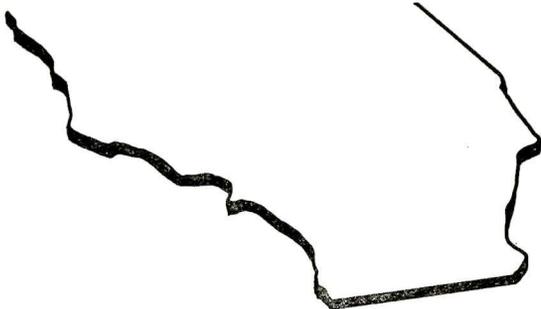




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A RUSSIAN IN CALIFORNIA: FERDINAND VON WRANGELL

WILLIAM R. & IRMGARD HUNT

University of Alaska

In 1829 the directors of the Russian American Company chose the thirty-four year old Ferdinand von Wrangell to govern their distant colonies in Alaska and California. The young man had achieved a brilliant reputation as Arctic explorer and circumnavigator and was to prove himself an able administrator as well.

Having reached Sitka, the company headquarters, Wrangell set to work to reverse the trend of declining profits suffered by the operation in the North Pacific. Ruthless hunting of the sea otter, the chief trading item, had severely depleted this resource. Costs of maintaining the trading stations remained high but the yield in fur fell ever lower. Some economies would have to be made if the venture was to survive.

It was for reasons of economy that the Ross settlement had been made in 1812 on Bodega Bay, north of San Francisco Bay. Ninety-five Russians and eighty Aleut hunters built an enclosure, residences, barracks, chapel and storehouses. Grain and vegetables were planted, fruit trees were set out, and livestock purchased from the Spanish. Ross' agricultural output was to supply the needs of the Alaskan colonies, thus ending the costly dependence of those stations upon provisions that had to reach the North Pacific across the vast reaches of Siberia. The theory was excellent but, unfortunately, Ross farmers were unable to come near to meeting the provisioning needs.

Wrangell made two visits to Ross and decided that the solution rested with the acquisition of more and better land from the Spanish — and later the Mexican — government. In pursuit of this purpose Wrangell traveled to Mexico City for negotiations, but the Czar's reluctance to recognize the new Republic made his task futile. As a consequence of the failure to enlarge the California agricultural enterprise, it was deemed expedient to sell the Ross settlement. This abandonment of the California colony meant that the gap between the cost of the Alaskan operations and its earnings could never be closed and signalled the ultimate result. Some thirty years after the sale of Ross, the other American possessions were sold as well.

Wrangell was a discreet civil servant and did not write anything of his disappointed expectations. He did, however, publish his observations on the natives of California and Alaska. While he was not a trained ethnologist, his notes reveal considerable perception and care. Years before he had studied the natives of northern Siberia, so he brought some experience to his investigations of the American Indians.

Most of Wrangell's reports concerned Alaskan natives but all, like the following excerpt on the Indians of upper California, were published in the work compiled by Karl E. von Baer, *Beitrage zur Kenntnis der rassischen Reiches und der angrenzenden Lander Asiens* (St. Petersburg, 1839). Wrangell's observations on the California natives have not previously been published in English.

SOME REMARKS ABOUT THE SAVAGES ON THE NORTHWEST COAST OF AMERICA

The Indians of Upper California

On an excursion to the area of the colony of Fort Ross (under 38°33' north latitude) I got to know the Indian tribes which live near our settlements. They inhabit the valleys of the mountain chain which surrounds Ross almost completely, as well as the plain beyond, towards the east, through which the river Slavanka runs, pouring into the sea about seven miles south of the colony.

After the harvest of wheat and barley from the steep slopes of the mountains had been brought in, and other necessary farm work had been done in Ross, we started for the plains. One of my companions had been wounded in his ear by an Indian arrow the year before in the plains we were about to visit. Recently some individuals of the same tribe had attacked and plundered the nearby Spanish mission of San Francisco. Such heroic deeds made us respect the savages and we decided to honor them accordingly, that is to say, to provide ourselves with an escort and loaded pistols. Our detachment was thus made up of three officers and twenty-one men, among whom were seven Russians, two Yakuts, six Aleuts, four Indian vaqueros and two interpreters, all of whom carried well-cut quivers on their back.

It was on September 10 (1833) that we commenced our excursion. In this season the horses were worn out because of too frequent use and scanty feed. A long drought had sharply reduced the supply of forage for Ross animals. To assure ourselves adequate transport, we took along an extra horse for every man, and two mules to carry our four-day food supply.

After crossing the little river Slavanka at its now sandy mouth we turned left and, with our backs to the sea, went uphill through defiles, woods and thickets, toward the more open regions. Even though we rode on foot paths which the Indians walked from their plains to the sea shore to gather shells we met nobody. When we finally reached a meadow of lush growth we heard singing in a loud voice. Our interpreters hurried ahead in order to investigate if we were to meet with friend or enemy and our impatience to get to know the inhabitants of this hermitage induced us to follow on the heels of the *avant garde*. Thus, chasing along at a gallop, we encountered an old Indian woman gathering herbs into a basket woven of fine root grass. She was petrified with fear, but with some trouble we learned from her that beyond a nearby woods some Indian families were living. They had doubtlessly already noticed us and gone into hiding for fear of falling into the hands of the Spaniards, who frequently went on Indian hunts in order to convert their prey to Christianity. The woman said she was gathering seeds for food and had been singing loudly in order to drive away evil spirits. She was always successful in putting them to flight because her song was echoed a hundredfold from the nearby mountains. After calming down the old woman and assuring her that her voice had not called forth any evil beings, we left her and continued on our way.

The first Indian camp was erected under a huge oak, in a rather large, wide valley enclosed by low hills, on the banks of a little river that flows into the Slavanka. Warm air, a beautiful night brightened by the moonlight, the flaming campfires — the horses grazing in the high grass — all together composed a picture touching feeling and fantasy in the same agreeable way. Only the penetrating howls of coyotes interrupted the

solemn calm of nature. When this stopped at daybreak we hurried on our way impatient to reach the much praised plains and their happy inhabitants. Soon the region became more open, immeasurable meadows of fruitful soil and lush growth of green grass spread before us; but nowhere was a trace of inhabitants. Suddenly we discovered smoke coiling up on the rim of the plain. The interpreters and vaqueros concluded that it would have to be an Indian village of numerous people, and told us so with some horror. The spaciousness of the plain allowed us to line up our little army of five people and gallop onward before the Indians would have time to hide in the brush. When we came near we saw only burning bushes and no traces of the presence of human beings. On and on, gorgeous oak forests, clean as English parks, alternated with grassy meadows; finally we came to the Slavanka which dries up at some places during the summer. It was about five *sazhen* wide (thirty-five feet) but only three feet deep where we waded through. When we had settled down in the dense woods of the left bank to take our midday meal we heard the voices of some Indians who seemed to be coming closer. We hid the horses which had been set free for feeding and sent the interpreters ahead to meet the coming ones. They proved to be peaceful visitors who had been tempted to come in order to see us. The whole bunch consisted of about fifteen men; the women and children had been left behind in the next village. We learned from these savages that the plunderers of the Spanish mission had been mostly Indians who had escaped from the mission. In devastating the mission they had sought revenge for the disturbance of the quiet life of the peace-loving valley dwellers and they now lived in the impenetrable forest beyond the plain before us, being ready to reject any attack of their suppressors by force. Among other things, our companions also learned that a respected Indian chief who had visited Fort Ross and had been treated very friendly by the Russians, was staying now in the vicinity. I expressed my wish to see him and asked our guests to tell him of our arrival. The oldest of the group immediately chose a younger one for a delegate; that one wrapped his light clothing around his hips, took the bow in his hands and disappeared so fast that we did not find time to reward him with a present for his readiness to serve us. The open, serene, carefree physiognomy and the flattering ways of these savages appealed to me immensely; thus we invited them to visit us in our camp, and they promised to do so. We were assured that we might build our camp wherever we pleased. Before evening we reached the largest of the plains; it was at first treeless, perfectly plain, lushly grown with fragrant herbs, and immeasurable to the eye with a diameter no less than forty *verst* (about twenty-five miles). To the right and left mountains rose again, from whose familiar looks we could conclude the closeness of Ross, from where they are also visible. We were about twenty-five *verst* direct distance away from Ross, but between us lay unsurmountable mountains and gorges. In order to circuit them we had covered at least seventy-five *verst*. The Slavanka runs along the western mountain range here and joins a creek that winds through the plain. We turned to the side now and returned to the meadows spreading on either side of the rivers. Night fell as we were in one of these beautiful oak groves which shade the plain here and there. The horses almost disappeared in the high, fragrant grass that covered the meadows. The campfires lit up among the foliage of hundred-year-old oaks; deep silence fell on this region so richly equipped by nature. Hardy had the nightly guard, the coyote, started its complaining howl than our new friends the Indians arrived at our fires. After having received tobacco, zwieback, glass beads and other trifles, they settled down in a circle with their fellow-countrymen, our interpreters and the vaqueros and began their favorite pastime; one may well say, the men's only one, if circumstances allow it, the game pair or unpair. Two players sit opposite each other, on both sides of them singing groups settle down whose melodic chants are interrupted only by the shouts of the guessing player; his opponent strives to hide a number of small sticks held in one hand behind his back.

while he makes fast and various movements with his arms and with his other, free hand beats rhythm of the music on his chest. The game always lasts until one of the players has lost all his little belongings. Our guests and the vaqueros were occupied with this all through the night until daybreak.

I wished to see our friends' village, so they hurried to prepare their tribal relatives for our visit. When this was done they led us on about ten verst with such agility and unbelievable speed that we had to trot our horses in order to keep up with them. We found the Indian village upon sandy ground entrenched behind thickets and dry ditches. It was inhabited by five to six interrelated families. The women had erected these temporary dwellings of the flexible sticks of sand- and other willows, and stuck them lightly into the ground, in such an immensely tasteful way, that the sight of it pleased me greatly. The different shades of colors and the varied size of willow leaves — the willow exists there in the greatest variety — gave the open-top huts a very special, rural look. The side opening which serves as an entrance is splendidly and carefully decorated with foliage; several huts are connected through inside passages.

The leaves still retained their freshness; but before they wither the inhabitants will have left their friendly dwellings; the women loading their babies and their few belongings on their back, carrying the pack with a strap which runs across the forehead; the men deciding the new dwelling place and swiftly erecting a new little village only to be left again in a few days.

The women and old folks were frightened by our appearance and seemed as if they wanted to be left alone in their peace and quiet; yet they were friendly and showed us everything that belonged to their poor housekeeping. In a few baskets lay a supply of dough of crushed acorns and a kind of groats prepared from wild rye and other seed-corns; moreover there were fish which they caught in the creek by strewing a powder made from a root called soap root on the surface of the water. This stuns the fish and makes them float. The hunt is the men's business, while the women have to carry heavy loads and do all the heavy work. This unusual distribution of work probably accounts for the strange phenomenon that the women are generally of a much stronger physique than the men, who seem to be weaker even though they look big and well-proportioned.

The Indians tell us that in the summertime neither fog nor rain dim the serene sky of these plains; the air is supposed to be warm and changes little; in the winter heavy rains fall; the Slavanka rises above its banks and floods low areas, giving new strength to vegetation. The woods consist mainly of three kinds of oaks, of laurels, of a tree called *Tschage*, and of a tree called palm in Ross, but which actually is the strawberry tree. Herbs are extremely varied and fragrant. Of animals we have seen only wild goats (*Ursus gulo*), and coyote; but doubtlessly the same genera of animals are to be found here which are native to upper California in general.

This limited information we owe to our brief acquaintance with the Indian tribes dwelling on the Slavanka plains. But since I had the chance to see these savages several times in Ross, I will be permitted to pass on some impressions of these people and the country which they inhabit.

All areas of upper California which are separated from each other by mountain ranges, rivers, position of the sea and other natural boundaries are inhabited by Indians whose language and perhaps even origin are not at all alike, even though the peculiarity of the climate and of earth products, the way of life and the equally low stage of

culture on which these savages stand would perhaps justify the opinion that there is perfect agreement in their customs. The Indians in Bodega have great trouble understanding the language of those in the Slavanka plains; the language of tribes north of Ross is completely unintelligible to them. Immediately across the mountain range bounding these plains to the east, still different ones, entirely strange to the other tribes, lead their nomadic life. At the mission St. Carlos (near Monterey) eleven different tribes with language differences have been counted in the area. However, so long as no sufficient dictionaries have been compiled and the language has not been subjected to etymological research, one has to be careful not to believe blindly the statement of the Indians that these languages are quite different; close investigation would perhaps show some relationship, and they would then appear as branches of a common stem of language, in the same way as different people are branches of a large tribe.

The same causes which estranged so many tribes consisting of only a few individuals and living short distances from each other have also produced the remaining characteristic of these Indians. Since they nourish themselves mainly with acorns, wild chestnuts and seeds of various plants, they cannot form a numerous group and are forced to leave the villages that are becoming too large and to lead a nomadic life in order to find enough supplies. Even the settled dwellers of larger, favorably situated communities have to gather their food from great distances.

While such a way of life makes them accustomed to constant changing of place, it forbids them to lay in large supplies and removes all care for the future, while ever encouraging physical activity, it must also nourish the tendency for independence native to the Americans. This must express itself in all their games, their songs, their language, even in their handicraft, such as is seen in their finery. Head ornaments, belts, carriages, etc., largely made of feathers, not only reveal their imagination but also a certain sense of beauty. Their speech, melodic voices, and chants agreeably impress the ear and contain none of that sad monotony and those difficult to pronounce, unclear, gargling sounds which strike one disagreeably in language and song of the Tlingits and Aleuts living on the sea, and with northern Americans and Chukchis in general.

Their dance betrays the savages; but the play of their fantasy captivates the impartial observer in a very attractive way. Their fantastic dress, vivid movement, chants of the chorus, even the strange decoration of the forest give the whole spectacle a tinge of poetic savageness which is far different from the brutish rudeness characterizing the Tlingit. Used to poverty, and finding all he needs to sustain himself in his forests and plains, he likes to receive objects from obtrusive Europeans; but only when forced to do so, and then hesitantly and only for a short time, will he sacrifice his freedom for them. Tobacco, glass beads, clothes, in short, all he receives, he immediately gambles with in pair or unpair, in order to try Fortune's mood. If he has nothing more to lose, he regrets the loss only because he can no longer gamble and mixes happily into the chorus which always accompanies dance and play. A vegetable diet, mild climate, and the way of life itself have made the temperament of these Indians sanguine. They love dance, song, and game, they are good natured and not vindictive by nature. Thus a murder occurs only rarely. In wars the fearless are esteemed; captured enemies are not killed but are exchanged at the end of the war, never condemned to slavery as is the custom with the Tlingits and other tribes. They tenderly love their children, but demand obedience to the patriarch, and all younger members of the tribe pay great respect to the old, who are experienced and skilled archers. The respect paid to the father is often passed on to the son; but the power of the head is actually small, for each

is free to leave his place to find a new dwelling place.

Intimidated by their great advantages, they seem fearful of the Europeans who hunt their deer with firearms and on swift horses. This fear expresses itself in a certain dullness, which is contrary to the sagacity with which Christian Padres gather these unhappy ones like herds into their missions in order to treat them as less than human beings. One would do them great injustice to call these Indians dull; nature has provided their heart and spirit with rich gifts; in the mission they quickly reach the ranks of their teachers; they easily learn various crafts and trades, become bold and skillful riders, and speak fluent Spanish. Yet since on these first steps of civilization they see nothing which would make up for their lost freedom they seize every chance to retreat into their forests. Such a mighty enemy as the European seemed to them at his first appearance must have infused great fear; but when they learned upon closer acquaintance that their feared enemies were human beings as they were themselves, only with less feeling and justice, hot revenge rose in their hearts. They devastated the herds of their suppressors, stole their horses, attacked the missions by surprise and held them open to plunder. But they killed only those Europeans who had earned their special hatred by cruelty, for instance, some particular Padre. However, this thirst for revenge never conquers a feeling of humanity; it never reaches that state of brutal cruelty to which the Tlingits succumb, for the Tlingit does not spare anyone in such a case. Even the innocent in whose veins runs only a drop of European blood falls under his dagger.

But as we compare the Indians and Tlingits we must not forget that the latter as coast dwellers were without any want of food because of the ocean, the source of nourishment for many millions. Thus they were able to form numerous societies, which communicated among each other. For these reasons they developed a national spirit at an early time, and the drive to own riches awoke and grew early in their hearts. The spirit of mutual communication could animate each and all. Likewise, the right of the stronger could assume that form of cruelty which distinguished the Tlingits. On the other hand, they lost all those agreeable qualities which are alive in all freshness with the Indians of California.

MOBILE HOME PARKS

A NEW FEATURE ON THE URBAN LANDSCAPE

JAMES D. BLICK

San Diego State College

MOBILE HOME PARKS have recently become a conspicuous part of the landscape. The number of parks has been increasing rapidly. Large blocks of suburban and rural land are being converted to mobile home parks.

Living in movable quarters is not new. Trailer courts made their appearance in the early 1930's. The early travel trailers were small, sometimes homemade, and designed to be towed behind the low-powered cars of the day. Travel trailers are still popular and they have increased in size, luxury, and cost. They are still designed to be towed and are mainly equipped for temporary living.

The modern mobile home is a product of the post-World War II period. Although "mobile" in that it has wheels, lights, etc., most are not moved after they are once set up in a park. Mobile homes vary in size. The early ones were mostly eight or ten feet wide and fifty to sixty feet long. These narrow homes, termed "single-wide," are still popular, although now they are mostly twelve feet wide. About 1960, double width (or "double-wides," as they are known) began to appear. Their width is from twenty to twenty-four feet and lengths extend to sixty-four feet. They are, of course, moved in halves and assembled in the park. A few "triple-wides" to thirty-six feet are making their appearance.

Costs vary greatly, but single-wides often go for \$8,000 to \$9,000 furnished, and double-wides from \$14,000 to \$24,000, delivered and set up. Site rental ranges from \$40 in small cities like Oroville to about \$95 in deluxe parks near San Diego. Utilities are extra. Taxes are collected by the State Department of Motor Vehicles annually with registration.

Mobile homes are usually found grouped in parks because of legal restrictions against their use as dwellings on residential lots. Parks vary in size. The largest one in San Diego County has 600 spaces. The statewide average is forty-five spaces. Many new parks have spaces for 100 or more homes. An acre will accommodate eight to ten double-wides or about twenty single-wides.

The new mobile home has all of the appliances and furnishings of a conventional home. Beam ceilings, step-down living rooms, garbage disposals, and wet bars are standard equipment. The mobile home is mass-produced and mobile and would seem to lend itself to helping solve the shortage of low and medium-cost housing. Minimum maintenance, relatively low costs, available recreational facilities, congenial neighbors, independence of one's own house, and other amenities of mobile home living appeal to many.

San Diego County

San Diego County was chosen as the locale of this study because of its increasing significance as a retirement center and because of the obviously rapid increase in the number of mobile home parks in the area.

As of April 15, 1970, the county had 414 mobile parks of five or more spaces. Parks with fewer than five spaces are generally not commercially operated and include a number of one-home parks. The 414 parks contained a total of 33,247 spaces, with an occupancy factor of about ninety-five percent. The average mobile home park contains eighty-five spaces. A little more than half of the spaces are in parks within the corporate limits of the thirteen cities of the county. Since it is not possible to readily distinguish parks which contain lived-in travel trailers and those which contain only the larger mobile homes, the two groups will be considered together.

A number of variables influence the distribution of mobile home parks. Older travel trailer courts were usually situated on commercial land in or near town and along the highway. Presently, mobile home parks may be built only on land zoned for manufacturing. Prior to March 1, 1970, parks could be built upon other land (except single-family residence) by special permit. A flurry of new parks was begun prior to this date. Construction on some was only sufficient to make it look like a start was made when, in reality, the property owners were waiting. Hence, many new parks are in some state of construction.

Two main foci for mobile home parks occur in San Diego County (Figure 1). About two thirds of the parks and spaces are within twenty-five miles of downtown San Diego City. This reflects the attraction of the large, diversified population center. Another one-third are in the so-called north county near Oceanside, Escondido, and nearby towns. Only a relatively few parks occur in the remainder of the county.

Three patterns are readily distinguishable. Clustering occurs where land has been available in large blocks. In some places several parks may occur within one block. El Cajon, La Mesa, National City, and Chula Vista lie on the outskirts of the metropolitan area of San Diego and have (or had) vacant land for park construction. Demolition of structures to permit a park to be built is rare. Clustering in the north county occurs partly because of the proximity of the Marine Corps' Camp Pendleton north of Oceanside. Smaller clusters occur at Fallbrook, north of Vista, and in the Borrego Valley in the northeastern part of the county.

