

TOWARD A BETTER ARCHITECTURE IN THE ARAB WORLD

by

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## TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS . . . . .	ii
LIST OF FIGURES . . . . .	vi

### Chapter

I.	INTRODUCTION . . . . .	1
	Background to the Problem . . . . .	1
	Architecture, Forms and People . . . . .	1
	Lack of Tradition . . . . .	1
	The Result . . . . .	2
	Need for the Study . . . . .	3
	The Arab Visual Aesthetic Scene . . . . .	3
	De-Arabizing Arab Architecture and City . . . . .	5
II.	HISTORICAL BACKGROUND . . . . .	7
	Man's First Shelter . . . . .	7
	Styles of the Past . . . . .	8
III.	ALTERNATIVE THEORIES OF HOUSE FORM . . . . .	9
	Climate and the Need for Shelter . . . . .	9
	Materials, Construction and Technology . . . . .	10
	Site . . . . .	11
	Defense . . . . .	11
	Economics . . . . .	13
	Religion . . . . .	14
	Socio-Cultural Factors . . . . .	15

Chapter	Page
Some Basic Needs . . . . .	16
Family . . . . .	17
Position of Women . . . . .	18
Privacy . . . . .	19
Social Intercourse . . . . .	21
IV. BETWEEN TRADITION AND MODERNITY . . . . .	23
Definitions . . . . .	23
The Attitudes and Responses of Architects to Vernacular Shelter . . . . .	25
Adolf Loos . . . . .	26
Moshe Safdie . . . . .	27
Le Corbusier . . . . .	28
Myron Goldfinger . . . . .	28
Paul Oliver . . . . .	29
Edward Hall . . . . .	30
A CASE STUDY: THE ORIENTAL COURTYARD HOUSE . . . . .	31
Vernacular Architecture of Iraq . . . . .	31
Social Life . . . . .	31
Family . . . . .	33
The Courtyard House . . . . .	34
Socially . . . . .	34
Environmentally . . . . .	36
The Courtyard . . . . .	37
The Family Room . . . . .	38
The First Floor . . . . .	39
The Roof . . . . .	41

Chapter	Page
Materials, Construction and Sanitation . . . . .	41
Grouping . . . . .	47
The Western Closed House . . . . .	49
Elements . . . . .	49
Socially . . . . .	49
Climatically . . . . .	51
Grouping . . . . .	51
Comparison . . . . .	54
Planning and Zoning . . . . .	55
Segregation . . . . .	55
Occupiers . . . . .	55
Social Relationships . . . . .	56
The Structure of the City . . . . .	56
A Poem (Hassan Fathy) . . . . .	57
V. CONCLUSION AND RECOMMENDATIONS . . . . .	58
Definition of the House . . . . .	58
The Courtyard House . . . . .	58
Developing Countries . . . . .	59
Objectives for Successful Housing . . . . .	60
Result . . . . .	61
Recommendations . . . . .	61
REFERENCES . . . . .	63

## LIST OF FIGURES

Figure	Page
1. Materials and House Form . . . . .	12
2. Location of Threshold in Three Cultures . . . . .	20
3. Privacy Realms . . . . .	20
4. House-Settlement System in Moslem Town . . . . .	22
5. A Typical Alleyway Between Traditional Courtyard Houses . . . . .	32
6. Ground Floor Plan (Courtyard House Type) . . . . .	35
7. Basement . . . . .	35
8. Section Through A Typical Air-Scoop (Badgeer) . . . . .	35
9. First Floor Plan . . . . .	40
10. Roof Plan . . . . .	40
11. Section of an "Oriental" House Type . . . . .	43
12. Detail of an Alleyway . . . . .	44
13. Front Detail of a Traditional Courtyard House . . . . .	44
14. Grouping of Courtyard Houses Type . . . . .	48
15. An Aerial View of Traditional Courtyard Houses . . . . .	48
16. Ground Floor Plan (Western) Closed House-Type . . . . .	50
17. First Floor Plan . . . . .	50
18. Roof Plan . . . . .	50
19. Grouping of 'Western' Closed Houses Type . . . . .	52
20. An Aerial View of Closed House Type . . . . .	52
21. Typical Pedestrian Alleyways . . . . .	53

## CHAPTER I

### INTRODUCTION

#### Background to the Problem

Every people that has produced architecture has evolved its own favorite forms, as peculiar to that people as its language, its dress, or its folklore. Until the collapse of cultural frontiers in the last century, there were all over the world distinctive local shapes and details in architecture, and the buildings of any locality were the beautiful children of a happy marriage between the imagination of the people and the demands of their countryside. Certain shapes take a people's fancy, and they make use of them in a great variety of contexts, perhaps rejecting the unsuitable applications, but evolving a colorful and emphatic visual language of their own that suits perfectly their character and their homeland. No one could mistake the curve of a Persian dome and arch for the curve of a Syrian one, or a Moorish one, or an Egyptian one. No one can fail to recognize the same curve, the same signature, in dome and jar and urban form from the same district. It follows, too, that no one can look with complacency upon buildings transplanted to an alien environment.

In modern Arab World today there is no indigenous style. The signature is missing; the houses of rich and poor alike are without character, without any Arabian accent. The tradition is lost and our culture slowly diminishing. We have been cut

off from our past. This gap in the continuity of Arab tradition has been felt by many people, and all sorts of remedies have been proposed. But none of them has solved the problem.

This situation in the Arab World demonstrates two phenomena: One is the encouraging fact that people do recognize and wish to remedy the cultural confusion in our architecture; the other, but not so encouraging, is that this confusion is seen as a problem of style, and style is looked upon as some sort of surface finish that can be applied to any building and even scraped off and changed if necessary.

As a direct result of this lack of tradition, our cities and villages are becoming more and more ugly. Every single new building manages to increase this ugliness, and every attempt to remedy the situation only underlines the ugliness more heavily.

Particularly on the outskirts of provincial towns where the most recent building has been taking place, the ugly design of the new houses is emphasized by the shoddy execution of the work, and cramped square boxes of assorted sizes, in a style copied from the poorer quarters in the metropolis, half finished yet already decaying, set at all angles to one another are stuck up all over a shabby wilderness of unmade roads, wire and lines of washing hanging dustily over chicken runs. In these nightmarish neighborhoods, a craving for show and modernity causes the homeowner to lavish his money on the tawdry fitting and decorations of urban houses, while being miserly with living space and denying himself absolutely the



benefits of real craftsmanship. This attitude makes the houses compact and outward-facing so that the family has to air bedding over the public street, and air itself exposed to the neighborhood upon its barren balconies, whereas if the owners were less "sheepminded", they could take advantage of the only house type that can make life tolerable in these places, the courtyard house, and enjoy both space and privacy. Unfortunately this suburban architecture is the type that is taken by the peasants and most of people as a model of modernity and is gaining ground in our cities and villages.

Thus, the Arab architectural scene which only a few years ago was organic, simple, dignified and graceful - despite its humbleness and, in some cases, sordidness - has been turned into a massive architectural concoction that knows no rules and is rooted in superficial and vacuous thought. Many a booming Arab city is nothing but a jumbled-up accumulation of meaningless forms, shapes, devices and colors. This setting, occupying generally anti-urbanistic landscapes, is the haven of a motley architecture that can best be described, to date, as an architectural tragedy and a lost opportunity.

#### Need for the Study

The errors of the recent past are great and, by now, hard to correct. Degeneracy has been the rule rather than exception in the general rash of architecture in most parts of the Eastern Arab World. It is time that degeneracy is turned into regeneracy, and regeneracy can only emanate from a return

to the never-changing concepts, characteristics and compulsions deriving from the various Arab regions. The influence of climate, of orientation, or urbanistic principles, or aeration, of spatial relationship, of simplified decoration must return to the Arab building whether it is located on mountains, by the sea, along rivers or in the desert. Developments in building materials must be watched, as well as advances in structural design, and allowed to influence architecture in rational ways instead of being tacked on, or applied, as cosmetics. The Arab visual aesthetic scene must be saved, before its "visual image" becomes too ugly for repair.

