RICE UNIVERSITY

PEOPLE AND COMMUNITIES IN MODERN CITIES

by

TADASHI ASAHI

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Anderson Todd Charles B. Thomsen

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ABSTRACT

This study is divided into five chapters plus an introduction which explains the main objective of this thesis.

The first chapter is an urban-social development of the origin of the city until modern times. This development describes the crises, chaos and recovery of cities. It also explains the process of growths and changes throughout history. Every new technological improvement brought urban and social changes in the city which were expressed with spatial features.

The second chapter is related to the ecological pattern of the city and its influence over the total structure of the city, community, and the people. This influence is remarkable in all periods in the history of urban and rural development, without exception.

The third chapter is a study of the American cities, that evolves from the early colonial times until today. It explains its growth and development and how the United States became, economically, the most powerful country in the world. With a fantastic wealth of material resources and a high industrialization, the American cities reflect the advantages and disadvantages of this process.

The fourth chapter is concerned with the City of Houston: its historical, social and economical development. It includes an urban analysis and its relation to the family, the community and the city. It
includes the actual problem of the community with its strong and fast technological improvements and the impact that the community receives which has to be expressed with new spatial order and relationship in the city.

The last chapter is devoted to the design and development of a Houston Community. It shows a community that provides to the people the means of a better way of living in a fast-moving and dynamic society.
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INTRODUCTION

This thesis is a study of the relationship between: the city, the community and the people.

This study tries to clarify the causes of the integration, segregation and differentiation of these three elements.

The socio-political-economic structure and development of a country, an empire, a city-state, or just a city through history, shows and expresses different spatial relationship in the antiquity, the medieval city, and the city in modern times.

Society and cities have been unable to absorb fully the past technological development during the last one hundred years -

So, chaos and crisis affect the existing society.

The clear, unified spatial relationships found in ancient cities were lost.

With the industrial development and the improvement of new technology, society has to change its structure and relationships.

The differentiation of activities has produced a different spatial order. But this spatial order has been growing without study, control, or consideration for the future.

For this reason, the chaotic growth of the city has to be studied and ordered.

Policies of planning for reestablishing the lost order have
to be introduced into cities. But old forms of order have to be changed to satisfy new necessities, new aspirations, and new conceptions of the contemporary society.

The main objective of this thesis is to clarify and analyze some of the problems of actual cities with their social, cultural, and economic implications and to demonstrate a possibility for providing communication between people in the community. This is achieved through a common realization and concern that they belong to a complex order of urban activities, and this complex of urban activities is called "The City."
HISTORICAL DEVELOPMENT OF CITIES
1. The City of Antiquity

Preurban Modes of Living: For at least 500,000 years, perhaps even a million years, man was without a fixed habitat. Yet, the people of the Old Stone Age were probably not restless vagabonds drifting from place to place. It is quite possible that real nomadism did not develop until the domestication of animals and large and new pastures were needed. As some of the other primates, earliest man may have roamed through limited areas while only the surplus population moved to other places in search of food. Entirely shelterless, man first learned to live in caves and later in pits which he dug with primitive tools.

In the earliest period man merely gathered his food. The limited supply of wild food permitted only a very small number of persons to exist in comparatively large areas. Even today, most primitive groups live in small units of about fifteen to forty families. Under such conditions, communities in the modern sense could not emerge.

The situation changed little after man learned to hunt. Only very auspicious circumstances made a more sedentary life possible, and settlements arose in scattered spots where people lived on fish rather than meat.

The Old Stone Age came to an end with what Gordon Child has aptly called the Neolithic Revolution, when man found out, among other things,
how to domesticate plants. Once man adopted agriculture, he had to stay near his fields. Indeed, we find everywhere in the neolithic era the traces of permanent human settlements. Village civilization began in the New Stone Age. The Village was a community of peasants farming in the same area. Initially, these settlements were necessarily small. The low productivity of primitive agriculture permitted only small numbers to be supported on relatively large areas of cultivated land.

With some changes and modifications, the peasant village, as it developed in the New Stone Age, remained in the basic form of rural settlements and of peasant life for the majority of the people of the world. North America is one of the major exceptions, for the American farmer has always preferred to live in comparative isolation. Consequently, American rural life as well as rural-urban relationship has always differed considerably from patterns prevailing elsewhere.

The Origin of the City. The first cities were originated in the Metal Age. The users of metal weapons had military superiority over the users of crude stone weapons. Neolithic peasants who did not know how to make weapons from bronze, copper or iron were easy prey to invaders armed with metal weapons. The aggressors frightened their more primitive victims, to whom they appeared as gods or demigods, into subjugation. The conquerors then moved into the territory of the peasants who became their serfs. The overlords, to secure their rule, selected sites for their settlements such as islands or preferably
hilltops, from where they could dominate the countryside so that both attack and defense were facilitated. In brief, it is postulated that the first cities were permanent army camps established in the area of a vanquished population.

Some scholars hold, on the other hand, that the first cities were primitive villages that gradually grew into urban centers. However, there is no evidence that any neolithic village ever became a city simply by an increase in population.

The sites of such different places as Ur, Lutetia, and Vindobona were so small that they could scarcely have housed more than the military leader, the high priest, their households, staffs and the elite guard. Moreover, the location of many cities on hilltops and similar defensible sites made it difficult for peasants to reach them with heavy burdens and it is doubtful that they would be living there.

There is ample evidence that this is no isolated instance. Margaret Murray assures that in an ancient Egyptian city "The change was due to a hostile invasion". Similarly, in ancient Mesopotamia the Sumerians descended from the east or the northeast and conquered the neolithic peasants living there and founded Ur, Uruk and other places. In Crete, the Aegeans were invaders, probably from Asia Minor; they founded Phaistos and Knossus.

The Greeks, who came to the Balkan Peninsula and Asia Minor in several waves, founded Athens, Miletus and many other famed cities. The Romans founded Rome after they had pushed south from the Po Valley; Tyre, Sidon and Biblos were built after the Phoenicians arrived, ap-
UR, the birthplace of Abraham and the scene of the Flood. Plan of the city showing that it was a river port lying on the Euphrates with two harbours and a canal crossing the town.
parently from southern Arabia.

While the earliest cities were essentially strongholds from which overlords controlled vanquished peasants, they differed from the medieval castles of feudal lords which served the same purpose. The term "city" and "city-state" were initially almost identical. The cities, to be sure, had their rural hinterland, but its inhabitants were mere subjects; as a consequence, the city dwellers had a privileged legal position. In Rome the ruling classes were so strictly kept apart from their subjects that a "Civis Romanus" was even married by a procedure different from that for "Gentiles". Not until almost one thousand years after Rome was founded was it decreed by Caracalla, in 212 A.D., that only one law should govern all inhabitants of the Empire. Even today, the linguistic imprint of the old distinction still remains. We distinguish the full-fledged citizen from the alien, although in most countries the majority of these citizens do not live in cities.

Similarly, politics is derived from 'polis,' the Greek word for city. Political domination of an area was the reason for the birth of the city but not for its continual existence. We have dwelt at some length on this initial stage, for it provides an excellent example of complete functional change. This change in early cities was due to quite different factors. Once the political rule of the early city was firmly established, it began to grow and to assume additional functions. When the rulers were reasonably certain that their reign could not be challenged, the army camp became a palatial residence. Invariably, temples were
erected for the gods that had bestowed victory on their followers. The palace and the temple needed auxiliary buildings for guards and staff and for storage. Thus, the nucleus of the city population consisted of the entourage of the kings, the clergy and their staff. Soon craftsmen were added, who furnished weapons as well as civilian supplies. Once they were able to produce more than the palace and the temple required, the city became a market, a place where urban products were exchanged for rural commodities.