Linear arrangements of parks occur along highways and roads in a number of places. Readily seen is the influence of the ocean front in the beach communities south of Oceanside.

Various densities of scattering occur over the rest of the county. Most parks east of Escondido and the El Cajon cluster are small and with few of the amenities of those closer in. Homes found in the back country may be smaller, also. Some areas have very few or no parks. Large areas of mountain land are devoid of them. Interestingly, the close-in beach communities north of downtown San Diego, such as Ocean Beach, Mission Beach, Pacific Beach, and La Jolla, lack parks. They are part of the City of San Diego and were built up at an early date. They contain little empty land and are not on a major highway.

The El Cajon Area

In order to reach a better understanding, mobile home parks were examined in greater detail in two areas, both suburban and extending from within the built-up area to just beyond its margins.

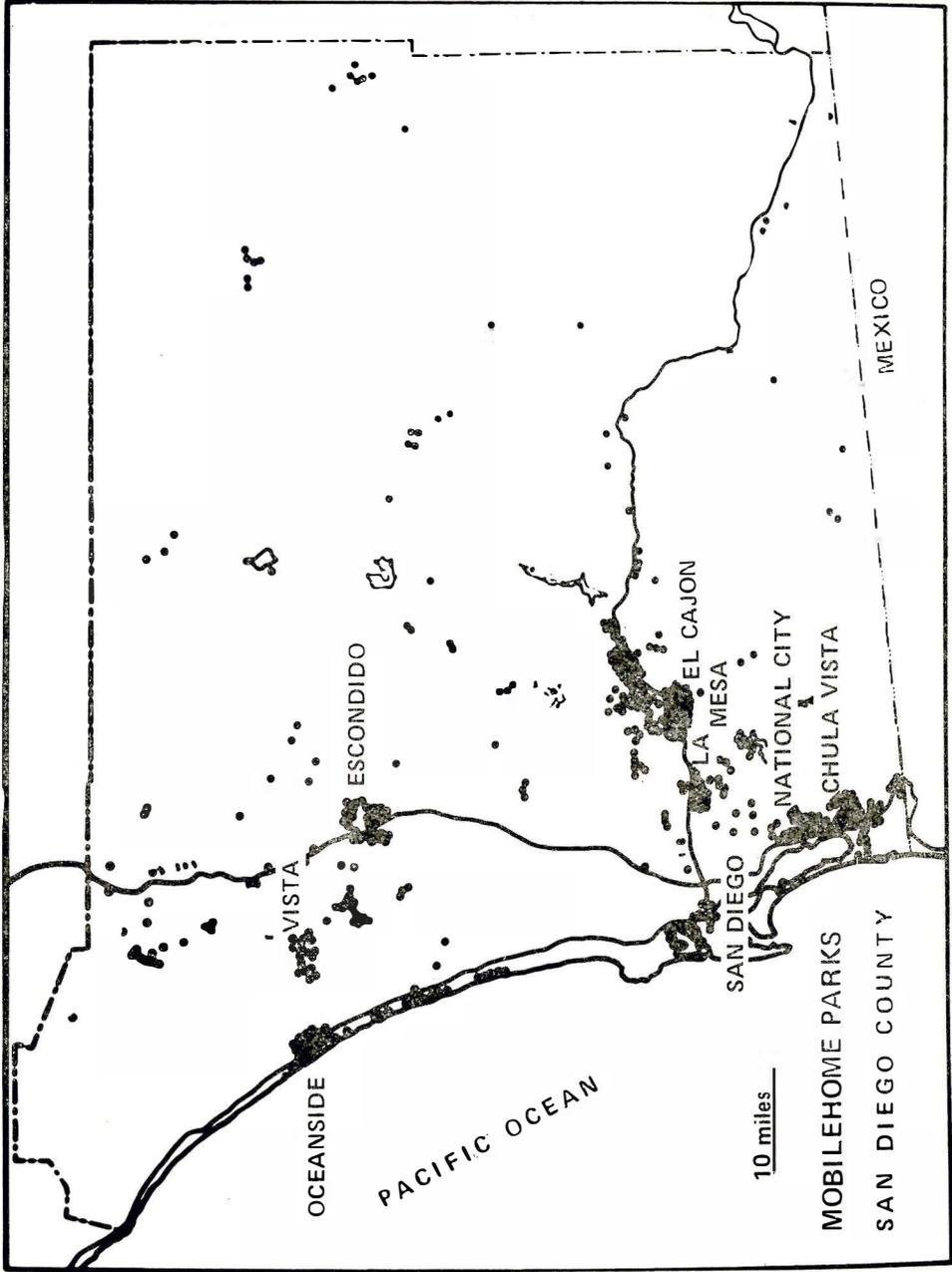


Figure 1

The first area is centered around the City of El Cajon, about twenty miles east of downtown San Diego and connected to it by freeway. The almost-circular El Cajon Valley and surrounding hills provide an attractive setting. Its typical Mediterranean climate, with warm to hot dry summers and cool moist winters, appeals to many.

Here eighty-three parks contain an aggregate of 7,053 spaces, one-fifth of those of the county (Figure 2). It is coincidental that the average size of each is eighty-three spaces.

A cluster of thirty-one parks appears in El Cajon City. The original focus was old US 80. Several trailer courts are here. More recently, larger, modern mobile home parks have made their appearance. Two small clusters are developing north of El Cajon. Most of the remaining mobile home parks appear in linear arrangements along the road, which passes through Santee and Lakeside and along old Highway 80 through Johnstown. Their number diminishes rapidly as the mountains are encountered.

Mobile home parks may be grouped by size. Five divisions were made: small, five to forty-nine spaces; medium, fifty to ninety-nine spaces; large, 100 to 149 spaces; very large, 150 to 199 spaces; and giant, 200 spaces and over. The twenty-nine small parks in this area, while accounting for approximately one-third of the parks, include only one-ninth of the spaces. The four giants, on the other hand, account for one-twentieth of the parks and one-seventh of the spaces. Within the area, those parks west and south of Santee average 134 spaces each; all are new. The older parks along Main Street in El Cajon have an average of only thirty-seven spaces.

The stores of El Cajon Valley and Lakeside serve the residents of the parks. It is interesting to note that the only public transportation in the area of the map is the bus line which directly connects El Cajon with San Diego. A car is a necessity for all who live in the outlying parks. Conspicuous are trailer and mobile home sales lots along Main Street amid the parks there. Non-owners are encouraged to buy and owners are tempted to trade up.

Chula Vista

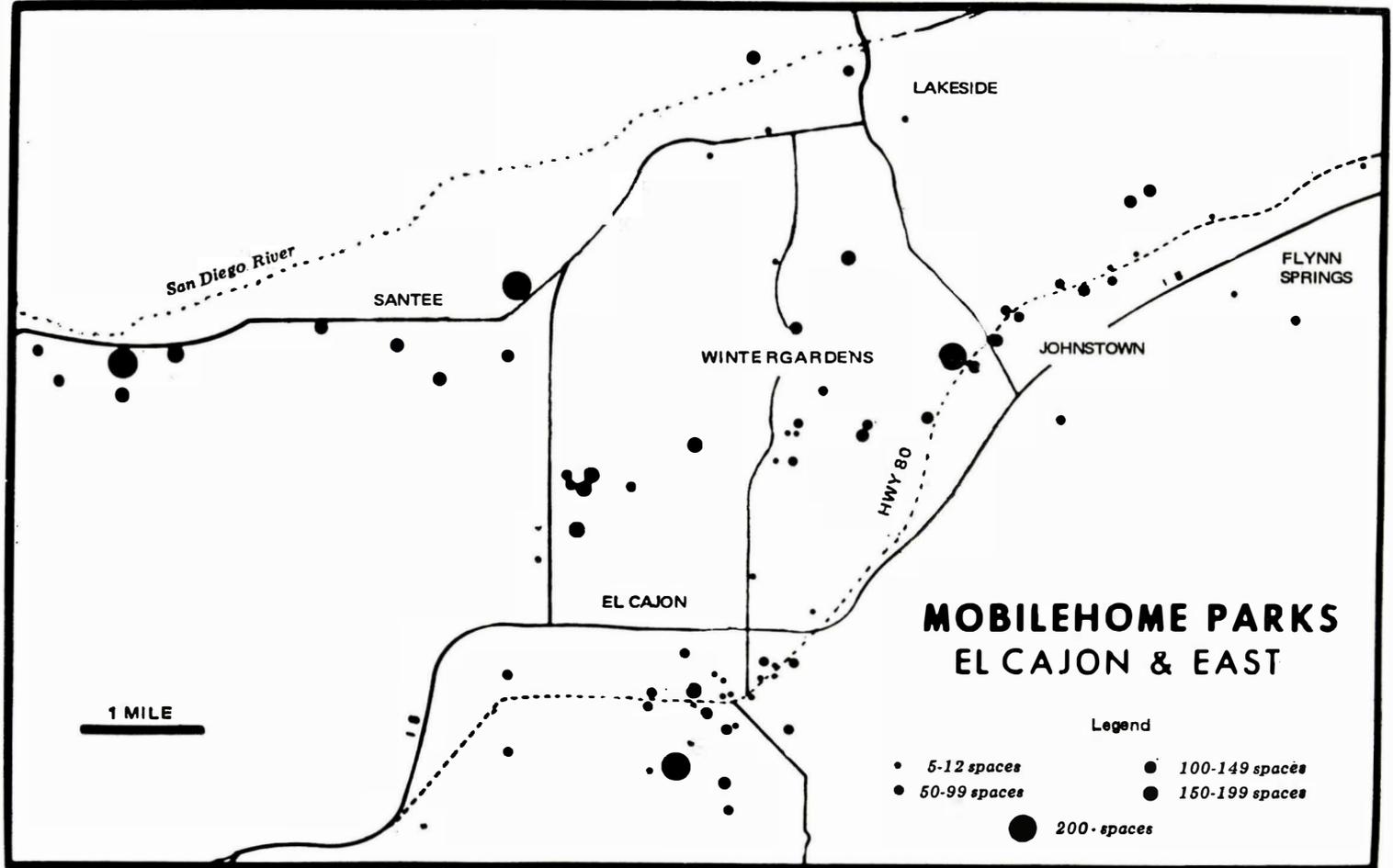
The second detailed study was made in the area from San Diego Bay south to the border. This area, with little relief, is a few feet above sea level and includes land on the lowest marine terraces in the region. The proximity of the ocean results in a cooler climate than El Cajon, especially during the summer months. Less than ten inches of annual rainfall result in a steppe climate.

Here there are no significant landform controls and the pattern of parks is mostly one of several clusters (Figure 3). These are most prominent just south of Chula Vista, in Palm City, and in San Ysidro. Old U.S. 101 attracted trailer courts at an early date. Many parks on this route date from the pre-World War II period. More recently, larger parks have been built south of Chula Vista, many of them in a rather small section along Anita Street.

This area contains fifty-nine mobile home parks which include 5,200 spaces. Ratios are about as in El Cajon. The nineteen small parks account for one-third of the parks but only one-tenth or 536, of the spaces. The four giant parks average 259 spaces each and together account for one-fifth of the total spaces.

All of this area is south of Chula Vista, which is the major shopping center. Proximity to the border and Tijuana does not seem to be an attractive force. All five

Figure 2



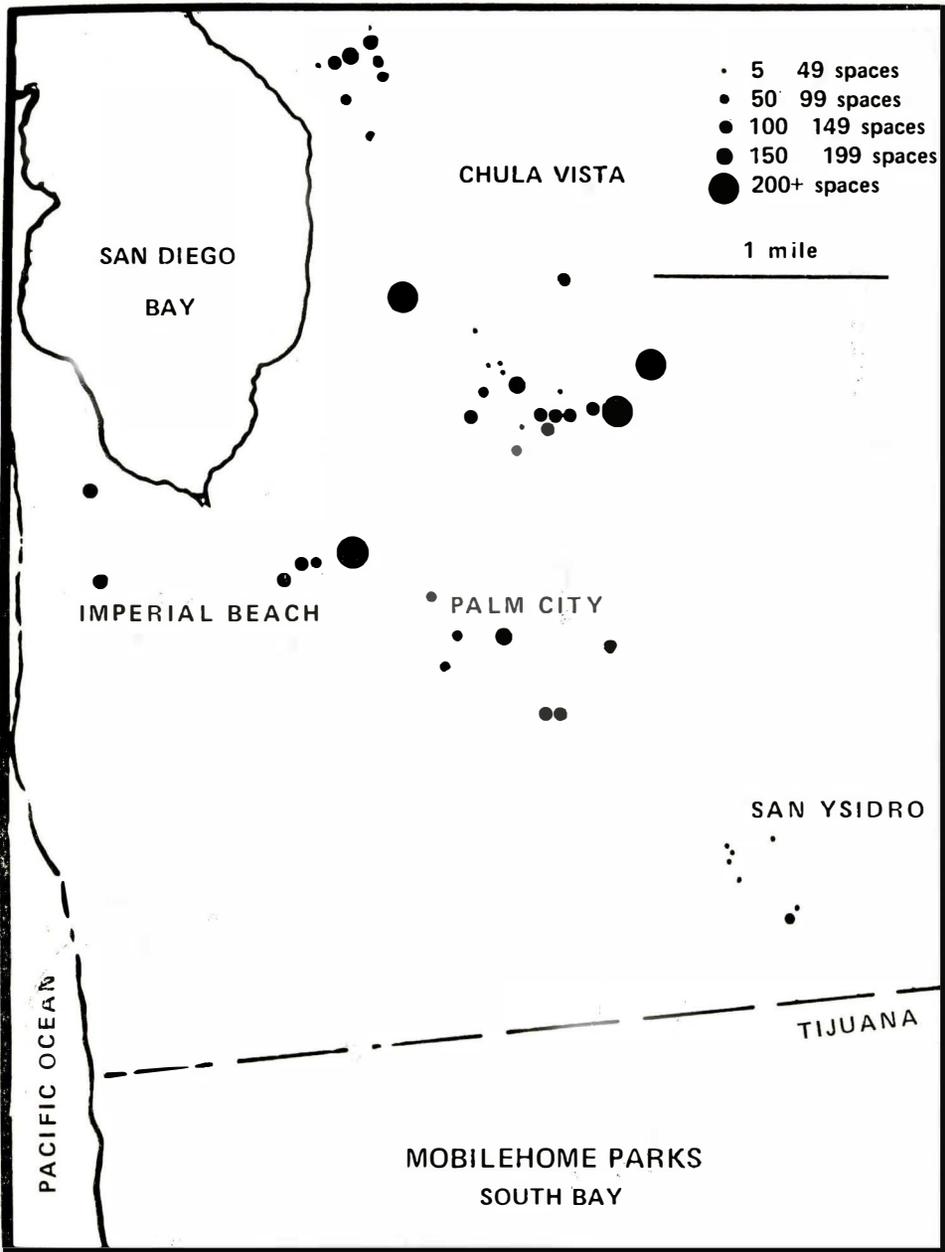


Figure 3

parks in San Ysidro are old. A bus line connects this area with Chula Vista and San Diego, but most residents rely on their own cars.

Conclusion

A number of points may be raised regarding mobile homes and mobile home parks. Their future as low or medium-cost housing is open to question. After the initial cost, which is half that of a conventional home of equal footage, space rental and utilities must be paid.

There has been considerable local agitation over mobile home parks. Many people think there are enough in the area already. It has been said that mobile home dwellers pay no taxes to support schools and services. However, a one-year-old 24x60 foot home which originally cost \$14,000 pays \$462 "in lieu" of property taxes to the Division of Motor Vehicles. Of this, for a home in a city, one-third goes to schools, one-third to the city, and one-third to the county general fund. If in the county, taxes are divided equally between schools and the county general fund. In contrast to escalating taxes on conventional homes, those on a mobile home decline to a low minimum in sixteen years. The mobile home dweller's share of the real estate taxes and personal property taxes must still be paid.

The future of the mobile home in modular construction may be bright if the home manufacturers and governmental agencies, such as FHA, can get together on construction standards. If this happens, then "instant housing" at \$10 a foot may be possible. The Nixon administration sees up to 50 percent of the nation's new home buyers purchasing mobile homes.

In San Diego County, the Chairman of the Board of Supervisors is urging modification of the zoning laws to remove the five-acre minimum size for the placement of an individual mobile home – which means that one unit would be possible on a small plot under a limited use permit. The supervisor also wants a ten-acre minimum (about ninety spaces) on mobile home parks so that their chances of economic success will be enhanced.

Mobile homes seem to be an answer for housing for the active older person or couple. A poll taken by the City of San Diego showed that independent housing was preferred by those in the 60 to 70-year-old category. Many of these people have no children living at home and no longer need or want a large home and yard. There is a small amount of space on a typical 30x80 foot mobile home lot for putting about. Park pools and recreation areas permit exercise and diversion. Often, the money derived from the sale of a larger, older conventional home is sufficient to purchase a new mobile home. Some parks are restricted to adults, but others permit families. Families are almost always permitted in the older trailer courts and mobile home parks. Some newer ones, if they admit children, restrict families to a specific segment of the park.

Since most parks are away from public transportation and few parks provide jitney service, a car is necessary and one must be healthy enough to drive it (or have a spouse who is). In reality, many retirees today are in their late 50's and early 60's and quite agile.

It is possible that mobile homes will continue to be a desirable means of housing for not only older people, but younger ones as well. As the costs associated with conventional homes continue to rise and their availability declines, mobile homes will increase in significance. The pleasant conditions prevailing in not only the southwestern corner of the United States but other parts of California, will aid in attracting mobile home residents to California.

RECENT DEVELOPMENTS IN WESTERN AMAZONIA: THE EMERGENCE OF AN INDUSTRIAL COMPLEX IN MANAUS

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Virtually everyone who has a sixth grade geography class, or lacking that, an introductory geography course at a more advanced level, is familiar with the story of the rapid rise, glowing prosperity, and precipitous decline of the rubber boom which developed in Amazonia in the last quarter of the nineteenth century and the first decade of the twentieth century. One of the focal points of this rubber boom was the city of Manaus, Amazonas, located some one thousand miles up river from the mouth of the Rio Amazonas. In most cases, one is left with the impression that Manaus was a boom town that turned into a veritable ghost town.

At a time when individuals and even nations are concerned about their image in the world, a rehabilitation, or at least an updating, of the image of the city seems overdue. The Manaus of 1970 greatly belies the popular image of that city as a former boom town with only a deteriorating Opera House and pleasant memories to remind the inhabitants of what once was the splendor of Manaus, Amazonas. It is presently a city of some 225,000 inhabitants, a regional trade center of increasing importance, and the focus for small scale industrial development within the region. (Figure 1).

