

THE QUALITY OF LIFE

Submitted by

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From earliest recorded time, man has been manipulating his environment in order to make his life more comfortable. Whether it be the igloos constructed by Eskimos in the Arctic to shelter against the elements, or breeze-catching shelters in the tropics, or the controlled, life-sustaining environment of a space shuttle, we have devised methods and technologies to not only insure our survival in varying conditions, but to enhance our comfort as well. The degree of comfort we feel can be termed the "Quality of Life". The quality of life can be measured in definable terms and on a scale of quantifiable values. This discussion regarding the quality of life, will address some of the measurements we can make and how we can enhance the quality of life in our communities.

In order to measure the quality of life, we must first establish the criteria by which we will evaluate a community, based on an agreed system of values. For example, our monetary system establishes a commonly agreed upon scale of economic value. A dime is worth more than a nickel, a quarter is worth more than a dime, etcetera. In measuring the quality of life, our scale is the degree of human comfort. For example, an enclosed shopping mall with climate-control systems has a higher degree of human comfort than an open shopping center exposed to the elements; and thus the quality of life is higher in the enclosed shopping mall. Criteria which we will consider in the measurement of human comfort include such factors as accessibility, and availability of facilities which affect human comfort, and whether or not opportunities and freedom of choices for each individual to reach their potential are enhanced or diminished. These criteria would include the availability and accessibility of the basic requirements for human comfort: food, water, and shelter; and other

factors such as the availability and accessibility of health services, educational facilities, recreational facilities, shopping, social and cultural facilities, parking, transportation, and the like. The lack of availability or impairment of accessibility would result in lower levels of human comfort or diminishment of opportunities and choices, thus reducing the quality of life.

To illustrate the measurement of the quality of life, let us consider two scenarios: Model A--a typical mixed-use community center that has been developed in the conventional pattern of sale and development of individual parcels of land; and Model B--a high-density, mixed-use, enclosed and climate-controlled pedestrian center development, which has been developed as a coordinated center. To further describe Model B, imagine if you will, a regional shopping mall that is enclosed and climate-controlled, such as Tysons Corner Mall in Vienna, Virginia, which has not only shops and commercial facilities, but residences, offices, schools, and other facilities. For our comparative study, we will assume that both models have all of the same facilities: residences, offices, shops, cultural and social centers, educational facilities, government offices, parks and recreational facilities, transit facilities, police, fire and health services, parking facilities, and the like. Given that these are equal in our test models, we can then compare them on the criteria of human comfort and determine the quality of life. If we wished to physically test each scenario for levels of human comfort, we could construct models of each, much the same as we would construct model cars and airplanes for wind tunnel testing, to measure levels of human comfort.

In examining our two models, we will assume that basic provisions of adequate food, water, and utilities exists. In looking at the third factor of basic requirements for human comfort: shelter, we can see marked differences between the land-parcel development pattern of Model A, and the climate-controlled mixed-use center of Model B. There are many measurable climatic factors which affect human comfort, some of which we are familiar with in the form of weather reports or thermostats in our homes. Variables such as temperature, humidity, wind, sun intensity, or air quality, can be measured to determine if they fall within a range in which we feel comfortable, without seeking some form of protection or shelter. This is commonly known as the "human comfort zone".

In Model A, we are reasonably assured that conditions within each building or facility are within the human comfort zone as many such facilities are heated or air-conditioned to make us feel comfortable while carrying on activities inside. But what happens when we are outside these facilities, exposed to the elements of climate? We can then measure the number of days when climatic factors fall within the human comfort zone. For each day that we feel uncomfortable because it is too hot, too cold, or raining, or snowing, or too windy, or any other reason for discomfort, which prevents or inhibits our use of a facility, an opportunity to reach our potential is lost, and the quality of life is diminished. If, for example, a thunderstorm should cause us to be uncomfortable and cancel the opportunity to partake of a concert on the plaza, we have lost an opportunity to realize our potential of an enjoyable evening; and the quality of life has been diminished.

