Instrumental and Spiritual Views of People-Environment Relations

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ABSTRACT: Three philosophical views of people–environment relations are examined. The minimalist view assumes that physical settings play a minor or negligible role in facilitating the goals and aspirations of their users. The instrumental perspective views physical settings as "tools" for supporting individual productivity and organizational effectiveness—as the physical means for achieving key behavioral and economic goals. In contrast to the instrumental view, much recent research reflects a spiritual orientation in which physical settings are viewed not as tools, but as ends in themselves—as contexts in which important human values can be cultivated. Key points of contention among these perspectives are discussed, including the growing tensions between technological development and questions of human value; contradictions between instrumental and symbolic functions of environments; and the trend toward standardization and modularized design as opposed to the quest for uniqueness and customization. In light of these issues, the prospects for people–environment studies during an era of accelerating change and complexity are assessed.

Environmental psychology emerged as a distinctive research area during the last two decades, marked by the establishment of new journals, monograph series, handbooks, professional societies, and both regional and international conferences. Yet, the philosophical roots of people–environment studies span several centuries and cultural contexts. Examples of these early precedents include the religious traditions of Shintoism, in which places are arranged so as to evoke sacred spirits (Hagino, Mochizuki, & Yamamoto, 1987); the practice of Feng Shui in China whereby auspicious sites and design configurations are selected for human settlement (Rossbach, 1983); and the Hindu, Islamic, and Christian traditions of temple design (cf. Lewandowski, 1980). More recent philosophical views of people–environment relations are found in the writings of 19th and 20th century scientists and philosophers such as Galton (1883), von Uexkull (1909/1957), Watsuji (1935/1961), Lewin (1936), Tolman (1948), Bachelard (1964), and Leontyev (1975).

In my present discussion, I will not provide a historical overview of these philosophical and scientific traditions. Analyses of these developments are available elsewhere (cf. Altman & Rogoff, 1987; Wapner, 1987). Rather, I will focus on three distinctive views of people–environment relations that I believe are reflected in the contemporary scientific literature, namely, the *minimalist, instrumental,* and *spiritual* perspectives. Having contrasted the key assumptions underlying these orientations, I will discuss some important tensions between the instrumental and spiritual perspectives and the challenges that they pose for future research.

The Minimalist View

This perspective assumes that physical environments exert minimal or negligible influence on the behavior, health, and well-being of their users. This assumption was prevalent among designers and behavioral scientists prior to the mid-1960s. Aside from meeting people's needs for safe and comfortable shelter, designers felt free to indulge their own aesthetic whims without concern for occupants' environmental preferences. Similarly, researchers all but ignored the links between physical environmental conditions, human health, and behavior.

An example of the minimalist perspective is Herzberg's (1966) characterization of the physical environment at work as a "hygiene factor," something that detracts from job satisfaction when its quality is very low but cannot improve employee morale at moderate or even high levels of quality. According to Herzberg, employee motivation and morale depend primarily on economic and social incentives at work, but are minimally related to the physical quality of the workplace. Maslow's (1962) theory of psychological health and "self-actualization" also reflects a minimalist stance toward the environment. Although recognizing that the physical and social environment serves basic human needs for shelter and security, Maslow contended that the environment ultimately impedes psychological growth and autonomy and, therefore, must be "transcended." In his words, "I feel we must leap . . . to the clear recognition of transcendance of the environment, independence of it, ability to stand against it, to fight it, to neglect it, or to turn one's back on it" (p. 180).

The minimalist view of people–environment relations was abruptly challenged by the global dilemmas of the 1960s, including the foreboding "silent spring" of environmental pollution (Carson, 1962), the "population bomb" (Ehrlich, 1968), and the "tragedy of the commons" (Hardin, 1968). Suddenly, the world was awakened to the very real and immediate impacts of the physical environment on human health and behavior. The emergence of people–environment studies during the late 1960s reflected widespread rejection of the minimalist

perspective. The rapid growth of this field over the past two decades has been fueled by efforts to replace minimalist thinking with alternative conceptions of environment and behavior in which the strategic design of physical settings is seen as a vehicle for promoting human effectiveness and well-being.