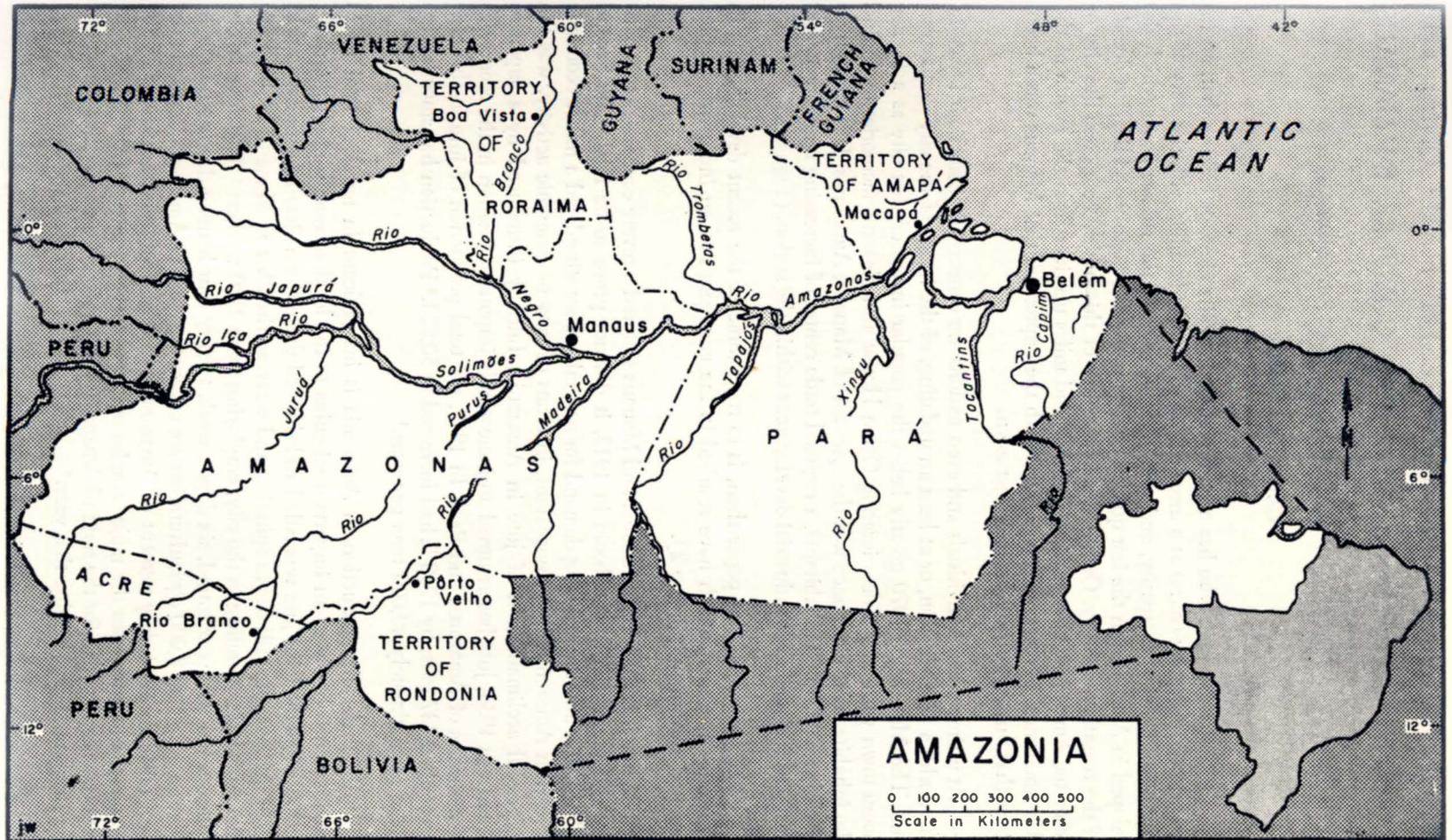
The purpose of this paper then, is to trace some of the recent developments in Western Amazonia¹ which have resulted in the emergence of an industrial complex centered in Manaus. (Figure 2).

While it is true that Amazonia and Manaus suffered a severe economic crisis with the collapse of the rubber boom in 1912, it did not prove to be fatal. The Second World War and the resulting demand for natural rubber stimulated a minor economic revival in Amazonia. More important, in terms of present economic activity, was the successful acclimatization of jute in Amazonia. Initially introduced by a Japanese colonist in 1934, jute has assumed an increasingly important position in the economies of the states of Amazonas and Pará. In 1947, the total production of jute in this area was only 6,287 tons; by 1960 it had increased to 50,828.² Production has since leveled off at approximately 40,000 tons per year.³

Although jute production in Amazonia is insignificant in terms of total world production, it has been an important stimulus to the local economy. Until the mid-1950's all of the local jute was baled and shipped to southern Brazil for processing. In 1954 the first jute mill began spinning and weaving the fiber in Manaus; by 1968 five jute mills were operating in the city, employing some 2100 workers.⁴ The three largest mills operate on a year round, six days a week, twenty four hours a day basis. In addition, an estimated 8,000 agriculturalists are cultivating jute in Amazonia to supply the local mills. In 1968 sixty percent of Amazonian jute was being processed within the region, the industry was the major employer in Manaus and jute was the single most important export item for the state of Amazonas—accounting for twenty-five percent of the state's total export value that year.⁵

Another major move toward diversification of the traditionally small, consumer-oriented industries located in Manaus came with the construction of an oil refinery. In a country where the national government maintains a strict monopoly on the petro-

Figure 1



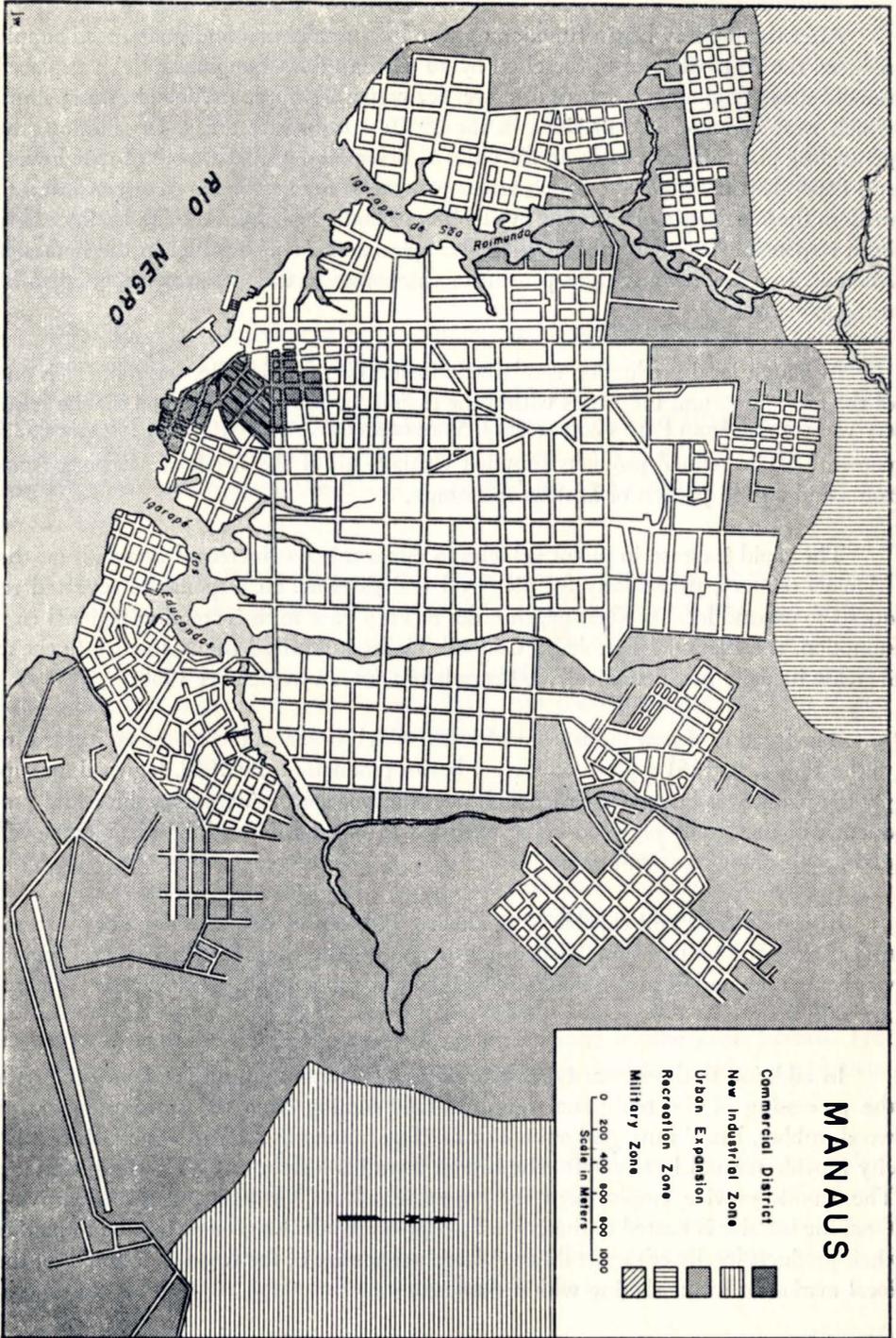


Figure 2

leum industry, the Manaus refinery, which is privately owned, is obviously somewhat of an anomaly. Although it is a small plant, initially limited to 5,000 barrels per day, the refinery began processing in 1956 and quickly became the principal source of petroleum products for Amazonia.

After the refinery began functioning, the local production and guaranteed supply reduced the regional price of diesel oil by 50 percent. Diesel engines quickly replaced the old steam engines as a source of power for regional shipping. Wood-burning ships, which were common in Amazonia in the 1950's are a rarity today. In addition, the generating plants for electricity in the cities of Belém and Manaus, both of which were still dependent upon wood-burning steam generators in the 1950's, were converted to modern thermoelectric plants. The availability of bottled gas from the local refinery has been responsible for charcoal being largely replaced as a cooking fuel in the homes of Manaus. In 1966, seventy-eight percent of the homes in the city were reported to be using gas stoves.⁶

Although local production is relatively insignificant nationally, the refinery is one of the most important industries within the region. In 1967, the crude oil for the refinery was coming from Peru (20 percent), Venezuela (27.6 percent), and Nigeria (52.4 percent).⁷ The refined products supplied virtually all of the needs of Western Amazonia and a good portion of Eastern Amazonia.

The rapid increase in motor vehicles in Amazonia has increased demands on the Manaus refinery, particularly for diesel oil and gasoline. In response to repeated requests to expand local production, in order to keep pace with increasing regional consumption, the National Petroleum Council finally authorized the Manaus refinery to increase its daily production to 7,000 barrels per day, in September 1968.

The location of new industry in Manaus, which began in the 1950's, continued into the 1960's. In 1961 a plywood factory began production. By 1968, logwood, to supply the plant, was being drawn from all over the interior of Amazonia, the entire production of first grade plywood being exported to Great Britain. The plant employed 508 people on a permanent basis.

In 1964 a flour mill capable of producing 120 tons of flour per day began operating. Before the mill was established in Manaus all the flour for the city and region was being imported from Sao Paulo. Now the local mill supplies all of Western Amazonia with flour.

In addition to the newer types of industry, Manaus continues to be a center for the processing of the traditional raw materials coming from the surrounding area: wood, rubber, Brazil nuts, and animal skins. The numerous streams which dissect the city provide natural locations for the fifteen sawmills located in and around Manaus. These mills provide employment for approximately 660 workers. Logwood arriving from the interior is floated to the sawmills, which are advantageously located to market their products locally or export them. A large percentage of the wood is destined for the local market or for marketing within the state.

Although rubber no longer dominates the economy of the state of Amazonas, it continues to be a significant regional export. In 1967, rubber accounted for twenty-one percent of the total export value of regional products and fifteen percent of the state's total exports.⁸ Five plants in Manaus carry out the initial processing of the rubber be-

fore it is exported to southern Brazil. The processing involves cutting and classifying the balls of rubber and then mechanically flattening the pieces into thin sheets of rubber which are washed, dried and compressed into bales for exporting.

The most impressive new industrial enterprise presently being developed in the Manaus area is a steel mill under construction on a bluff overlooking the juncture of the Rio Negro and Rio Amazonas. Construction was well advanced on the plant in 1968 and it was scheduled to begin limited production by 1970, with the entire complex being completed in 1972. Initial capacity will be 25,000 tons per year with long range plans of eventually expanding production to 100,000 tons. As steel mills go, the Manaus plant will be small and its output will be primarily designed to satisfy regional demands. Initially it will be producing reinforcing rods, light beams for construction, and wire which can be used to manufacture nails. The principal market area will consist of all of northern Brazil and part of the Northeast.

All of the raw materials required to supply the plant will be coming from within the Amazon Valley. A source of relatively high grade iron ore is located about 250 miles from the city. Limestone is coming from the neighboring state of Pará. And, instead of importing coke, the plant will rely on locally produced charcoal. When it is fully operational, the plant is scheduled to employ 330 workers, with another 300 employed in auxiliary services: supplying the charcoal and iron ore and transporting them to the plant.

During the early 1960's the Brazilian government developed two plans to promote development within Amazonia. The first of these was the reorganization and revitalization of an existing regional development agency which was then renamed SUDAM, an acronym for the Superintendency for the Development of Amazonia. The second plan, which was implemented in August, 1967, was the creation of the Free Trade Zone, or Zona Franca of Manaus, as it is commonly known.

This new Zona Franca is a 10,000 square kilometer zone of free commerce for imports and exports which includes the city of Manaus and surrounding area. In addition, special fiscal incentives were also incorporated into the new law which aimed

to create in the interior of Amazonia an industrial, commercial, and agricultural center endowed of economic conditions which will permit its development, in view of the local factors and the great distance that consumer centers are located from their products.⁹

Fiscal incentives authorized by the federal government include an exemption from import, export, and sales tax for most merchandises destined for the Zona Franca. The only exceptions are imports of firearms and munitions, perfumes, tobacco products, alcoholic beverages, and passenger automobiles.

In addition, the state of Amazonas adopted special fiscal incentives for new industrial or agricultural enterprises willing to locate in the city. The combined federal and state exemptions provide industry locating in the Zona Franca of Manaus with an attractive twenty-five percent reduction in the initial selling price of their product in comparison with similar products produced elsewhere in Brazil.

The creation of the Zona Franca of Manaus is potentially the most important new development in Western Amazonia since the discovery of rubber. Although it is too soon to evaluate the effect of the Zona Franca, it is already attracting new industry to Manaus, stimulating the city's economy, and encouraging development. The city is cur-

rently experiencing the greatest building boom since the height of the rubber period at the turn of the century. By mid-1969, firm commitments were completed for the construction of several new industrial plants, including a cement factory, a petrochemical complex to tie in with the existing refinery, a jewelry fabricating plant, and a shipyard.

Today, some fifty-five years after the collapse of the rubber boom, the Manaus Opera House is still standing, but instead of being a symbol of a decadent community looking to the past, it is really nothing more than a relic, a monument to that past. Stimulated by a growing industrial complex that began in the early 1950's, a rapidly increasing urban population, and the creation of a Zona Franca, the city's former regional function as an entrepot is slowly but surely being replaced by that of a metropolitan center resting on a developing industrial base.

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THE ROLE OF SYSTEMS ANALYSIS IN GEOGRAPHY: EDUCATION OF A GEOGRAPHER, 1970.

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One of the key questions geographers have always asked is, "How do the various cultures of man relate to their environments?" In an effort to confront this question, geography and other social sciences, particularly anthropology, have put forth several explanations and conceptual schemes, which, however, have been found insufficient in many respects. But from this history of thought on the question of man-environment relationships has emerged the concept of the ecosystem.

Borrowed from the natural sciences, the concept of the ecosystem has been applied to geographical questions (usually only as a point of view), but with little or no understanding of the intricacies of the concept or of the illegitimacy of inappropriate usage of a natural science concept in the social sciences. Such studies are often merely organismic or ill-fitting analogies between the natural science concept and the social science phenomenon.

Criticism of the intellectual inconsistencies of such studies in the social sciences in general and efforts to stimulate scientific unity and inter-disciplinary communication led scientists in several fields of the natural and social science to develop "general systems theory"¹ to handle the multi-disciplinary employment of concepts originating independently in the various fields of science. From these efforts grew systems analysis, a methodological tool to utilize effectively the conceptual tools of general systems theory. Systems analysis, when properly understood and applied, can be a tool to accomplish high yielding and significant geographical research.

In general, a system is defined as "a set of objects (parts) together with relationships between the objects and their attributes (properties)."² In a system the performance of each part and its attributes depends to a greater or lesser extent on the performance of other parts: each stage of the relationships depends on the others likewise.

In delineating the meaning of "system," there is a dichotomy between "system" and "environment." For a given system, the environment is the set of all objects a change in whose attributes affects the system and also those objects whose attributes are changed by the behavior of the system."³ That is, the environment influences, constrains and guides the system on its course through time and space and is influenced by the system in return. For example, a television (a system of electronic parts) may have as its environment a living room, a chair, and a viewer. The system together with its environment are part of a greater universe whose other components may or may not be of interest in a given context. In a larger sense, then, a "system" is an object of interest and its significant environment.

The ecosystem is the interaction of the biotic and abiotic, a system through which energy flows and in which materials circulate. To study an ecosystem (or any system) one must specify its universe, picking out only the essential variables and dichotomize this universe into "system" and "environment." To define this dichotomy, one must establish the system's boundaries, choosing the environment from those objects in the universe whose attributes are of most interest at the present scale of study. One can

neglect those objects which do not play essential roles. Oftentimes the drawing of the boundaries of the significant environment is a matter of convenience or necessity, since the observer is limited by the tools available to the study and by the fineness of details which can be observed. There are, however, screening devices which can be used to simplify this procedure greatly. Having defined the dichotomy, the description and analysis of the objects and their inter-relationships can proceed.

In determining the man-environment ecosystem, therefore, it is not necessary to study the entire universe, but rather the system whose dominant is man and crucial interactions of man with his environment. This might in certain cases be construed to be Julian Steward's "cultural core" concept.⁴

The most important property exhibited by a system is whether it is an open system, that is, exchanging materials, energy, or information with its "environment" or a closed system with no import or export of energy in any form. In this respect, all subjects for geographic study must be considered open systems. The problem with some of the few studies of this nature which have been done in geography has been an insistence that the system studied must be closed to be handled easily . . . a problem which is simply one of misunderstanding the dichotomy between "system" and "environment." It is important that this difference be realized, as the properties of systems which are most useful from a geographical point of view are those which exist *only* for open systems.

One such property of geographical interest is adaptation, the ability of an open system to react to its "environment" in a way that is favorable, in some sense, to the continued operation of the system. Evolutionary theory is based on this notion of adaptation; it can find many applications in geography's studies of man-environment relationships.

Geography can use systems analysis to study many systems of interest to geographers (urban systems, traffic systems, diffusion systems, etc.), but the ecosystem in geography is the one with perhaps the longest history of geographical interest. In 1923, Barrows called geography "the science of *human ecology*" and urged geographers to view the problem of the "relationships existing between natural environments and the distribution and activities of man . . . from the standpoint of man's adjustments to the environment, rather than from that of environmental influence."⁵

Geography among all the social sciences is especially well-suited to study man's ecosystem. Amos Hawley called ecology basically a social science, one of behavioral interactions.⁶ For geographers, culture is only a subsystem of man, culture being man's strategies for living.⁷ Therefore, geography seems especially well-qualified to describe the environmental relations between the two parts of man's ecosystem, that is, the man-culture subsystem and the natural environment subsystem.

Since geography frequently studies systems, especially ecosystems, it is only natural that geography should also use systems analysis, the methodological tool which was designed to study systems. The goal of systems analysis is to search for the significant patterns in a system which have diagnostic validity. For geography this means a description of how two main subsystems, man's culture and his natural environment interact to form a spatial system.

There are several aids to analysis which the geographer can use: mathematical models, physical models such as scale models, and analogies to physical models, all of

which have both their special advantages and their own limitations in expressing situations which reflect reality.

Often the most useful method in systems analysis, however, will be that in which the simulation of real conditions is mathematical in nature since mathematics is a language proven capable of handling interrelated components with relative ease. To analyze a system mathematically, several requirements must be fulfilled at least in part: (1) The relationship must be known explicitly; (2) The important attributes must be quantifiable and few enough to list; (3) Given the set of relationships, the type of behavior induced must be known. There are several widely used mathematical approaches available to the analyst: besides the standard definition of the system by families of differential equations, there is also information theory, game theory, decision theory, stochastic models, graph theory, and others. Whatever form the mathematical model takes, it always consists of sets of equations whose solutions explain or predict changes in the state of the system over time.

The advantages to be gained by abstracting the real situation into a mathematical model are numerous. The mere mathematization of a system may mean a more thorough analysis of the situation than would perhaps have been required for a mere qualitative description. More especially, mathematical analysis can aid in clarifying the concepts involved, can examine the independence or non-independence of variables, can suggest in the derivation of new propositions additional ways of testing the theory empirically. Most importantly, it can, through appreciation of similarities or isomorphisms, lead to the discovery of unsuspected connections, and unifications.

All too often, geographers despair at the thought of making mathematical models, (or any other, in fact), primarily through lack of understanding the complexities of such endeavors. By way of example of how really uncomplicated such mathematical analysis should be, I would like to present here Kenneth Watt's typical four steps in a systems research program.⁸ The first step is to measure and list the important variables and the possible causal pathways, and then to sample to measure the relative dependency of the variables. A second step involves sampling the data, regression analysis, analysis of variance and the use of other appropriate statistical tools to determine which variables should be retained in the systems model because they make a statistically significant contribution to the variance of the dependent variables. The next step is to describe the system by translating the data into mathematical equations and then to test the suitability of various models and the fit of the parameter values to the model. The final step is to simulate the optimal conditions of the system. The simulated studies are performed to show how the system can be manipulated to produce an optimal result. Strategies are evaluated by reading the mathematical model into a computer so the computer can explore the consequences of the various strategies and find an optimal result. For geographers, the interest might be to test how closely the optimum of the models reflects reality determined by a culture.

In the actual application of systems analysis to geography (or to any of the other social sciences), one distinction must be made which does not occur when handling physical or purely biological systems: man the thinker is involved as the dominant. Ethno-ecology is the study of how men view their environment, the image upon which depends their social behavior. Social behavior must be dealt with as an important ecological factor, a part of the ecosystem of man. This concept proposes that environmental perception theory should be incorporated to better discern man's ecological relationships.