There were three types of markets:

a) The local market;

b) The regional market to supply a larger area;

c) The international market for trade between countries.

International trade existed before the rise of the cities, as evidenced by the amber route and many kinds of foreign wares in paleolithic places. But such trade was restricted to goods which could be easily transported over great distance (amber, precious stones, or small tools). Larger amounts of staple goods could not be exchanged until the development of an efficient method of transportation, for the lack of good roads was a major problem. Shipping, on the other hand, remained the fastest means of long distance transportation until the railroad was used in the nineteenth century.

Consequently, shipping centers developed much earlier than other types of trading places. The necessity of obtaining metals from abroad increased the importance of international trade. As occupational
specialization increased, the population of the cities became stratified into an aristocracy and its staff, a class of merchants, a class of artisans, and a class of the poor made up of free men without regular means of subsistence, such as army veterans or younger brothers without an inheritance, and farmers within the city trying to eke out a meager living by cultivating small lots. Then came the slaves, who provided domestic service.

As the city grew in population another development produced a much more radical change. The city, after having subdued the peasants began to wage war with each other. The result was the eventual disappearance of the independent city-state. Those cities which were conquered lost their main political function; the few dominant city-states which emerged acquired new political power and changed function. Thus, the city-state was replaced by territorial state. The only country which successfully resisted this trend toward unification was Greece; there, the city-states retained their sovereignty only to lose it to foreign conquerors. In fact, Greece did not become a national state until 1829. But in the Afro-Asian area the territorial state arose very early and the other countries followed the pattern.

It should be remembered that the greatest empire of all times, Rome, ruled the larger part of the known world, reminding us that the most powerful realm was originated as a city-state.

CONCLUSIONS:

"Strong and clear political structure based on a centralized
authority."

"Clear division of the different social levels; differentiation expressed with spatial characteristics, as community life was developed separately on the different levels."

"The river or coastal waters were for most of the cities of antiquity what the highway is for the modern cities. Waterways were the unifying element among people, the community, and the city."
THE MEDIEVAL CITY

The Dark Ages

The split between the two Romes separated the European East from the West. The former continued as the Byzantine Empire and soon became static. Those cities which did survive became primarily administrative centers of highly centralized autocracy. Their citizens were demoted to subjects and the towns went into a long sleep from which many have never awakened. With the exception of Constantinople, which continued its international trade, the cities decayed and the politically powerless citizens never became burghers. They remained public servants, artisans, shopkeepers, and poverty-stricken beggars.

Meanwhile, the western world had witnessed the disintegration of Rome and the birth of feudalism. The Goths that swept into Spain, France, and Italy, came mostly from pre-urban cultures. Incapable of following the Roman pattern, they destroyed the urban civilization and replaced it with feudalism, which was essentially agrarian in organization. Unlike the ancient conquerors, the medieval invaders did not found any city-states. They did not build cities but wrecked them and instead erected castles, widely scattered over rural areas. Thus, they kept the peasantry under their control.

Three hundred years after the fall of Rome, the realm of Charlemagne had no capital and the emperor had no permanent residence. Cities which were not completely destroyed gradually shrank into insignificance. In Carolingian times, Rome, which once harbored nearly a
million people, had declined to less than 20,000 inhabitants. Some cities like Vienna even disappeared from historical records for several hundred years.

Another indication that the cities had become almost completely insignificant is that since medieval times we have referred to a political entity as a country, a word which also denotes a rural area.

**Urban Recovery**

With the waning of the Dark Ages the cities rose again. While some of the ancient fame had disappeared and others failed to regain their old importance, many new cities emerged especially in Central and Eastern Europe. The reasons were quite similar to those which made the cities of antiquity grow; crafts and trade became more and more important.

The trend toward urbanization showed considerable regional variations. In what is now Russia, Kiev apparently grew out as a rural settlement which a Slavic, Prince Kij, transformed into a fortress. Novgorod (which means town) seems to have been founded as a trade center on the old commercial route from the Baltic to the Black Sea. The origin of Moscow is more obscure. Since it was not fortified until 1156, it may have started as a trading station on the Baltic-Black Sea route. Other settlements arose in Vladimir, Rostov and Suzdal. Almost three hundred years before Moscow is mentioned by the chroniclers, the Scandinavian Varangers, who combined trade and piracy, had seized Kiev and Novgorod.
Dover Castle, 1180 with earthworks which may date back to Roman times. With the exception of the Tower of London it is probably the largest and most complete example of medieval fortification.
Again the political importance of the early city became obvious.

In the west, cities gained in number, population, and influence more rapidly than in Eastern Europe. But they found themselves involved in the struggle between the kings and their feudal lords. As a result, there were variations in the rate and type of urbanization from country to country.

Urban Conditions

Medieval Occidental cities, so unlike in many other respects, had one common feature: the citizen was free.

They were neither serfs nor slaves, an exceptional condition in a world where the large majority of the population was kept in some form of bondage. On the other hand, liberty, even freedom of movement, was still restricted. Political rights were few, and in many countries the urban population had to be content with some precarious kind of local autonomy. Realization of the importance of trade grew steadily. For the most part this resulted only in the granting of certain nonpolitical privileges, usually bestowed upon a few individual cities. Nevertheless, cities generally lacked real political power and the dynasties did the best they could to curtail the existing rights of the cities.

In medieval times the cities had a system of stratification which differed greatly from our current social structure. In many cities, but not all, the upper group consisted of an urbanized aristocracy, frequently titled. The nobility spent at least part of a year in town and left the supervision of their states to their stewards. The second stratum con-
sisted of the merchants. Next came the craftsmen who were members of the various guilds. Lower in rank were the journeymen while the servants, peddlers and landless beggars without fixed occupations were at the bottom of the class system.

Political rights were never extended to the last two groups. There was an almost incessant struggle for power among the three upper groups.

CONCLUSION:

**Early Middle Ages**
- Diminution of most urban cities of antiquity.
- Origin of rural feudal communities.

**Late Middle Ages**
- Beginning of urban recovery.
- Beginning of socio-political conflicts.
- Strong sense of community groups expressed by guilds.
- Establishment of divisions between town and country; in other words, a clear differentiation of urban and rural activities.
- Clear structure of the city where the most important activities were placed in the best location. Location which was the beginning of urban and community life.
THE CITY IN MODERN TIMES

From Feudalism to the Industrial Revolution. Towns and cities continued to grow and their composition changed considerably. First, both the professions and the crafts became much more differentiated. Second, administrative advances again required personnel with specialized functions; bureaucratic groups thus made their appearance.

On the other hand, members of the upper urban group became aware that their activities contributed considerably to the growing wealth of the country but that an idle aristocracy dissipated this wealth in a vicious way. Although the bourgeoisie was frequently more intelligent and better educated than the arrogant nobility, members of the aristocracy occupied all major political offices and their children were privileged to receive military commissions.

Toward the end of the eighteenth century, revolutionary changes took place. The French Revolution broke the political monopoly of kings and aristocracy, although more than one hundred years elapsed before the bourgeoisie became completely dominant.

The Industrial Revolution, which despite its name was a gradual process, led to the solution of one set of problems but created another one. The tremendous increase in production gave jobs to many who had been unemployed before. The mob disappeared as the real industrial proletariat slowly emerged, becoming class conscious. The workers began to outnumber the rest of the urban population but remained unprotected.
The miserable working conditions transformed large areas into
dismal slums; a process aggravated by speculators who hastily erected
cheap, ugly and unsanitary tenement houses.

