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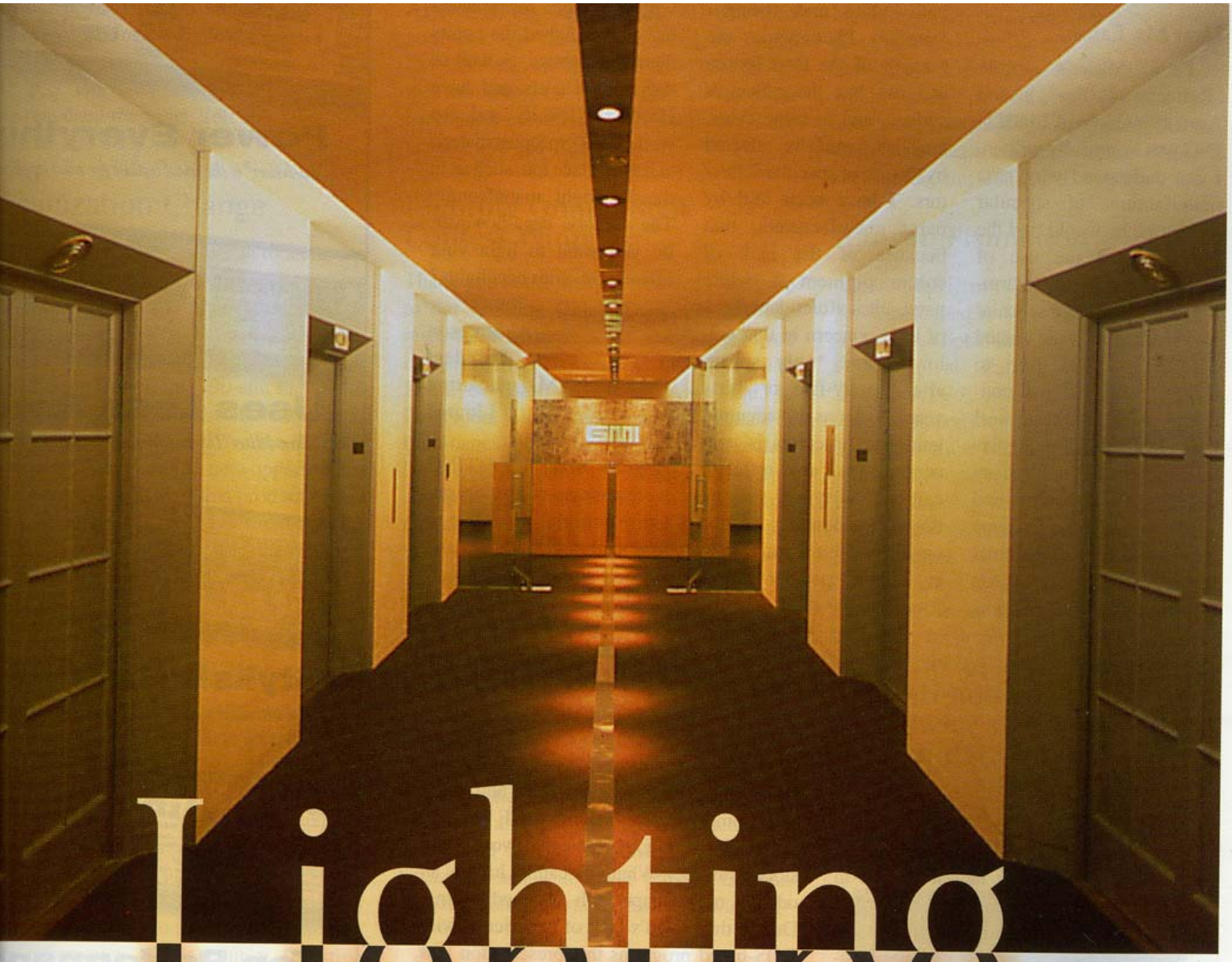

Lighting the FUTURE OFFICE

By JJ Falk

The requirements of offices in the next millennium have outgrown conventional lighting design knowledge

Lighting offices today has the potential to be very complex. People are working in many ways, using a variety of tools, each requiring a different light level. One overall solution will not always be optimal for all these needs and tasks. The advent of new media, requiring people to work long hours at a computer or video screen, has probably affected lighting levels most dramatically. Meanwhile, others in close proximity are still working on paper, reading, drawing or talking to each other, and their lighting needs are not the same.