The delineation of the ecosystem for a particular culture must be derived from the way the people studied conceive of, and therefore use, their environment. This approach takes into account those cultural factors which cannot be due to the natural environment (at least as a response to the present natural environment) but which do come to bear on man's environmental behavior. Perception (actually "conception") is the key to behavior which discloses the nature of the cultural factors which enter into all man-environment interactions. Instead of studying an objective ecosystem, a "cognitized" ecosystem should be studied.

The difficulty of actually defining the "cognitized" ecosystem can be overcome through an awareness of developments in social psychology and related fields. These fields deal with social behavior based on statistical evidence from which statistical or mass models have been built, models which can be altered to suit the purpose of a geographical study. Polls and surveys seem to be good predictors of human behavior (due to the "regular irrationality" of human behavior) and may be yet another resource available to aid the geographer in determining the behavior parameter of his system. Finally, the Monte Carlo and other random models have been used in other studies and may be of advantage in testing models developed in systems analysis.

Given that geography can use systems analysis in its work, the question arises, "Why is consideration of geographical problems in an ecosystem by systems analysis better or even more useful than other approaches to geographic research?" The answer lies in the limitations of other methods. The landscape approach often produces little more than descriptions of the evidence that man has interacted with his environment; for too long this school has produced meat with no real skeleton. The environmental perception geographers as well as past ecosystem geographers can show "how" these interactions have occurred and continue to occur. Systems analysis geographers have the added leverage of being able to make models of some predictive value, models which can sketch the changing picture of the "real" world as *all* the various parameters of man's interactions change. They have systems analysis which Boulding calls "the skeleton of science" upon which to hang the meat of geography.⁹

The most important advantage of the systems approach in geography over the other approaches is the extent to which systems analysis lends itself to the performance of cross-cultural and trans-environmental studies. For years geography has sought the mechanisms of man-environment interactions by using various conceptual methods (the landscape school, the environmental perception school) and various theoretical approaches (determinism, possibilism), but with only limited results. These schemes, could only be applied to individual cultures or environments with any precision. They could only list the characteristics of each culture or environment in the vain hope that someday, when enough studies had been collected, the similarities and differences would form themselves into a pattern. Systems analysis was created for just the kind of cross-study comparisons which geographers have desired for so long.

Systems analysis is a methodology of universal application, a tool which can facilitate cross-cultural and trans-environmental studies through the systematic comparison of the families of differential equations (or the equations of other models, as the case may be) which describe the models of man-environment relationships in various cultures and environments.

Because systems analysis can accomplish for geography cross-cultural and trans-environmental studies, it promises to be the tool from which significant studies will come. These studies will do more than the older schools could achieve: they can

strengthen geography as a discipline, can give it a theoretical framework, and finally, can allow geography to make valuable contributions to man's knowledge of himself.

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THE CHANGING FORM AND STRUCTURE OF THE SOUTHERN CALIFORNIA METROPOLIS

(PART II)*

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In Part I of this study two avenues of inquiry were followed. The development of the Southern California Metropolis and its relation to an evolving regional economy was considered, and spatial trends contributing to the present form and structure of Greater Los Angeles, a concept operationalized here as a territory lying within sixty miles of downtown Los Angeles. The focus is set on spatial trends presently shaping this far-flung urban region, and on some of the broader implications of this example of urban development.

FORCES OF CHANGE

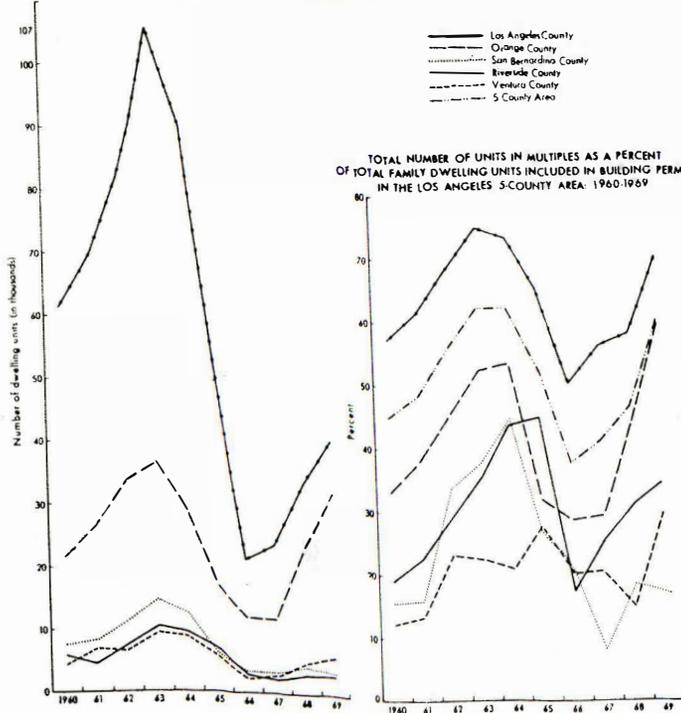
Within the 60-Mile Circle, forces of change are afoot. Population and land occupancy densities are increasing radically throughout an inner-ring surrounding downtown Los Angeles. Densities are also rising around commercial nodes throughout the agglomeration, along major intraurban transportation routes, and at access points to physical or cultural amenities. Moreover, new nodes are forming. The classic relation between accessibility and rising land prices at such points and increased occupancy densities explain much of this phenomena but more pertinent information comes from several trends established in the 1960's.

The outstanding trait of residential construction in Greater Los Angeles over the 1960's was the increase in apartment houses. For a number of years more multiple units than single family units had been built in Los Angeles County, but in 1962 this became true for the five-county area as a whole (Fig. 1). In that year fifty-six percent of all dwelling units authorized for construction were apartments. By 1964 this percentage rose to over sixty-two. During the housing slump of the late sixties, multiple units as a percentage of all dwelling units authorized dipped below fifty percent, but by 1969 multiples accounted for over sixty percent of all units authorized. The impact of apartment building throughout the decade was by far the greatest in Los Angeles County where the percent of total dwelling units authorized accounted for by multiples did not fall below fifty percent.

Figure 8 (see part I) shows that an inner-ring surrounding downtown Los Angeles experienced substantial population growth over the last decade, and that a small area adjacent to the Los Angeles CBD lost population. The first of these findings is further elucidated by Figure 2 which shows that with few exceptions the inner-ring was an area of large-scale multiple-unit construction during the 1960's. Residential densities are particularly high in the inner-ring along transportation corridors like Wilshire Boulevard, and localized high-density concentrations are present in older cities such as Beverly Hills, Pasadena, Burbank, Long Beach, and Santa Monica, where over ninety percent of residential building is for apartments. It should be added that the whole inner-ring has experienced substantial increases in population density as well over the decade (ranging from 500 to over 1,000 per square mile), and that most of its statistical units have experienced a decrease in single family housing. Population decline around

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NUMBER OF FAMILY DWELLING UNITS INCLUDED IN BUILDING PERMITS ISSUED IN THE LOS ANGELES 5-COUNTY AREA: 1960-1969



Source: THE SOUTHERN CALIFORNIA REPORT (Los Angeles Economic Research Department, Security Pacific National Bank, March, 1970), pp. 131-132.

Figure 1

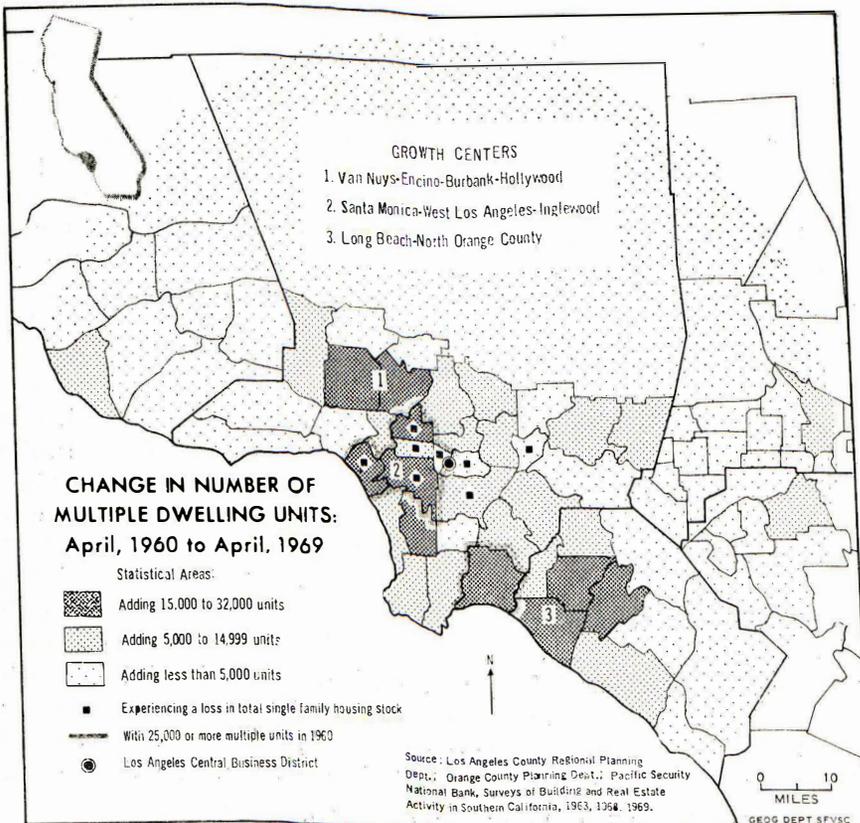


Figure 2

central Los Angeles is attributable to expansion of the commercial-industrial core into residential areas, freeway construction, and urban renewal, all of which contributed to a local reduction in housing stock.

Apartment construction influences the landscape in ways not revealed by their increasing numerical importance. For example, many apartments contribute to what can be thought of as "second stage" low density spread. Such is especially the case where apartments are located cheek-by-jowl with single family housing in rapidly developing areas like the San Fernando Valley or Orange County. There apartments often follow space consuming styles, generally being not over three stories tall, hollow in the center to accommodate swimming pools and patio facilities, and having separate parking and storage areas. Such space consuming practices are declining, but a substantial stock of such apartments exist at present.

Although the role of both high- and low-rise apartment living is becoming more important, it should not obscure the continuing dominance of single family housing in the 60-Mile Circle. In the 1960's far more single than multiple units were constructed outside of Los Angeles County (Figure 1), and even there, where apartment construction has predominated for over a decade, single family homes continue as the principal housing type. On April 1, 1970, fifty nine percent of all housing in Los Angeles County was estimated to be single family units, while thirty years ago, the 1940 Census showed that the County's housing inventory consisted of sixty three percent single family units. Thus although apartments accounted for a substantial fraction of the approximately 1,600,000 units added to the housing inventory since 1940, single family homes remain the dominant type.¹

Even in the single family housing context, however, factors are contributing to increased densities. For example, subdivisions are not as large as they were a few years ago. In 1950, an average housing tract in the five-county area had seventy-two lots, by 1955 the average had dropped to fifty nine. As open land became scarce and more expensive, the average had dropped to forty in 1964. At the same time the number of units per lot has increased. Other factors contributing to higher densities stem from the implementation of modern housing concepts such as cluster housing condominiums, town houses, and large integrated land developments (sometimes called "New Towns" for advertising purposes).

A summary of the reasons for the trend toward higher residential densities would include: (1) higher land values throughout the area; (2) ample money for mortgages for high density residential enterprises; (3) age distribution—more young marrieds, more elderly couples; (4) higher incomes that have encouraged separate households by single persons; (5) increasing cost of single family homes plus the difficulty of acquiring lending money for their purchase; and (6) the presence of a growing population seeking the advantages of private residence without assuming the obligations of home ownership.

Changing Pressures in Single Family Housing

Ownership of single-family homes in the suburbs has traditionally been a middle-class province. However, during the late 50's and early 60's each successive wave of suburbanization included members of lower income groups. What this process meant for the physical problems of the metropolis in the long run is debatable, but its short-run impact was clear, an increasing number of lower income families were able to satisfy their drive for private space. Regarding the participation in single family home ownership by families from a wide income range, it is useful to consider that a substantial

part of the homes in Greater Los Angeles were constructed in a period when both Federal and California State government philosophies encouraged home ownership.

The opportunity for lower income groups to participate in the single-family housing market has deteriorated.³ In the mid-1960's interest rates increased sharply, and simultaneously the supply of available mortgage funds became inadequate. The number of real estate loans recorded in the 5-County Area reached an all time high of 515,000 in 1964, but by 1967 the number of loans had dropped to 275,000. Between 1964 and 1969, while the number of loans plummeted, average loan size increased from \$20,800 to \$27,404. By comparison, average loan size in 1960 was \$13,453. When combined with raising interest rates and a thirty-three percent increase in single family home prices between 1960 and 1969, these facts signal that the income range from which families can acquire single family homes has been reduced, with the result that more families will be deflected into apartments and aging housing in the inner-ring.

High-rise Construction

Increased densities around commercial cores, along transportation corridors, near special attractions like the ocean front or mountains introduce another trend, namely, high-rise construction (high-rise buildings are defined here as having a minimum of five stories above the ground and a permit valuation of \$500,000 or more.)⁴ During the 60's, 585 high-rise structures were authorized in the five county area, 512 of which were in Los Angeles County. Of those in that county, 107 were apartments, 290 commercial structures (including government, educational, and hospital buildings). The largest concentration of high-rise structures is in the downtown Los Angeles-Wilshire Corridor area, where the skyline has been transformed in five locations: the Santa Monica Ocean Front; Beverly Hills, Westwood-UCLA; Wilshire Boulevard for a distance of over two miles westward from the CBD; downtown Los Angeles; and the University of Southern California-Exposition Park area.

The high-rise situation is in vivid contrast to the recent past, when for years downtown Los Angeles had only two high-rise buildings (City Hall and the Old Federal-Building). Less than a block apart, these two structures were the only exceptions to an ordinance passed in the 1920's limiting buildings to thirteen floors or 150 feet in height. In 1957 the ordinance was repealed, and advances in technology and changes in building and zoning codes, combined with the "Bunker Hill" redevelopment project, stimulated the long overdue surge of high-rise construction. The space provided by high-rise structures is occupied by region-serving and other businesses, public functions and by families or persons in higher income brackets seeking a prestige residence close to commercial and cultural facilities and their employment.

Increasing Decentralization of Retail and Service Trades⁵

The pattern of Major Retail Centers considered above fails to convey the full nature of retail dispersion in the 60-Mile Circle. While the number of such centers was increasing by seventy-eight between 1958 and 1967, and while the overall sales in these centers was increasing spectacularly, the percentage of total retail sales accounted for by Major Retail Centers was dropping. One explanation is the proliferation, especially in major growth areas and beyond, of a recently emergent form of planned retail center. The pivotal store and major traffic generator in these new centers, however, is not a general merchandise or department store, but a large super-market. Moreover, convenience shopping, and specialized goods stores cluster around the super-markets in a manner similar to that associated with department stores in traditional centers. Already widespread, the number of "department store-less" centers is increasing, especially on

the periphery where they respond to thresholds lower than those necessary for full-scale shopping centers as those included under Major Retail Centers, and within the built-up area in response to higher population densities associated with apartment house concentrations and where advantageous market opportunities exist between major shopping centers.

Another index of retail and service dispersion is the increase in number of branch banks between 1960 and mid-1969.⁶ To meet the needs of the suburban structure of the market, the total number of branches of all banks in Southern California increased from 853 to 1,601, an increase of nearly ninety percent. Moreover, in 1960, the average bank served over 10,000 customers, but by 1969 the ratio dropped to slightly more than 7,000 per banking office.

Cultural Patterns

Prior to the great post-war migrations, Los Angeles exhibited economic and social segregation, a condition exemplified areally, and in the extreme, by contrasts between communities like Beverly Hills and San Marino, on the one hand, and low income districts like Watts and Boyle Heights on the other.⁷ With the arrival of large numbers of immigrants during and after the War, this pattern was intensified. Migrants settled where they found others with similar material means and attitudes, and even though there has been considerable mobility (every year between 1960 and 1965 approximately thirty percent of the families in Los Angeles and Orange Counties moved)⁸ economic and social stratification form dominant areal patterns. Present housing regulations and building practices continue to separate social and economic groups into single-class districts.

One aspect of such economic and social separation is reflected by the proliferation of independent cities, each incorporated to protect, in some way, some aspect of homogeneity.⁹ Although rapid growth has fused the numerous communities into one agglomeration in which all components interact in one vast market for jobs, goods, and housing, each of 122 incorporated cities in the 60-Mile Circle remains isolated in some respect by the medium of local government. Something of this political fragmentation is reflected by the fact that there are seventy-seven incorporated cities in Los Angeles County alone. This "home rule" syndrome has effectively blocked serious attempts at region-wide governance or planning, created municipal financial chaos, and contributed to slum formation and racial and economic segregation.

Greater Los Angeles today exhibits a varied cultural geography differentiated along income and ethnic lines (Fig. 3). Economically and socially distinct areas, whether generated politically or not, are of several kinds.¹⁰ Most numerous are the strongholds of various grades of middle-class, exemplified by the San Fernando Valley and Orange County. Present also enclaves occupied by high-income groups like Beverly Hills and Bel Air. Another form is the "special purpose" city designed to keep people out and to provide private industries with intra-metropolitan locations on preferential bases, usually related to tax relief. The industrial cities of Vernon and Commerce exemplify this type.

Other enclaves are formed by expanding ethnic minorities, and most important here are the segregated territories occupied by Negroes and Mexican Americans (Fig. 4). Prior to 1955 Negro and Mexican-American migration to Greater Los Angeles was less than five percent of total immigration.¹¹ Between 1955 and 1960 the proportion increased substantially, and it is estimated that at present there are over one million persons with Spanish surnames and at least 800,000 Negroes within the 60-Mile Circle.

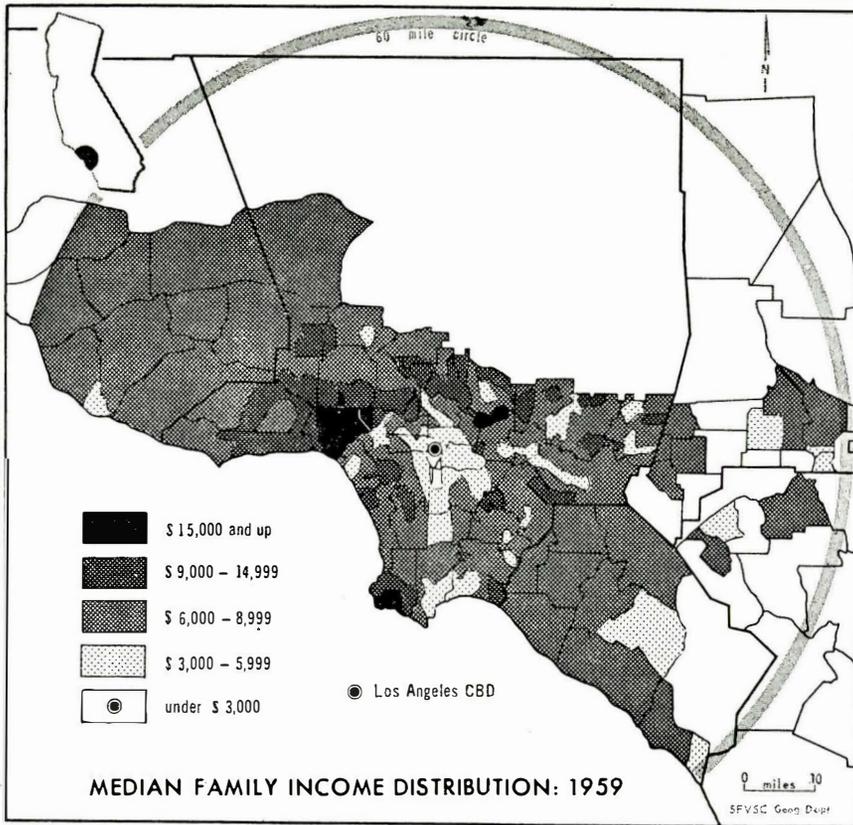


Figure 3

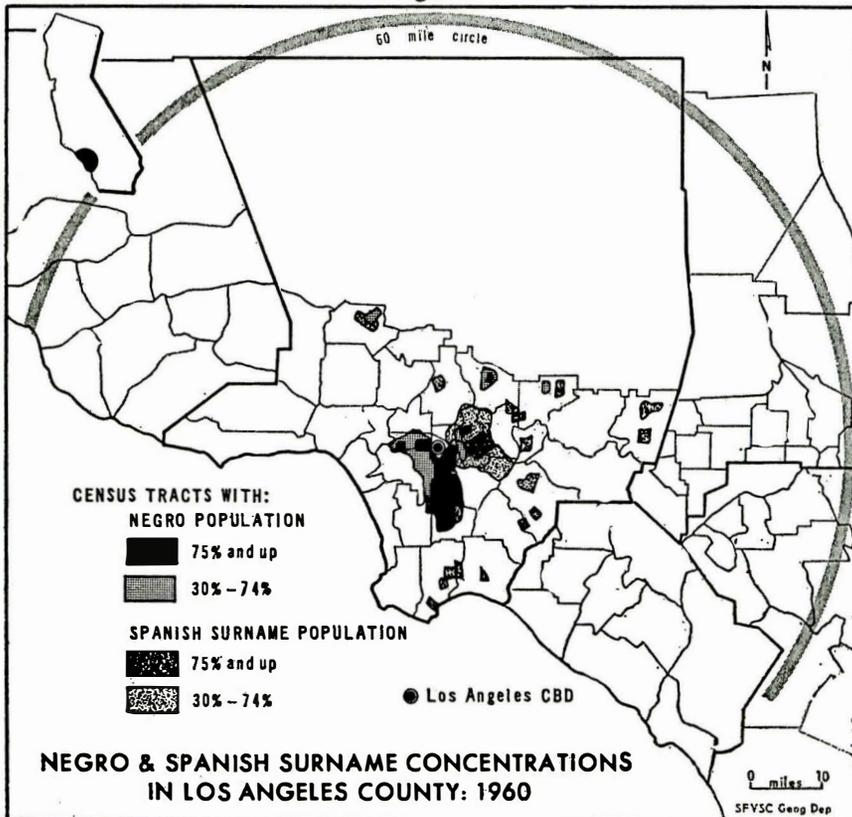


Figure 4

These groups are concentrated in clear-cut sections of Central Los Angeles. The Negroes southwest of the CBD, where Watts, Willowbrook, and Green Meadows serve as receiving stations. The largest concentration of Mexican-Americans is just east of downtown where Boyle Heights and East Los Angeles are receiving stations. Both minority core areas are expanding, and both contain areas of old and substandard housing as well as large sections where obsolescence is imminent.¹² The ethnic concentrations also exhibit a high incidence of low income, unemployment, low educational attainment, and deficient tax revenues. Amid the sea of material prosperity that is Greater Los Angeles, the Negro and Mexican-American communities are islands of neglect.