Every Arab country has a distinctive and rich architecture that may philosophically, organically and scientifically be described as an indigenous type of architecture, but that architecture the very humble architecture of a house or the very sophisticated and ornate architecture of some mosques. The architecture is, just the same, a direct derivation from many compelling local, indigenous factors: climate, structural limitations, sociology, building knowhow, building materials and so on. The houses and sundry other structures of the Arab World are a pride of the Arabs, for they are a true expression of fact, having evolved organically and possessing all the features of commonsense, inventiveness and functionalism. Thus, whether it is an old mansion-type house in Beirut or Cairo, an old courtyard house in Kuwait or Damascus, or an old vaulted stone house in Tunis or Jarusalem, they are all truly masterpieces of local creation and craftsmanship, the

like of which does not exist in the "modern" jungle of houses and sundry types of buildings grown so speedily and so unsoundly from one end of the Arab World to the other. The craze of building in the Arab World during especially the past decade-and-a-half has all but obliterated and eroded all the organic, indigenous, desirable, functional and characteristic vestiges of sound and dignified Arab architecture. So insensitively has Arab architecture been handled, that one deeply fears this era of dynamic Arab buildup will be an esthetically orphan era: shapeless, inorganic, dysfunctional, bastard, plagiaristic. The "steamrolling" process of :denaturalizing" Arab architecture has been almost a total process. It has touched interior decoration, landscaping and urbanism just as well in the same ruthless and insensitive way.

Yet, despite all this, those who are most conscious of the processes of de-Arabizing Arab architecture are not, very strangely, the Arabs. They are the Europeans, Americans and even some Asians and Africans. They see and admire the character of the old, compare it with the characterlessness of the contemporary and regret what they see. They regret that the Arabs, with such a rich tradition for the simple, the sensible, the beautiful, the geometresque and the arabesque have tossed all this in favor of the cheap, the eclectic, the plagiarized, the rococo. They regret to see as rich a cultural traditions as the Arab being bulldozed and buried under the debris of insipid contemporary characterlessness. Yet we Arabs go unmindfully about, thinking of the great glass walls,

the discordant colors, the anti-architecture, the absence of art and design in our new environment as the "real thing" as progress, as civilization, as culture. Well, it may be civilization if civilization is measured by silica, iron, aluminum, paint or colors. This, however, is not culture. It is not building a tradition, or school, of contemporary architecture worthy of the tradition purportedly superseded.

The Arab city - in structure, form and function was a harmonious and human entity, despite its humbleness. There was a reason for every space, every alley, every stone that composed the city. It evolved as a result of strong and compelling reasons and, as such, it answered to the demands of life as satisfactorily as the joint interplay of forces and factors, then prevailing, demanded. It had the "bazaar" or "suk" which is a phantasmagoric world all its own, keyed and tuned to the functions it was created to perform with all the urbanistic-architectural honesty imaginable. It had the squire - "Saha" or "midan" - which acted as the public or common open-air, outdoors living area for all those at least unable to procure for themselves comfortable and luxurious ones. In short, the old Arab town had urbanity, atmosphere, scale, townscape. Today unfortunately, it is nothing but a garage, a storehouse, an encyclopedia of discordance and disarray.

## CHAPTER II

## HISTORICAL BACKGROUND

Man's first environmental problem was to shelter and protect himself physically against both the elements and other animals and men. Primitive man did this in two ways, either by finding ready-made shelter in the form of caves, or by constructing little shelters or huts out of available materials. In some areas the huts were made of trees or reeds. In other areas, where stones were available, these were piled up to form little dwellings of a different type. Other groups of people learned to make simple frames and cover them with thatch, animal skins, or bark, thus producing tents or teepees. In the Arctic, people made shelters called igloos out of the only available material, ice. These various forms of shelter could be called the first "architectural styles". They were all intended to solve the same need and to express the same idea - that of providing physical protection in the simplest possible way. However, the reason a stone hut, an Indian teepee, and an Eskimo igloo all look so different is that each is made of entirely different material and responding to different climates. The irregularly shaped stone huts resulted from finding stones, piling them up and fitting them together as well as possible; but even a primitive person with a few tools could cut blocks of ice to exactly the shape he wanted and thus an igloo could be a very regular

dome-shaped dwelling. On the other hand, a tent or a reed hut depended on using flexible materials such as small trees or reeds and tying them together with grasses or some other flexible fiber, which produced characteristic shapes.

These methods - one of piling up rigid blocks and the other of tying together flexible materials and covering this framework with a skin - are essentially the way most homes are built today. Now stones can be cut to any size or shape, synthetic stones called concrete blocks can be made, wood can be cut into regular sizes, and flexible "reeds" can be made of steel. These can all be put together with mortar, nails, and bolts, and plastics. Water and electricity can be run in and out of this dwelling, but it is essentially the same idea that was used ten thousand years ago.

What then are the differences? Several facets of life have changed greatly since people began building those simple huts which satisfied them. When one has no physical shelter it becomes one's primary concern. But after shelter has been achieved and its comfort has been enjoyed for a while, man begins to turn his mind to other things. Groups of people or communities forms. By acquiring more security and greater strength in numbers, they are then able to furnish themselves and their leaders with more comforts. They then become concerned with spiritual values and religious ideas. It is the thoughts and achievements of these groups that have created the cultures of the past.

## CHAPTER III

## ALTERNATIVE THEORIES OF HOUSE FORM

Amos Rapoport in his book "House Form and Culture" stated that there are physical and social forces that create house form. The physical ones are involving climate and the need for shelter, materials, technology, and site. The social ones relating to economics, defense and religion.<sup>1</sup>

Climate and the Need for Shelter

Climatic determinism has been widely accepted in architecture as well as in cultural geography, although in the latter it has recently found rather less favor. One need not deny the importance of climate to question its determining role in the creation of the built form.

An important consideration is why so many forms of the house have been developed within the limited number of climatic zones. Even the variation among micro-climatic types is relatively smaller than the number of house types frequently found in areas of similar climate.

There are cases in which the way of life may lead to almost anticlimatic solutions, with the dwelling form related to economic or religious activity rather than climate.

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<sup>1</sup>Rapoport, Amos. House Form and Culture. University College, London, 1975, p. 18.



Anticlimatic solutions can be found in many parts of the world. Despite these example primitive and vernacular buildings typically respond to climatic influences very well. We can not deny the importance of this variable, but there is some doubt as to determining role.

### Materials, Construction and Technology

For thousands of years wood and stone have influenced the character of buildings. Materials, construction, and technology are best treated as modifying factors, rather than form determinants, because they dictate neither what is to be built nor its form - these decisions are based on other grounds. They made possible the enclosure of a space organization decided upon for other reasons; however, they do possibly modify the organization. These factors facilitate and make possible, or impossible, certain decisions, but never dictate or determine form.

There are situations where social values take precedence over technological advances. This is an interesting point since we tend to equate technological advances with progress without thinking of the social consequences of adopting such advances. In North Africa the French piped water to a series of villages, which caused serious dissatisfaction. Investigation showed that in Moslem society women are shut in the house, and the village well provide their only chance to get outside, gossip, and see their limited world. As soon as the well was restored and the taps eliminated, the dissatisfaction ended.



The same materials can result in very different forms, as shown by the examples (Figure 1). There are also situations in which climatic needs have led to structurally nonoptimal forms. In other cases the reasons for irrational structure may be religious or social. In any event, structural techniques and materials by themselves do not seem to fully explain the nature and diversity of the forms which we find.

### Site

Site influences both the city and the house, but it does not determine form. We might say with Vidal de la Balache that "nature prepares the site and man organizes it to enable him to satisfy his desires and his needs". In one sense, the effect of site is cultural rather than physical, since the ideal site depends on the goals, ideals, and values of a people or period, and choice of the good site - whether lake, river, mountain, or coast - depends on this cultural definition.