The Instrumental View

The instrumental perspective views the physical environment as a means for achieving important behavioral and economic goals. This "means–ends" orientation is clearly reflected in the functionalist or Modern movement in architecture (cf. Gropius, 1962) and in the positivist tradition of behavioral science (cf. Franck, 1987). The instrumental view pervades much of the recent research on strategic facilities planning. As noted by Becker and Sims (1986), "Corporations have begun to realize that their facilities can have a substantial effect on organizational and individual performance and productivity" (p. 68). Similarly, Brill, Margulis, and Konar (1984) stated that

we can reconceptualize the office as a tool and not just as a place to house tools. It is not such a conceptual leap, for Webster defines a tool as "something that serves as a means to an end; an instrument by which something is effected or accomplished." (p. 27)

Instrumental analyses of people–environment relations measure the quality of environments by their capacity to promote not only behavioral and economic efficiency, but also enhanced levels of occupants' comfort, safety, and well-being. For example, architecture has been described as an instrument for promoting public health (Archea & Connell, 1986; Greenberg, 1986) and for enhancing the therapeutic effectiveness of health care facilities (Reizenstein-Carpman, Grant, & Simmons, 1986). Increasingly, empirical evidence for the effects of the physical environment on health and behavior is being used as the basis for revising existing building codes and for developing new design standards and guidelines (Cooper-Marcus & Sarkissian, 1986; Steinfeld, 1986).

From an instrumental perspective, research is viewed as an objective process by which knowledge is discovered and used to achieve technological solutions to environmental problems. Research activities are assumed to be value neutral and separate from the social dynamics observed and recorded within particular settings. Emphasis is placed on the refinement of standardized research tools for gathering reliable and valid data (cf. Bechtel, Marans, & Michelson, 1987; Zeisel, 1981). Generally, quantitative methods are emphasized over qualitative techniques.

The Spiritual View

A third philosophical orientation that has received increasing attention in recent years is the spiritual view of people–environment relations. This perspective stands in contrast to instrumentalist views of the environment in several respects. First, spiritually oriented analyses construe the sociophysical environment as an end in itself rather than as a tool—as a context in which fundamental human values can be cultivated and the human spirit can be enriched. Environmental settings are designed not only to facilitate the smooth performance of everyday activities but also to provide places to which people are drawn by virtue of their symbolic and affective qualities. The overall quality of environments is measured in terms of the richness of their psychological and sociocultural meanings as well as in relation to physical comfort, safety, and performance criteria. Moreover, rather than encouraging the development of standardized, technical solutions to environmental problems, the spiritual view of environment and behavior assigns greater value to customized, indigenous design strategies that give expression to the unique needs and identities of particular user groups. These and other differences between the instrumental and spiritual perspectives are summarized in Table 1.

An emphasis on the spiritual dimensions of environment and behavior is evident in the religious perspectives mentioned earlier. Recent architectural and social science theories also highlight the symbolic and spiritual facets of environmental design. Franck (1987), in her review of developments in architectural theory, observed that designers are turning away from positivism and functionalism and "are becoming increasingly interested in history, culture, myth, and meaning" (p. 65). For instance, Brill (1986) has called for the study of "highly charged, mythically significant places" and has suggested the possibility of eventually distilling a set of design guidelines and archetypal patterns for sacred places (cf. Swan, 1988). Similarly, Perez-Gomez (1983) emphasized the poetic aspects of architecture, and Alexander, Anninou, Black, and Rheinfrank (1987) advocated a "new sensibility" in design "in which human activity, human feeling, color, and light together create an ordinary human sweetness, something almost entirely missing from the works of this century" (p. 129).

Much of the recent work in environmental psychology, sociology, geography, and anthropology has addressed the issue of environmental symbolism, suggesting that physical objects and places gradually acquire social meaning through their association over time with group activities and experiences (cf. Cooper, 1974; Csikszentmihalyi & Rochberg-Halton, 1981; Duncan, 1985; Relph, 1976; Seamon, 1979). This symbolically oriented research distinguishes organized social settings from unoccupied or sporadically occupied places in the sense that the physical milieu of the former has acquired social imageability—the capacity to evoke vivid and widely held social meanings among their occupants (cf. Firey, 1945; Milgram & Jodelet, 1976; Stokols & Jacobi, 1984; Stokols

Table 1
Differences Between Instrumental and Spiritual Views of People–Environment Relations

Instrumental	Spiritual
Environment viewed as a "tool," as a means for achieving behavioral and economic goals	Environment viewed as an end in itself, as a context in which human values can be cultivated
Emphasis on material features of the environment	Emphasis on symbolic and affective features of the environment
Environmental quality defined primarily in terms of behavioral, comfort, and health criteria	Quality of environments measured in terms of the richness of their psychological and sociocultural meanings, as well as their comfort, healthfulness, and behavioral supports
Emphasis on the development of design standards and environmental prototypes in accord with the activity requirements of general user-group categories (reliance on exogenous design guidelines)	Emphasis on customized design in keeping with the unique needs of specific individuals and groups (development of indigenous design guidelines that are suited to specific contexts)
Emphasis on the distinctness and separation of key functions associated with public and private life domains	Emphasis on the integration of public and private domains and on the increasingly multifunctional nature of environmental settings
Research viewed as the discovery and application of generalizable knowledge; research activities assumed to be value neutral and separate from the social dynamics observed and recorded within particular settings; greater emphasis on quantitative than on qualitative methods	Research viewed as a communication process that can enhance the awareness, participation, and cohesion of environmental users, and as a process for articulating and strengthening the values of participants; equal emphasis given to qualitative and quantitative methods

& Shumaker, 1981). Once established, the symbolic qualities of the physical environment become a *surrogate* source of social influence—their impact on individuals' emotions and behavior can occur even in the absence of direct interpersonal contact.