Since Industrialization largely destroyed the old crafts, the
bankrupt artisans had to join the ranks of the proletariat. It was a
long time before the process was arrested and partly reversed. Newly
arising services permitted a limited number of workers to become
independent proprietors of garages, filling-stations, repair shops,
diners, tourist cabins, and similar establishments. Professional
sports provided additional opportunities for some who might otherwise
work in factories.

While this process is still in a state of flux, certain changes are
quite definite. Here are briefly some of the main features of the city
which have been altered:

1. To the already existing types of cities another has been
   added: the industrial city which is a child of the nineteenth century.

2. The fortress city, which sheltered a restricted number
   of people behind its walls while the rural area ravaged, has gone. The
   protection of a privileged settlement crumbled with the walls. Modern
   fortifications aim at the defense of a whole country and not of just one
city.

3. Both the political privileges of cities and political dis¬
criminations against them have been abolished. The city and the
country have the same political rights. Political privileges within the
EARLY SLUM IN THE MIDLANDS

LONDON
the city are similarly a thing of the past. Despite occasional gerrymandering, universal suffrage has ended the hegemony of any upper class.

4. Politically, cities are now only administrative centers with local autonomy. Their actual political influence depends on the composition of the entire nations, particularly on the extent of urbanization.

5. The class structure of the modern cities is no longer based on legal distinctions. Legal equality coexisting with differences in group prestige, status and economic conditions causes tensions formerly unknown. The nobility which formed the upper stratum both in Antiquity and in the Middle Ages has died out and with it the aristocratic forms of urban life (palaces, private parks, large staffs of servants). But the mob, or the subproletariat, also has shrunk to insignificance. The modern industrial worker is relatively well educated and conscious of the dignity and value of his work. Crime and vice, though teeming in the city, are no longer the concomitant of the lower social classes.

CONCLUSION:

- Introduction of a new kind of city to the already existing one: the industrial city.

- Disappearance of political privileges and discrimination with the introduction of universal suffrage. The people and the community in general have possibilities to
suggest changes for a better way of living.

- Change in structure of whole countries such as England, where an agricultural country became the industrial center of the world.

- Industrialization brought chaos to the city which was not prepared to receive this impact. The housing and working conditions were miserable and transformed large areas into slums.

- Community was restricted in these conditions.

- The city only expressed the industrial development, and it was a haphazard conglomeration of dwellings; there was not a clear, spatial order of urban activities.
ECOLOGICAL PATTERN OF THE CITY

The spatial arrangement of rural settlement depends primarily on geographical conditions. The farmer selects a site on the basis of the quality of the land, water, and suitability for the particular type of agricultural activities which he wants to pursue. The kind of selection may be called individualistic because it considers only the fitness of the isolated farm and disregards the neighborhood. For a number of reasons one farm area may be preferred to others, but the farmer knows no desirable location in the sense that certain locations within a given rural area enjoy a greater social prestige.

In striking contrast, urban settlements form distinctly regular patterns which can be seen, measured, described and explained. A city is not a haphazard conglomeration of dwellings; there is a clearly distinguishable spatial order of urban activities.

The sectional differences within a city do not arise from natural geographical conditions although these sometimes play a role but from social considerations which create for each part of an urban place a different evaluation and a different function.

A city is a multifunctional settlement serving many purposes. A specific place is assigned to every function thus making the city an integrated whole consisting of different units. The functional assignment is rarely due to legal measures or to a deliberate, concerted action of the community; it is the result of social forces and processes which in turn are conditioned by institutional values, by tradition and
custom of a specific culture.

Three of these processes are of particular importance:

- Differentiation of function
- Class separation
- Cultural segregation

Differentiation of Function

It is only natural that people should live where they work. They still do so on farms, and they did so for a long time in towns. The king lived in his castle, the soldier in his barracks, and the priest in his temple. The workshop of the artisan was a part of his dwelling. In the early times of manufacturing, residence, office, and workshop were frequently in one single dwelling.

Modern industrial development made separation inevitable; improved mass transportation systems facilitated and accelerated the process. But technical change alone cannot explain the thoroughness of the process; residences and working places could still coexist in the same section; and this, indeed, is often the case outside the English speaking world.

Separation would hardly have become so complete without the Anglo-Saxon preference for home-ownership, for the single-family building, for gardening, for privacy, and for independence.

The separation of work and residence is now a necessity.

The outcome of this interplay of technical and cultural factors is not the functional differentiation of the building but the functional
separation of whole areas; the division of residential and business sections. The consequences of this split are far reaching. The life of the city dweller is sharply divided between work and home, while for the farmer both form an indivisible unit.

Also the life of the urban worker is now geared to a schedule. Of even greater consequences is the fact that the urban worker can see his family only in this spare hours; family life is now limited to leisure time. Here lie the roots of the serious problem confronting the urban family.

Once the separation of residential and business area has been established, the functional differentiation continues, based on the principle that not only the quality of the home has to be considered but also the area in which the home is situated. The American ideal, with some exceptions, is to live in a one-family house. Actually, bachelors, transients, sick and old people, low-income families, and others are better served by different types of housing: two family-homes, multiple dwellings, tenements, apartment houses, hotels, and other institutions. Each of these types represents functional variations of the same pattern; that these various types are not arranged in a haphazard way but sectionally separated is the salient point.

Moreover, there is a distinct order of succession: the apartment houses are nearest to the business sections; then come the three, two and finally the one-family houses. This order is partly the result of deliberate planning and partly a result of differences in land values.
In a similar way, business districts undergo a process of functional differentiation, and similar types of activities are concentrated in specific areas. Thus we find a civic center and a shopping center together, areas with various light industries, and others with heavy industries together.

Although the tendency to separate business and residential areas is reinforced by strict zoning laws, exceptions are possible under certain conditions. No residential section can be kept completely free from business. It is feasible to live miles away from one's business, but it is impossible to live without certain services which by their very nature have to be close at hand. No residential section can be too far away from churches, schools, filling stations, grocery stores, and the variety of shops known as convenience or neighborhood stores, as every attempt is made to keep these business centers around the main artery of a residential section.

This means a partial decentralization of some institutional activities, retail trade, and of certain services. Areas which started as sections composed entirely of residences acquire a core or nucleus of business buildings and, if enlarged, of business streets. We speak then of a polinucleation, indicating that larger settlements are unable to concentrate business activities in one single section. But the central business district is always able to maintain its economic hegemony; the other nuclei are much smaller and limited in their activities.
Class separation

Another urban feature is found wherever more differentiated social systems exist: the separation of classes. In the larger cities of Antiquity and in the Medieval towns, there was a clearly discernible tripartition of living quarters: the palace of the elite, the house of the common man, and the hut of the poor.

The result was not a functional but a structural differentiation, mirrored in ecological patterns of not only different types of residential buildings but also in different types of residential sections: upper, middle, and low class housing sections.

Class distinction is based on several criteria:

- Location
- Type
- Size
- Quality
- State of repair
- Accessories

The location is often but not always determined by objective factors. Stuyvesant Square, although surrounded by rundown buildings, is an exclusive area in Manhattan; Louisburg Square, close to a slum, is one of the most aristocratic quarters in Boston. If prestige is lacking, people look for other distinctions. A high elevation is desirable. There are good reasons for this preference: there is less smoke and less danger of water getting into basements. Since traffic and
industry try to avoid hilly areas property, there is also less noise. But the value which is ascribed to these areas is also social in character; to live on the hilltop has become an obsession with the snob. To live next to a park or a wooded area is also a mark of social distinction.