### Defense

Defense certainly plays a role in deciding house form, and use of stockades, palisades, and fences have defensive implications as well as the religious ones. Defense, however, never fully accounts for form and may even be symbolic.

Many factors are neglected by accepting defence as the only determinant of form. Additionally, the element of choice of which method of defense is to be used is of great importance.

Figure 1

## Materials and House Form



Dwellings Made of one material (reeds)  
 Uru dwellings, Lake Titicaca      March Arab dwelling, Iraq



Dwellings made of mud  
 Iran      Pueblos, Southwestern U.S.



Portable tends of sticks and felt  
 Arab tent      Mongol Yurt



Two examples from the great range of house forms using  
 thatch and wood as materials  
 Masai dwelling (Africa)      Yagua dwelling (Amazon)

## Economics

Since houses are less critical for survival than food, we would expect them to be even less effected by sheer economic necessity. In Annam, as soon as a peasant has money he builds a house, beautiful but not comfortable, and beyond his means; there are more rich houses than there are rich families.

Generally since people with similar economic means may have different moral systems and world views, and since the house is an expression of the house view, economic life has no determining effect on house form. Even lack of labor specialization, so typical of primitive, and to lesser extent vernacular builders, may be socially and culturally rather than economically motivated; and specialized labor may be despised. Even collaborative building may be due not to economic needs or complexity of task, but socially motivated. An example is the Cebrian dwelling in the Philippines which would be more economical if built differently, but social cooperative, good will, and community are the dominant factors.

Even nomads, for whom the economic affects house form by imposing the need for mobility, use widely varying forms. The Yurt of the Mongols, the hexagonal tent of the Tibetans, the numerous forms of the Arab tent, and the teepee and substantial, yet mobile, wooden houses of the Indians of the Pacific Northwest are all very different. Apparently even so critical an aspect as economic life or mobility does not suffice to account for house form, although it exerts great constraints.

Even in the case of modern American buildings, where the

economic aspects would seem to be dominant, it has been pointed out that the rise of the skyscraper in the nineteenth century Chicago had no economic justification at the time. But because of foundation problems and other factors, and the fact that every town wants a tall building as a matter of prestige, and such aspects may still affect housing in many areas.

### Religion

Religion affects the form, plan, spatial arrangements, and orientation of the house, and may be the influence which leads to the existence of round and rectangular houses. The reason for a culture never having had round houses may well be due to the needs of cosmic orientation - a round house cannot easily be oriented. "In Africa the distribution of round and rectangular houses is related to the distribution of religion, and many examples can be found. The Zulu, where orientation is unimportant, round houses are used. An extreme contrast is the Trano of Madagascar, which is oriented through strict axes and astronomical rules." <sup>2</sup>

Many other aspects of the house - whether it is on stilts or underground, whether it needs special provision for keeping out or controlling evil spirits - can be attributed to religion. Similarly, the impact can be shown of religious considerations on settlement patterns and their changes in a given area.

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<sup>2</sup>Rapoport, Amos. House Form and Culture. University College, London, 1969, p. 41.

### Socio-Cultural Factors and House Form

The different forms taken by dwellings are a complex phenomenon for which no single explanation will suffice. All possible explanations, however, are variations on a single theme: people with very different attitudes and ideals respond to varied physical environments. These responses vary from place to place because of changes and differences in the interplay of social, cultural, ritual, economic, and physical factors. These factors and responses may also change gradually in the same place with the passage of time; however, lack of rapid change and persistence of form are characteristic of primitive and vernacular dwellings.

Given a certain climate, the availability of certain materials, and the constraints and capabilities of a given level of technology, what finally decides the form of a dwelling, and moulds the spaces and their relationships, is the vision that people have of the ideal life. The environment sought reflects many socio-cultural forces, including religious beliefs, family and clan structure, social organization, way of gaining a livelihood, and social relations between individuals. This is why solutions are much more varied than biological needs, technical devices, and climatic conditions, and also why one aspect may be more dominant in one culture than it is in others. Buildings and settlements are the visible expression of the relative importance attached to different aspects of life and the varying ways of perceiving reality. The house, the village, and the town express the fact that societies share

certain generally accepted goals and life values. The forms of primitive and vernacular buildings are less the result of individual desires than of the aims and desires of the unified group for an ideal environment. They therefore have symbolic values, since symbols serve a culture by making concrete its ideas and feelings. At the same time, house forms, more than other artifacts, are influenced and modified by climatic forces, choice of site and availability and choice of materials and construction techniques.

In this context, socio-cultural forces can be seen in many different ways. The term "genre de vie" used by Max Sorre includes all the cultural, spiritual, material, and social aspects which affect form. We can say that houses and settlements are the physical expression of the "genre de vie" and this constitutes their symbolic nature.

The following are some important aspects of the "genre de vie" which affect built form:

1. some basic needs,
2. family,
3. position of women,
4. privacy,
5. social intercourse.

Some basic needs. If we consider something as basic as breathing in specific terms, we become aware of its complex effect on built form. For example, in regard to fresh air or smells, the Eskimo accepts very high smell concentrations inside the Igloo, and the smell of the toilet is accepted in

the traditional Japanese house. There are also cultures where smoke is sacred and is encouraged in the house. Desired light levels vary greatly from culture to culture.

Sitting is a basic need, yet some cultures rest by squatting, as is common in Asia, others stand on one foot, as do Australian aborigines and some Africans, and it could be shown that the manner of sitting can affect house form and change living habits. Consider for example, the impact of the introduction of the chair, which would revolutionize living habits and have major social consequences. The need to take off shoes imposed by the use of mats would disappear hence also the special covered space-porch or verandah - where they are taken off and left. The need for shoes which are easily taken off would be eliminated, and also the need for special floors. Different postures would affect stance, carriage, costumes, the character and shape of all other furniture, and the use of cupboards, wardrobes, mirrors, lamps, and pictures the chair would also affect the sitting height, hence changing the placement and type of windows and the type of garden. Similarly, with regard to sleeping, it is significant, but the furniture arrangements, and spaces used which affect the house.

Family. Although the family is basic, there are great differences in family structure which are significant in relation to house forms which differ equally as much. Even when we have described the basic types of family structure, there may still be other forms that result, as for example the extended family group which can lead to courtyard cluster



of the Kabylie. In the Kabylie each house shelters a conjugal family; the group of houses around its common court shelters the extended family and is the unit of the village.

Among the Homboris Moslems of Timbactoo each legitimate wife, all concubines, and children above seven have their own houses, and a rich man's house becomes a vast conglomeration which is different from an Arab harem of the same size.

Position of women. The Mediterranean area contains two types of houses. There is a two story, stone house with an outside stair found on the coasts and islands from Syria to Catalonia and the Balkans - and in the same area is also the courtyard houses. Their occurrence in the same area, and the fact that the court house is very much the same in Greece, North Africa, and Latin America suggests that the latter relates to some social factor which may be the extreme need for privacy for women who are cloistered. The windows and roofs of these court houses are designed to prevent anyone from intruding into the intimacy of the house. For the same reason, house doors on opposite sides of the street may not face each other. (Privacy is protected not only by the blank walls, small openings, and other physical devices, but also by custom - few outsiders are ever invited in, and when they are the women's portion of the house is strictly prohibited.) The outside stair in the other type of house, at least those on Mykonos, is also related to the position of women. On Mykonos, the dowry is of great importance, and must include a house, the outside stair enables more than one occupancy in the same



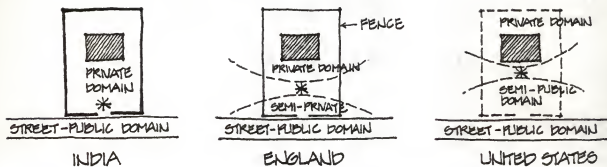
house without conflict.

