be used for dramatic up- or down lighting.



SPOTLIGHTING Using a directional spotlight mounted high on a wall and angled in and down towards the subject, you can highlight an area without creating irritating glare.



BACKLIGHTING Low-level backlighting throws the foreground elements into relief and creates dramatic shadow patterns on the wall behind. You can also backlight decorative screens.



GRAZING This term refers to the effect achieved by setting a light close to or along a wall or floor. It can be angled to illuminate an area, and reveal texture and form.

Lighting in a landscape is not merely a decoration; it is essential. It is mostly used for:

- 1-Guiding people through circulation roads safely.
- 2-To provide security for the areas.
- 3-To allow greater nighttime use of outdoor rooms.
- 4-To aid in the creation of dramatic focal points in the landscape at night.
- 5-To create unusual and charming nighttime views of the outdoor from inside the building.
- 6-To create special effects for special occasions.

Lighting Techniques

1-Walk Lights

Offers both safety and decorative effects. They should be used wherever it is necessary to warn pedestrians that the walk is about to change direction or elevation, such as at steps or ramps.



2- Silhouette Lighting

Outlines plants when placed behind them. The viewer sees a dark plant form against a background of light .



3- Shadow Lighting

Places the light source in front of the plant and causes a shadow to be cast onto a wall or other flat surface behind the plant



4-Down Lighting

Creates patterns of light and leaf shadows on the ground. The light fixture is placed high in a tree and directed downwards. it's the most natural form of landscape lighting.



5- Up Lighting

It's the reverse of the above. The light fixture is places at the base of the object being illuminated, its directed upwards.



6- Under Water Lighting

Under water lighting highlights underwater plant material and captures light to show off depth or imaginative design. Illuminating water bodies not only increase the attractiveness but also insures safety in dark. Illuminated fountains and falls reflect light in their movement adding a visual perspective to the sound of rippling or spraying water.



7- Spot Lighting

-This effect utilizes a narrow focused, deep beam of light to highlight a specific landscape object creating nighttime main point.

-When light is cast on statues and sculptures, it is important to position the light fixtures correctly to avoid shadowing.