Relationship to other locations plays an important role. Upper class people who do not have to punch a time clock and can afford to be late, live away from the main, noisy throughfares, but they want their homes at points with convenient access to highways and not too far from the main train stops for commuters.

Areas which are difficult to reach are sometimes lower-price house regions and serve as habitats for those who cannot afford higher prices. Thus we find in the suburbs that there are three classes but neatly separated. The middle class live near convenient transportation points. The upper classes live in more distant areas where a car is a necessity at least for reaching the train. The low income groups live in-between but always in compact settlements. For this reason we find the extremes - rich and poor - live farthest away from the center; the rich because they can take their time before they start for their day's work, and the poor because they cannot pay higher rents.

But the poorest of all, for whom even the cost of transportation to low class suburban sections is beyond reach, live close to the main business districts possibly within walking distance of their working
places thereby saving carfare.

The most undesirable locations are those next to railroad tracks, and sites adjacent to establishments creating noise, unpleasant odors, and smoke: chemical industries, stockyards, freight depots, and piers. Only those who have no other choice live in these areas which invariably become slums.

The type of home also conforms to class structure. The rich live in mansions, town houses, penthouses, deluxe apartments, and exclusive residential hotels. The middle class occupy standard one-family homes or good, but-not-too-expensive apartments. The lower classes live in cheaper one-family homes, apartments or multiple dwellings, ranging from two to six families. The poorest are herded into tenements, cold water flats, basement apartments, and shacks.

Size of the home reveals not only class distinction but standards of living which, in general, are higher in urban America than elsewhere. During the last twenty-five years there has been a trend toward class equalization which has not yet come to a standstill. The upper classes have been forced to reduce the size of their homes. Large apartments - fifteen to twenty rooms - are similarly disappearing. The process of shrinking has now reached the middle class apartments; many people can no longer afford to have a living and dining room. They are replaced by combined living-dining areas, dining alcoves, or dinettes which are actually a part of the kitchen.

The quality of a house reflects financial conditions. The state
of repair indicates perhaps more than other signs whether a person can maintain his class status.

No other part of the family budget is more open to public inspection than the maintenance of a home. This keeps the marginal person, the person who has a precarious standing in the group to which he wants to belong, under great emotional and financial strain. He may cut invisible expenses and make substantial sacrifices with regard to food or vacation rather than lose face, while others, not threatened by social demotion, will neglect their homes rather than forego ordinary necessities or amenities.

The accessories also reveal class status not only for the financial outlay involved but because they indicated the style of living which a specific class wants to maintain. There is class distinction with regard to gardens, ranging from formal ones with expensive flowers to miserable back-yards where only weeds grow. There are similar variations in bathrooms (in size, type, and number), in the kitchen and laundry facilities, in the existence or non-existence of finished basements and attics, garages, delivery entrances, screen, awning and storm window. At the bottom are the shacks and cold water flats, characterized by paper-thin walls, leaking ceilings and creaking floors. There are still a considerable number of homes which have no running water, no bath or electricity, or even an indoor toilet.
CULTURAL SEGREGATION

The analysis of the factors accounting for the separate residential sections of manual and white collar workers has already indicated that to approach the problem merely in terms of income and possessions, is an over-simplification. While some people make substantial sacrifices to live in better quarters, other persons of considerable means - movers, butchers, grocers, and second-hand clothes dealers sometimes live in rather poor sections. They do so because they share the values of the group from which they come and to which they still belong though they have "moved up" economically. They would feel ill-at-ease in the company of people with distinctly different cultural standards.

Class status is much more cultural and less economic in character than many realize. Class differences are more than mere differences in spending power.

Different classes work in the same office or factories but live separately. Class distinction becomes visible as residential separation; the ecological importance of class difference lies in the fact that different classes live in different areas.

The ecological importance of cultural segregation lies in the fact that it is by no means limited to class segregation. In American cities, with their aggregation of groups representing a large variety of cultures, segregation has become a most conspicuous phenomenon. In America, cultural segregation has been approved as an institution
since the earliest colonial times. Instances of organized immigrant
groups tending to retain their native cultural traits in the foreign
country are numerous.

If groups differ in culture, they tend to keep apart socially. The
cultural differences become structural differences. The emphasis on
structure has its ecological consequences. These structural units
have a tendency toward spatial separation.

At present, residential areas of American cities are sub-divided
into sections inhabited by various groups which are culturally differ¬
ent. The cultural differences stem from racial, religious, and nation¬
al differences. None of the cultural differences are based on inherited
biological traits; all of them are acquired. If a group, due to one or
more of these differences, becomes socially isolated, it will develop
its own culture which is passed on from one generation to the next.
The group becoming aware of its specific character, also develops
the typical consciousness of a kind accompanied by a "we" feeling.

Actual segregation depends on several factors, among which
the following play the most decisive roles:

1) NUMBERS. No segregation takes place unless the
minority is substantial. A small group of outsiders might be socially
rejected, but spatial segregation will not result.

2) ECONOMIC POSITION. The lower the income of the
minority group, the more likely separation becomes.

3) DEGREE of cultural deviation from established
American standards. If the minority group conforms closely to these standards, segregation is less likely to occur.

4) DEGREE of traditional, institutionalized rejection of a minority group. The most significant case is that of the Negro, specially in the South. The segregation of the Negro is the only instance of spatial separation which cannot be overcome without breaking down institutional views of a large part of the population.

5) CLASS STATUS. Segregation tends to occur more in the highest and lowest levels of the social hierarchy. This is an interesting point because low-class groups are less resentful against the intrusion of outsiders than are the upper-class members.

6) DEGREE OF CONSERVATISM. The term conservatism is used here in a psychological sense without any political connotations. The more conservative a group, the stronger the desire to retain the existing culture and to reject the cultural system of the majority. The group therefore tries to restrict contacts and spatial separation helps to serve this purpose.
ECONOMIC AND CULTURAL SEGREGATION

- Economic and cultural segregation existed as much in the city of antiquity as in the medieval city and in contemporary cities.

- Social and economic positions create differentiation of classes. This differentiation of classes or class distinction produces different spatial arrangements in the city.

- This segregation produces different kinds of community life in relation to the economic position of the people and their degree of culture.

- Also, this segregation produces different relationships between the people, the city and their community.
THE AMERICAN CITY

The American city was never burdened with the cumbersome heritage of feudal times. The American settlers moved into a country largely uninhabited; the Indians were partly in the hunting stage, partly in that of crude agriculture. Urban settlement did not exist.

The reason for the founding of most American cities was (with few irrelevant exceptions) invariably economic. American cities are, and always have been concentrations of business activities. None was built primarily for defense or attack (the few early forts were actually trading posts with precarious protection against Indian raiders). There has never been a tendency toward the rise of a city-state, nor has there been a differentiation of political rights for urban and rural areas. Even in early colonial times the rule of the king was not strong enough to form a substantial political, military or bureaucratic class above the traders.

Until the disappearance of the frontier, the country did not produce a substantial rural population surplus to flood the cities. Perhaps of greater importance, America has never had a peasant class with its tradition of serfdom. The rural population of America was made up of farmers of the same ancestry and background as that of their town-dwelling kin. The absence of a titled nobility, the very late appearance of a sizable bureaucracy, and the absence of trade guilds simplified the pattern of the American cities.
But, with the growth of the United States, problems arose which are either unknown or of little significance in Europe. These problems stem from three main sources:

a) The introduction of slavery, followed some centuries later by the emancipation of the Negro. Although he finally gained freedom and legal equality, he has not yet been satisfactorily integrated into the social life.

b) The large unselective immigrations which have changed the composition of the urban population and brought foreign groups into this country. The culture, education and traditions, religious and moral values of these groups do not always conform to the standards established by the early colonist. Since most of the immigrants who came after the Civil War went to cities rather than farms, the change created a contrast between country and city which did not exist before.

c) The last comes from the closing of the frontier, in conjunction with an almost unbelievably rapid growth of the city. The cities have grown at a faster pace than the technical ability to provide satisfactory living conditions. The only adequate method of coping with the difficult task has been large scale of standardization and simplification which has made American cities so similar that it is scarcely possible to distinguish one Main Street from another.