Greater Los Angeles thus embraces an areally complex pattern of sub-cultures, and something of the underlying nature of this diversity can be drawn from a Los Angeles City Planning Commission Project. Five different groups of respondents were requested to draw maps of the city,¹³ the intent being to gain some idea of the respondent's "real concept of Los Angeles. Image intensity is indicated in Figs 5, 6 & 7 by line weights reflecting the percentage of total respondents in a particular interview area identifying a particular path, district center, landmark, or edge. Areas surveyed were Westwood, an upper-income district near Beverly Hills (Fig. 5); Northridge, a suburb community in the San Fernando Valley (Fig. 6); Fairfax, an inner-city district with a large Jewish population (Fig. 7); Avalon, a Negro community southeast of the downtown (Fig. 7); and Boyle Heights, a Mexican-American district east of the CBD (Fig. 7). These examples strongly suggest that residents of different areas relate differently to the agglomeration, and that the patchwork quilt of subcultures in the 60-Mile Circle represent "many publics" to be understood and served.

IMPLICATIONS¹⁴

It is not the intent here to imply that the faster the economy of Greater Los Angeles grows and the bigger it becomes, the better off its inhabitants are. Growth and size bring problems, most of which are intensified by additional growth. For example, the area has enormous problems of environmental pollution, lack of land planning, and racial and other forms of social friction. It suffers from archaic municipal governance, and a multitude of difficulties connected with a huge and aging physical plant. But growth and size also bring opportunity, and it would seem that possibilities for problem-oriented resource allocation should be greater under conditions of urban growth and prosperity. If this is true, then solutions to overriding urban problems should be present at least in rudimentary form in Greater Los Angeles.

What can be learned from recent urbanization in the 60-Mile Circle? Only a few comments can be offered here, and therein no attempt will be made to consider the highly publicized problems of the physical environment and transportation. First, it is suggested that wherever contemporary urbanization is massive, the Metropolitan Region typical of the past half-century will not emerge. Rather, a pattern of related clusters of metropolitan regions, separated by expanses of low density residential spread and altogether lavishly consumptive of space will appear. The Southern California Metropolis houses around twelve million people today and its pattern is shown in Fig. 4. If County Planners are correct, in 1980 it will house approximately fifteen and one-half million persons and its pattern will look like Figure 8.

This pattern has been generated by an attitude that Catherine Wurster calls "Let the people have what they want: space and mobility". This attitude, despite its lack of support in intellectual, downtown business, and land planning circles, represents an inarticulate but powerful force, which at present, appears capable of winning-out as

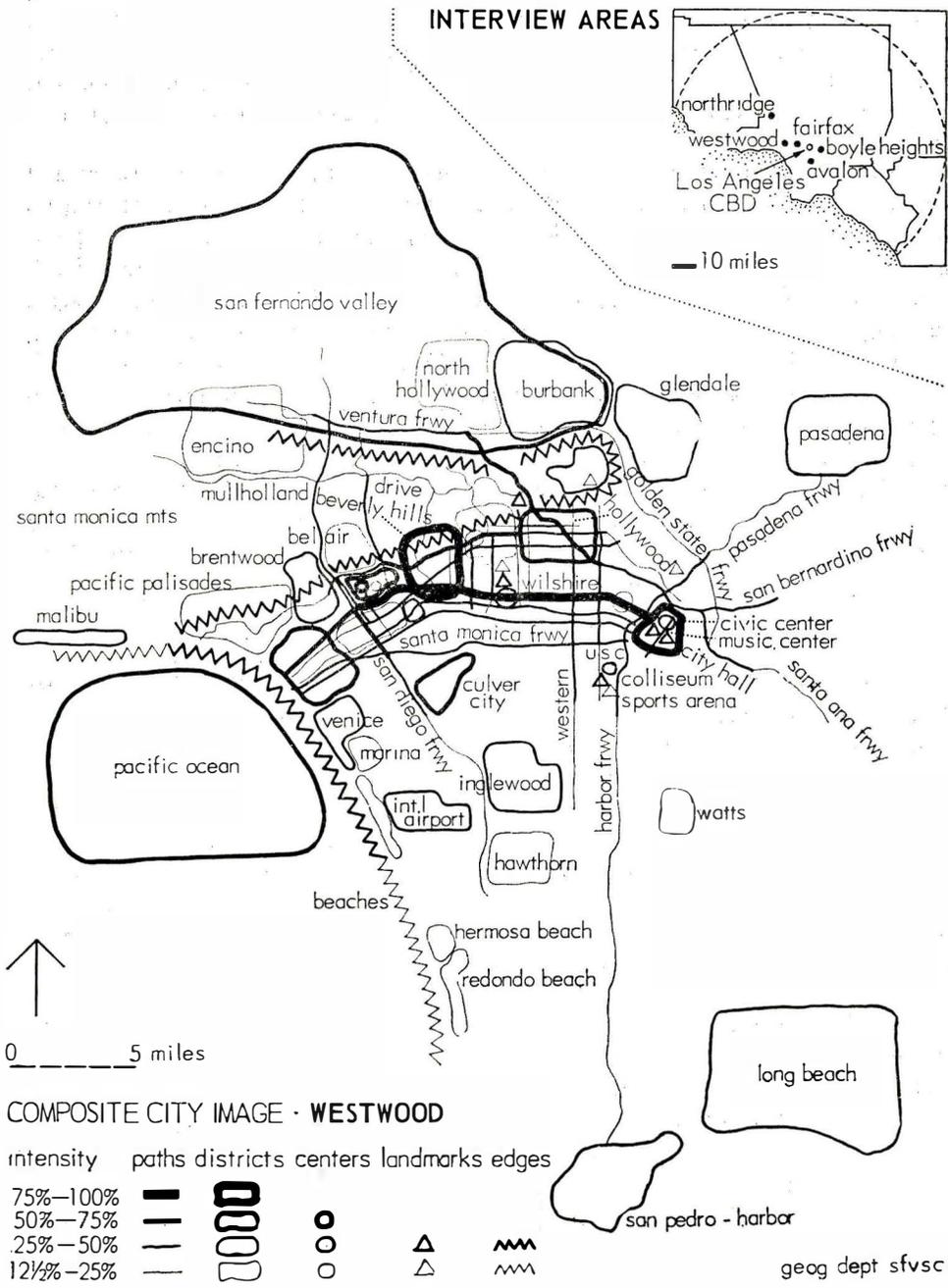
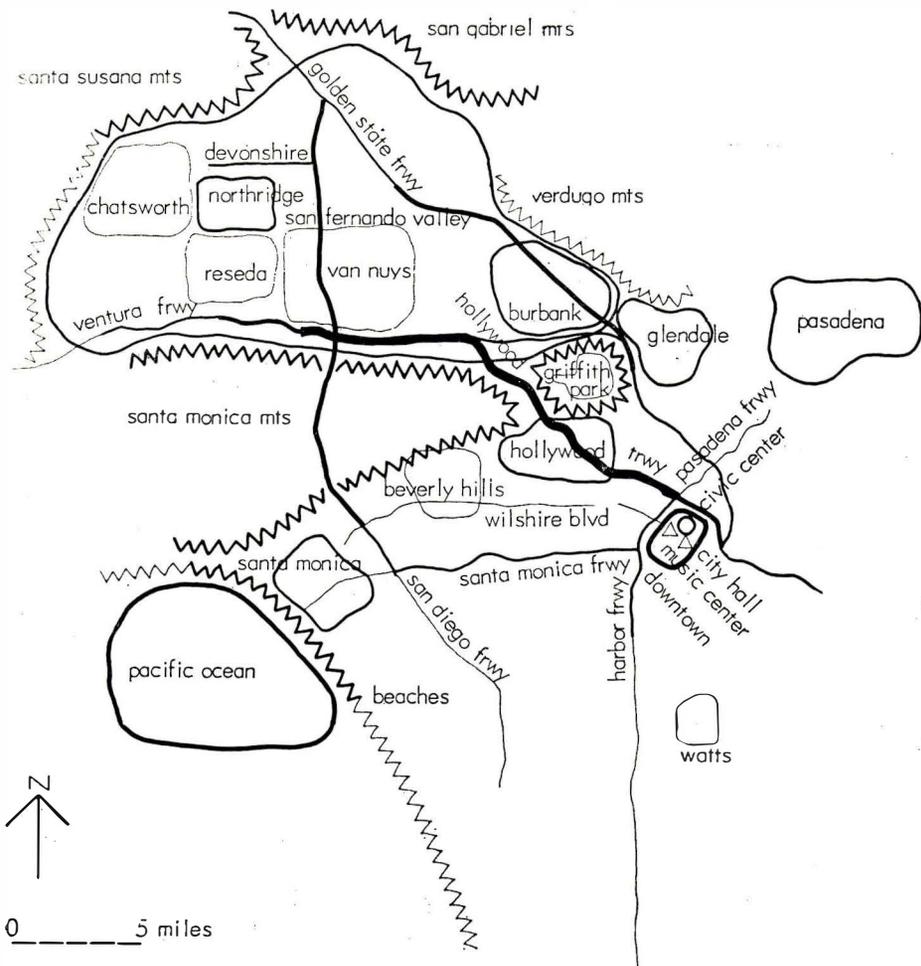
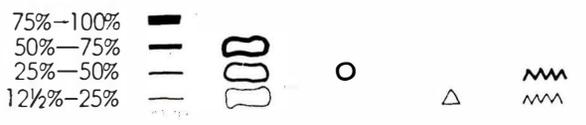


Figure 5



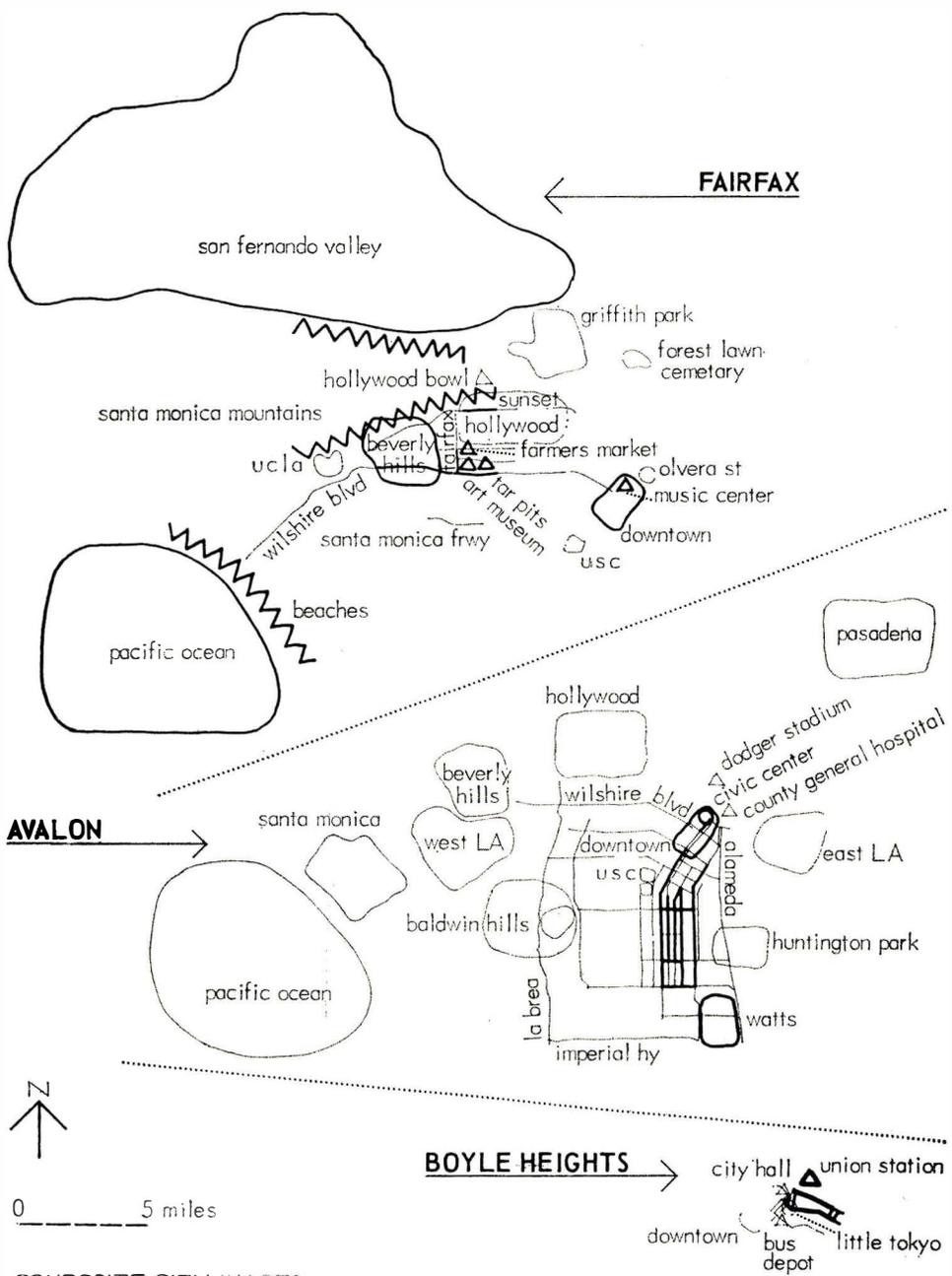
COMPOSITE CITY IMAGE · **NORTHRIDGE**

intensity paths districts centers landmarks edges



geog dept sfvsc

Figure 6



COMPOSITE CITY IMAGES

intensity paths districts centers landmarks edges

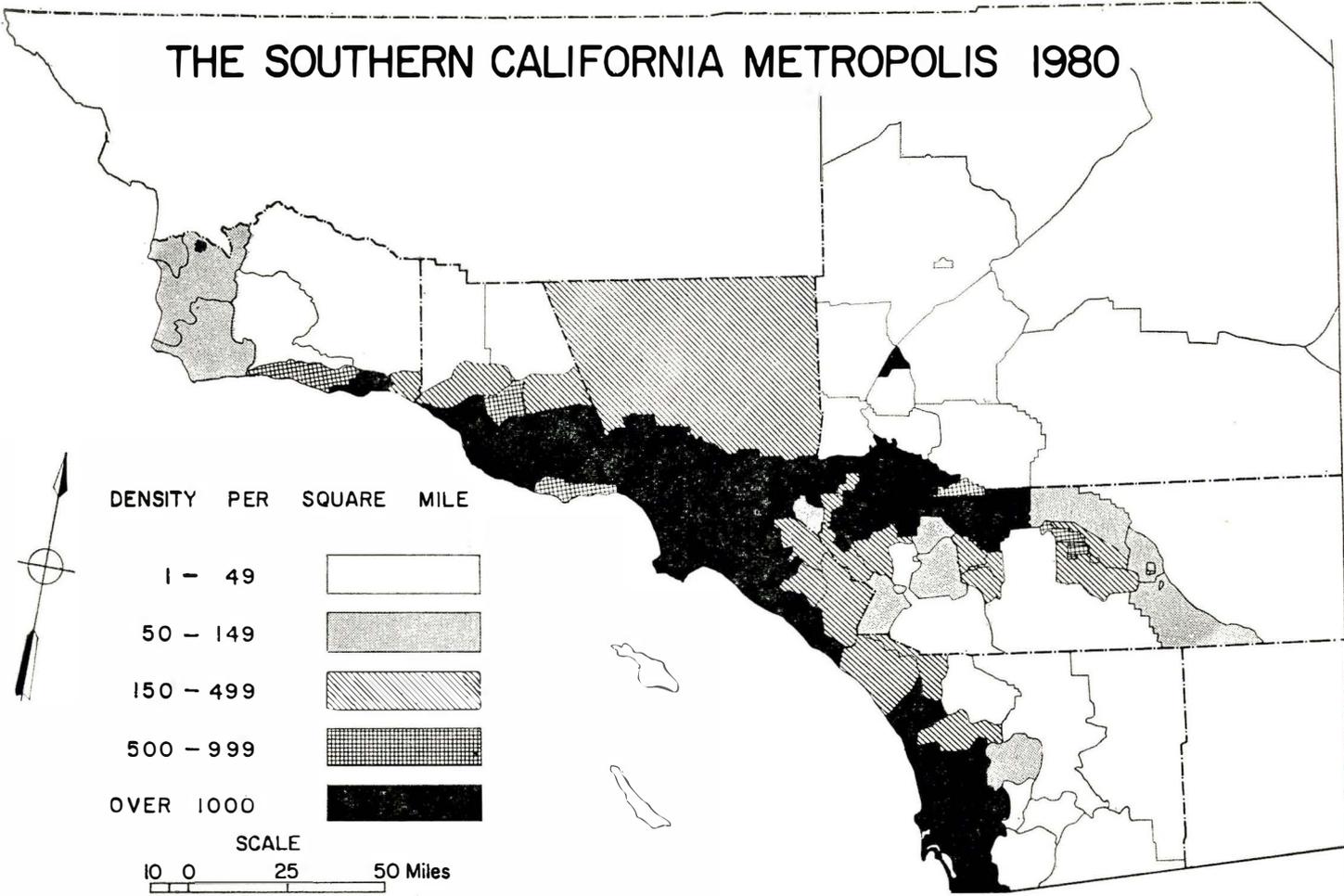
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| 75%—100% | — | ○ | △ | — |
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| 12½%—25% | — | ○ | △ | — |

geog dept sfvsc

Figure 7

THE SOUTHERN CALIFORNIA METROPOLIS 1980

Figure 8



the single most powerful shaper of the form and structure of American cities. In this respect, the Greater Los Angeles experience offers little by way of established institutional guidance for shaping "The Regional City" along aesthetic and humane lines. Even at the most elemental level, land planning alternatives to the blatant diseconomies inherent in the present pattern of haphazard scatteration have yet to be formalized. Such is the case because the area's experiments in regional governance and planning have yet to produce institutions capable of influencing a Regional City.

