House & Home

A dim view of progress

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Homage to the classic incandescent light bulb is easy to spot in contemporary lighting design. Finnish designer Harri Koskinen's Block lamp consists of a traditional light bulb shape sandblasted into a block of glass, while his Muuto table lamp displays an incandescent light bulb suspended in transparent grey glass. Dutch designer Tord Boontje's Midsummer light plays with the light bulb as a pendant, diffusing its light with a lacy, floral Tyvek skirt. German designer Ingo Maurer's Birdie's Nest ceiling lamps attach wings to classic frosted light bulbs arranged helter-skelter, like disturbed birds in flight.

"I love the light bulb," says Ingo Maurer, "It is a world cultural heritage piece. It should really be protected, because it changed our world. It was the next thing after fire."

Maurer has long been known as a lighting pioneer, breaking ground in halogen design in the 1980s and embracing light emitting diodes (LEDs) from their earliest show of promise, but he is also one of many prominent designers, museum curators and lighting aficionados who argue that the European Union's phasing out of beloved, traditional light bulbs is putting a vast cultural heritage at risk.

European manufacture of traditional incandescent bulbs of 80 watts and above, as well as frosted bulbs of any power, ceased in September 2009. Out go 65 watt bulbs next year and by 2012 even 12 watt bulbs will cease production. Stores are permitted to sell existing stocks after the phase-out deadlines but are not permitted to restock thereafter.

Incandescent lighting is a conspicuous target for reducing carbon dioxide emissions, since less than 10 per cent of the energy traditional filament bulbs consume becomes light. The rest is heat. And lighting constitutes roughly 20 per cent of energy consumption in the EU.

"It is basically a mini-fire. We've had it for 130 years and we like it but it is also one of the most inefficient light sources you can have," says Nic Mallinson, marketing manager for the UK's Lighting Industry Federation.

Recent debate has raged over the flaws of energy efficient replacements, such as compact fluorescent lights and LEDs with their cold, bluish glow and poor colour rendering. Compact fluorescents have also come under attack for toxic components that complicate disposal, difficulty dimming and a delay in reaching maximum brightness. Lighting ban defenders argue that breakneck technological advancement will soon solve these issues and that the manufacture of the Edison bulb puts more poisons into the air per bulb than is contained in an equivalent compact fluorescent.

"It was tempting to buy 100 [filament] lamps and put them in my shed," says lighting designer Desmond O'Donovan, director of lighting consultancy DHA Design in London. "There is something lovely about that clear glass envelope and to see that glowing filament. It takes you back to fire and heat. It's simplicity. It's a beautiful shape. It's like a fruit, a pear; it lends itself to being exposed."

The word "iconic" often slips from the lips of people in the lighting design sector, for the bulb, unlike other technologies, has not only become a design object in itself but an integral, visible part of many light fixtures, it has also been elevated to symbol, pictogram and pop art icon.

"The extraordinary thing about the light bulb is that the technology is so evident. You can see the 19th-century 'eureka' idea inside it," says Jane Pavitt, a curator for the research department of the Victoria & Albert Museum in London. "It has even come to mean a bright idea, to represent the simplest moments of discovery as a graphic symbol."

The cartoon depiction of an idea, our "light bulb moments" and thousands of jokes attest to the semantic versatility of the light bulb. A quick Google search of "light bulb art" digs up millions of online images offering almost as many witty and aesthetically appealing plays on meaning. And while we have vivid ideas about what it means for a person to be "incandescent", it is difficult to envision what it would mean to be "fluorescent".

Yet incandescent light imagery might soon accrue a patina of nostalgia and even a measure of incomprehension for new generations, diluting the immediacy of some 20th-century art. Surrealist painter René Magritte mysteriously associates incandescence with gratification and a wealthy benefactor in "The Pleasure Principle", a 1937 painting that portrays art patron Edward James as a ball of light shining from a brown suit. Francis Bacon's painting "Man Turning on the Light" (1969) renders the mundane act of switching on a bare pedant bulb with meat-like brutality. US artist Jasper Johns employed the bulb as a symbolic bridge between Marcel Duchamp's "Readymades", abstract expressionism and pop art, making it a recurring theme in his sculpture, drawings and prints from the 1950s to the 1970s.

One wonders what the post-incandescent bulb era might do to the urbanity of Magritte's beaming head, the rawness of Bacon's bare pendant and accessibility of Johns's artistic discourse.

Certainly Ingo Maurer's Bulb won't be the same with any other light source. Maurer transformed the table lamp into a pop art sculpture for the launch of his design company, Design M, in 1966. It displays a standard filament light bulb in an oversized chrome and glass case shaped like a cartoon light bulb, glorifying Edison's creation as an art object within an art object.

A practical problem with phasing out incandescent light sources for many experts is that it will snuff out or disfigure swathes of classic design and decorative lighting fixtures. Italian lighting and furniture designer Achille Castiglioni treated specific light bulbs as integral parts of his designs. It is difficult to imagine his Taraxacum chandelier, which displays between 60 and 80 spherical 25 watt bulbs like seeds on a dandelion, with any bulb other than the oversized, spherical globes it was designed for. His equally famous Arco lamp depends on the crown silver incandescent light bulb, which is half-covered in silvery reflective material.

Almost the entire US online catalogue of table lamps for Italian lighting design company Artemide specify "incandescent" as the intended lighting source.

"It is important to face the themes of energy saving and pollution reduction but many design lamps were built around the form, light quality, structure and substance of specific filament bulbs," says Silvana Annicchiarico, director of the Triennale Design Museum in Milan. "If the bulbs aren't available, what will happen to the fixtures? Do we throw them away? They won't be the same thing any more."

Simon Andrews, director of 20th Century Decorative Arts & Design at auctioneer Christie's, says some noteworthy lighting designs from the 1960s and 1970s have already been eclipsed by their dependence on specific light bulbs no longer manufactured, including pieces by Scandanavian design pioneer Tapio Wirkkala and Italy's legendary Ettore Sottsass.

But away from collectors' concerns, there are countless traditional decorative fixtures meant to imitate the romantic, elegant lighting of the pre-electric era, and table lamps intended for the warm glow of the old filament bulb.

"One of the problems is chandelier design. You can't put a low energy lamp in what was meant to imitate a candle," comments designer Nigel Coates. "What really saddens me is when there are fittings designed for incandescent lamps and mini-fluorescents are put in them. People must go around with their eyes shut."

As for his own new chandelier designs, Coates is working to find clever ways around the ban. He reinterpreted the classic Murano glass chandelier with the Sloop for Italy's Mazzega, incorporating incandescent refrigerator bulbs instead of flame-shaped versions. He anticipates that it will be difficult for regulators to do away with the 12-volt appliance part.

He is, however, far from grim about the lighting ban. He notes that manufacturers are now producing low energy halogen bulbs that are nearly identical to traditional incandescent ones. A small halogen filament sticks up in the familiar glass and metal casing like the stamen of a flower and produces warm, white light – albeit at a far higher price.

Pavitt calls this retro-innovation. She says the same thing happened with the introduction of the light bulb. The first models resembled gas lamps and candle flames, which people understood at the time. She does worry whether the substitutes will be adequate but also suggests that in some ways the filament light bulb can not be stamped out.

"When an object has made it to being a pictogram, it will outlive its useful function for a long time. It will survive, even if it isn't exactly the same object." But O'Donovan is nervous even for the future of halogen copies of old filament light bulbs. Halogens, after all, are a type of incandescent light bulb and they can't compare in energy efficiency to compact fluorescents and LEDs. "It may be just a matter of time before the regulators come after them as well."

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