Studies of the symbolic and spiritual dimensions of environments generally use qualitative methods to assess occupants' perceptions of environmental meanings. Such research often establishes a communication process for sensitizing occupants to alternative environmental meanings and for articulating and strengthening their values. Thus, rather than remaining aloof and objectively

neutral, the research team becomes an active part of the observed setting, thereby exerting a transformative influence on the social organization and physical form of the environment (cf. Saegert, 1987; Stokols, 1988).

Current Tensions Between Instrumental and Spiritual Perspectives

I have outlined some of the contrasting assumptions associated with minimalist, instrumental, and spiritual views of people–environment relations. This brief sketch reveals certain philosophical tensions, especially between the instrumental and spiritual views of environment and behavior.

One source of tension is the potential contradictions that can arise between the overt instrumental and more covert symbolic meanings of physical objects and places. For example, the incorporation of new technologies and efficient furnishings within an office may convey managerial commitment to improving employee productivity and morale. However, if the newly installed equipment is unequally distributed among high- and low-status workers, then these physical objects can become a symbol of alienation and deprivation for many members of the setting. In Merton's (1957) terminology, the manifest instrumental meanings of the environment can be at odds with its latent symbolism. The material elements of the office are configured to maximize efficiency and cost-effectiveness. At a symbolic level, however, the organization of such a setting sorely lacks what Mannheim (1940) referred to as "substantial rationality" or intelligent insight into the interrelations among participants and events within a given situation.

The inherent tensions between instrumental and spiritual views of environment and behavior may be intensified in coming years by society's growing reliance on high technology and increasing emphasis on the regulatory and public health implications of environmental design. From an instrumental perspective, design technology is seen as a powerful tool for enhancing human health and productivity. As scientific evidence for the health and behavioral effects of the environment continues to mount, there will be greater pressure to apply that information toward the development of design standards and prototypes that can be incorporated within a wide variety of settings.

Although a considerable body of scientific evidence already exists for the behavioral and health impacts of the physical environment (cf. Stokols & Altman, 1987), the links between environmental design and spiritual enrichment are less well understood. Therein lies the potential contradiction between the pursuit of technological innovation and questions of human value. On the one hand, the search for prototypical design solutions gives priority to the goals of standardization and cost-effectiveness. On the other hand, prototypical and technically based design strategies are often at odds with occupants' desire for personalized, customized, and socially distinctive surroundings. For example, the "new sensibility" in architecture espoused by Alexander et al. (1987) is "by

its nature, personal and unique. It is non-mechanistic, concerned with feeling and life. It creates deep feeling because it relies on deep feeling during the process of creation" (p. 140).

Technologically oriented approaches to environmental design are based on additional assumptions that downplay the symbolic and spiritual dimensions of environments. For example, technical analyses often view the physical components of settings as independent "levers" for achieving desired effects on occupants' behavior and well-being. Also, environmental settings are grouped according to certain key functions (e.g., residential, employment, school, and public recreational settings) and design solutions are developed to support those functions. Alternatively, spiritual views of people–environment relations emphasize the close interdependence between physical and social aspects of the environment and the fact that organized settings often incorporate multiple functions and user groups. These latter assumptions suggest that especially within complex, multifunctional settings, it will be extremely difficult if not impossible to leverage human performance and morale through technological interventions alone, which focus almost entirely on physical features of the environment. Instead, efforts to enhance environmental quality and human well-being may rely increasingly on more integrative analyses of the links between physical, social, and organizational structure, which recognize the diverse needs and interests of multiple groups. Some of the contrasting assumptions underlying the rapid growth of high technology and those reflected in the theoretical and empirical literature of people–environment research are outlined in Table 2.

Further, *multifunctional* settings may become more and more prevalent in future years. Brill (1987) has suggested that the distinction between public and private domains has undergone considerable blurring in recent years. Others have noted trends toward "telecommuting" between home and the workplace via computers (Galitz, 1984), jobsharing and diversified household structures (Michelson, 1985), and mixed land-use planning that combines commercial, residential, and recreational functions within the same geographical area (Francis, 1987). If these trends continue, environmental settings will be expected to accommodate increasingly disparate instrumental and spiritual functions. Residential and work settings are already being modified to support many of the same kinds of activities and experiences. This increasing fusion of environmental functions suggests important challenges for future theorizing and research on people–environment relations. A key challenge is to develop new concepts and research methods that foster greater coordination, rather than polarization, between instrumental and spiritual views of environment and behavior.