In the Arab World as well as Islamic countries, men and women are always separated, rich people having separate rooms and poor ones using different corners of their house; this procedure is also followed in the Nomad tent. Islamic culture generally affects the form of houses and settlements through the demands of purdah, the harem and so on, but in each case the specifics of the solution need to be considered.

The need for privacy. Since privacy is at least partly affected by the position of women, we would expect to find considerable variations in the definition of privacy, how it is achieved, and which are the important considerations.

The desire for privacy may also take forms related to the separation of domains. This can be seen in India, Iran and Latin America, where the buildings traditionally face inwards (Figure 3) (very differently from the outward facing Anglo-American house) and seem independent of the climatic zone or site accordingly in both cities and villages.

In India, each house is surrounded by a low wall or the house elements are arranged around a central court with a blank wall facing the street (Figure 2). This pattern, also found in Iran and elsewhere, provides separation of domains and effectively separates the house and its life from both street and neighbors. A clear transition occurs from the noisy public domain to the quiet private one, and from the relatively plain, simple, and restrained exterior to whatever richness and luxury exist inside. There is little concern for



\* = 'THRESHOLD'

Figure 2

Approximate Location of "Threshold" in Three Cultures

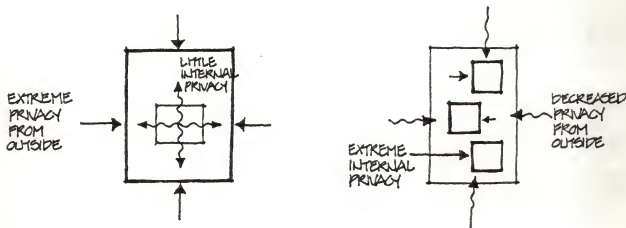


Figure 3

Privacy Realms: left, Japanese house; right, western house (Anglo-American)

what happens in the street, which is merely a way of getting to the fields, wells, or shops, or of defining ethnic and caste groupings. In the traditional settlements, however, the narrow, shady streets become full of life as they serve some social functions. Streets in the Punjabe, for example, link the three elements of the village - house, temple or mosque, and bazar. Widenings in the streets provide room for a small tree or a well, around which a story teller or small market will set up shop and help the street serve a social function. The transition between street and private domain of the house becomes very important in this case.

Social intercourse. The meeting of people is also a basic need since man has been defined as a social animal. What concerns us is not the fact of meeting itself, but where people meet, whether in the house, the cafe, the bath, or the street (Figure 4).

The ease with which people can orient themselves in the city is important in helping them socialize.

After one has found one's way about, the specific how and where of the meeting are important. In the Chinese village people meet in the wide part of the main street; in North Africa it may be the well for women and the cafe for men. In Italy it is the piazza, galleria, and cafe; in England the pub or the house.

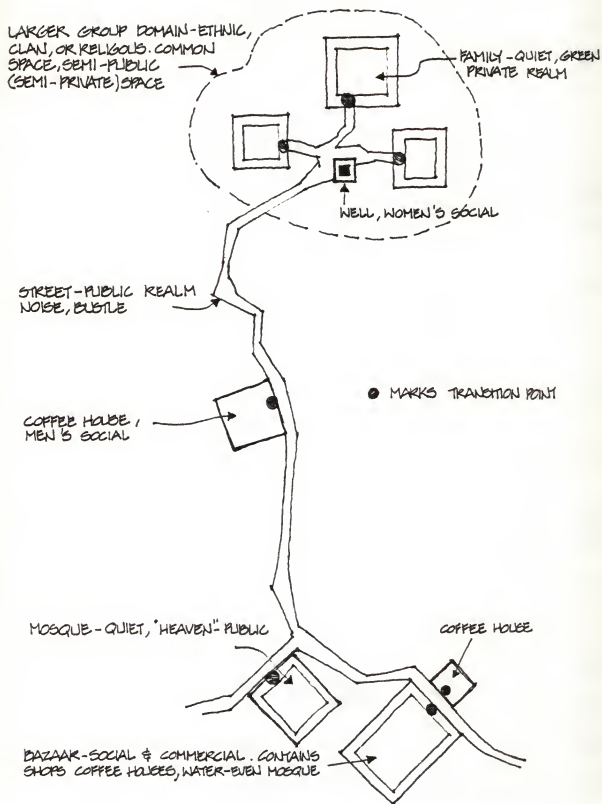


Figure 4

Diagram of House-Settlement System in Moslem Town (Isfahan). Shows some of the activities only.

CHAPTER IV  
BETWEEN TRADITION AND MODERNITY

"It may be that what we call modern is nothing but what is not worthy of remaining to become old."

Dante Alighieri

Tradition is the social analogy of personal habit, and in art has the same effect as releasing the artist from distracting and inessential decisions so that he can give his whole attention to the vital ones. Once an artistic decision has been made, no matter when or by whom, it cannot profitably be made again; better that it should pass into the common store of habit and not bother us further.

Tradition is not necessarily old-fashioned and is not synonymous with stagnation. Furthermore, a tradition need not date from long ago but may have begun quite recently. As soon as a workman meets a new problem and decides how to overcome it, the first step has been taken in the establishment of a tradition. When another workman has decided to adopt the same solution, the tradition is moving, and by the time a third man has followed the first two and added his contribution, the tradition is fairly established. Some problems are easy to solve, a man may decide in few minutes what to do. Others need time, perhaps a day, perhaps a year, perhaps a whole lifetime; in each case the solution may be the work of one man.

Yet other solutions may not be worked out fully before many generations have passed, and this is where tradition has a creative role to play for it is only by tradition, by respecting and building on the work of earlier generations, that each new generation may make some positive progress toward the solution of the problem. When tradition has solved its problem and ceased developing, we may say that a cycle has been completed. However, in architecture, as in other human activities in natural processes, there are cycles just beginning, others that have been completed, and others at all stages of development in between, that exist simultaneously in the same society. There are, too, traditions that go back to the beginning of human society, yet which are still living and which will exist perhaps as long as human society does - breadmaking or brick-making for example.

Architecture is still one of the most traditional arts. A work of architecture is meant to be used. Its form is largely determined by precedent, and it is set before the public where they must look at it everyday. The architect should respect the work of his predecessors and the public sensibility by not using his architecture as a medium of personal advertisement. Indeed no architect can avoid using the work of earlier architects; however hard he strains after originality, by far the larger part of his work will be in some tradition or other. Why then should he despite the tradition of his own country or region? Why should he drag alien traditions into an artificial and uncomfortable synthesis? Why should he be so rude to

earlier architects as to distort and misapply their ideas? This happens when an architectural element evolved over many years to a perfect size, shape and function, is used upside down or enlarged beyond recognition till it no longer even works properly simply to gratify the architect's own selfish ego.

If the architect walks soberly in the tradition of his culture, then he must not suppose that his artistry will be stifled. Far from it; it will express itself in relevant contributions to the tradition and contribute to the advance of his society's culture.

The charm and vitality of the traditional forms and the drabness, dullness, and monotony of the new ones, designed by architects, is due to more than the charm of the picturesque. The unity of plan, site, and materials in traditional villages generates an enthusiastic response even in most lay observers. Much of this response is evoked by harmony with the landscape, as well as a feeling of fitness to purpose, directness, and forcefulness. An intimate scale is created by a series of walls which not only enclose space, but also tie the houses together and link them to the landscape. The quality of these buildings is due as much to their being an expression of group consciousness as to the blending of building and land into a whole.

In the new townships the grid destroys both the intimate scale and the link with the land. The new visual elements no longer express the relation of the individual to the group and

of the group to the land as the larger living realm does in the traditional pattern. The new pattern makes the individual feel insignificant. Group unity is destroyed, and there is no clear relation of man to his surroundings through elements of increasing spatial scale and demarcation of domains in harmony with the land around.