In sharp contrast, the climate controlled scenario of Model B, where all the facilities are essentially sheltered, no days are lost and no opportunities are lost due to inclement weather. We can comfortably walk to any number of facilities with relative ease and comfort in a sheltered, climate-controlled environment, even if there is a raging blizzard outside. Additionally, if we choose to take the opportunity to go out and splash in a summer rain storm or build a snowman in the park, that choice is freely available within walking distance by simply going outside to any number of rooftop gardens, parks or recreational areas. Opportunities for individuals to realize their fullest potential are maximized, and thus the quality of life is enhanced.

Accessibility to available facilities affects human comfort in several ways. Factors of physical distance; comfort in feeling oriented or knowing where you are at any given point; or comfort and security in knowing that you can move about with minimal threat to life and limb, are all factors of human comfort.

In Model A, the physical distance between homes and facilities is effectively greater than Model B, as the development pattern of building facilities on individual parcels of land, spreads facilities over a greater area. The consequence of the increased physical distance is reduced accessibility to the facilities, whether by how far one can comfortably walk or limits of how much time it would take to go from one destination to another. When the distance becomes too far for us to comfortably negotiate, opportunities are lost and choices reduced. In order to overcome some of the problems of distance in conventional development patterns, accommodations must be made for automobiles and transit systems in order to shorten the effective distances.

Consequently, human comfort is compromised as auto-pedestrian conflicts increase. Land that would otherwise be used to provide amenities such as parks are covered to provide parking for cars, and even air quality is reduced as auto exhaust pollutes the air we breathe. It is doubtful that any one of us feels comfortable about sending our children to school if we know that they must cross a busy street or even ride a school bus through heavily congested streets and highways. We feel even less comfortable if the paths they used to walk to school are inadequately lit or out of easy sight by patrolling police to assure their safe passage. Neither would we feel comfortable if their route to school involves complicated turns down different paths that lack adequate landmarks or guideposts to assure that they would reach their destination without getting lost. All these factors affect human comfort and the quality of life. If we feel that the only way of seeing our children safely to school is to drive them their personally in our cars, the freedom of choice is lost; the quality of life has been diminished.

Again, Model B offers some sharp contrasts when we examine factors of accessibility. First, the physical distance between facilities is minimized due to the concentration within less space than land parcel development. For instance, since it is a pedestrian center, there is no space between facilities lost to parking lots. Rather, that space is used to place another facility. Any resident in the center can easily walk to any number of facilities in relative ease and comfort. With ease of accessibility, opportunities for use of the facilities is maximized, potentials realized, and the quality of life enhanced. Secondly, since the physical distances are within human comfort range, we do not need to compromise human comfort to the automobile in order to make facilities reasonably

accessible, therefore we can have a pedestrian environment free of auto-pedestrian conflicts that inhibit our comfort. We need not worry about our children crossing busy streets, and we do not have to breathe air polluted by car exhaust. Other factors that add to our comfort in this model include well-lit facilities and passages which can be easily patrolled, and indeed lending itself to self-policing, adds to our security and comfort. Additionally, the approach from surrounding areas, entry points and within the center itself, there would be a clearly delineated order and coordination of orienting elements to assist in guiding us and assuring us of knowing where we are, at any given point. We can send our children to school with comfort that any obstacles or danger to their safety is minimized; we can go for a leisurely stroll to get an after-dinner treat, or run errands at any number of facilities within easy walking distance and minimal obstacles or dangers to discomfort us. With free accessibility, we increase the opportunities and choices available to us and the quality of life is enhanced.

In either model, there is a necessary or critical size of population that is required to offset the costs of providing facilities and amenities within reasonable accessibility. In typical land parcel development, the supporting population is spread over a larger area and accessibility problems must be solved to assure the economic survival of the facilities. If we had to run a number of errands in a day: drop some shirts at the cleaners, go to the library, take the children to the dentist, and pick up something for dinner; we are more inclined to patronize a place where all these facilities were located in one place than facilities that are scattered over different places. It saves us time and trouble; it is more comfortable to use a multi-use facility particularly if it involves only a short walk and it is sheltered from the elements.

