Albuquerque -

Lineal

City

by

Harold Benson
People being social creatures develop fairly well defined cultures. Because of varying circumstances these cultures or ways-of-life differ in time and in place. Cultures are meaningful and they are compounded of all aspects of life — trade, religion, philosophy, etc.

If the architect still has a function (which has been seriously debated in recent years), it is to provide spaces in which people of a given culture can move and live. In order to provide for the requirements of a complex culture, however, the architect must consider the many, many different aspects of this culture. His solution, in a sense, is one which compounds multitudinous partial answers, each partial answer is a response to one facet of the culture. His over-all solution the architect expresses in space.

But even more fundamental than the final spatial solution itself is the architect's discovery of the distinguishing qualities of the cultural institution with which he is working. Louis Kahn, leading Philadelphia School architect, refers to this definition as "exist-will" or "what a thing wants to be." The act of defining becomes itself far more important than the many half-answers which result. If in town planning (architecture on another scale) the environment can be understood, the design will merely implement the inherent qualities without destroying their meaning. In other words, the problem has to be stated before it can be answered.

The following scheme is not intended to be a final answer to the plan for Albuquerque. It is only hoped that the problem can be considered in another aspect, which, in our pragmatic world, is often by-passed. This aspect is the space of the city, or in other words, the architecture of the total city.

The development of cities throughout history has passed between two extremes in growth. One is, an imposed orderliness in which the city attempted to control or plan the environment. In the study of cities this stage is most emphasized by historians: Romulus' Rome, Augustus' Rome, Sixtus V's Rome, or Mussolini's Rome. Opposed to this is a random chaos in which the indifferent city permitted congestion and expansion without any sense of unity within the whole. We tend to ignore or at least regret this stage. At different times in their history most cities have tended toward both of these extremes. The danger to sensible city development is reached when one extreme does not counterbalance the other.

In Albuquerque examples of the first position are the "Spanish Town" centered around Old Town Plaza and the "Railroad Town" gridiron of the 1880's. Most pronounced example of the second direction is the City's undisciplined sprawl of the post-war years. Yet in the past six months the "Downtown" has received belated concern from politicians, merchants, editors and realtors. The chaos of Albuquerque development during the last twenty years is beginning to be realized.

The discussion which follows is an attempt to clarify or to discover the basic but complex pattern of the living city. An awareness of the underlying and creative order is fundamental to any study for a general plan for Albuquerque.

The natural growth of many American urban regions has been the linear or ribbon pattern, i.e., development along a major transportation route. This type was developed in the past on a village scale along roads between larger towns. But it was not until the advent of the automobile that it has had a city scale. For example, the Atlantic coast from Norfolk, Virginia to Portland, Maine along Route #1 has developed into
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one long, giant centipede. With few exceptions most professional planners have not encouraged this concept. Soria y Mata’s streetcar line plan for Madrid was only partially carried through. More recently Hilbersheimer and Le Corbusier have advocated this direction but none of their schemes have been executed.

Albuquerque, like most ribbon cities, has grown unconsciously into this pattern. Route 66 or Central Ave. is the spine on which the city hangs. For twenty miles through its heart this multi-functioned road has created the image of Albuquerque. It serves both tourist and resident — the tourist as a throughway and the local resident as a connector of centers or nodes of activity. Enumerated from east to west, these nodes are: Four Hills, Fairgrounds, San Mateo, University, Downtown, Old Town, Country Club, Rio Grande, Coors Road.

At present the connecting sections of Central Avenue between these major nodal points present mixed-up land use and traffic patterns. No overall thought has been given to create for Central Avenue the three-dimensional significance which it potentially has.

The following plan presupposes that Albuquerque desires to seek an order which will help resolve the spatial confusion and which will clarify the “image of the city.” The plan is an attempt to diagram what is possible without unduly modifying the cultural, social or economic trends. Perhaps there are many other possible patterns which will serve the city better. The desire for a sense of direction must exist, however, before any scheme has meaning.

Recalling what was said earlier about a final solution as a composite of answers to many aspects of a culture, one is reminded of what Prof. Kevin Lynch of MIT considers as three critical factors in judging the adequacy of the form of a city:

“The first of all is the magnitude and pattern of both the structural density (ratio of floor space in buildings to the area of the site) and the structural condition (the state of obsolescence or repair) . . . A second factor is the capacity, type and pattern of the facilities of the circulation of persons: roads, railways, airlines transit systems and pathways of all sorts . . . The third factor that makes up the spatial pattern of the city is the location of fixed activities that draw on or serve large portions of the population such as large department stores, factories, office and government buildings, warehouses, colleges, hospitals, theatres, parks and museums.” (Daedalus, Winter, 1961, p. 30)

In reference to Albuquerque, these three basic factors are shown on the large diagrams. First, the shaded areas are the maximum structural-density as well as minimum land coverage (ratio of one typical floor area to area of site). The second point, diagramed on the overlay sheet, is the general traffic pattern. The third point, expressed by the nodal areas at the intersections of major traffic ways, indicate those activities which draw large numbers of people.

