



# A dose of nature and shopping: The restorative potential of biophilic lifestyle center designs



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## ABSTRACT

This study contributes to the biophilia design paradigm in marketing by empirically demonstrating the restorative potential of lifestyle centers. Lifestyle centers, such as manicured gardens, plants, fountains, and walkways typified by trendy retail, dining, and entertainment spots, represent an expanding global retail design concept. By drawing from attention restoration theory, this research links biophilia design to human health; namely, restoration from mental fatigue and suggests a transformative benefit to lifestyle visitors. Furthermore, a series of experiments demonstrate the steadfastness of biophilia design by exploring consumers' responses to natural elements depending on the purpose of their shopping trip (browsing vs. purposeful consumption) and whether they are paying full or discounted prices. Given the restorative potential of lifestyle centers, this study shows not only the importance of their expansion but also their transformative role in enhancing both individual and societal well-being.

## 1. Introduction

More than a quarter century ago, Goss (1993, p. 23) noted that the harsh, concrete-laden architectural design features of regional shopping malls, with their “automobile-focused landscaping” and lack of natural and rustic elements, yielded passionless landscapes (Relph, 1976). These monolithic consumption landscapes seemingly deny shoppers meaningful experiences, encourage retail boredom (Lotz et al., 2010), and inhibit the ability to develop close bonds, or place attachments (Brocato et al., 2015), to mall locales. Indeed, contemporary retailing commentators argue that shopping malls suffer from a customer “discovery deficit” (Verde and Wharton, 2015), with shopper boredom emulating from a lack of newness and unique experiences in the mundane and expansive built environments. Many huge, enclosed shopping centers, with their lack of green spaces, tend to appeal to shoppers' casual attention (Relph, 1976); the mall itself is of little or no interest to consumers but is merely a context to serve more immediate concerns with fulfilling consumption needs. Indeed, although mall designers likely desire shopping malls to become part of local communities, the enclosed, nearly windowless designs are inadequate substitutes for the seeming loss of community characteristic of post-war American suburbs (Steward and Dickinson, 2008).

Many retailing scholars suggest that retailers (Breneman et al.,

2012; Mower et al., 2012) and mall developers (Rosenbaum et al., 2016) can increase shopper interest by engaging in “demalling” (Reynolds et al., 2002), a process of converting enclosed malls into open-air shopping areas and “entertailing” (i.e., the addition of entertainment-oriented services in a retail context). A key architectural design feature in open-air shopping areas is the integration of natural elements, such as greenery, water displays (fountains), and animals (e.g., birds, butterflies, squirrels), into shopping contexts that feature trendy retail and entertainment options. Pioneering marketing researchers on this contemporary retail phenomenon have coined the term “biophilic store design” to denote a managerial strategy that “incorporates natural forms, elements, and conditions into the built [retail] environment” (Joye et al., 2010, p. 58). Along these lines, Kellert (2008, p. 5) refers to open-air malls as possessing a “restorative environmental design,” or “[a] biophilic design approach that fosters beneficial contact between people and nature in modern buildings and landscapes.” While Tifferet and Vilnai-Yavetz (2017) consider phytophilic design as a subcomponent of biophilic design, which refers to the use of plants in built environments.

Bitner's (1992) classic servicescape framework accounts for biophilic design. The framework posits that natural elements housed within built environments elicit evocative emotional responses without service employees and consumers that, in turn, nurture positive

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approach behaviors and social interaction between and among these groups within consumption settings. Bitner's contention about the suggestive allure of natural elements in consumption is linked to research in natural psychology, most notably Kaplan's (1987) perspective on the restorative health benefits of natural elements.

According to Kaplan (1987), natural elements inherently contain three dimensions that inhibit boredom: complexity (e.g., visual richness), mystery (e.g., encourages exploration of a setting), and coherence (e.g., an immediate understanding; Tang et al., 2015). Although Kaplan is referring to a person's boredom in general, Bitner (1992) extends these thoughts to consumer marketplace behavior, linking the nuances of consumption with natural settings. Thus, the presence of natural elements in shopping contexts might help inhibit consumer boredom and encourage positive shopper responses, such as spending more time and money, as a result of the restorative elements in malls' physical environment or servicescape.

Biophilic store design may offer an explanation for the increasingly popularity of lifestyle centers, despite the decline of traditional malls, including regional and super-regional centers (Nielsen, 2014; Reynolds et al., 2002). A lifestyle center refers to an open-air retail setting comprised of at least 50,000 square feet of retail space that caters to an affluent clientele. The retail space embodies the entertailing retail concept, with lifestyle centers offering diverse amenities such as dining, recreation, and entertainment, all in a setting of landscaped gardens, water elements, and gathering places (Joye et al., 2010; Nielsen, 2014; Yan and Eckman, 2009). Many lifestyle centers also feature mixed-use space, such as hotels, residential suites, and offices, albeit in the context of trendy retailing options.