Second, regarding the people within the 60-Mile Circle it can be concluded that divisions between residents of the core and the suburbs are becoming increasingly sharp: divisions by age group, income level, and by race. These divisions have basically been created by housing patterns, and are intensified by the limitations of the current housing market which by and large serves only upper and upper-middle income white families in areas of recent growth. The problem is compounded by our inability to house the poor. If present trends continue, low income groups and ethnic minorities will occupy increasingly greater areas around downtown Los Angeles and around the cores of older cities like Pasadena where clumps of houses discarded by higher income groups are available. Again, little can be gained from the 60-Mile Circle's experience that would stand as an operational step toward a policy for expanding housing opportunities for the poor and the segregated.

Third, it can be argued that as the regional city expands its socially and economically stratified cellular structure, and as transportation becomes increasingly channelized, that the images of the agglomeration held by the inhabitants of each cell, as well as their awareness of problems and prospects of people living elsewhere in the Regional City, will become more restricted. The result could be further differentiation of the sub-cultural composition of the American City, and could produce still greater inter-group alienation as well as a decreasing responsiveness of the successful groups to the problems of the less fortunate, especially of those spatially removed.

Fourth, in the 60-Mile Circle single family houses are present in unprecedented numbers and over an unprecedented area. The bulk of these houses were produced on a tract basis, and vast areas are of similar age and materials and are likely to become obsolescent at about the same time (Fig. 9). In the Regional City, therefore, the problem of the "Old Neighborhoods" when it comes to pass will be manifested on a far greater scale than the older more compact cities.¹⁶ Once again the area offers little by way of an operational approach to this overriding physical problem of American Cities; namely that of recycling the use of the countless square miles covered by deteriorated or obsolescent structures.

Fifth, few aspects of the city are more fixed in our minds than the idea of a central business district, but Greater Los Angeles has demonstrated spectacular and prosperous urban growth without developing a CBD along classical lines. The traditional center structure can give way to a system of different networks for different activities and prosper. The overall pattern is cellular, and the cells are laced together, at least in the short run, by freeways. This urban pattern is, at least physically, seemingly capable of endless expansion.

Sixth, and perhaps paradoxically, it appears that as a megalopolitan landscape evolves its intelligence functions centralize. Region coordinating activities are concentrating in downtown Los Angeles and are reflected in a new skyline. The Los Angeles CBD is booming, but not in the traditional sense. It has been called forth as a social and economic nerve center for a complex regional city.

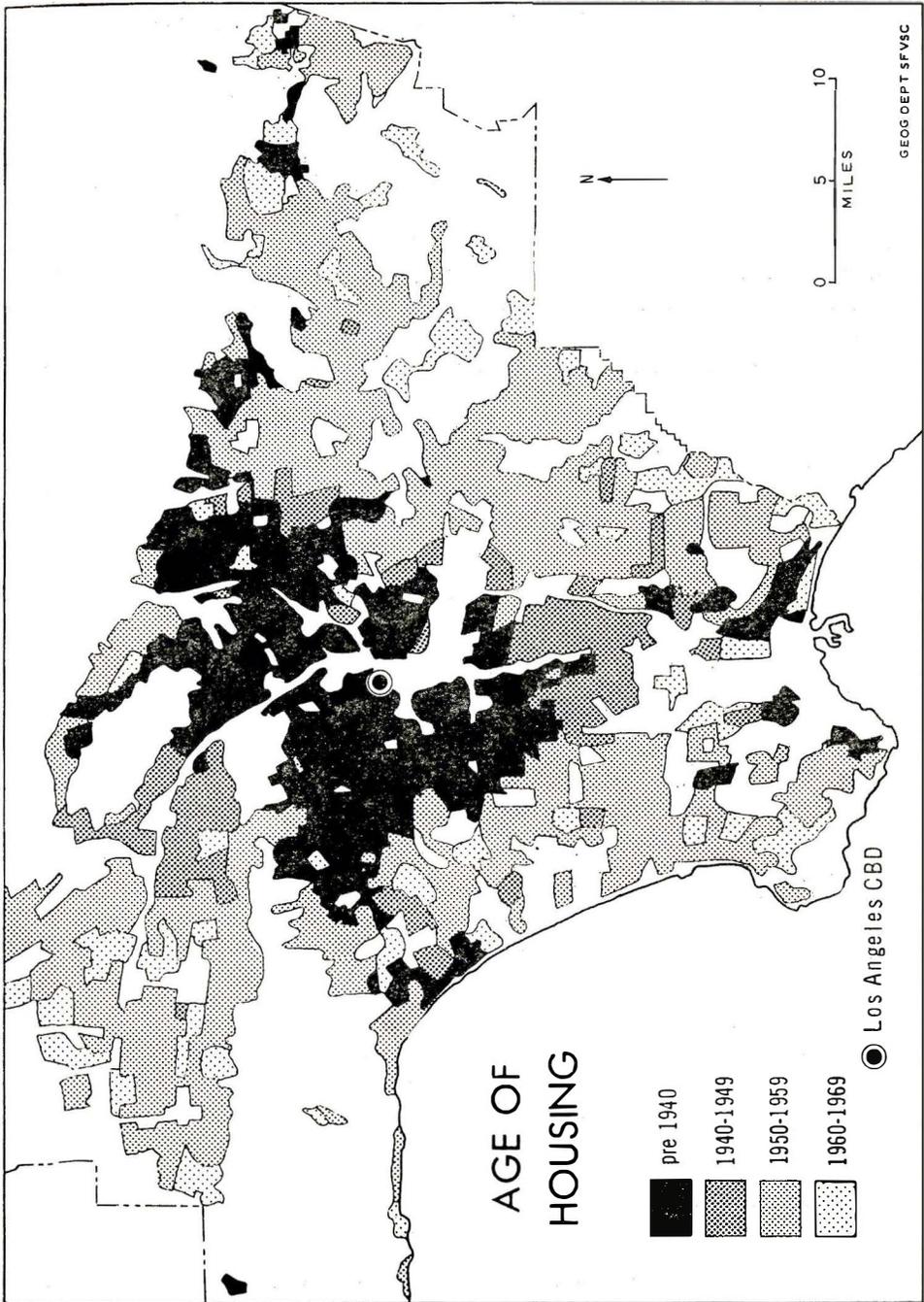


Figure 9

Age of Housing in Los Angeles County in 1969. Indicates dominant age of housing by census tract.

Seventh, new types of intra-urban nuclei are emerging. Disneyland and Marine-land accentuate man's ability to complement increasingly inaccessible natural amenities with completely man-made attractions. The Los Angeles International Airport is becoming one of the largest office and hotel centers on the West Coast, and in addition to the cluster of structures symbolizing its business meetings, the airport has become a significant shaper of the urban pattern, a function destined to become more important in the future.

Whether the cellular arrangement and vast distances inherent in the form and structure of urban life in the 60-Mile Circle are conducive to the good life is debatable, but it is clear that the pattern's origin lies in the very nature of modern urban-industrial technology, which, in turn has been molded into a life-style by the preferences of an affluent population in an open society. So even if it is only in certain respects that Los Angeles provides a scaled-down, speeded-up version of modern processes of urbanization, its experience as a forerunner may be of value. Perhaps most distressing, however, is that in the 60-Mile Circle we are still attempting to confront the emerging Regional City with obsolete institutions that were designed to handle pre-World War II urban processes, and as a result Greater Los Angeles can offer little by way of successful institutional guidance for improving the quality of human life in other emerging Regional Cities.

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JAPANESE BUDDHISM — ITS IMPRINT ON A CALIFORNIA LANDSCAPE

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Of the many dynamic forces operating to bring about modification or transformation of an existing cultural landscape, one of the most interesting and important is that of man's religions. Although it is sometimes difficult to separate the religious component from ethnic, social or economic factors in our urbanized and secular Western society, it can be accomplished with a moderate amount of effort if one knows what to look for and can understand what he sees. The most obvious religious elements, such as churches, great monuments and other sacred places, may stand out even to the untutored eye, but these are marks of the "outer face" of an organized, institutionalized religion. It can, perhaps, be more rewarding to discover visible manifestations of the religious intensity of the individual member of the faith under study. In this investigation, the question is: Have the Japanese Buddhists in the United States managed to produce any imprint on the cultural landscape that can be identified as a religious one?

JAPANESE CULTURE ELEMENTS

It does not take the investigator long to discover that there is a certain unity to all elements of Japanese culture. This unity stems from their forms of Buddhism, forms that call upon man to become an active participant in the workings of the universe. Whether it is in architecture, painting, flower arranging or in the landscaping of gardens, the desire to be an integral partner in the universe demands that the individual see beyond the mere outward form of an object, and to see, instead, the "essence" or "soul" of the work. It is perhaps less difficult for the non-Japanese to understand this concept by contemplating Japanese architecture. One American architect, noting that Americans tend to see only the physical qualities of a structure, commented that the Japanese are also concerned with the beauty of the grain of even the commonest of woods and have brought simpler lines to American architecture today.¹

The most common examples of the influence of Japanese Buddhism on American architecture can be observed in the number of "bungalows" erected during the early 1920's which displayed the curving roof lines and ornate entrance arches of Buddhist temples. Portions of the "middle zone" of metropolitan Los Angeles abound with these old residences which gained inspiration from earlier Japanese participation in expositions and world fairs after the turn of the century. More common today are residences mistakenly termed "Hawaiian Modern." While the design may have come from Hawaii, the concept came out of the large Japanese population in the Islands.

The desire of the Japanese to maintain a strict simplicity in works of art—paintings, flower arrangements and sculptures—is well appreciated by non-Japanese. It is a common occurrence today for American housewives to embrace the Japanese form of flower arrangement called *ikebana* and to go to great lengths to gather unusual specimens of rocks, driftwood and unique weeds to be combined with longstemmed flowers in order to create a truly different design for coffee table or mantelpiece. This practice appears to have evolved from the centuries old custom of Japanese Buddhists to place an offering to Gautama the Buddha on an altar—in the form of a simple floral arrangement.²

Perhaps the most admired, yet least understood of all the influences of Japanese Buddhism in the United States is the “Japanese Garden.” Most white Americans, even those who may have one in their own yard, mistakenly believe the garden is purely *ethnic* in origin. In reality, however, the Japanese garden is a definite religious manifestation. Although there can be no denying its Japanese origin, its present form is Buddhist in both design and inner meaning.³

THE JAPANESE BUDDHIST GARDEN

These gardens—which have evolved over a span of more than a thousand years as Buddhism traveled from India to China and Korea to Japan—are most commonly seen gracing the front yards of Japanese homes. There is also a large percentage of religious gardens in patio areas that cannot be observed from the street. They contain certain elements that have a definite religious symbology, an understanding of which enhances the view of the gardens.

All religions have some concept of a force *outside* the person, but the Japanese Buddhist attempts to have this cosmos close to him, around and about him, so that he can truly feel he is a part of it. The Buddhist garden is a complex work of art, yet its beauty is derived from its inner meaning, its symbolism, its seeming simplicity. The Buddhist religious garden is a universe in miniature—nature compressed and idealized into a symbolic form that is supposed to be nearer perfection than nature in its original form.⁴ The garden provides the Buddhist with a place for contemplation and for communion with nature and one’s own soul. In other words, it is an aid in following the Buddha’s Noble Eightfold Path.⁵

Most Buddhist gardens stem from designs created during the sixteenth century by the master landscape designer, Soami, for the great Buddhist temples of Kyoto and Nara in Japan. His gardens complied with his demand that everything be to scale and be even more perfect than nature itself (Figure 1).

Foremost of the symbolic elements in the Buddhist Garden is the “Guardian Stone.” This large stone represents the “abode of the gods”—the Immortals—the great mountain from which, according to the legend, the gods descended to greet the newborn Siddhartha Gautama in Lumbini Gardens, India. To some, the mountain also represents the universe itself—a concept shared by many religions as exemplified by the importance attributed to such mountains as Mt. Sinai, Mt. Olympus, and the sacred mountain of the pre-Buddhist Japanese Fujiyama.

There are other stones, of course, and each has a specific meaning: the “waiting stone,” the “Companion stone” and so on. These stones symbolize certain attributes an individual should attempt to attain.⁶ Special groupings of rocks and stones become a realistic duplication of nature’s beauty.

There are trees and shrubs and the most important of these is the Japanese Black Pine (*Pinus thunbergii*), *koru matsu*, which symbolizes long life. When these are planted in twos, it symbolizes a man and his wife growing old together. Sometimes there are ball-shaped shrubs pruned to simulate hills receding into the distance.

There is usually a stone lantern (*toro*) to shed light for nighttime strolls or a stone pagoda which represents the Indian *stupa*, a marker showing the burial place of a Bodhisatva, one who had attained Buddhahood.

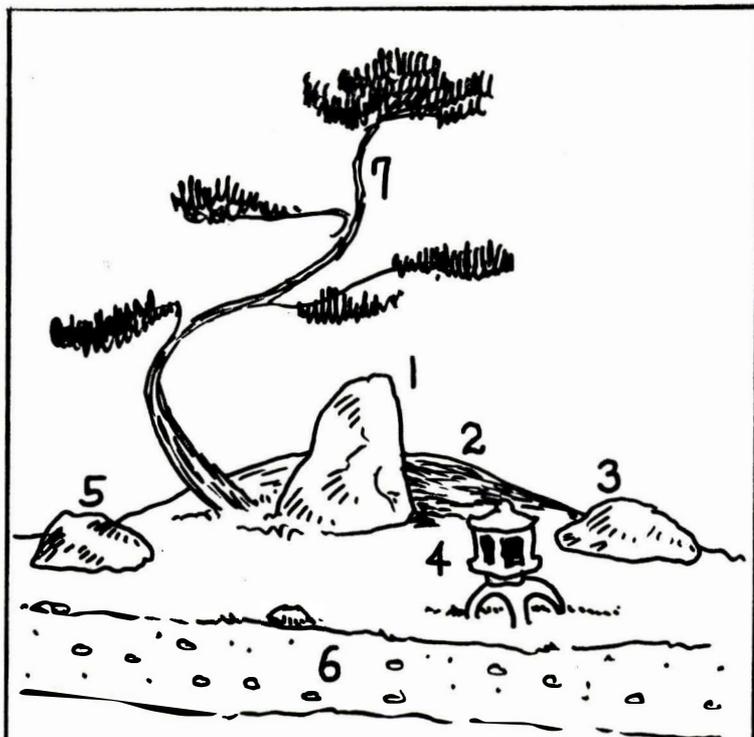


FIGURE 2. TYPICAL BUDDHIST GARDEN IN SAWTELLE, Calif.

- | | |
|----------------------|-------------------------------|
| 1 -- Guardian Stone | 4 -- Stone Lantern |
| 2 -- Hill | 5 -- Companion Stone |
| 3 -- Companion Stone | 6 -- Path or Simulated Stream |
| | 7 -- Japanese Black Pine |

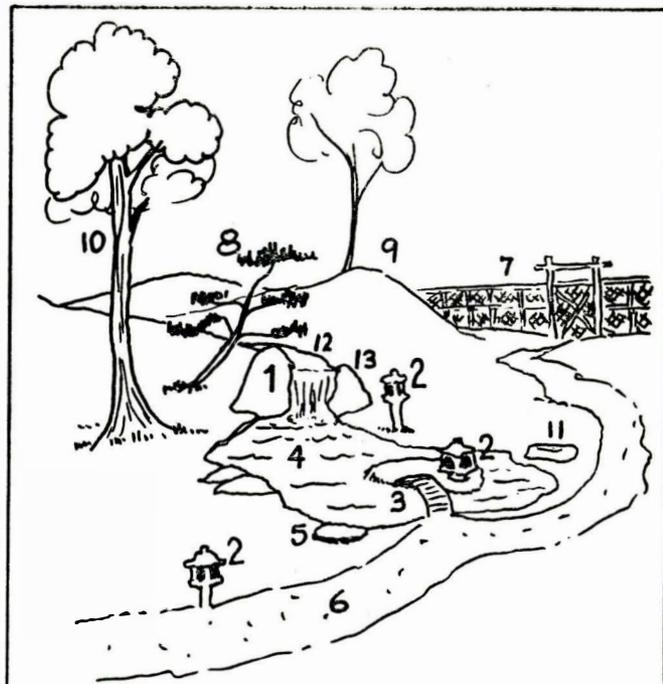


FIGURE 1. SHIN-STYLE BUDDHIST HILL GARDEN

- | | |
|---------------------|------------------------------|
| 1 -- Guardian Stone | 7 -- Bamboo Fence |
| 2 -- Stone Lantern | 8 -- Koru Matsu |
| 3 -- Bridge | 9 -- Main Hill |
| 4 -- Pond | 10 -- Tree of Upright Spirit |
| 5 -- Idling Stone | 11 -- Seat of Honor Stone |
| 6 -- Pathway | 12 -- Waterfall |
| | 13 -- Companion Stone |

Source: Julia S. Berrall, *The Garden* (New York: Viking Press, 1966), Chapter XIII, pp. 360-362.

The amount of space available to the average Buddhist garden determines how many of the symbolic elements will appear, but the average American Japanese Buddhist will have placed in his garden certain basic elements: the Guardian Stone, the Black Pine, a lantern or a pagoda and a few of the important stones (Figure 2).

A CASE STUDY: THE IMPRINT OF JAPANESE BUDDHISM IN SAWTELLE

A brief survey of the sub-community of Sawtelle, California, which is located about twelve miles west of downtown Los Angeles and six miles from Santa Monica Bay, might lead one to believe that it is a Japanese community. Such is not the case, however, for the Japanese total only 1,950, about twenty percent of the total population. The centripetal force exerted by the West Los Angeles Buddhist Church is so powerful that any available house put up for sale is almost immediately "snapped up" by Japanese desirous of entering the area. There is an ethnic shopping center (Figure 3) on Sawtelle Blvd., between La Grange and Mississippi, that caters primarily to the local Japanese, yet manages to do a considerable amount of business with non-Japanese who will travel long distances to shop for "Oriental delicacies." Although the Japanese in this area are engaged in almost every form of economic activity and occupation, one of the predominant occupations is that of landscape gardening. So successful are these gardeners—whose territory encompasses most of the western reaches of the Los Angeles lowland—that their annual income is higher than that of Japanese elsewhere in the state.⁷ A number of nurseries supply these gardeners with their materials, but many of the Japanese also have their own "backyard" nurseries (usually along the side of the house in the form of shrubs and small trees neatly potted and awaiting transplanting). The nurseries as well as the Japanese population cluster about the Buddhist Church (Figure 4) and its neighbor, the West Los Angeles Community Methodist Church, an exclusively Japanese church also. An examination of the architecture of the two churches discloses the fact that they are quite similar in design, except for the Cross on the Methodist Church and the Buddhist Wheel of Life on the other.

The cultural imprint of the Japanese in Sawtelle is enhanced by the prevalence of the religious gardens (Figure 5). There are over one hundred of these gardens in the study area, and eighty percent are owned by Japanese who are Buddhist. Comparison of the location of the gardens with membership rosters of both the West Los Angeles Buddhist Church and the Community Methodist Church disclosed the fact that twenty-six of the gardens were owned by Japanese Methodists. The oddity of this fact was explained by a Buddhist gardener who said that he had "free rein" when asked by a Methodist to construct a "Japanese" garden. Although none of these gardens can compare to those of Kyoto or Nara in Japan, or to the elaborate ones on the various Hawaiian Islands, or even to the one belonging to the University of California at Los Angeles, they contain most of the important features of the authentic garden. The most accurate representation of Sawtelle's religious gardens is, appropriately enough, found at the Buddhist Church. It was designed by a landscape gardener who had studied under Buddhist priests in Kyoto.

Because most of the gardens in Japan (other than those of the temples) do not have running water, the majority of the Sawtelle gardens also eliminate actual streams. In the manner of a dry garden (Figure 6), the water is simulated by white sand; the waterfall by white rocks; thus evoking the idea of water bubbling over a small cliff and

winding its way through the garden. In some of the gardens, tree ferns have been added and the shrubs have been trimmed to represent hills receding into the distance.

Some of the homes have two gardens: one is the traditional Shin-style garden (Figure 7) and the other may be the mystical and unpretentious "tea garden" symbolical of the birth of the Buddha. The Tea Garden gave rise to the elaborate "tea ceremony" in Japan: the pouring of the tea emblematic of the bathing of the baby by the Immortals.

The residence of the Buddhist priest is shown in Figure 8. This garden has its pathway (or stream) made of concrete in which small pebbles have been placed. Because Sawtelle is headquarters for the sect of Buddhism known as Jodo Shinshu, it was surprising to find a Zen Buddhist garden (Figure 9) in the Sawtelle area. It was learned, however, that the congregation of the Buddhist church is composed of members from many different sects (Nichiren, Shingon, Soto Zen and others) who attend the West Los Angeles Church rather than make the long journey via the freeways to their own denomination's meeting places. This particular Zen garden appeared a trifle overgrown, with too many shrubs in evidence. The authentic Zen garden eschews such complexity: attempting only to portray the Guardian Stone, the abode of the Immortals, surrounded by the "ocean of the universe" represented by carefully raked white sand.