By plotting the comparative heights of buildings cut along a north-south section through the city, a bell-shaped curve can be described. The extensive land use along Central would tend to encourage high-rise buildings and the height profile would taper off rapidly as one moved away from Central. Already high-rise buildings such as the Simms building, Bank of New Mexico, First National Bank begin this configuration of tall structures close to Central Ave. If the past pattern of growth were to continue, this “image of the city” would become ever more definite.

If, in the above manner, an east-west section were cut along Central, the profile would take on a modified sine-shaped curve with peaks at the mile intersections. These peaks in the vertical dimension will then coincide with the nodes on the large plan. The centers at University, Carlisle, San Mateo, Louisiana, Wyoming, etc., and Central would become even more pronounced.

The sections between the nodes would be lower so as to provide the transitional connections. The combination of these two sections will create a surface generally following the formula:

\[ Z = \frac{A}{1 + \gamma^2 + \pi^2 (x - \mu)^2} \]

where \( Z \) being the vertical axis; \( A \) a constant.
In practice, the city builders of old placed the visually important structures such as cathedrals, monuments, palaces or city halls at the nodal points. These points became the landmarks and were most useful for orientation. In 1962 our architectural monuments tend to be the palaces of business. The nodal points, as shown on the diagram, are at the intersections of major transportation routes.

The suggested diagram for Albuquerque makes several fundamental assumptions which must be understood in order to explain its feasibility:

1. A mass-transit system be provided for Central Ave.
2. Transcontinental traffic be separated from local traffic.
3. Local street use be redefined.
4. Pedestrian paths be provided.

1. Mass transit system
   The only possibility for solving urban traffic problems is a mass-transit system which is financially self-supporting. The automobile would be eliminated from Central. To serve the pedestrian going east-west to and from nodes would be some system which is separated from the pedestrian such as the monorail. To create large passenger demands the nodes will develop traffic deposits, i.e., parking areas, mono-rail stops and bus stations. The only north-south through streets which could cross Central would, by necessity, be at these depots.

2. Transcontinental traffic
   With the completion of the Coronado Freeway, transcontinental traffic will be removed from local Albuquerque streets, particularly from Central Ave.

3. Local street systems
   The internal traffic system is to be reduced to three general types: a. Primary arterials — continuous routes which are only controlled by traffic signals at the mile intersections. Speed of 40-50 mph permitted. b. Secondary arterials — non-continuous routes which are controlled frequently by traffic signals. Speeds of 30-40 mph. permitted. c. Neighborhood streets — roads with unlimited access and very low speeds — 10-15 mph.

   The primary street system will include only the roads at the mile intersections: no other north-south roads will be continuous more than one-half mile. In the east-west direction, only the 1 1/2 mile streets will be continuous, i.e., Los Angeles, Montgomery, Menaul, Lomas, Lead-Coal. Other half-mile streets will become secondary streets and be continuous for only one mile. The remaining streets will be retained as neighborhood streets so as to generate very little traffic at slow speeds. The secondary roads are dead-ended at the present half-mile streets which now become pedestrian ways.

4. Pedestrian paths
   These "green ways" act as interlocking fingers with the primary streets. They will be interior neighborhood paths in order to connect existing and future schools and parks. From any home one could walk to recreation areas without crossing a major traffic lane. In addition to walking, both bicycling and horseback riding would be possible along these strips. The Bear Canyon Arroyo at the north and Central Avenue in the center collect these paths to allow east-west connections. At the intersection junctions of the present half-mile crossings, a multi-family housing area could be encouraged.

As a result of such a traffic pattern a community surrounded by primary arterials becomes a planning unit. This area one mile by a mile and a half is the standard presently used by the Albuquerque Public School system for one junior high school. Each junior high will support two or three elementary schools, depending on the density of occupancy. The city parks can be coordinated with the land used for schools. Community shopping will continue as at present at the intersections of the arterials. Such a controlled physical plan will tend to encourage more local interest in the community. Larger retail shopping centers such as Winrock depend on large drawing areas and the passenger car. They require, therefore, sites with great parking areas located on major throughways.

This scheme is not intended to be presented as a master plan for Albuquerque. In a general plan aesthetic considerations should play a major role but not be relied upon solely. There has been no direct concern here for the economic, sociological or political issues. Planning is not, except in Utopias, based on just one of the many facets of city life. The present discussion, however, is an attempt to explore one of many space-plans for Albuquerque’s expansion. Other solutions possibly more imaginative or practical which might be proposed can further the public’s desire to slow down and rectify the city’s present drift toward spatial and visual anarchy.

—Harold Benson
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