Prior studies have tended to explore the impact of greenery in actual stores, window displays, shopping districts, and enclosed malls on shopper emotions, attitudes (Bregman et al., 2012), feelings of arousal and pleasure (Tifferet and Vilnai-Yavetz, 2017), and well-being (Rosenbaum et al., 2016). Yet the influence of biophilia design, in the context of an open-air lifestyle center, on consumer responses or health remains relatively unexplored, despite the increasingly global popularity of this retail format (Nielsen, 2014; Yan and Eckman, 2009). Indeed, detailed understanding of biophilia design within consumption settings in general is meager (Kellert, 2008); even though green elements have long served as a source of food, medicine, shelter, and decoration for humankind (Tifferet and Vilni-Yavetz, 2017).

Thus, the goals of this article are threefold. First, the article explores a new area in retail research—namely, the restorative potential of biophilia design in the context of a lifestyle mall. The findings imply that consumers who spend time in lifestyle centers may experience some healthy benefit; namely, relief from mental fatigue. Second, by drawing from Kaplan's (1995, 2001) attention restoration theory (ART), this research bridges biophilia design and the transformative service research paradigm (Rosenbaum et al., 2016) to show that lifestyle centers may transform consumer and even societal well-being. Specifically, the paradigm demonstrates how services, such as retailing, can improve individual and societal well-being (Anderson et al., 2013). Third, the article explores the steadfastness of biophilia design by exploring the restorative potential of natural elements when lifestyle center shoppers face three typical situations: everyday shopping, browsing versus purposeful shopping (Reynolds et al., 2012), and paying full versus discounted prices (Alford and Biswas, 2002).

The plan for the article is as follows: first, we review the biophilia literature in conjunction with ART (Kaplan, 1995; Rosenbaum et al., 2016) and the servicescape framework (Bitner, 1992; Bregman et al., 2012) to develop hypotheses for empirical testing within an experimental design. Second, we examine the impact of biophilic store design when shoppers are in two conditions: browsing versus purposeful shopping and paying full versus discounted prices. We explore these two conditions through an experimental design. We conclude the article with theoretical and managerial implications and research limitations

## 2. Literature review

### 2.1. Biophilic designs in retail settings

Biophilic store design is a relatively new concept and research paradigm in the services marketing and retailing disciplines. As previously mentioned, Joye et al. (2010) conceptualize the term “biophilic store design” to denote the integration of greenery or natural elements into retail environments and the consequential benefits of doing so. Despite the widespread use of “in-store foliage” (Bregman et al., 2012, p. 808) in retail stores, window displays (Mower et al., 2012), enclosed malls (Rosenbaum et al., 2016), and lifestyle centers (Yan and Eckman, 2009), surprisingly few empirical studies have evaluated consumer responses to biophilic store design within commercial retail settings.

Biophilia refers to “the innately emotional affiliation of human beings to other living [natural] organisms” (Wilson, 1993, p. 31). The biophilia hypothesis posits that though people reside in urban settings and have lived experiences that are far removed from natural processes and elements, they retain an innate urge to affiliate with nature as part of their genetic narrative and biological composition (Kellert, 2008; Wilson and Kellert, 2013).

Given that human exposure to natural stimuli tends to elicit beneficial psychological and physiological responses, including reduced blood pressure, heart rate, muscular tension, and levels of stress hormones, as well as improvements in mental focus and creative problem-solving abilities (Browning, 2016), the inborn drive for people to seek out and spend time in natural settings appears to be intuitive or simply “pure evolutionary logic” (Wilson, 1993, p. 32). Yet intuitive logic may partly be explainable by research that links forestry to well-being (Li, 2010). That is, research shows that exposure to trees and forestry improves the human immune system because people breathe in phytoncides, or airborne chemicals that plants and trees exude as protection from insects and disease. Studies also reveal that people who walk in natural settings (e.g., grasslands, woodlands, parks) report less depression, tension, confusion, and fatigue than those who opt to walk in indoor shopping centers (Ichoku, 2015).

Phytoncides possess anti-bacterial and anti-fungal qualities that help plants fight disease. In addition, when people breathe in phytoncides, the number and activity of their white blood cells increase, which neutralizes tumors and virus-infected cells in human bodies (Li, 2010; New York State Department of Environmental Conservation, 2016). For example, research shows that when communities experienced tree loss from the emerald ash borer, human mortality due to cardiovascular disease and lower respiratory disease increased, suggesting a link between trees and human health (U.S. Department of Agriculture Forest Service, 2014). Phytoncides may even play a role in explaining the health benefits that patients, staff, and visitors report receiving from spending time in so-called healing gardens, which are natural settings housed in the contexts of built, health-oriented environments such as hospitals, senior facilities, cancer facilities, and memory care units (Cooper, 2016).

### 2.2. Biophilic designs and ART

Social scientists are beginning to explore the impact of natural elements within commercial built environments, or servicescapes (Rosenbaum and Massiah, 2011), on consumption behaviors and health-related outcomes. For example, consumers may be innately driven to patronize consumption settings that feature natural elements, such as aquariums in shopping malls (Windhager et al., 2011), wilderness excursions in recreational parks (Arnould et al., 1998), grassy areas in an enclosed, urban mall (Rosenbaum et al., 2016), or even combinations of trees and ersatz natural elements (Reisberg and Han, 2009), to achieve well-being. Indeed, research findings suggest the retailers may realize economic benefits from biophilic design; which stem from enhanced employee productivity, positive shopper responses,

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