Just as America knows no nobility and no peasantry, it also
knows no proletariat in the European sense. In fact, the term is hardly used. Factory workers and farmers do not differ essentially in their life style, habits, or outlook on life from the urban middle class. Even the differences in income are small, sometimes non-existent. Perfect equality, to be sure, does not exist in America or elsewhere. But a distinct tendency toward equalization is unmistakable, perhaps more so to the observer who comes from abroad than the native-born American, who suffers from having to keep up with the Joneses.

The growth of American cities generally, and in particular the great metropolis, differ from the development in Europe in that their origin is relatively close to our present period. Most of the towns are less than a hundred years old, though a few were founded three hundred years ago.

The picture of the few log cabins which represented Chicago in 1830 is typical of many American cities of this time. Hardly any of them have a traditional point of focus. They grew slowly and painfully at first and only in the last hundred years, or even in the last few decades, have they become cities with a multi-million population, as a result of the tremendous growth of production and finance.

Immigration began on a very small scale in the early seventeenth century, but one hundred years later it was measured in hundreds of thousands a year. In 1907 more than a million people
entered the United States. The unique growth of American cities can be understood only after consideration of their origin. Four nations - Spain, France, Holland and Britain - competed in the 16th century for the right to explore the new continent.

The Spaniards turned the native Indians into serfs. In 1594, 160,000 Spaniards ruled over 5,000,000 Red Indians, living in 9,000 villages. They established the first permanent settlements and by 1557, just two generations after the conquest of Mexico in 1521 there were only two Spanish communities, cities, or mining settlements.

The French established themselves in Quebec in 1608, where the main source of wealth was trade in furs. The Dutch founded the trading station of New Amsterdam, now New York.

The English started colonization along the Eastern Seaboard with its harbors and neighboring fishing grounds. There were about 25,000 settlers in New England in 1640 who lived in log cabins almost as primitive as those of the early Saxon.

The strip of land may be divided into three sections:
- the southern colonies,
- the middle colonies, and,
- the New England colonies,

each section with its special geographical character. In the South, Virginians lived on tobacco plantations and had Negro field hands. The first slaves were introduced into the country in 1619. Their
number had grown to 700,000 by 1740; to 4,000,000 by 1860; as compared with 4,000,000 and 30,000,000 respectively of the white population. In New England, farms were small and tilled by their owners.

Other colonists turned to the sea and became fishermen on the best fishing ground in the world, the Great Banks of Newfoundland.

The middle colonies, with Pennsylvania and New York, became known as the "bread colonies" and rivaled New England in shipping and trade.

According to the prevailing mercantile theory of the time, the purpose of the colonies was to produce those raw materials which England did not possess, and in turn to consume commodities manufactured in England.

After the War of Independence, the economic development of the United States is a part of that great industrial revolution that has remade every economy in Europe.

Connecticut was just beginning the production of tinware and clocks; Rhode Island and Massachusetts were weaving cotton. There were then but five cities in the United States with more than 10,000 people:

<table>
<thead>
<tr>
<th>City</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>33,000</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>28,500</td>
</tr>
<tr>
<td>Boston</td>
<td>18,000</td>
</tr>
<tr>
<td>Charleston</td>
<td>16,000</td>
</tr>
</tbody>
</table>

37
Baltimore 13,000

From 1770 to 1840 the movement west grew tremendously. In 1770, there were 5,000 people west of the Appalachians; by 1840, there were 8,000,000. The Erie Canal connected the Hudson River and New York with Lake Erie, the Mississippi and the Ohio. This link with the heart of the country established the dominating position of New York.

At the other end, New Orleans, Chicago, and all the river cities in between showed a rapid growth owing to their position on the cheap waterway.

Finally, the Pacific was reached; again, there followed a tremendous influx into the newly discovered area. By 1850 there were 92,000 people in California; in 1860 the population was 379,000. Crossing the Alleghanies, the pioneers of the West created new states which - one by one - were admitted into the Union. By 1860 the original thirteen states had become thirty-three. At the same time, these states underwent a unifying process under the Industrial Revolution and became the "North." Gradually the North surpassed the agrarian South, both in population and wealth.

But it was not until the trunk railways were built in the early fifties, binding the Union together, that the North was prepared to fight the South. One fundamental cause of the Civil War was the difference in the economies of the North and South. In the southern colonies, practically nothing was manufactured. Southerners found
it more profitable to put their labor into the production of cotton and tobacco. Then the North took the forward step of ending the uneconomic system of slave-holding and, at the same time laid the foundations of capitalistic exploitation by modern industry.

Conditions in the United States were completely changed by the introduction of the railway. There were in:

- 1830: 32 miles of railway,
- 1835: 1,100 miles of railway,
- 1840: 2,800 miles of railway.

Thereafter, the mileage was doubled every five years until 1860, and industry was developed likewise. As an example, coal production in 1820 was 3,450 tons and by 1908 it had increased to 415,000,000 tons. Similar increases took place in ore and oil production.

But since 1860 the United States has experienced seven major financial panics and no less than 17,000 bank failures. In the slump of 1929, industrial production fell by 55%; and in the report to the 1933 World Economic Conference it was stated that at least thirty million workers were unemployed. Housing construction around New York declined by 95% between 1928-1932.

It was against this background that Roosevelt built up his New Deal though it was bitterly opposed by Big Business. The relief program which was initiated to meet the hardship of the slump was made up of many parts. The most important part was without doubt
"work relief", and among the various agencies of "work relief" the most important and the most severely criticized was the Works Progress Administration. A list of its accomplishments would fill pages. Hundreds of thousands of miles of highways, roads, and streets; thousands of bridges, parks, public buildings, schools and hospitals; hundreds of airports, playgrounds, swimming-pools, and recreation grounds were constructed.

On the other hand, the United States Housing Authority set up in 1937, in its three-year-program moved only half a million people from slums to decent houses. With one third of the nation ill-housed, as President Roosevelt said, that was nothing more than a drop in the ocean. Next in importance was the building of the Green Belt Towns; among them were Greenbelt, about thirteen miles from Washington; Greendale, Wisconsin, seven miles from Milwaukee; and Greenhills, Ohio, five miles from Cincinnati.

These Green Belt Towns did not attempt to attract industry and now are suburbs, expensively far from places of employment. Such cities, mostly between 3,000 and 7,000 population, are hardly a notable contribution to the solution of the housing problem in a country which has built a million houses a year.

The Second World War increased the capacity of American industry by 40%. America's main competitors were either eliminated or heavily crippled, and the country emerged from the war as the most powerful economic force in the world.
CONCLUSION:

- Cities have grown much faster than the technical ability to provide satisfactory living conditions. In order to solve this problem, a large scale of standardization and simplification has been employed which has made American cities so similar.

- Perfect social equality to be sure does not exist in America, but there is a distinct tendency to equalization.

- The growth of American cities differs from the development in Europe in that their origin is relatively close to our present period. The American cities have been developed in the automobile era. As in the ancient world, when cities used the river for their development, modern cities used - and specially American cities - the highway for their social-economic development.

