

Consulting- Specifying Engineer®



ENVIRONMENT®

**The New Horizon
Indoor Environmental Quality**



◆ *Designing an indoor environment that is both comfortable and functional can be done with efficiency and style from the perspective of the new horizon: indoor environmental quality.*

▼ *Not just an assembly of design parameters, the new horizon of indoor environmental quality means designers must grasp the total effect of these factors on the occupant.*

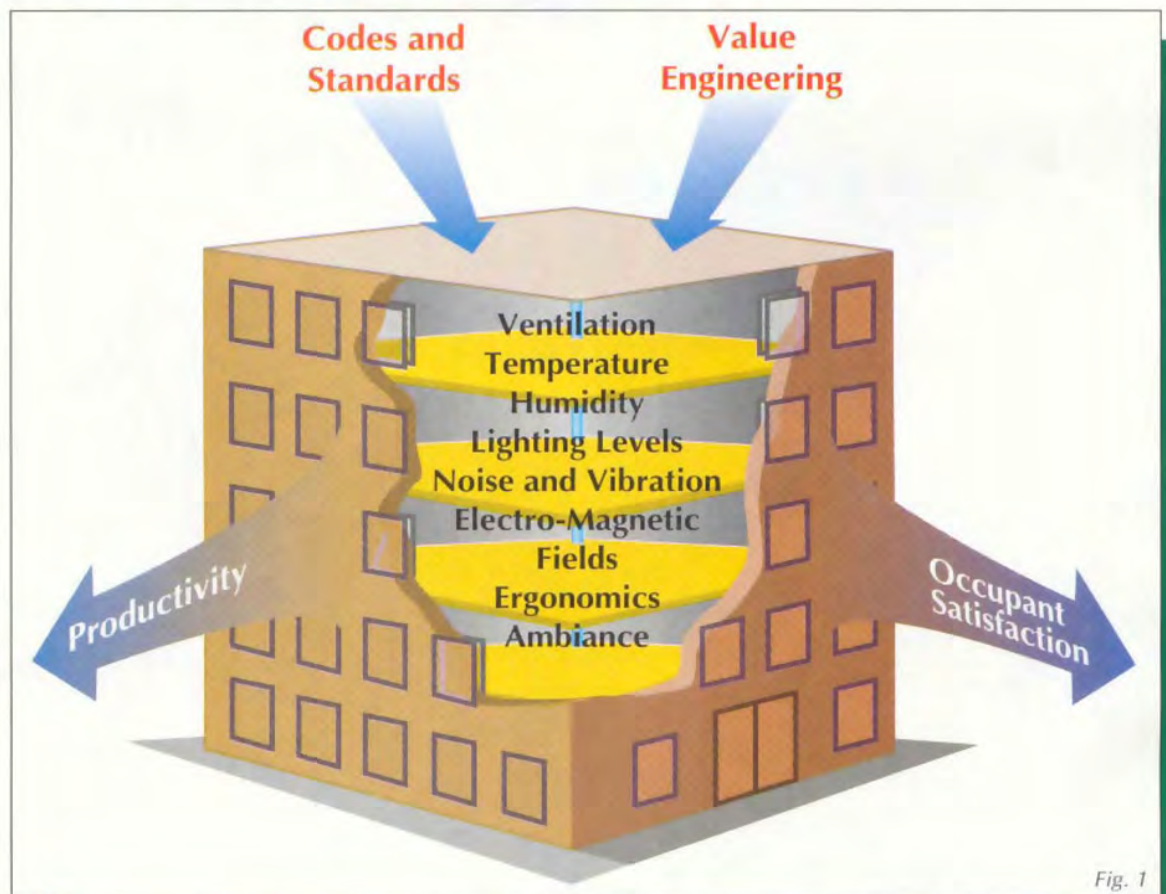


Fig. 1

The New Horizon

Change is in the wind. Change in the manner in which people use buildings. Change in the expectations people have of their workplace environment. Change in the way buildings must be designed and maintained to meet new demands. For engineers charged with designing new and retrofit office construction projects, the force of change creates a new horizon: total indoor environmental quality.

Like other major trends in office construction, the shift of focus to the broad perspective of indoor environmental quality will produce a complete rethinking of how buildings are planned, designed, built, started-up, and operated. And, like other major trends, indoor environmental quality will not replace past practices, but will extend and overlay the positive aspects of past building practices. Indoor environmental quality will not discard the efficiency improvements gained in the move for energy conservation of the past twenty years, as many predict. Instead, it will absorb the lessons learned by engineers through their energy experience and integrate efficiency into the most basic systems and equipment from earliest planning to operations.

Offices of today and the future will need to meet increasingly stringent demands for proper design and management to achieve good indoor environmental quality, which includes such issues as ergonomics, light, noise, decoration, ambiance, and organizational and personal dynamics, as well as ventilation and indoor air quality. Total indoor environmental quality means addressing the needs of the occupants, and balancing and accommodating those needs where necessary to achieve cost effective construction and operation of buildings.

Technical creativity and design finesse provide solutions for this challenge. For example, a range of positive choices is available to balance the requirements of smokers and non-smokers in the use of indoor space. The development of methods for accommodation of smokers represents an excellent case study for developing a model of good management practice for the indoor environment.

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