CONCLUSION

It would be interesting and rewarding to make additional studies of similar Japanese Buddhist enclaves in other parts of California or the Pacific Coast. Perhaps similar religious manifestations may be found in London, Brazil, or wherever there may be a large concentration of Japanese Buddhists. Other than a Buddhist temple, would the prime manifestation of religiosity be the religious garden?

Perhaps there may be other demonstrations of their faith, but it is doubtful whether any will have the emotional impact of the contemplative beauty of the true Buddhist garden.

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³For information as to the meaning of Japanese Buddhist gardens, see: Jiro Harada, *The Gardens of Japan* (London: The Studio Ltd., 1928); Lorraine Kuck, *The World of the Japanese Garden* (New York: Walker/Weatherhill, 1968); David Engel, "The Meaning of the Japanese Garden," *Landscape*, Vol. 8, No. 1 (Autumn, 1958), pp. 11-14.

⁴Yamamoto, *op. cit.*, p. 44.

⁵Among the pathway steps are such attributes as right belief, right aspiration, right speech, and so forth. Important to the Buddhists, however, are right contemplation and right thought. The garden is one way to attain the right attitude, to rid one's mind of extraneous and misleading abstractions.

⁶Harriet O. Taylor, *Japanese Gardens* (New York: Dodd, Mead and Co., 1929), pp. 11-12.

⁷Fair Employment Practices Division, *Californians of Japanese, Chinese and Filipino Ancestry* (Sacramento and San Francisco: California Department of Industrial Relations, 1965), p. 14. Median Annual Income for Japanese in 1959 was \$4,388. According to reputable sources in the Sawtelle community, the 1968 median was about \$7,200. Even allowing for increases due to inflation, there is strong evidence that the Japanese in Sawtelle rank higher than Japanese in other parts of the state.

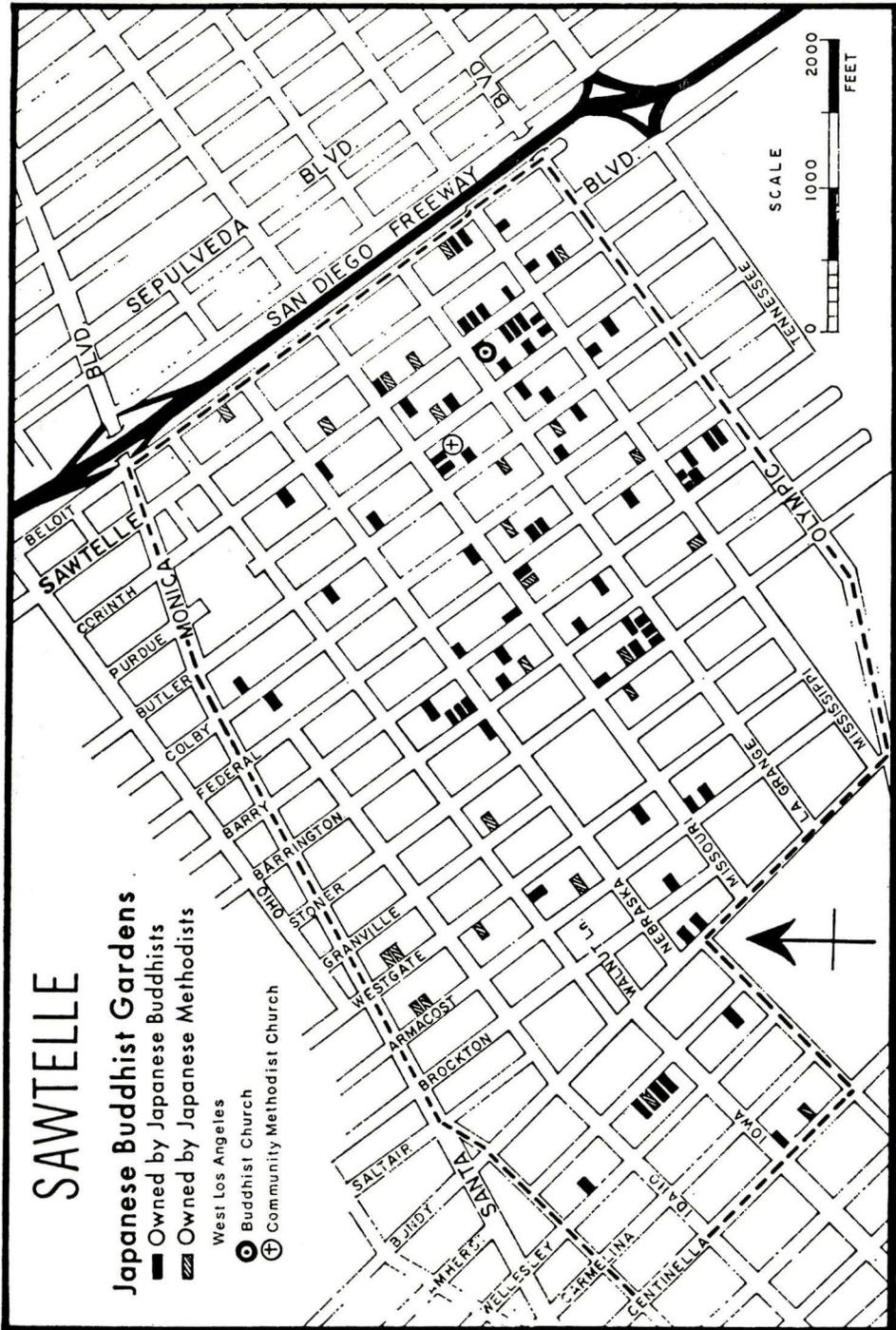


Figure 5. Distribution of Japanese Buddhist Gardens in Sawtelle.



Figure 6. Dry Garden



Figure 7. Shin-style Garden



Figure 8. Residence of Buddhist Priest

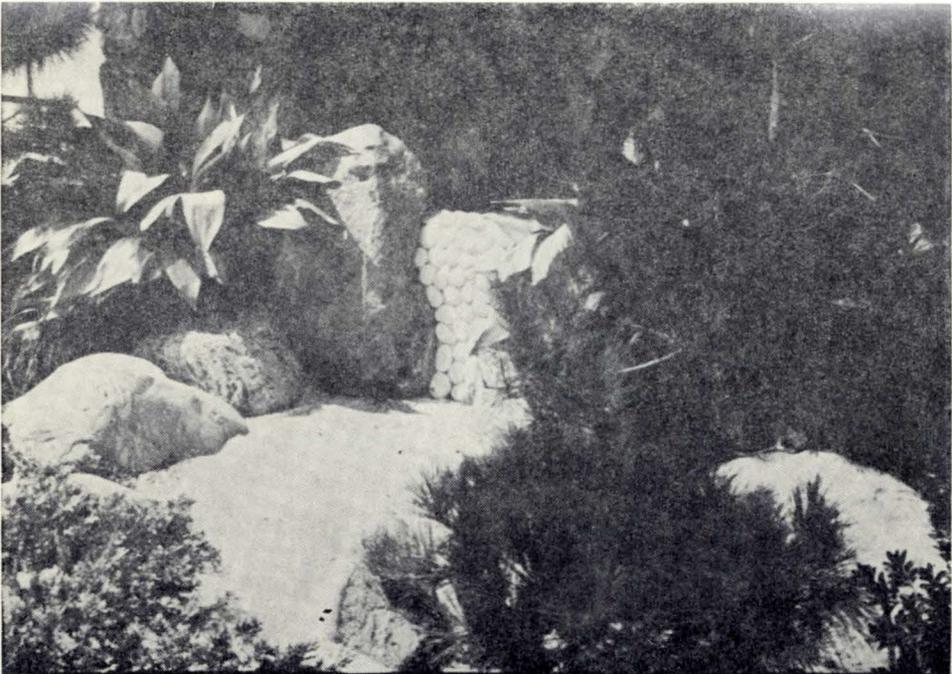


Figure 9. Zen Buddhist Garden

METROPOLITAN EVOLUTION, URBAN IMAGES, AND THE CONCENTRIC ZONE MODEL

LARRY R. FORD

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URBAN ERAS AND THE CITYSCAPE

According to Edward Price, "Mention the name of a city and the mind of a listener who knows it will most likely identify it with a visual image, one of its landscape. The landscape provides an expression of the city's inner workings and its past."¹ Cultural differences, including great differences in technology and landscape tastes, can, of course, make for important variation in the cityscapes of the world, but considerable variations in the urban landscape can also be found in the cities of North America. John Borchert, in his article, "American Metropolitan Evolution," states that "the landscapes of any American city reflect countless decisions and actions from the time of settlement to the present. The results are apparent not only in differences in land use but in the kaleidoscopic variety of building facades, street patterns, and lot sizes. Early actions precluded or frustrated many other locational decisions. The metropolitan physical plant has accumulated through various historical epochs, and clearly those epochs were distinguishable one from the other by different ideas and technologies."²

Borchert, Price and others have seen the city as a stock concept; the physical landscape of one era greatly modifies man's adjustment to space in other eras. This problem of "adjusting to space," however, can be looked at from a cultural or behavioral point of view as well as an economic one. It is the cityscape which provides the clearest images and cognitive maps that people have of a city and these images and maps should be incorporated in our urban models along with the existing "economic man" theories.

THE CONCENTRIC ZONE MODEL AND URBAN IMAGES

Many models have been developed in geography with varying degrees of complexity. One of the earliest and most widely used models in urban geography is the concentric zone model which was postulated by sociologists during the 1920's. Although this model is often criticized as being too simplistic, it does provide a basic framework for the organization of urban data and it has played an important part in the creation of consensus mental maps of the city ("inner city," "suburban ring," etc.). It is felt, however, that this model would be more useful for understanding the nature of the city by geographers if the sociological terminology usually used could be modified through the use of some landscape-image inputs. Geographers still talk about such things as "working class" and "suburban" zones even though the visual characteristics of these zones and probable inter-city variations in those visual characteristics are seldom adequately discussed. Urban geographers have largely ignored images and impressions of cities and have used such things as maps of social characteristics and graphs of density gradients to describe it, even though a certain density in one visual context may be quite different than the same density in another context and the difference may be due as much or more to era of growth as to socio-economic characteristics. The study of landscapes has been left to rural geographers.

One development that may lead to a new interest in landscape analysis on the part of urban geographers is the increased interest in urban spatial behavior. Geographers

are joining planners and psychologists in perception studies, in an attempt to understand some of the inputs people utilize in mentally structuring their environments. In planning, Kevin Lynch, Malcome Rivkin, Stephen Carr, and others have done much work in the area of structuring cities on the basis of impressions and remembered images gleaned from respondents through in-depth interviews. The structure of the city is not derived from actual land use but the things that people see, remember, and react to.³

In geography, Allan Pred's study of the black ghetto in Chicago gives some clues as to how cityscape analysis could be used as a starting point in studying the images that people have of places.⁴ It would seem that cityscape analysis studies and mental map studies could be utilized in creating a basic, introductory landscape-image model of city structure comparable to the land use and socio-economic models now in use.

ERAS OF GROWTH AND IMAGE MODELS

Although the results of perception studies dealing with the urban environment are still too scattered to be useful in the determination of a scientific image model of city structure, cityscape analysis can be used to give direction to the effort. The following section of this paper includes an extremely preliminary and sketchy attempt to demonstrate some possible relationships between cityscapes and city structure that might be useful in providing some insight into how cities might be structured on the basis of visual impressions and image-dominated (as opposed to say pathway-dominated) mental maps. More precisely, an attempt is made to relate Borchert's contention that cityscapes vary with era of growth to a landscape-image version of the concentric zone model.

Borchert hypothesizes four major epochs of urban growth, each of which may or may not have affected a particular city, depending on its date of foundation. They are: Sail-Wagon, 1790-1830; Steamboat-Iron Horse, 1830-1870; Railroad-Heavy Industry, 1870-1920; and Auto-Amenity, 1920-1960. There are exceptions to these growth factor eras, of course, since, for example, Atlantic City grew large as an amenity center before the amenity era. In general, however, the eras are realistic.

Some cities, such as Cincinnati, have experienced city status during all of these eras, while others, such as San Diego, have really attained city status only during the last era. Despite urban renewal and freeway construction, many aspects of the cityscapes of these two cities still vary and it is possible and perhaps probable that their images vary as well. Neither of these cities were shaped by the same era as Chicago, the city which served as the prototype for the early models of city structure, namely the Railroad-Industrial era.

We can classify cities on the basis of their era of greatest importance and landscape formation and relate this classification system to possible consensus images that could occur if proper studies were carried out. An example of a "proper study" would be something on the order of "A Walk Around the Block," "The City as a Trip," or "The View from the Road," as carried out by Kevin Lynch and others.⁵ What do people remember on a trip through a city and how do they use what they remember in structuring their images of that city? Students visiting Cleveland, for example, used terms like "railroad yards, port facilities, brick tenements, and steel mills" when describing their impressions of the city and, although no detailed study was carried out, it is likely that those image components would have played an important part in their mental maps of the city.⁶ Descriptions of San Diego, on the other hand, usually include some mention of "one story, small, single-family houses, neon-signed commercial strips with huge parking lots," etc.⁷ Admittedly, there is very little hard data here upon which to build a landscape-image model of city structure, but Borchert's eras can provide a skeleton.

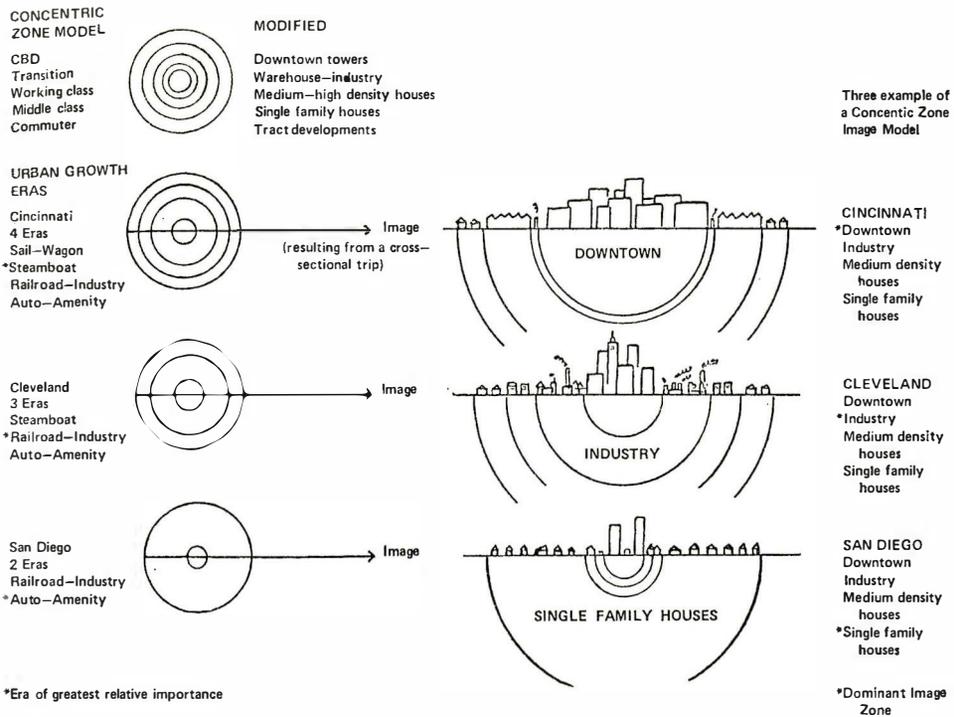


Figure 1. Image Inputs and the Concentric Model

Central Cincinnati was laid out largely during the steamboat era when intra-city transportation systems were primitive if not non-existent, and industry was still small-scale. Large, multi-story, multiple-purpose buildings were packed tightly into the urban core. Small factories, stores, warehouses, offices residences and hotels co-existed in the relatively undifferentiated (visually) buildings. Even today, Cincinnati has a fairly strong downtown with restaurants, theaters, a stadium, and plans for second-level sidewalks. Central Cleveland was formed during the Railroad-Industrial era (as was Chicago) and has a downtown which is small in area but packed with 1920-style skyscrapers and 1930-style malls. In the evening, however, the downtown is dead and highly-visible heavy industry nearly surrounds it. Downtown San Diego reflects the auto-age. Although large skyscrapers are being built, they exist in a sea of parking lots and other low-intensity land uses and single-family homes with yards only a few blocks from the center. The largest stores are all in the suburban shopping centers.

The result of this kind of macro-analysis is a concentric zone model in which the most important or noticeable landscape zone is identified, ideally on the basis of era of major landscape formation (Fig. 1).

CONCLUSION

The purpose of this paper is to bring together the ideas of creating generalizations or “models” to explain and teach principles of city structure and the work that is being done to discover how people view and remember cities. If some method can be found to provide images to go along with the existing models, then the teaching of city structure and organization will be a much more productive effort, for students remember visual characteristics of cities long after they have forgotten such things as maps of land use intensity. The “image-model” city classification system represents a preliminary step in that direction.

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TWENTY - FIFTH ANNUAL MEETING

Sonoma State College

May 7-8, 1971

The Santa Rosa area provided the setting for the twenty-fifth annual meeting of the California Council for Geographic Education, hosted by Sonoma State College. Friday evening featured an Italian dinner in Occidental. On Saturday forty-two papers were presented in concurrent morning and afternoon sessions at Sonoma State College. Saturday's luncheon, held at the Green Mill in Cotati was highlighted by Harvey Bennett of Eastern Oregon College on "Geography: The Real World and Education." The banquet, at the Los Robles Lodge in Santa Rosa, featured Jan Broek's address, "Regional and Topical Facets of Geography."

ABSTRACTS OF PAPERS PRESENTED

CLARK AKATIFF, *San Jose State College*. — "Love, Haight, and Beyond: A Geographical Exploration of the Haight-Ashbury, San Francisco"

The "Hippie" phenomenon is seen through its spatial manifestation in the Haight-Ashbury of San Francisco. This neighborhood is seen as an international cultural vortex, the existence of which reflects cultural changes epochal in their significance. The Haight-Ashbury represented the spatial focus of a movement that is at once international, transcultural and revolutionary. The decline of the Haight-Ashbury does not represent a decline in the causes of the movement of radical youth, but rather their dispersal and regrouping in patterns which approximate those of guerilla warfare.

JAMES P. ALLEN, *San Fernando Valley State College* — "People Geographies and Students' Worlds"

A technique potentially useful for both teaching and research involves the inductive geographic study of those highly localized areas within which students move regularly and with which they are most familiar. Analyses of student circulation networks, subjective and objective social space within these worlds, and the nature of their knowledge of places beyond these small worlds may produce data and hypotheses for the development of social geographic knowledge while at the same time illustrating certain geographic concepts.

BURTON ANDERSON, *et al. California State College, Long Beach* — "Variations in Viability: A Study of Economic Health in the Pacific Northwest"

This study, initiated as a group seminar project, had as its goal the identification of variations in economic viability within the Pacific Northwest.

Indicators of both level of economic development and trend in economic growth were evaluated, using statistical and cartographic techniques to determine areal variations. Significant departures from previous studies include a wider spectrum of indicators and the use of multivariate analysis and step regression rather than the more subjective loading inherent in factor analysis.

Three trends became evident. Large-scale urban areas show high levels of economic health. Significantly different from previous studies is the fact the equivalent viability appears in medium-size towns, in most areas of intensive and in a few areas of extensive agriculture. Areas with economies based on extensive land use and the extractive industries were significantly below the norm.

MICHAEL J. BIECHLER, *Fresno State College* — "The Coffee Regions of Guatemala"

Despite the obviously significant role that coffee must play in the economic development of certain nations, little is known of the regional differences in the production, processing, and transport of coffee within these nations. Based upon field research and published data from Guatemalan sources, a number of regions, subregions, and outlying areas of coffee production have been delimited. The regionalization takes into account climate, altitude, topography, soils, farm size, production levels, yields acreage under coffee, quality, variety, processing, and transport. This paper summarizes the principal differences of the three major coffee-producing zones of Guatemala and is suggestive of the implications of such differences for development planning.

THOMAS E. BISHOFBERGER, *University of California, Davis* — "3-D as an Aid in Geographic Instruction"

Stereo-slide projections can be an effective visual aid in the instruction of geography. The

use of such a tool not only enhances comprehension but arouses the student's natural interest and curiosity. Such projections can illustrate the dramatic patterns present in the study of topographical features as well as cultural aspects.

Also, the expense of class sets of photographs in air-photo interpretation instruction can be reduced by supplementing a skeleton supply of these photographs with 3-D slide projections.