- The rapid growth of cities and the resulting chaotic environment plus social tension in the lower classes, and the strong influence of the automobile in the American family, have created a new expression of community life and community relationships within the city, with other communities, and among the people themselves.
ANALYSIS OF HOUSTON
HISTORICAL DEVELOPMENT OF HOUSTON

The history of Houston's development and growth is important to the extent that it provides a basis upon which to judge the behavior and value of the various factors that may contribute to future growth.

As a young city, Houston developed its early strength on an agrarian economy that prospered because of the surrounding fertile and easily managed farm, ranch land, and forest. Timber products, grains, livestock and cotton were the principal products of the region. Agriculture, although decreasing in relative importance, has increased in dollar contribution to the present time.

To the abundant supply of agricultural products, excellent transportation facilities were added. In addition to the railroad, shipping by shallow-draft vessels was possible on Buffalo Bayou to a terminal at the foot of Main and Fannin Streets.

The economy began rapidly to diversify with the finding of petroleum in and near Harris County. An increasing demand developed for the other raw materials available in this section of the Gulf Coast. Work continued on the ship channel and port facilities so that in 1915 the port was opened to deep-draft vessels and thus to world commerce. Houston was now in a position, through its location advantage and transportation facilities, to capitalize fully on all of its resources.

Almost coincidentally with the discovery of the local sources
of oil, the use of petroleum products began to increase - an increase that has never slackened because of greater and greater quantities of automobiles and the use of the internal combustion engine for other purposes. The number of refineries and extractive and allied products processing plants were in constant increase.

World War I created a greater demand for the products of this area as well as the use of the various transportation facilities, giving further impetus to the development of manufacturing along with the extraction and processing of the raw materials.

As the market for the products and raw materials of the Houston area expanded, the local labor supply increased in skills and quantity. Technological advances brought about the development of more products from the available raw materials.

Industry continued to move into the Houston area, and the expanded capital resulting from the increasing investments and payrolls, developed new markets for trade, business, and professional activities. By the time of World War II, Houston had the industrial strength to provide many strategic materials, and many specialized activities were developed for this purpose.

The development of the petrochemical industry initiated the third phase in the evolution of Houston's economy. It has grown out of the abundance of raw material, cheap heat from natural gas, plentiful water, and petroleum refineries located in the area. Since the war, it has developed with great initiative, many new products.
Houston is becoming the center of the greatest complex of petrochemical industries in the world.

Houston's economy today has the strength of diversification and has retained the beneficial additives of each of its evolutionary facets.

Although currently weak in the production of a large variety of consumer products from locally available and conveniently imported raw materials, it appears that this will be the next step in the economic evolution, which step should develop along with the growth of the markets in the central and western regions of the United States and in the Latin-American countries.
HOUSTON AND ITS GEOGRAPHY

The physical arrangement of a city is controlled to a large extent by the topography and characteristics of the land.

Houston is unique in that there are no physical barriers to growth - such as valleys, mountains, or great bodies of water.

The elevation of the land in the urban areas varies only from 30 feet above sea level in the east to 85 feet in the western part of the city. The flat plain upon which the city is situated has permitted an uninterrupted growth in all directions and has enabled transportation routes to radiate from the core of the city directly to any desired destination.

Industry and commerce have been for the most part, free to develop at will along the major transportation routes. The ease of development afforded by the topography combined with the network of transportation routes, has been a contributing factor to a scattering and intermingling of land uses.

Buffalo, Brays, White Oak and other bayous, along with the Ship Channel, are the principal topographic features that have affected the location of commerce and industry and the growth pattern of the city.

In the early days before the construction of the Ship Channel, barges and small craft navigated Buffalo Bayou to the then commercial and industrial center which was situated along the bayou in what is now the northerly section of the Central Business District. Industry
continued to develop in an easterly direction along the bayou. When the Ship Channel was deepened to accommodate ocean-going vessels and the Turning Basin completed, major industrial developments were attracted to the land bordering the Ship Channel below the Turning Basin.

The Central Business District expanded in a southerly direction for two reasons: Buffalo Bayou formed a barrier to the north and most of the higher priced residential developments were occurring to the south and the southwest. In addition development logically followed the adequate and orderly street pattern extending in that direction.
HOUSTON AND ITS POPULATION

Projections. The basis of all plans for the physical facilities of an urban area is a reasonably accurate projection of population. The date chosen for this plan is 1980, which is far enough in the future so that far-sighted objectives can be infused into all the plans and long-range budgeting is made possible. A more distant time would be impractical.

The 1980 population of Harris County is projected to be 2,470,000 by relating the County's growth to the population growth of the United States, and to 2,480,00 by relating the County's growth to the population growth of Texas.

By the use of several methods of population projection, the City Planning Commission has arrived at an estimate of 2,480,000 for the Houston Metropolitan area by 1980. Comparing the projection yielding that figure with the growth of some other cities may give an indication of the probably growth of the city.

Distribution and density of population. Density and distribution of population have a real correlation with the suitability of an area for residential purposes. A community area having a wide distribution and a low density of population can have severe problems in providing the amenities necessary for urban life. Unwarranted low densities put a serious strain on the finances of a municipality on taxing areas to provide adequate streets, schools, parks, police and fire stations, and other community services and facilities.
POPULATION GROWTH 1916 - 1980

COMPARISON OF METROPOLITAN AREAS

- 10,000,000-
- 5,000,000-
- 2,000,000-
- 1,000,000-
- 500,000-
- 250,000-
- 100,000-
- 50,000-
- 10,000-

HICAGO

HOUSTON

DETROY
Distribution of Population. Because there are no barriers to growth in any direction and the physical characteristics of the land are reasonably similar throughout the urban area, the quantitative distribution of population of Houston and its suburbs is fairly uniform in the Central Business District of Houston.

The over-all characteristics of the distribution of population indicate that if the existing pattern continues, an excessive number of major thoroughfares will be required to serve the developed areas relative to the quantity of population and that the distribution of utilities and the provision of municipal facilities and services will become unduly expensive per capita.

Density of Population. A population density study is valuable for many purposes. It determines the desirable density of population for the various types of residential uses. It locates the areas in which the population density is either too high or too low for the type of land occupancy; and it provides information relative to desirable and practical population densities that may later be applied to the areas of anticipated land use.

A reasonable estimate of the future distribution of population is therefore made possible.

The population density in residential areas is explained in terms of persons per gross acre. Density is divided into four groups: 0 to 6, 7 to 18, 19 to 35 and more than 36 persons per gross acre, in an area immediately surrounding the Central Business District. The
highest density group of 36 or more persons per gross acre is within the core of the city.

The second highest density of 19 persons per gross acre surrounds the higher density core and extends eastward along Lyons Avenue north of Buffalo Bayou and along Navigation Boulevard south of Buffalo Bayou. It also extends southward to include the Dowling Street area.

The density classification of 7 to 14 persons per gross residential acre appears throughout the urban area in the older, well established, and reasonably well maintained neighborhoods and in the newer developments that have been fully built up.
HOUSTON AND ITS GROWTH

The direction, character, and extent of urban growth must be anticipated with reasonable accuracy if public facilities, utilities, and improvements are to be provided with timeliness, adequacy and economy in proper locations.

When the rate of urban growth exceeds the rates of providing and financing public facilities and improvements, a backlog of needs accumulates; problems are compounded to the extent that they never can be adequately satisfied, and the provisions of facilities in areas of future growth is jeopardized.

Urban growth involves several categories: economic growth, population growth, growth by land occupancy, growth by subdivision, and changes in governmental jurisdiction resulting from annexation and the incorporation of suburban communities.