Recently I designed a 50,000 square foot office for General Media Communications, Inc., an international media publishing company. Housed in this office were to be photo and video editing and production departments whose members worked heavily on the computer screen. The art department that performed more traditional drawing and layout tasks; the sales and administrative teams that focused on client contact; and the editorial people who used both computers and paper. Additionally, I was asked to put the same number of employees into a smaller area, effectively reducing their space from 80,000 square foot facility composed primarily of private offices to a 50,000 square

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foot space. The only solution was to move the majority from private offices, where they had control of their own lighting, to open atmosphere environment that was more space efficient, but presented problems inherent with proximity and density of people.

The remaining private offices were located along the perimeter windows. But bringing daylight to the rest of the employees was important to their well being. Since I put two-foot-high clerestory windows along the interior walls, and people in these offices usually left their doors open, a lot of light was able to penetrate to the interior space. The walls were kept light in tone to reflect more of the natural illumination. Likewise, the interior panel fabrics of the workstations were light coloured, while their exteriors were darker. The carpeting was also dark to reduce reflectivity. Since natural light was basically uncontrollable, I had to control the electric lighting levels so that they

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could fluctuate between day and night. In fact, for people working on computers, the ambient lighting level had to be brighter during the day and practically off at night to maintain an equilibrium with the natural illumination. When the contrast between the two is too great, an uncomfortable glare and reflection are created on the computer screen. At night, when lighting levels are lower, people rely more on the under-cabinet task lamps that were provided by the furniture system manufacturer.

Ambient lighting is usually the best solution for computer use. Normally you can suspend indirect fixtures about two feet down for optimum reflectivity off the ceiling. In the private offices the ceilings were only eight and a half feet high, so hanging a fixture meant hitting your head in the process. Zumtobel offered a solution with its RC1-2 fixture. This two-by-two-foot fixture recesses into the standard lay-in ceiling grid and casts the light back up into its own reflective coffer, effectively lighting a room with ambient illumination without low dangling elements.

Lifting the ceiling in the interior open work space enabled me to suspended fluorescent fixtures to allow a combination of direct and indirect lighting deemed best for both computer and other work tasks. In the common spaces, I had to use a warmer type of lighting. This included the more dramatic illumination that comes from MR16 spots to lead people from the elevator lobby to the reception area and in the break out areas. For the corridors, where the ceiling remained at the lower level, I used PAR 30 flood lamps in track heads down the middle. To highlight the owner's collection of artwork in corridor segments, I switched to PAR 30 wall washers placed closer to the wall.

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Using a trunk system enabled me to accommodate both fluorescent and PAR lamp sources. This modular trunk was installed continuously along the corridors and throughout the work area so that I could put the type of lamp and the number I needed where I needed them. Since the electrical contractor only had to punch one circuit for every ten lamps in a given area, it was an efficient and economical solution as well. I chose to individually install the MR16 lamps in the elevator and break out areas.

Looking back now, I really appreciated the ability to accommodate both incandescent and fluorescent fixtures and how well the system could be integrated into my overall design of the space. With perforated sides that allowed light to pass through, the indirect/direct fixture used in the work areas, was like a linear, glowing beam that seemed to become a part of the ceiling element. It might have been very hard to integrate all these different lighting sources into one organized whole, but in the end, I found a very simple solution through one versatile system. ❖

JJ Falk, former Director of Design for Phillips Group, opened JJ Falk Design last May. Her vision is to bring humanity to design for everyone by considering quality of life issues in balance with the use of technology, operational efficiency and visual appropriateness. To date, her company has designed a variety of small and large offices and high-end retail stores. Contact Ms. Falk, JJ Falk Design Inc. at Tel: 212-685-1913.