

VALUES OF OPEN SPACES

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ABSTRACT

The open spaces in and around the buildings functions in much diversified manner. This paper is in continuation of the study of open spaces in and around the office buildings of North India. The paper deals with the Physiological values, Psychological values, Ecological/environmental values and Economic values of open spaces in offices. It further explains the feeling developed among the users of the open spaces while using well defined and well designed open spaces as stress reducers, as source of social interaction. It explained role of open spaces in improving the working conditions in offices by improving microclimate of the area and enhancing ecological values of the region. The open spaces also enhance the economic values of the area with suitable open spaces in and around the office buildings. The value encored by open spaces is not merely functional occupancy (good or bad) for which it was designed but also psychological, physical, economical and conserving natural resources.

VALUES OF OPEN SPACE

The open space provides a variety of functions that satisfy human needs. deGroot (1994) has suggested a system grouped into four categories: regulation functions (related to micro-climate), carrier functions (related to activities in open spaces), production functions (related to energy generation) and information functions (related to psychology). The office workers spent a great part of the day tied down to one work-place and both psychologically and physically they require certain minimum comfort. They need suitable work environment in terms of air-temperature, ventilation and diffused light and there is one thing more they need; the possibility of occasionally looking out from their work places to relieve their eyes. The desk/file/computer work in offices generally require the people to focus their eyes for long periods for a distance approximately 350mm in front and it very soon tires the muscles of eyes. So if the eyes now and then shift the focus on objects at a far distance, then the fatigue is relined. In other words from the discussion above it is clear that the office worker need a *View* and windows are kept fundamentally at suitable sill height for view in addition to natural light.

Open-air recreation and access to open spaces is an important part of many people's daily lives, and research has shown that "Outdoor activity provides scope for relaxation, refreshment, escape from the everyday and a chance to form social relationships" (Macnaghten and Urry, 2000).

So it is clear that the open spaces are beneficial to the occupants of the buildings not only on terms of getting view of outside, but its benefits goes with a long trail further. The value encored by open spaces is not merely functional occupancy (good or bad) for which it was designed but also psychological, physical, economical and conserving naturalresources.

PHYSIOLOGICAL VALUE OF OPEN SPACES

The Physiological benefit of open space with the vegetated landscape reduces stress, sexual unhealthiness, and tension can easily be demonstrated through the experiment done by *Roger Ulrich (1980)*. Living close to parks and other recreation facilities also is consistently related to higher physical activity levels for both adults and youth (Sallis J. 2006). The photo simulation of the natural environment to reduced stress levels as measured by physiological indicators such as heart rate and brain waves. An early study by *Ulrich (1979)* demonstrated that people experienced more "wakeful relaxation" in response to slides showing vegetation only and vegetation with water as compared with urban scenes without vegetation. This data was supported by attitude measures which indicated lower levels of fear and sadness when subjects viewed nature related slides, as compared with urban slides. It presented a test of the relationship between nature and physiology. If reduced stress results from passive experiences of the natural environment, we can only assume that the effects of active exploration would be greater. Recovery was faster and there was less use of drugs among post-surgery patients who had a view of exterior greenery than among matched patients with views of buildings.

Stephen Kaplan wrote:

"The difference between nature as an amenity and nature as a human need is underscored by this research. People often say that they like nature; yet they often fail to recognize that they need it...Nature is not merely 'nice.' It is not just a matter of improving one's mood, rather it is a vital ingredient in healthy human functioning"(1992)

PSYCHOLOGICAL VALUE OPEN SPACES

The most domination use of open spaces is to have a place of peace and solitude. Some people in open spaces come to sit passively and others may come to act actively. In context of open spaces in office premises the occupants wish to seek places set apart physically, or separated from other people, while others seek to simply remove themselves from their daily rituals and need no physical or social separation. Natural open spaces and well-designed green spaces provide a path for recreation, social interaction and community action, are a source of natural resources, and are highlighted as having a particularly positive influence on health and well-being (Ulrich and Parsons, 1992).

OPEN SPACES AS STRESS REDUCER

Stress is basically the reaction of the body against work overload physical as well as mental. The psychological/emotional benefits from contact with nature are widely recognized as relieving stress and tension and diminishing anxiety. These benefits may become more prominent as the global burden of disease changes over time. Exposure to open space, and green space in particular, is important in promoting restoration and relaxation, and reducing stress.

A number of studies have investigated the impact of green space on mental health. Two major schools of psychological thought: One suggests that nature serves to reduce our stress by reducing physiological arousal (Barnes 1994), and the alternate perspective suggests that stress results from our efforts to deal with "information overload" (Kaplan and Kaplan, 1989). But it is most important that both theories agreed that the Open spaces act as stress reducer for the people and that may be directly or indirectly attract people towards themselves.