This general attitude of respect and reverence of the site means that one does not browbeat or rape it (or nature in general) but works with the site. Buildings fit into landscape and express this attitude through choice of siting, materials, and forms. These forms not only satisfy cultural, symbolic, and utilitarian requirements, but often are so much a part of the site that it cannot be imagined without the dwelling, village, or town. Such qualities also reflect the presence of shared goals and values, a clear and agreed-on purpose, and an accepted hierarchical structure of house, settlement, and landscape, as well as direct response to climate and technology. The forms are also a clear reflection of needs, leading to the direct and intuitively clear feeling of rightness described above. A description of how this can affect a sensitive observer is to be found in the opening paragraphs of Adolf Loos' Architektur. He describes the shores of a mountain lake, commending the homogeneity of everything in the scene, including the houses of the peasants, all seems "shaped by the hand of God" and then.

. . . here, what is this? A false note, a scream out of place. Among the houses of the peasants, which were made not by them but by God, stands a villa. Is



it the work of a good architect or a bad one? I don't know. I only know that the peace and the beauty of the scene have been ruined . . . how is it that every architect, good or bad, causes harm to the lake? The peasant does not do this.

In indigenous and vernacular building, methods and design evolve with time as part of the general culture to respond in a complete way to social, physical, technical, physic, climatic and other needs of the people. Building methods and building forms evolve which express a truthfulness to purpose; where available materials are used most efficiently to produce shelter which responds to climate and to the well-being of its inhabitants. Terracing is created to form outdoor spaces, walls to enclose and give privacy to dwellings, intricate geometrics of domes and vaults, and trusses to span and enclose space efficiently, complex windows to bring in glareless light, projecting fins to capture prevailing winds for coolness, overhangs for shade, and alcoves for storage.

Moshe Safdie wrote about a small settlement built by Arab refugees after 1948.

In 1967, I visited a small settlement built by Arab refugees north of Hebron in the hills of Judea. It had been built by a group of refugees after 1948. As I walked through the intricate and heavily planted alleys formed by groupings of domed dwellings and courts, I was struck by the fact that though no professionals were involved, no architects, no sociologists, no experts of any kind, it was probably a better place to live than most of the housing complexes built during the same period of time by the Ministry of Housing across the border in Isreal, in which architects, sociologists, engineers and other experts all joined forces to try and produce a good place for immigrants to live in.<sup>1</sup>

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<sup>1</sup>From an article in Art and Architecture. International Edition No. 25-26, Dec. 1974 - March 1975, p. 15 (English Section).

Le Corbusier responded no less to the vernacular houses of the French villages and towns. He wrote of Vizelay that "one can stop in front of each house, very old or more recent, and go in; their architectural solutions are full of life; intelligent, economical, constructive, painstaking, sound; they are amiable and polite; architecturally speaking, they are courteous neighbors".

He recommended taking the pupils of an architectural school to such a village or town from north to south France, year by year, and the essence of architectural truth would develop through research, enthusiasm and wonder would grow in the hearts and minds of these future architects.<sup>2</sup>

The American architect, Myron Goldfinger declared that, it is in this diseased condition that we may look for spiritual guidance to the towns and villages of the Mediterranean, with examples drawn from Positano, Bonifacio, Pasada and Benadid, he emphasized that in these small towns what is achieved is a place for human experience; rich variety of forms and spaces in which to live; a structural framework which permits the expression of the individual and the participation of the many.<sup>3</sup>

Briefly, the attitudes and responses of architects to vernacular shelter most frequently expressed in their writings and in the professional press might be summarized as follows:

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<sup>2</sup>Le Corbusier. The Four Routes. Dennis Dobson, Ltd., London, 1947, pp. 109-10, 143-4.

<sup>3</sup>Goldfinger, Myron. The Mediterranean Town. Art and Architecture, Vol. 83, No. 2, Feb./March, 1966, Los Angeles.

- a. - Primitive -- supposed as the antecedents of formal architecture.
- b. - Historical, in recognition of a heritage of non-formal building which demands documentation.
- c. - Functional, in recognition of the expression of the function of vernacular buildings in their form.
- d. - Structural, recognizing the forms most appropriate to the available materials used.
- e. - Technological, recognizing the limitations imposed by materials and the skillful employment of them to exploit their resources.
- f. - Formal, recognizing the use of primary forms to create mass and control space.
- g. - Organizational, in recognition of the disposition of parts, the separation of functions, the hierarchy of spaces in vernacular planning.
- h. - Inspirational, as a part of the visual sensow experience from which the architect may derive a stimulus to his own creativity.
- i. - Derivative, as a source of forms and treatment of their own work.

Of these, only the first and the last might be considered unjustified in the terms of the present; for the remainder, there is validity in each approach and their cumulatives of the value of vernacular building. There is no denying the necessity to record existing examples of rapidly disappearing vernacular forms, nor the needs to preserve representative

examples for posterity; there is little to be argued over the significance of vernacular architecture to designers of formal architecture, of the forms, the use of materials, or the expression of the structure; nor is there any question that many indigenous buildings have great quality as forms or spaces and simple beauty in their relationships.<sup>4</sup>

Different cultures have dissimilar reactions to the spaces they create and the kinaesthetic experience of a dwelling may have effects totally unpredictable to western architects unfamiliar with them. Edward Hall has spoken and written warnings.

It is apparent that people raised in different cultures behave as they do and build the buildings they do because they use different measuring devices and must, therefore, inhabit different sensory worlds. Remember that none of this is explicit. An Arab can't tell you why he feels as if he's entering a tomb when he goes into most American apartment houses or why it is that a space that is 'gemütlich' to the German is unbearable to the Arab. Even the most mundane spatial events such as the arrangement of furniture during an interview casts a deep spell over the interaction when cultures meet, and it is from such encounters that we learn about our hidden world of space.<sup>5</sup>

Primitive and vernacular architecture, in addition to its

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<sup>4</sup> Oliver, Paul. Shelter and Society. Barrie and Jenkins, London, 1969, pp. 24-25.

<sup>5</sup> Hall, Edward T. "The Anthropology of Space". Architectural Review, Vol. 140, No. 835, Sept. 1966.

intrinsic value, offers the most obvious and relevant material for the study of the relative importance of different forces on the development and character of built form. A cross-cultural study of such material suggests that generally, for any given situation, climate, site and constraints of materials and technology will modify, but not determine the form of the dwelling. That form will be primarily the result of a choice among possible alternatives. This choice reflects an image of an ideal life expressed through socio-cultural forces in the broadest sense, which are therefore, far more important than physical forces in the generation of form.

#### A Case Study of Traditional Houses in Iraq

(which is very similar to any traditional house in any Arab country)

In discussing the vernacular architecture of Iraq, one is describing the traditional country and houses and the narrow meandering alleyways produced by their layouts which can be seen in the main towns. These houses became known as "Oriental" or "Open" as a result of the introduction in the early 1930's of a new type of house known as "Western", "European" or "Closed". This discussion covers the houses of lower and middle-income groups in the main towns of Iraq, where most of the population lives. It is here that the major changes are taking place and where the future of Iraq lies (Figure 5).

Social life in Iraq is still very traditional (the same as most Arab countries), and owes most of its customs to the

A Case Study: The "Oriental" Courtyard House



Figure 5

A Shaded Alleyways Between Traditional  
Courtyard Houses Type

teaching of Islam. Women are generally segregated from men who are not closely related to them by blood or marriage. A few coffee houses exist where families may meet and these are helping to relax the rigid separation of the sexes. It is also possible for both men and women to attend cinemas. In universities and schools there is a strong movement in favor of emancipation of women and more and more women are working away from home and in various professions, particularly in teaching and medicine. However the percentage is small and they are far outnumbered by men.

Family. Most families in Iraq are still patriarchal and sons are favored over daughters. Family ties are very strong, although there are signs of a gradual weakening. Religious feast-days and family celebrations or crises are occasions when relatives from far and wide gather together.