The costs of overcoming accessibility problems in the land parcel development model often are at the expense of providing basic comfort measures. The Model B center can more easily afford to look into specific comfort needs not only of the general population, but of special user groups as well; from infants and working parents to senior citizens and the physically impaired. The required size of population needed to support the amenities of this model is immediately there, rather than a car ride away. We can measure the number of created and lost opportunities and choices in both models, which could be located anywhere in the world. We will consistently find those developments which more closely approximate the ideals of Model B to have a higher quality of life.

In contemporary community or town planning projects such as the new town of Reston, Virginia, the quality of life can be measured in its achievements in providing for many of the basic human comforts and a wide variety of opportunities available to its citizens with minimum obstacles, such as: a variety of recreational and cultural facilities, schools, and shopping located in walking distance of homes and a path system which seeks to minimize pedestrian-auto conflicts. The success of attaining a high quality of life standard in Reston is an ongoing struggle to provide the maximum opportunities with minimal compromise to human comfort. Reston's development follows along the conventions of land-parcel development patterns that we examined in Model A, and so it must deal with the problems of diminished human comfort to reach a higher level in the measure of quality of life.

There is an alternative for Reston that more closely approximates the ideal which we examined in Model B. I have developed a proposal for a multi-use center



which would be located over the air-rights of the Dulles Access Highway . This multi-use center would house a full range of facilities and amenities to enrich opportunities and assure the highest levels of human comfort . The uses in this center would include: residences, shops, offices, cultural and social centers, government offices, educational centers, recreational facilities, parking, and a connection to the proposed light rail system proposed on the Dulles Highway median . These facilities would be sheltered from the elements, with climate-controls to assure basic levels of human comfort . The center would be pedestrian oriented, eliminating conflicts with automobiles . The roof tops would be used to provide a variety of parks, gardens, recreational facilities, and open spaces .

This multi-use center is located in the center of Reston . By bridging over the Dulles Access Highway with this center, the northern and southern portions of the community are united into a whole community . The multi-use center would be directly accessible from all the major thoroughfares in Reston and from the Dulles Access Highway, which is a major regional transportation artery . Thus, this center becomes an integral part of the fabric of Reston and the surrounding region .

Some eight million square feet of offices and another ten million square feet of facilities for the Xerox Corporation are currently planned or under construction in the vicinity of Reston . This development will result in many new jobs, and incoming population to the area . This new population will add to the already existing critical population size in Reston, necessary to support the facilities and amenities that are proposed for this multi-use center . Additionally, the new jobs generated by the center itself will provide population needed to support and assure the economic survival of

this multi-use center. Reston will soon be reaching the physical limits of its growth as its remaining land holdings are developed. This proposed multi-use center would in essence create "new land", which would allow us to extend the future growth of Reston beyond the capacity of its existing land holdings.

The realization of this multi-use center over the Dulles Highway is possible. It will require the reeducation of the general public in its present perception that wealth is associated with the freedom to mindlessly build as if our resources have no limit. That perception must be changed so that wealth becomes associated as an opportunity to control development in a rational, ordered pattern which realizes the limits of its resources and uses them to their fullest potentials. One of the most valuable resources in Reston is its people. Only with commitment of people to a value system which regards human comfort as a priority and which strives to enhance the quality of life in a cooperative, coordinated effort, can we assure continued enjoyment and the enhancement of the quality of life in Reston.

"As far as I know, the first true Town Center remains to be built. The contemporary multi-use projects, let alone regional shopping centers, cannot hold a candle to great urban spaces (planned or unplanned) that came into being in the past centuries and still remain for our enjoyment today and for years to come. Which of the (multi-use centers) built here or abroad in the past twenty years, affords the joy, the serenity to be had walking the streets of the center of any one of the hundreds of exciting metropolises spotted on all of the continents of the World? It was the prospect of trying to meet this challenge that excited me when we were planning Reston's Town Center. That prospect still excites me. . . . The Town Center history since I left Reston has been depressing and your program for a (multi-use) Town Center has in it the elements that I have longed to see included. I wish you success in your efforts to have this accomplished in Reston."

-Robert E. Simon, Jr.  
Founding Father of Reston, Virginia  
in a letter to Guy L. Rando,  
April 23, 1984