Land Occupancy

The majority of the Houston Urban Area as we know today, was developed during the era of the automobile. As a result, the form of the urban area has been affected by the ease and mode of individual's travel between his home and his place of employment. Individual mobility, combined with the lack of physical barriers, has caused an exceptional, horizontal expansion, and a low density of land use.

The physical growth of the urban area may best be depicted by illustration. The diagram shows the new growth in solid black,
and the area that was occupied as of the date of the previous diagram, is shown in grey.

1837. The first diagram shows as of 1837, the initial urbanization of the cities of Houston and Harrisburg. Development in Houston was clustered about the intersection of Main Street and Buffalo Bayou, and Harrisburg was situated immediately south of Buffalo Bayou near Brady Island.

1837-1873. The second diagram illustrates the growth between 1837 and 1873. In 1839 the city of Harrisburg consolidated with Hamilton, which was situated on the opposite bank of Buffalo Bayou under a trust, The Harrisburg Town Company. The first census in 1850 showed Houston to have a population of 2,396. By 1890 Houston had a population of 9,382. During this period, the principal growth occurred south of Buffalo Bayou in a semi-circle around the original town site of Houston.

1873-1912: Between 1873 and 1912, most of the growth took place north of Buffalo Bayou. There was some growth to the south, and new developments occurred to the southeast along Harrisburg and Navigation Boulevards between the old town sites of Houston and Harrisburg. At this time, the urbanized area extended approximately in a southerly direction to Wheeler Avenue, westerly to Montrose Boulevard, north of the H. B. & T. Railroad, and easterly to Milby Street, with a continuation of development along Navigation Boulevard further east to include the city of
1921-1930: A major transformation in the growth pattern of the urban area occurred between 1912 and 1930. During this period, the automobile came into popular use and influenced the development and growth of subdivision and of suburban communities. Most of the increase in urbanized areas was in the west and southwest. There was also much growth along the highway to Galveston, southeast of the central city.

1930-1950: Growth occurring between 1930 and 1950 shifted to areas north and south of the city. The scattering of suburban subdivisions continued and was accelerated after 1940. The diagram clearly illustrates the quantity and dispersal of such developments all about the perimeter of the more or lesssolidly developed core of the city. Industrial developments along the Ship Channel gave impetus to the rise of many suburban communities in the southeast, and there was a substantial amount of new developments and continuous growth in the area of the Ship Channel.

1950-1958: The diagram shows the last interval of growth to be studied and illustrates the results of the trend of scattered suburban developments. During this period of time, the heaviest growth occurred west of the city.

Much of the vacant land between the developments in the north and south of the Ship Channel was occupied, particularly
in the Pasadena area. Development in the southeast was stimulated by the improved accessibility resulting from the Gulf Freeway.

The relatively low cost of acreage and the better natural drainage in the northern portion of the city, combined with a larger market for low and medium price properties during the 30's and early 40's, were primary causes for the extensive growth in this area. As was the case in previous years, there were relatively few developments in the northeastern section of the urban areas.

New development and growth have had a tendency to concentrate first in one part of the urban area and then in the other. However, this shifting of emphasis has had a total effect of creating an urbanized area that is fairly well distributed in the central business district.

The three principal defects in the distribution of urbanized land are as follows:

1. The lack of urbanization in the northeast area of the central city.

2. The lack of development in the south along Almeda Road.

3. The extensive scattering of suburban subdivisions and communities at some distance from the perimeter of the solidly developed portions of the urban area. There is much vacant or undeveloped land lying between many suburban developments and between these developments and the continuous mass
of the central city.

The lack of continuity in suburban developments is becoming increasingly serious. This characteristic of reaching out into the countryside for new land to develop, before vacant lands within the older sections are filled in, has been termed "urban sprawl". The downtown area of Houston has not experienced growth in the number of apartments to the extent that might be expected in a city of Houston's size. Many of the new apartment projects have selected environments that would otherwise be satisfactorily for single-family housing.

The trends in apartment construction are not well established. Houston has lagged behind most major cities in the United States in quantity of apartments. This accounts for the exceptional activity in apartment construction in the past five to eight years. Unfortunately, many apartment projects have selected locations that are inappropriate with regard to traffic, distance to work, and urban conveniences.

Apartments are a necessary and desirable feature in large cities. Their location in terms of land use, traffic, proximity to work, and community facilities requires much study if future construction is to benefit the project owner, the tenants, and the city.
CRITIQUE AND DISCUSSION

The net of pressures on the modern industrial city is so vast that during the course of their action on form, the relationship between pressures and form becomes distorted and the resultant forms vary the original pattern of the pressure.

The car which was developed as a tool to serve human purposes has emerged as a dominant pressure in its own right. The forms which result, such as the main street of a modern city, are in conflict with their original basic human purposes.

The architectural space of a predominantly pedestrian civilization has become secondary to the space required by the automobile. The car needs accommodation. But people have other needs. At present, the form of the city reflects one but excludes the others.

Houston is, and will be a long time, a city for cars.

One expression of this technological era is the highway (Freeways, loop system, etc.) which shows that Houston is in scale with the need of the automobile.

It is an expression in large scale structures of steel and concrete. It is an expression of the speed of our century of highly developed technique.

Actually, Houston is a dehumanized city; the human scale does not exist in this city. There is no place for the pedestrian. Children, in general, have no place for playing or participating
with some activity in the community. There are few playgrounds and parks. The problem is partially solved by utilizing the facilities of elementary and secondary schools.

With the exception of Hermann Park and Memorial Park, it is very difficult to find "green areas" in Houston where people and children can go after their daily work for playing and relaxation.

The relationship of the dwelling to parks and to schools and other facilities is broken up by the old system of secondary and major streets. An organic relationship between the community and its facilities does not exist in the actual pattern of the city. Only with the car can people satisfy their needs and pleasures.

The actual structure of the city is one of a small town in which the downtown is just a long Main Street where the most important activities are placed.

However, there is a tendency toward the construction of a more compact and organic downtown in keeping with the population which is not only increasing in its natural growth but also with a large number of immigrants from other states.

Houston is utilizing the concept of decentralization which has created a number of very important Shopping Centers that include all kinds of facilities, such as supermarkets, drugstores, insurance companies, banks, cinemas, and government
facilities.

As a result, decentralization is one reason why in a city as young as Houston, the downtown area has no life and does not have a focus of urban activities. This is because the actual condition and structure of it has not changed with the same speed as American modes of living.

The following elements confirm the image of a Metropolis of high urban life and urban activities: a well-structured downtown with a strong and great variety of cultural activities.

Houston, for its location, for its economical development, and for its constant increasing population, should be even more clearly, the most important city in the entire southern part of the United States.

A clear, advantageous urban development policy is necessary in order to get a well-balanced city:

First, increase the density and provide a more intense and varied community life; this would stimulate the people and give them a more correct and rewarding participation in the present society.

Second, a balance between the pedestrian and the car scale, community and privacy, restriction and freedom, the relaxing green and the grey of work and duty, must be achieved in order to get an organic and dynamic development in the actual society.

However, Houston is far from attaining these goals. The
actual image is just a huge city with a very low density.

The pattern belongs to a suburban city.

This reflects the spirit of the people who live there, people who are accustomed to having a lot of land which means for them the feeling of freedom, the feeling of power and wealth. They believe it is possible to have this image by living in a single dwelling. People are interested in keeping the privacy they had before. This is one important reason for the incredible growth, together with a strong economic power which comes from the development of the industry and commerce.