Polygamy is still practiced in some parts of Iraq, although it is difficult to obtain precise figures. But in Baghdad, polygamy is not so common and it is not considered a socially and economically acceptable way of life. This is a trend that has been encouraged by the rising level of literacy, improving standards of living, social change and the gradual emancipation of women. The female black facial veil has disappeared, but the black veil (known as Abaya), which covers the head, shoulders and body, is still worn by most women. It will take many years for it to disappear completely.

In Baghdad the average number of persons per household for the low-income people is nine and seven for the middle and



high-income people. The average number of rooms in the houses inhabited by these income groups are three, four and five, respectively.

One of the main characteristics of oriental houses is the bent entrance. The sole purpose of the bent entrance was defensive. In modern times the purpose of the bent entrance in the oriental house is to ensure the privacy of the courtyard and the internal spaces related to it (Figure 6). This type of entry is enhanced by the double entrance doors, where the door furthest from the courtyard is usually kept closed while the other door is normally used for the residents' entry and exit.

Off the bent entrance there is a reception room reserved for male guests who are not closely related to the family and who are not supposed to meet or converse with the female inhabitants.

The bent entrance leads to a courtyard which has for many centuries remained a dominant element in the plan of the Iraq house (Figures 6 and 7). Recent excavations at Ur, in the south of Iraq, show a similar courtyard house plan dating back to the year 2,000 B.C. The courtyard house plan was also used in Iraq during the Persian Empire and continued to be used throughout the phases of the Islamic Empire and up to the present time.

Socially. The courtyard has meet the need for private and secluded open space for all family activities, and particularly the seclusion of women, which is dictated by religious-social criteria. Overlooking by passers-by or neighbors is



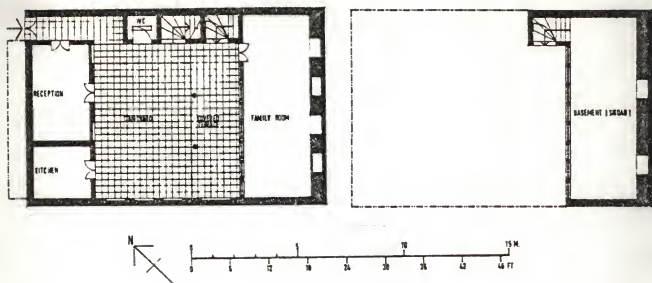


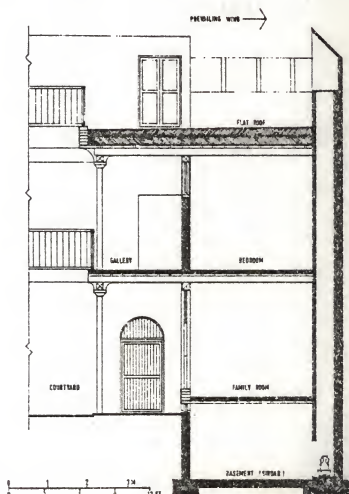
Figure 6

Ground Floor Plan of an  
"Oriental" or Open House  
Type

Figure 7

Basement Plan

Figure 8  
Section Through a  
Typical Air-Scoop  
(Badger)



not permitted and is considered intolerable. The courtyard is also used for large private social gatherings and family celebrations. On these occasions it is covered by canvas as a protection against dust-storms or rain showers.

Environmentally. The courtyard has gone a long way to mitigate, if not to overcome, the conditions of the climate which falls into the category of the hot and dry. Summers are very hot, winters are mild with short transitional periods of autumn and spring. There is a high percentage of sunshine and a high summer diurnal range (i.e. the difference between day and night temperature) accompanied by very low relative humidity. There is very little rainfall over much of the country and the prevailing wind is mainly from the northwest. Dust-storms occur on twenty days yearly average in the southern and central areas of Iraq and they take place in every month with the exception of September.

The heat which is lost during the night to the clear sky by radiation, allows the courtyard to remain cool most of the day. The covered terraces, usually on two or three (or maybe four) sides of the courtyard and the identical first floor covered gallery immediately above, help to reduce the quantity of heat gain during the day by obstructing the direct solar radiation. Besides, because the height of the courtyard is greater than any of its plan dimensions, the area exposed to this radiation is reduced to minimum, leaving adequate room in the shade even at midday when the summer sun is near the zenith. By means of a fountain, plants or both, the very low

relative humidity of the air is raised to comfortable level. In addition, the courtyard is usually washed at least once a day and showered a few times daily. All this is aimed at raising the relative humidity. Because of its position within the house, the courtyard is much quieter than alleyways; the enclosing rooms, which are built with thick walls, act as a buffer against noise.

The courtyard is spatially the focal point of the house. It acts as an extension to the surrounding covered terraces and the rooms beyond them, giving a sequence of open space (courtyard), covered or in between space (covered terrace) and enclosed space (rooms). Because of its central position, the courtyard acts as a general space where nearby every movement between the various elements of the house begins, ends or passes through (Figure 6). Hence the courtyard helps to reduce circulation space within the house. Incidentally, the courtyard is an ideally safe area for babies and children to play, as they can be easily watched by their mother.

In addition to the bent entrance, reception room and courtyard, the ground floor includes covered terraces on two, three, or maybe four sides of the courtyard, a family or living-dining room, kitchen, staircase and a water closet. The widest covered terrace lies between the family room and the courtyard. It is in this terrace that the family spends most of the day in summer and take all their meals. In a sense, this terrace is an open-living room and contains only essential and easily portable furniture. The favored Arab custom of sitting and

eating on mats spread on the floor is still practiced.

The family room is about 18 in. (45 cm.) higher than the rest of the ground floor. This difference in level is taken up by windows to the basement, which is known as the (sirdab) (Figure 7). This is below, and identical in plan dimensions to the family room, and it is here that the residents take their summer afternoon siesta. Because it is below ground level and is naturally ventilated by cooled air, the basement remains cool the whole day (Figure 8). Natural ventilation takes place by means of air-scoops (known as Badgeer). The air-scoop is simply an air-cavity between two skins of a party wall. This wall is divided into sections so that each air-scoop is about 3-4 ft. (90-120 cm.) wide, 2 ft. (60 cm.) deep and extends up to the top of the roof parapet wall. The external opening of the air-scoop is about 3 ft. (90 cm.) high and 3-4 ft. (90-120 cm.) above roof level. This opening is finished at the top with a wind-catcher which is orientated towards the north-westerly prevailing wind. A wind-catcher, in its simplest form, is a brick, timber or metal plane inclined at  $45^{\circ}$  to the prevailing wind. It is supported by the extensions of the air-scoop side walls that project beyond the roof level. The internal party wall is cooled during the night by natural through ventilation as the temperature of the external air is lower than that of the interior. Because it does not receive any direct solar radiation and because of its thickness, the surfaces of the internal party wall remain throughout the day, at a lower temperature than the rest of the

interior (following the principle of thermal inertia). Therefore it acts, during the day, as a cooling element to the interior. The incoming air, which is forced into the air-scoop first by the action of the prevailing wind and secondly by being deflected by the wind-catcher, is cooled by conduction as a result of coming in contact with the cold surfaces of the party wall. The relative humidity of the incoming air is increased by placing porous water jugs in its course just before finally leaving the internal outlet where it is discharged into the basement or the family room. Incidentally the water in the jug is cooled by this evaporative cooling process, and is then used for drinking. Each room has two or more independent air-scoops, depending on its area and function. After passing through these rooms, the air disperses into the courtyard, pushing the warm air upwards. Some of the air is discharged into the alleyway via the bent entrance where one of the double entrance doors is kept open.