The people following a scheduled working routine may get stressed because of that machine routine and tend to get away from it, the open space within the vicinity provide the place not to reduce the stresses but also to recharge them, restore their ability to rejoin and to continue with their work. Reduction in the level of stresses may improve the behavioral approach but also health improvement.

Open spaces as Stress Reducer with privacy

It is possible that when we say we seek privacy, we mean a place of protected intimacy rather than solitude. The open spaces enable a "psychological escape" or an opportunity to think in a less pressured way, about the circumstances of daily work. The open spaces provide time and areas to the people to sit alone or in companionship to discuss or to think upon day's tension. It also provides place and space in self exploration by providing natural privacy and opportunity to restore them. Researchers within environmental psychology have evaluated whether the restorative effect of natural landscapes is one of the reasons why people prefer natural landscapes over urban ones (Hartig and Staats,2006)

Open spaces as Stress Reducer with Social interaction

The extent to which participation in activities within natural open spaces encourages individuals to build confidence and self-esteem, develop basic social skills, and maintain or improve their quality of life. Open spaces provide places for people to meet and interact, thus increasing social cohesion and social inclusion. They provide opportunities for education and lifelong learning. Well-designed spaces can promote a sense of place and be a source of community pride, helping to reduce crime and the fear of crime. They also provide opportunities for physical activity, helping to promote active and healthy lifestyles. Meeting people or going out in small groups thus helps to enhance community spirit and foster a more socially inclusive society (Scottish Natural Heritage,2002).

Social interactions in such open spaces provide opportunity of discussion on various issues in lighter un-official mode. It not only provides solution to complex problems but also provides time and way

to improve mutual interaction among the people in the neighborhood. It also offers chances to one-one interaction. The social interaction sometimes also helps in motivation of the group of people for common cause. Open-air recreation and access to outdoor spaces is an important part of many people's daily lives, and research has shown that outdoor activity provides scope for relaxation, refreshment, escape from the everyday and a chance to form social relationships (Macnaghten and Urry, 2000).

ECONOMIC VALUES OF OPEN SPACES

The most direct measure of the economic value of open space is its real estate market value i.e. the cash price that an informed and willing buyer pays an informed and willing seller in an open and competitive market. The right mix of sun and shade or the shelter from wind-Pleasant conditions will attract people who, in return, will make these areas more attractive for offices or other facilities depending on pedestrian frequentation. In short, the success of a public open space can be based on the number of people who use that space (Carmona et al., 2003). Walk able neighborhoods, parks and open spaces also are believed to generate economic benefits to local governments, home owners and businesses through higher property values and correspondingly higher tax assessments (Robert Wood Johnson Foundation, 2010). The areas or buildings with more well defined open spaces in around enhance the per unit rate of the plot or the area in the region in comparison to sites with less designed open spaces. Nearby green space has been shown to enrich real estate prices and attract economic activity, as well as having manifold socio-cultural functions (Tyrvaainen,1999).

ENVIRONMENTAL/ECOLOGICAL VALUES OF OPEN SPACES

Comfortable conditions have been regarded as those where occupants feel neither warm nor cold, where ambient conditions are „neutral“. However, it is increasingly believed that a variable, rather than fixed, environment is preferred (M. Nikolopoulou 2003). Features such as well-groomed grounds, public access to 'corporate' gardens in plazas, parks, and roof tops, can greatly enhance corporate image (Parker, 1992). Open space often supports natural systems that provide direct benefits to human society such as ground water recharge, climate moderation, flood control and storm damage prevention, and air and water pollution abatement. The Central Scotland Forest Forum (2003), claim that taking a strategic approach to the planning and management of urban green space brings a wide range of environmental benefits. These include the filtering of air pollution, the stabilization of ground surfaces, the interception of rainfall which reduces flooding, the creation of visual and sound barriers. The presence of landscapes in and around the office environment has a significant impact upon worker satisfaction which in turn affects productivity (Randall *et al*, 1992). Green spaces also play a vital role in sheltering, shading and water protection, and decreased local airtemperatures(MacArthur,2002).Therightmixofsunandshadeortheshelterfromwind-

Pleasant conditions will attract people who, in return, will make these areas more attractive for shops, restaurants or other facilities depending on pedestrian frequentation. In short, the success of a public space can be based on the number of people who use that space (Carmona et al., 2003). The open spaces in and around the building strongly maintain the micro-climate of the region and in turn main the flow of the people in such openspaces.

CONCLUSION

The open spaces in and around the buildings functions in much diversified manner. One open space in and around a building can impact the physiological parameters of humans like Heart beat, Blood pressure etc, further the same open space can also act to reduce stress among people by providing space to calm down and think alone or by mutual interaction with other people by offering socializing space. The well defined open spaces not only enhance the economic value of the property but also improve the microclimate of the area, improve energy generation by solar panel/wind power apparatus implementations, improvement of water table through rain water harvesting. So, single open space can perform in various dynamic ways to facilitate the humanlivings.

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