Challenges and Future Prospects for Environmental Design Research

The tensions between instrumental and spiritual views of environment and behavior noted earlier suggest several conceptual, methodological, and professional challenges that remain to be addressed in environmental design research. For example, the contradictions that sometimes arise between instrumental and symbolic aspects of environments suggest the importance of distinguishing among settings in terms of their degree of "multifunctionality." Some recreational, domestic, and work settings may be associated with highly compartmentalized functions, whereas others incorporate a wide range of individual and group activities and a correspondingly diverse set of instrumental and symbolic meanings.

The greater complexity of multifunctional settings raises some important issues for future research. First, to the extent that settings are associated with multiple functions and user groups, the potential for "counter-productive programming" (Mazumdar, 1984) may increase due to the diverse and sometimes competing interests among activities and occupants. In such situations, sophisticated programming and assessment techniques are required to identify the unique preferences of different user groups and the multiple symbolic meanings conveyed by the physical environment (cf. Jencks, 1984). A related task is the development of qualitative and quantitative techniques for assessing the clarity, complexity, and compatibility of symbolic meanings conveyed by a particular environment (cf. Csikszentmihalyi & Rochberg-Halton, 1981; Duncan, 1985; Harré & Secord, 1972; Stokols, 1981). Such methods could be used to identify settings in which the instrumental and spiritual needs of occupants are coordinated and consistent or disjointed and contradictory.

An additional direction for future research is to examine the spiritual qualities of environments in greater detail and to identify the physical and social attributes of

Table 2
Contrasting Assumptions Reflected in High Technology Growth and People–Environment Research

Growth of high technology	People–environment research
Glorification of speed and impermanence; planned obsolescence	Emphasis on human needs for continuity and tradition
Communication nodes independent of space and time; mobile and disposable environments	Emphasis on human needs for rootedness and the enduring links between people and places
Emphasis on standardization, modularity, and "mass culture"	Emphasis on personalization, uniqueness, and "folk culture"
Emphasis on specialization and segmentation	Emphasis on human needs for coherence and intelligibility
Emphasis on bottom-line, contractual, means–end orientation	Increasing concern about spiritual values in people–environment transactions

settings that contribute to individuals' experiences of spiritual enrichment. More specifically, what environmental and social arrangements are most closely associated with feelings of esteem, autonomy, insight, competence, coherence, tranquility, restoration, social acceptance, and belongingness—or, in the words of René Dubos (1965), with a "reverence for the past, love for the present, and hope for the future" (p. 279)? The potential links between these basic human values and experiences and alternative environmental arrangements have scarcely been addressed in environmental design research (cf. S. Kaplan, 1983).

Previous studies suggest that physical elements such as artwork, music, color, fragrances, graphic symbols, interior plantscaping, natural lighting, and views of verdant parks may function as *environmental associators*—as elements that can enhance the attractiveness and emotional appeal of interior and outdoor settings (cf. Alexander et al., 1987; R. Kaplan, 1983; Ulrich, 1984; Wise & Wise, 1987; Whyte, 1980). At the same time, however, the question remains as to how effectively these design elements can enhance occupants' sense of attachment to the setting and the quality of their spiritual experiences in the absence of sustained organizational and social supports. Along these lines, some theorists suggest that the symbolic meaning and spiritual quality of environments must be cultivated or "choreographed" over time through repeated rituals and group activities (cf. Saile, 1985; Seamon, 1979).

In closing, I want to mention some more general issues that are raised by instrumental and spiritual views of environment and behavior. First, the spiritual perspective, with its emphasis on human values and enrichment, moves ethical concerns from the background to the forefront of environmental design research and training (cf. Tzamir & Churchman, 1984). Within minimalist and instrumental analyses, planning decisions are often based on aesthetic criteria alone or on managerial concerns about organizational cost-effectiveness. From a spiritual perspective, however, design decisions are explicitly guided by considerations of occupants' emotional and physical well-being as well as by consultative and participatory processes that reveal the diverse interests and environmental preferences of setting members. The complexities of ethical decision making are most pronounced within functionally diverse settings that are comprised of multiple user groups. It is in such situations that the adjudication of competing interests and environmental preferences becomes most challenging.

Clearly, one of the most pressing ethical issues of the 1990s is the achievement of world peace and international cooperation. The quest for personalized environments and the strengthening of local culture must be balanced by the realization that global stability is vitally dependent on cross-regional collaboration and understanding. As researchers, we can make greater collaborative efforts to integrate the concepts and findings from our respective regions. Ultimately, we must find ways to promote a better balance between the instrumental ob-

jectives of high technology and the spiritual dimensions of environmental design.

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