Third, in order to get a new physical urban order, it is necessary to give expression and meaning to the life of urban man. We must clarify, define, and give integrity and organization to human purposes; finally, he must give to all these a significant form.

Fourth, an urban structure, must provide special domains for all degrees of privacy and all degrees of community living, ranging from the most intimately private to the most intensely communal. We must develop both privacy and the true advantage of living in a community as an entirely new concept of planning and urbanism. Only when the habitat of urbanized man is given such order shall we restore to the urban
life a fruitful balance between community and privacy. We must recognize that it is necessary to develop a new concept of dwelling together in order to attain new goals.

Fifth, a study of new concepts that will solve circulation problems of urban planning is necessary.

It is necessary to develop new criteria for land use in this 20th century of technological revolution in which the whole landscape has been cluttered with crowded, unrelated disorder. We are hemmed in by dangerous, nerve-wracking motor ways. Open spaces are engulfed and destroyed as the obsolete city pattern rolls on. Much of the time that people have gained by shorter working hours and longer week-ends is squandered in tiresome journeys in search of open and green spaces.

So, before the highways cover most of our landscape under a sea of pavement, it is necessary to develop an organic land use plan. We must bring peace, quiet and beauty, and the sense of great openness into every part of our community, as near as possible to where people live. Just outside everybody's own private garden or balcony there must be spacious open commons - plenty of green areas, with enough space for children to play freely and safely near home. Above all, we need flexible space that can be used for various purposes as
the neighbors get new ideas of how to spend their spare time, together or by themselves, not only playing games or sitting around talking and thinking, but in constructive action such as building a little community workshop or a nursery.

But for peaceful living spaces, which all houses face, they must be isolated from noise, the odors, and the deathly danger of through-traffic. The community should be separated from highways, but at the same time, homes and surrounding facilities must be directly accessible to motorized vehicles. This can be possible only if we completely eliminate the conventional street, so that the heart of the arterial system is the tranquil chain of parks toward which the buildings face and through which the local life of the community flows.

In this way, the highways might become servants and not the masters of community life.

The main stream of traffic flows freely and steadily on parkways or through highways, and buildings and grounds are open only to subordinate roads.

This means that dwellings and other buildings, of the community, face in the opposite directions, one towards peaceful green space, and the other towards roads and services.
So there are two separate frameworks for the modern communities. One is for the motor, the other is for the pedestrian; one is gray and the other is green.

They fit together like two fingers of two hands, but they never overlap or interfere with each other's functions. These communities should remain continuously youthful and full of community life. However, they must be spacious and flexible enough to take new form with changing ways of living, work and leisure.

Because we are living in a stage of transition and in a dynamic and fast-moving world, the city, like everything else, will undergo a metamorphosis. This transformation is going to be, in part, the result of political-socio-economic forces which we cannot hope to control completely, but through planning we can do much to direct the future development of the cities.
CONCLUSION

In the community, the individual is provided with an opportunity to become once again an effective member of his society.

In a free and democratic society, planners cannot and should not dictate how a community must be. They must offer the possibility for living in a better community and also be able to explain the alternative image of what will happen in its absence.

Communities must start with communication, through a recognition of common concern.

In the absence of a modern dynamic meaning of community, we are building a physical living environment in which the individual is losing his identity.

The relationship between the individual and the society to which he belongs is being weakened by his lack of capacity for communication and participation in the community.

He is losing also his personal desires and his sense of responsibility to the great social issues which affect his daily life and the legacy that he leaves for his children.
A NEW HOUSTON COMMUNITY
HOUSTON COMMUNITY DESIGN

The intent of this project is to show and express some of the human, social, and spatial values that American cities have lost with their fast and chaotic growth.

Also, to indicate some new relationship and new order possible at this time.

With a high technological development the actual society has had to face new and unknown problems such as the incredible development of the automobile, the actual possibilities of having all kinds of electronic equipment in most of the American houses, and the possibility of having more time for leisure.

So, the project is the result of a previous analysis of the actual pattern of the city. It is also an attempt as an architect to express some ideas in order to improve better relationship in the city, with the community and the people.

The proposed community must have a consciousness of living in a city because it must feel it belongs to a complex urban order.

The community is related with the people with a clear, pedestrian scale, through green areas and with no vehicular interference.
People can develop relationships with other people through places of natural meeting such as playgrounds and elementary schools. Outdoor and indoor sport facilities have the same objective. The community facilities are also a good means for getting the community together with some activities so that people may feel that they belong as active and dynamic members to this community.
THE SITE

The site is located at the intersection of two major streets; Holcombe and Buffalo Speedway. These two major streets are directly connected to Post Oak and Southwest Freeway. In other words, there are easy connections from the site to places where people work (industrial zones, commercial areas, and downtown).

The intersection of two freeways creates a zone of influences and tension of first order because it generates possibilities of industries, commerce, and entertainment, and relates this area with the rest of the city.

The intersection of two major streets generates possibilities for local commerce, churches, and all kinds of community facilities which can and must be related with the community.

The site is located in a very strategic location and provides excellent possibilities for getting a community well balanced with its own facilities and also in relation with the rest of the city.

The site also has clear boundaries. Four important streets - Holcombe, Buffalo Speedway, Kirby Road, and Braeswood Boulevard, plus Brays Bayou form boundary for
the site. These streets create spatial, psychological, and functional boundaries.

The surrounding areas are completely built-up following the usual pattern of single dwellings which gives Houston one of the lowest densities among big cities in the United States.
A major street is always a separate element and a barrier.

Green areas unite different spaces.
A NEW HOUSTON COMMUNITY

PROGRAM:

PROPOSED CRITERIA

- POPULATION 7,500 persons
- DENSITY 44 persons per acre
- SITE'S SIZE 170 acres
  26 sq. miles

NUMBER OF FAMILIES 1,940
- AVERAGE FAMILY SIZE 3.9
- AVERAGE INCOME PER FAMILY - $9,000
- AVERAGE INCOME PER CAPITA - $2,328
- EDUCATIONAL LEVEL 13.0
- AVERAGE AGE 29.0 years

COMMUNITY'S PROGRAM

- TWO BEDROOM DWELLING 30% - 580 units
- THREE BEDROOM DWELLING 50% - 970 units
- FOUR BEDROOM DWELLING 20% - 390 units

TOTAL NUMBER OF DWELLINGS 100% - 1,940 units
- PARKING PLACES FOR HOUSES - 2 car per unit
- PARKING PLACES FOR APTS. 1.5 car per unit
COMMUNITY FACILITIES

1. GOVERNMENT
   - CITY OFFICE 2,380 sq. ft.
   - POST OFFICE 1,710
   - LIBRARY 1,920

2. EDUCATION
   - ELEMENTARY SCHOOL 43,020 sq. ft.

3. COMMERCE
   (a) GOODS
       FOODS 39,370
       LIQUORS 1,890
       DRY GOODS 9,850
       FURNITURE 10,300
       VARIETY 23,060
       DRUGSTORE 3,250
       SPECIALTY 6,950
   (b) SERVICES
       BARBER SHOP 2,200
       LAUNDRY and CLEANERS 2,590
       RECREATION 7,000
       RESTAURANT 5,200
       CONSTRUCTION 16,990
GAS STATION  4,600
HOSPITAL    16,410
PROFESSIONAL OFFICES  8,150

The community facilities requirements were obtained through a special study made with Leopoldo Benitez and in collaboration with Clay Wellborn and Gray Henry, students in The School of Architecture of Rice University.

This study contains the method and the system for obtaining the areas required. The development of this method was made through a computer.

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BIBLIOGRAPHY