The first floor contains the bedrooms (Figure 9) which open directly on to the gallery, which in turn overlooks the courtyard. In winter, the family lives on this level, where one bedroom is used as a family room. This transfer is a direct result of discernible rising dampness at ground level, since neither a damp-proof course nor a damp-proof membrane is used. Food is cooked in the kitchen and is then carried to the first floor. At the same time the gallery is used as an outdoor area. Its relationship to the winter family room is like that of courtyard to the family room in the summer. The

Figure 9

First Floor Plan of an "Oriental" House Type

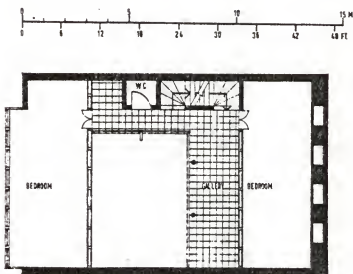
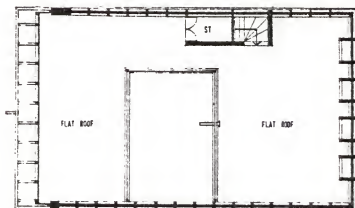


Figure 10

Roof Plan of an "Oriental" House Type



gallery is also used as a night sleeping area in the autumn and spring, when it is too warm to sleep inside the rooms and too cool to sleep on the roof.

The bedrooms that have one or two external elevations project about 3 ft. (90 cm.) beyond the external walls of the ground floor. This projection provides just the right cut-off angle which shelters the ground floor elevations from direct solar radiation. Similarly, the roof projects beyond the external walls of the first floor.

The roof is flat (Figure 10) and incorporates a parapet wall which is just above eye-level, to prevent overlooking. During the summer months (May to September) it is used as a sleeping area at night but not used during the day except to hang out washing throughout the year. Consequently the courtyard remains free for social activities.

On the ground floor external walls are usually built of burnt soft brick  $13\frac{1}{2}$  - 18 in. (34-45 cm.) thick in order to provide the time-lag necessary in such a climate (i.e. to provide the insulation needed against summer solar radiation. The internal walls are either 9 in. (23 cm.) or  $4\frac{1}{2}$  in. (12 cm.) and nearly all of them are plastered so that they reflect more daylight, resulting in better illumination. Windows on the external elevations are small and few in number in order to reduce heat gain in summer and also to provide security against burglars. These windows are usually placed at height just above eye-level to prevent glare from the bright ground outside, to overcome overlooking by passers-by and to provide

sufficient indirect daylight which is reflected from the ceiling and adjacent walls. By contrast, internally there are more windows overlooking the courtyard (Figure 11). In the case of the family room, these windows, which fill the gaps between timber studs placed at 3 ft. (90 cm.) centers occupy the full length of the side that overlooks the courtyard. They are vertically sliding segmented windows that extend from a sill level of 18 in. (45 cm.) to the ceiling, making access with the covered terrace and the courtyard very easy and direct, visually as well as physically. These windows have fixed glazing from a height of 6 ft. (180 cm.) while the lower two vertically sliding segments are made of timber panels.

On the first floor the external walls are either built in a similar way to those of the ground floor, with thick brick walls incorporating small high-level windows, or more often than not, they are built in a manner resembling an infill-panel cladding system. In this way timber studs are placed at 3 ft. (90 cm.) centers (Figure 12). The gap between them is taken up either by  $4\frac{1}{2}$  in. (12 cm.) thick brick wall or by vertically sliding timber panels up to a height of 6 ft. (180 cm.). The opening above panels is fitted with fixed glazing. In this case, mild steel bars are placed externally between the studs as a protection against burglars (Figure 12). Quite often there are vertically sliding perforated timber screens on the outside face of the vertically sliding panels. These screens allow through ventilation while at the same time ensuring privacy from overlooking, they reduce direct solar



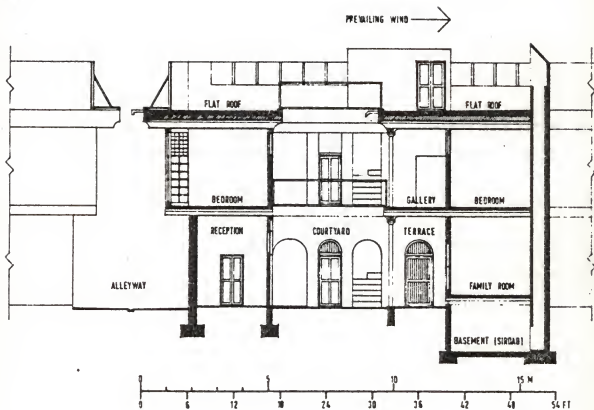


Figure 11

North-west - South-east Section of an "Oriental House Type"

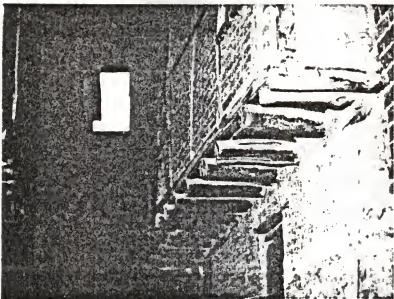


Figure 12

Detail of an Alleyway Where the Walls of the First Floor Level of Traditional Courtyard Houses are Built of Timber Studs Placed at About 3 Feet (90 cm.) Centres, and the Gaps Between Are Taken up by Brick Panels.

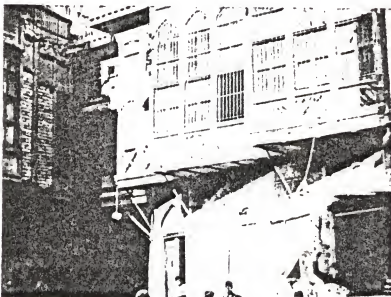


Figure 13

Front Detail of a Traditional Courtyard House. There are a few small windows at ground floor level. The external elevation of the first floor is of timber construction resembling that of a light-weight cladding system. In winter, because of rising dampness at ground floor level and low angle of the sun, living is transferred to the first floor where the exterior is easily warmed by the sun.

radiation, admit enough natural daylight and provide an evenly shadowed internal environment.✓

The floor at first floor level is built of tree-trunks spanning between the walls to which timber boards are then nailed. On top of these, one or maybe two layers of woven reed mats are laid, followed by a layer of earth 3 in. (9 cm.) thick, and the floor is finished with 1 ft. (30 cm.) square brick paving. The ceiling is made up of long timber boards with timber trims covering the butt joints. Houses of wealthy owners have richly decorated ceilings. The first floor gallery and its roof are supported on the courtyard side by slender timber posts which often have decorated capitals.

The roof is constructed in the same way as the first floor, but instead of the earth layer, two layers of a mixture of mud and straw, each about 9 in. (23 cm.) thick, are applied. These are sloped towards a tube or channel-section gargoyles, which discharge the muddy rain-water into the courtyard and the alleyway. The surface water in the alleyway is then collected by a central open gutter and discharged into a gully.

Because this type of roof construction was prone to leakage, a later development was the introduction of a layer of tar between the two layers of mud and straw mixture. The discharge of rain-water into the courtyard brought with it the nuisance of mud, so a later practice was to finish the roof with brick paving; it is now finished with locally-produced cement tiles known as 'Kashi'.

As a result of the scarcity of structural timber in Iraq and the availability of imported steel, the present practice is to use I section steel beams instead of timber joints. These are placed at about 3 ft. (90 cm.) centers and the gaps between them is taken up by very shallow tunnel vaults built of brick and quickly hardening mortar. This type of floor and roof construction is still the most economical. Even concrete does not compete economically with this method because of it is a relatively new material that needs skilled labor to repair the shuttering. Besides, covering the same area with concrete rather than with steel beams and brick, and mortar shallow tunnel vaults takes up to ten times as long because of the longer curing period needed by concrete.

Courtyard houses lack proper sanitary facilities. Cold water has always been provided in the main built-up areas but without a cold water cistern (the tendency today is to provide one). Because of the lack of an organized drainage system, septic pits are provided in each house. These are a great nuisance to the residents, particularly when they are being manually emptied into special lorries. Electricity is installed in nearly all houses and heating is only needed for about three months of the year (December, January and February). This used to be provided by portable open coal fires but now these have been replaced by paraffin heaters, and wealthy people use electric heaters, or even a fireplace.