DARRELL BURRELL, *et al.*, *Nova High School, Redding* — "Evaluating Student Growth in Geographic Understandings with the NCGE Achievement Test"

The National Council for Geographic Education Achievement Test provides an instrument for both pre and post testing geographic understanding. A one semester ninth grade course is used as an example.

WILLIAM K. CROWLEY, *Sonoma State College* — "The North Coast of Honduras and the Rise of San Pedro Sula"

Large-scale settlement and development did not begin on Honduras' north coast until the late nineteenth Century. The banana companies then moved in to clear vast acreages of virgin forest and establish plantations. Several small urban centers gained some importance, mainly as banana company headquarters or ports, and a few manufacturing plants were established at San Pedro Sula and La Ceiba to serve the local market.

Beginning in the 1950's the northwest coast has become Honduras' greatest growth zone. San Pedro Sula has arisen as an important urban center and is now the leading city in Honduras in manufacturing. For the first time, development not strictly tied to banana fortunes has occurred, though the banana companies remain major elements in the economic picture. The most important factors in explaining this growth appear to be: (1) geographic situation, (2) the formation of the Central American Common Market, (3) the availability of large amounts of outside capital for the development of local industrial, agricultural, and transportation resources, and (4) the presence of non-Hispanic minority groups, particularly Arabs, who have shown great acumen as entrepreneurs and leaders in the economic sector.

JAMES R. CURTIS, *San Jose College* — "The Position of the *Ejido* in the Economic and Cultural History of Mexico"

Within the broad sweep of economic and cultural history of Mexico, the *ejido*, as an institution, has existed and continues to exist as the penultimate to the final stage of agricultural development. The *ejido* has its legacy from both Aztec and medieval Spanish land tenure ideas. The nature of the *ejido* as a system of agricultural production, in both medieval Spain and Aztec times, was geared toward subsistence and self-sufficiency which operated under basically a self-contained closed system.

The dominant thesis of this paper is that the *ejido* can actually be considered as a transitional stage between complete landlessness on one hand and private ownership on the other and in the long range economic development of Mexico is doomed as a large-scale agricultural operation.

ALLAN R. FISHMAN, *San Jose State College* — "Changes in the Direction of Intra-European Trade Since 1913"

The primary objective of this paper is to describe and analyze the general direction of intra-European trade during the past half century, and to explain the changes in direction that have occurred during this time. A graph theoretical technique, based on major trade linkages between countries, is employed, resulting in a series of six maps depicting countries which served as foci of intra-European trade in the years 1913, 1928, 1938, 1948, 1957 and 1967, as well as countries which were "trade satellites" of each focal country in each of the six years. In explaining the differing patterns encountered in each year, recourse is made to the major political, economic, and military developments that have affected Europe during the twentieth century. Given the nature of these developments and the impact they have had on the the direction of intra-European trade, it is highly probable that current developments in Europe, especially British entry into the EEC and the West German *Ostpolitik*, will once again alter the direction of intra-European trade.

LARRY FORD, *San Diego State College* — "Rings and Things: Metropolitan Evolution and the Concentric Zone Model"

(see p. 59 in this volume)

ROBERT FREDERICKS, *College of Marin* — "Men and the Land at Clear Lake: Some Recommendations for Environmental Protection"

Clear Lake, in California, is very nearly an ideal test area for analysis of many environmental problems, especially those dealing with aquatic resources. The lake is relatively close to population centers, it has a long history of man's interaction with the environment, it has both economic and recreational attractions, and ecological changes are clear and visible.

This paper suggests means of restoring the beneficial advantages of Clear Lake's natural environment, while at the same time recognizing that the lake and its environs must satisfy in the best possible way the human requirements of its residents and visitors.

LAY JAMES GIBSON and RICHARD REEVES, *University of Arizona* — "The Future of the Summer Field Camp in Geography Graduate Programs"

The summer field course was once a common part of the graduate program in American Universities. Today, the summer field course is only rarely found among the graduate offerings of most departments. It is our contention that this decline in popularity is due more to a failure to adapt the course content to contemporary student needs than to the problems inherent in off-campus programs. The traditional field camp was often devoted to training students to utilize the equipment and procedures developed by scientists in agriculture, forestry, and geology. With the evolution of geography to its current position as a problem oriented science, geographers started asking questions different from those asked fifteen or twenty years ago. On the basis of these observations we have strongly oriented the field course conducted by the University of Arizona to problem solutions. The mastering of techniques of field data collection along with cartographic and statistical analysis of these data is put in a context of designed research, which considerable emphasis placed on formulation of testable hypotheses before entering the field.

HARVEY E. HEIGES, *San Diego State College* — "A Student Internship Program in Geography"

Employment opportunities are a common unknown for college students in many fields; in Geography, student awareness of employment opportunities is limited aside from the better known areas of teaching and the Federal Government. In the Fall Semester, 1970, the Geography Department at San Diego State College initiated a formal internship program for advanced undergraduate and graduate geography majors to increase student awareness of job opportunities and at the same time to give them practical experience in business, industry, and government.

During the first year of the program's operation students have interned at a number of industries and public agencies in the San Diego area. The program has been an unqualified success with enrollment expanding rapidly. Students find the internship work-learn experience has a far greater impact than many an hour of professorial lecturing. In addition to participating in an actual work experience, students learn how their academic learning and geography training can be applied to many real-world experiences and practical problems.

KARL M. KRIESEL, *University of California, Davis* — "Philosophical Functionalism in American Geographic Thought"

The explanatory form called functionalism or functional analysis studies structural components of a system in an attempt to show how they contribute toward the integration of the system either by fulfilling or failing to fulfill needs of the system, and how these contributions bear upon the existence of a component in the system. Philosophical functionalism, colored by *a priori* metaphysical or teleological biases, suggests the reification of certain phenomena, that is, it develops constructs which are treated as autofunctional and un- or anti-analytical "things" or "systems," the implication being that such holistic structures exist above and apart from the individual components comprising them. This paper identifies three separate forms of philosophical functionalism in American geographic thought, namely, the "regional" the "genetic," and the "personal." Attempts are made to identify the *apologiae*, rendered by certain representative geographers, which advocated the employment of or the adherence to these forms.

CHUNG-MYUN LEE, *Fresno State College* — "Recent Chinese Economic Activity in Malaysia"

There are about fifteen million Chinese scattered throughout South East Asia. In Malaysia roughly forty-six percent of the population is Chinese. The dominance of Chinese economic activity is most pronounced in the West Coast State of West Malaysia where they form a large part of the total population. The Chinese impact on this country was and is best exemplified in economic and social fields.

In Malaysia today, the Malay indigenous political power controls the political situation and the Chinese indigenous economic power owns and operates most of the business of this new and wealthy country. Thus, the Chinese control about seventy-five to eighty percent of the country's wealth. These two unbalanced situations are causing a racial dichotomy which is hampering national development.

PETER F. MASON, *University of California, Santa Barbara* — "The Spatial Context and Character of Ghetto Space in Santa Barbara, California"

The definition of the Negro ghetto leaves much to be desired. In many cases the criteria for location and description of ghetto space within the urban environment require some minimum Negro population and overt expressions of urban blight. For cities where Negroes constitute a small percentage of the population the tendency for the larger White community to overlook the

community needs and frustrations faced by Negroes is understandably real. For the most part, Santa Barbara has no Negro ghetto as conventionally defined. However, when some of the ghetto characteristics are applied to those areas occupied by Negroes and note is made of the spatial contrast between this area and the remainder of the city, the conclusion reached is that a significant proportion of Santa Barbara fulfills the requirements of the ghetto model. Suggested is the need to recognize the existence and problems associated with Negro ghettos in the larger context and to correct them in Santa Barbara before they increase.

CLEMENT PADICK, *California State College, Los Angeles*—"Persistence of the Rundling in Wendland, West Germany"

The Rundling, a striking village form in which farm buildings are oriented in a circle, developed in the early middle ages in the Germanic-Slavic contact zone now referred to as Wendland. Pure and modified versions of this village type are best preserved today in Kreis Luchow-Dannenberg, a border county along the lower Elbe River. The continued existence of the Rundling and its characteristic housetype is in jeopardy, and moves to save these villages are under way. The form and its modifications, farmhouse characteristics, and distribution of the Rundling can be illustrated with ground and oblique slides plus slides copied from vertical aerial photography and topographic maps.

ROBERT PHILLIPS, *Sacramento State College*—"Environment and Diet in Central Zambia"

There have been many generalizations concerning diet in Tropical Africa. Some of these are true but some, especially the level of consumption of animal protein, are often not. The level of consumption and the food items used may differ markedly over a short distance; while this disparity may reflect cultural practices or even digestive enzymes it is usually more closely related to the environment. The sharpest differences in central Zambia may be ascribed to the tse tse fly, although other factors are involved.

IMRE E. QUASTLER, *San Diego State College*—"American Images of California Agriculture Before the Gold Rush"

Prior to 1848 most Americans received their impressions of agriculture in California from a handful of sources. Their generalizations changed through time, but were usually based on descriptions of only a small part of the province. As other descriptions became available the generalizations also changed.

ROBERT W. ROUNDY, *University of California, Los Angeles*—"Fishing-Related Traits and Schistosome Transmission in the Nile Basin"

Schistosomiasis is a water-contact, debilitating disease in humans in which the disease agent, a blood fluke, spends a part of its life cycle in a susceptible intermediate host snail. Fishing-related traits often can lead to a greater incidence of infestation by schistosomes for particular individuals or groups as well as lead to the establishment and maintenance of threshold levels of viable schistosome transmission between susceptible snail and human populations. Of most importance would be traits of fishing that encourage greater numbers and densities of human populations than would otherwise be normal for a given area, thus leading to greater levels of reinfestation between man and snail hosts. Fishing traits that lead to movements of these populations also appear to lead to the dispersal of this disease to new foci.

HAIG A. RUSHDOONY, *Stanislaus State College*—"The Geographer, The Teacher, and a Child's Perception of Maps and Mapping"

This paper is a response to the two-fold thesis of Bartz; namely that (1) maps are not really important in our society today . . . and (2) educators say that they value maps and mapping, but the evidence of children's performance in using maps is contradictory. In exploring problems related to Bartz's contention, the author arrives at four tentative conclusions. They are:

- (1) A child can and does learn many but not all of the map concepts and skills at an earlier age when taught them developmentally, systematically, functionally, and effectively.
- (2) Mere manipulation of materials does not constitute a concrete experience for a child.
- (3) Map related concepts must be taught prior to and continued concurrently with map skills.
- (4) The commercially prepared map tends to appear near the highest level of abstract mapping and is therefore not necessarily the principal nor primary means of map instruction for the elementary teacher.

A most significant implication from the conclusions is the need to reexamine the preparation of the elementary teacher. If the focus of the education of a teacher moves in the direction outlined in this paper, Bartz's premise could be reversed.

F. H. SCANTLING, *California State College, Long Beach* —“The San Jacinto Auction: A Periodic Market in Southern California”

The San Jacinto Auction is a small, but distinctive economic activity in Southern California which has persisted despite competition from the proliferation of “swap meets.” Its character is expressed in its multiple functions — auction, market and social. Each of these functions contribute to the stability of this periodic market over the last quarter century.

MORTON W. SCRIPTER, *San Fernando Vally State College* —“Two-Color Graded Scales for Statistical Maps”

Geographers commonly employ statistical analyses such as correlation, regression, and factor analysis in their research. A two-color graded scale is useful for choroplethic maps which accompany these statistically oriented geographical analyses. The arithmetic mean is identified as a datum, and two colors increase in intensity as data values are located farther from their mean: red for data values greater than the mean, and blue for data values less than the mean. These colors are selected in accordance with the physics of color perception.

DAVID L. SMITH, *Portland State University* —“How to Get Free Aerial Field Trips: Notes on a Proposed Multi-institutional Airborne Classroom”

Even though aircraft are increasingly used for public, private, and corporate transportation, they are not yet well recognized as an educational tool because of academicians’ general lack of familiarity with air field trips. To alleviate this problem, funds are being requested from several sources for the purchase and operation (for two years) of an airborne classroom, to be made available free of charge to the larger western colleges and universities.

NIGEL J. SMITH, *University of California, Berkeley* —“The Potential Impact of the Transamazon Highway on Fauna and Aboriginal Populations”

A highway is currently being built to link Brazil’s northeast with the central Amazon basin. Several species of Amazon fauna are already in danger of extinction, and the highway will undoubtedly increase the danger. In addition, several hitherto isolated aboriginal groups will be brought into close contact with the outside world, probably with disastrous results.

JOHN W. SPRING, *Ocean View School District, Santa Ana* —“Manufacturing in the Greater Los Angeles Area: An Analysis of Variance and its Significance”

The twenty-five integral areal units that comprise the manufacturing region of the greater Los Angeles area were evaluated by means of an analysis of variance. The results of the computations were significant at both the .05 and .01 levels. From this analysis, it is evident that manufacturing employment, with respect to the populations within these sub-regions, is relatively uniform throughout the entire area. With the exception of the Central Los Angeles and Harbor districts, most of the integral areal units are engaged mainly in the manufacture of durable goods. Recent cutbacks in aerospace employment, which is the largest sector of durable goods, has contributed to the majority of the recent decline in manufacturing activity. If present trends continue, it will become increasingly difficult for other fields of employment, such as service, trade, transportation, communication, and utilities, to absorb the labor surplus. Since the manufacturing employment is basic to the entire economy, its decline must be recognized as a serious problem for the region.

FREDERICK P. STUTZ, *San Diego State College* —“Identification of Intraurban Social Areas from Social Trip Patterns”

Previous literature, primarily from sociology but also from geography, suggests that social and physical distance are important aspects of social interaction. From these studies it was hypothesized that social and spatial dimensions would be found to be important in the areal extent of socially cohesive neighborhoods for the study area. To accomplish social area regionalization, a symmetrical origin-destination matrix on the census tract level was factor analyzed and the factor scores mapped. Fundamental patterns of social trip flows emerged from the matrix, revealing areas with internal social similarity based primarily on inter-residential automobile trips. Each factor displayed socio-economic and distance decay aspects as shown by regression analyses of socio-economic variables with factor scores and distance inputs with factor scores, respectively.

STANLEY WATERMAN, *San Fernando Valley State College* —“Some Aspects of Planning During the British Mandate in Palestine”

British planning in Palestine, in operation for almost thirty years, has left an indelible mark upon the landscape of Israel today. The planning procedures that were adopted, during the period of the 1930s and 1940s principally, were to a large degree regulatory and restraining, and were greatly influenced by political considerations. In addition to regulatory planning in the towns and rural areas, British planning also acted as a restraining influence upon the growth and

development of the Jewish settlement pattern during the years between 1921 and 1948.

Planning during the Mandate period received impulses from British planning, both at home and overseas in the British colonies, and it also sent out influences to those areas in return. In addition to this suggestion, it is also suggested that British planning has had an influence upon the early planning efforts of the Jewish planners who took over the planning machinery in the country after the State of Israel was established. This influence was in the form of actual ideas in planning, and in the adoption of plans produced during the Mandate during the first years of Statehood.

OTHER PAPERS

THOMAS BEST, *California State College, Los Angeles* – “Brownie Pointers: Don’t Sell the Simple Camera Short!”

CAROLE S. BROW, *University of California, Berkeley* – “Evaluation of Development Schemes: The Case of Manganese Mining in Amapa Territory, Brazil”

MARK DAVIS, *Los Angeles Pierce College* – “Oil in Africa 1970 – An Overview”

MARIJEAN H. EICHEL, *West Valley College* – “Changing Land Use Sequence in the Carrizo Plain of California”

ROBB EIDEMILLER, *University of California, Los Angeles* – “The Immigrant Trail in the Central Sierra Nevada Mountains”

JOHN W. JAMES, *Sacramento State College* – “Environmental Deterioration at Lake Tahoe”

ROBERT R. O'BRIEN, *San Diego State College* – “Total Involvement—Conservation Class—An Experimental Teaching Method”

JOHN PASSERELLO, *Leslie Properties, Inc.* – “Housing, Jobs, the Poor, and Geography: A Partial Answer”

CHRISTOPHER SALTER, *University of California, Los Angeles* – “The Chinese Communist Landscape in Contemporary Films”

ADOLF STONE, *Long Beach City College* – “Yugoslavia: A Kaleidoscope”

W. J. SWITZER, *Southwestern College* – “The Wine Trade of Medieval Bridgewater”

RICHARD D. WRIGHT and GORDON BENNETT, *San Diego State College* – “The Cartographic Representation of Quantitative Flow Data”

CATHERINE WEISS, *San Jose State College* – “Occupance in the San Andreas Rift Zone”

EDITORIAL POLICY STATEMENT

When Kenneth Landes was elected editor of the *Bulletin of the Association of Petroleum Geologists* in 1951, he noted that the usual attitude is that "new editors, like new senators and small children, should be seen and not heard." He chose to ignore the dictum, as do we. This is the thirteenth volume of *The California Geographer*. During its first decade the journal was guided by the hand of Robert A. Kennelly. Volume XI (1970) was edited by Robert W. Durrenberger, who instituted several changes in size, format, and style. The present editor assumed that post during the preparation of Volume XII. Since that issue was already in press, this is our first opportunity to present our editorial policy.

In order to better reflect the interests of the California Council for Geographic Education, our primary focus will be on the presentation of papers dealing with California and adjacent regions, or of general interest to California geographers. Other papers will be considered as well, particularly if the author is affiliated with a California institution. In addition, substantive studies, notes, reviews, and other shorter items relating to the Southwest will be included from time to time. There is no formal limit on the length of papers, but articles longer than ten printed pages (approximately 6000 words) are discouraged.

Manuscripts should be typewritten, double-spaced, with margins of one inch or more on all sides. In the interest of some uniformity within the field of geography, style, arrangement, punctuation, and footnotes should generally conform to those of the *Annals of the Association of American Geographers*, with the exceptions noted below. A detailed style sheet is in the March 1970 issue of the *Annals*.

Unlike the *Annals*, footnotes may be singlespaced, but should be typed on a separate page, and numbered in a single series through the whole paper. In printing, all footnotes will be placed together at the end of the paper. Units of measure need not be given in the metric system, but the inclusion of metric equivalents is desirable.

All photographs, diagrams and maps are considered as Figures, and should be numbered consecutively. Illustrations should be submitted in finished form, and preferably no larger than twice publication size. Captions should be typed in order on a separate page. Photographs should be black-and-white glossy prints.

Editing of manuscripts will endeavor to increase the clarity and succinctness of the text. The editor reserves the right to delete textual or illustrative material deemed extraneous. Every effort will be made to inform authors of such deletions prior to publication, but printing deadlines occasionally makes this impossible.

Two copies of each paper should be submitted. Each paper will be reviewed by at least one referee. All material should be sent to The Editor, *The California Geographer*, Department of Geography, California State University, Northridge, California, 91324.

STANLEY H. ROSS

January 11, 1928 – March 16, 1972

Stanley H. Ross, Professor of Geography at San Fernando Valley State College died suddenly on March 16, 1972. Dr. Ross, a native of Oklahoma and Texas, was forty-four years of age. He received his B.A. (1953) and M.A. (1955) degrees from the University of Colorado and was awarded the Ph.D. degree at UCLA in 1963. Although most of his teaching years were spent at Arizona State University (1957-63) and San Fernando Valley State College (1963-72), he also taught at other institutions, including the University of Colorado, the University of British Columbia, the University of California at Santa Barbara, and the University of Glasgow. Professor Ross' academic interests were wide, including Latin America, historical urban geography, and Southwest Indians. His publication included articles on metallurgy and trade routes of Southwest Indians, and the urban core of Mexico City, as well as reports for the Commission on College Geography of the AAG of which he was a member. From 1964 through 1968 he edited the *Bulletin* of California Council for Geographic Education.

Dr. Ross' interests and energies extended far beyond the halls of academia. He served San Fernando Valley State as College Athletic Representative to the CCAA conference and his country as Lieutenant Colonel in the Marine Corps Reserve.

Stan Ross will be remembered especially for the understanding and consideration he showed students, colleagues and others who were fortunate enough to know this kind man. His personality and character served him well while he was President of the Los Angeles Geographic Society (1968), and Chairman of the Geography Department (1964-65, 1966-69) and Dean of the School of the Letters and Science (1970-1972) at San Fernando Valley State College. Those who knew Tank Ross will miss him sorely.

A scholarship fund has been created at California State University Northridge in memory of Stanley H. Ross. Any person or departmental staff wishing to contribute to the fund may send a donation to the Department of Geography, California State University, Northridge, 91324.