The roof is more or less the only part of these houses that is directly exposed to the sun. Hence orientation is

determined mainly by the direction of the prevailing wind rather than by solar radiation criteria. The only elements which need orientation consideration are the basement, family room, main covered terrace, main bedroom and its adjacent part of the gallery. These are usually grouped on three levels on one side of the courtyard and are oriented towards the north-westerly prevailing wind. When this orientation is not possible, they are orientated towards the northerly wind.

Oriental courtyard houses are grouped in mass form in order to expose an absolute minimum area to the sun (Figure 14). Their groupings produce alleyways that are usually shadowed by the external projections of the first floor and roofs of these houses. These help to keep the external environment cool in summer and protected against the rain in winter.

There is a definite hierarchical order in the formation of these alleyways (Figure 15). Main alleyways enclose large blocks of houses which in turn are divided into smaller blocks by narrower alleyways that finally lead to closed alleyways; the equivalent of a cul-de-sac. These closed alleyways provide more security for their inhabitants because they exclude nearly all strangers and passers-by. It is interesting to note here the similarity between these alleyways and a modern hierarchical road network.

In the early 1930's, foreign architects arrived in Iraq, who did not understand or appreciate the suitability of this type of courtyard house plan; Iraqi civil engineers, who had

Figure 14  
Grouping of "Oriental"  
Type House

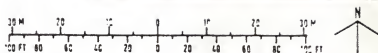


Figure 15

An aerial view of part of the central area of Baghdad which is almost wholly composed of traditional courtyard houses. The external narrow shaded alleyways have a definite hierarchical order.

been trained abroad, also failed to understand it, and a new type of house was developed which became known as the Western, European or Closed house. In plan and distribution of activities, it is basically the same as the oriental houses but the courtyard is built over and turned into a family living-room, known as the "hall" with the other main rooms grouped around it (Figure 16). These houses are built in the new areas around old Baghdad. They usually have the main bedroom on the ground floor and the other two or three bedrooms are planned on the first floor, so that only about half of the first floor area is built over (Figure 17). The rest is a flat roof where the inhabitants sleep during the summer. The roof of the first floor room is not often used and is reserved for visiting relatives or for the first son when he is married (Figure 18). If the family grows in size, more rooms are built over the whole area of the first floor.

But this new type of house plan has not answered the religious-social demands, nor has it satisfactorily met climatic conditions. The once private open-air courtyard has disappeared to be replaced by a garden surrounding the house and enclosed by an eye-level wall. This garden is not private in the sense to which Iraqis have been accustomed, as it is overlooked by neighbors who may prefer to sit on their first floor terrace in the afternoons.

The simultaneous use of the garden and the neighbor's first floor terrace would lead to social tension between neighbors. Also, because of the intense heat, the garden



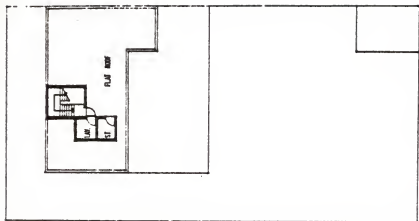


Figure 18  
Roof Plan

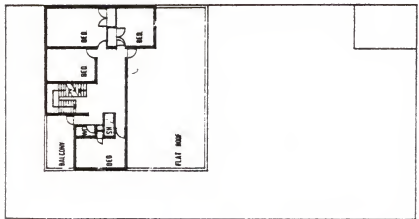


Figure 17  
First Floor of a  
European House Type

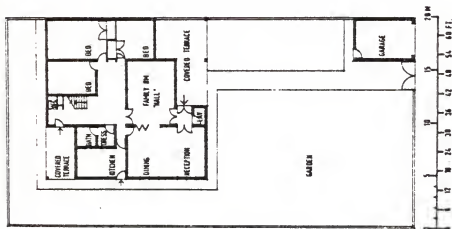


Figure 16  
Ground Floor Plan of  
a "Western", "European"  
or Closed House  
Type



cannot be used before the late afternoon. Thus, for social and climatic reasons, all activities tend to take place indoors.

Climatically, these houses are inferior to the traditional courtyard houses. Because they are detached houses (Figure 19) they have the maximum area exposed to direct solar radiation and they have large climatically unprotected windows, which incidentally invite overlooking and present the problem of security against burglars. The inadequacies of these houses are made worse by their indiscriminate orientation.

No effort has been made to accommodate natural ventilation in a way similar to that in the oriental house and because of the hot, dry air, windows cannot be opened during the day. Consequently, their occupants have to rely on fans, or if they can afford it, install a package air cooler. This is placed in front of the hall main window, which reduces the natural daylight inside. In addition to their ugly appearance, these air coolers are not economical to run.

Unfortunately, this type of house plan, with its accompanying air cooler, has become a status symbol for well-to-do people, while the oriental courtyard house is associated with the lower classes.

The site for the "closed" houses is of a European suburban nature (Figure 20). Streets are very wide, and because they provide no shelter for pedestrians, few people use them in the summer before late afternoon. In contrast, the alleyways of the traditional areas are used by pedestrians throughout the afternoon siesta (Figure 21).

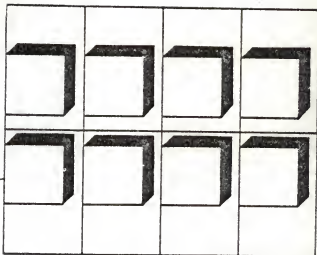


Figure 19

Grouping of 'European'  
Type Houses

Compare with A grouping  
of "Oriental" type  
houses.

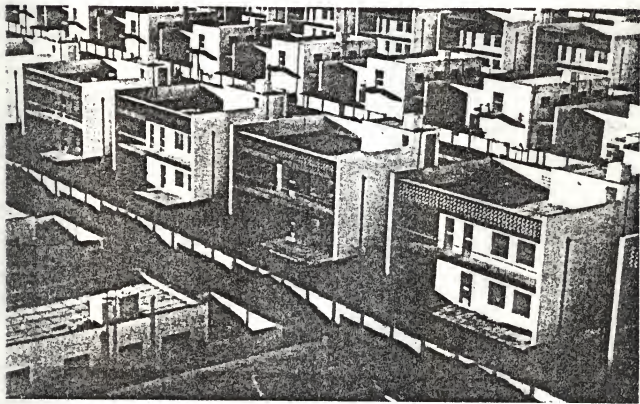
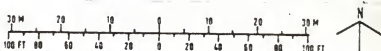


Figure 20

An aerial view of a newly developed area of Baghdad. All the houses are of the "European type. They do not contain courtyards.

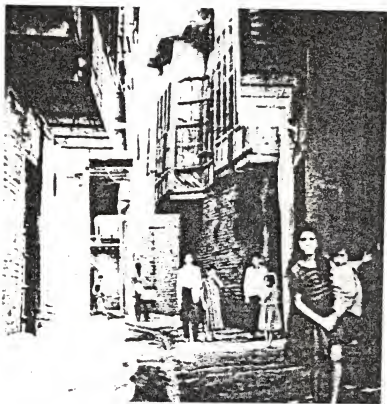


Figure 21

On both sides of a pedestrian way and in most traditional courtyard houses, the roof projects externally beyond the first floor and this similary projects beyond the ground floor. The result is the formation of shaded alleyways.

## A Comparison Between:

A Grouping of "Oriental" Type Houses

B Grouping of "European" Type Houses

A	B
Both A and B are Two-Story Houses and Each Enclose More or Less the Same Area	
Has adequate climatically-protected open space which can be used throughout the day.	Has over looked (not private) and climatically-unprotected open space which can be used only at certain hours of the day.
Has answered the religious-social criteria.	Has not.
Expose absolutely the minimum area to solar radiation.	Expose a much large area to it.
Has a higher density which results in economy of land.	Low density.
Gives an urban feeling.	Gives a suburban one.

## Planning and Zoning

The new system creates social problems. In Baghdad, where the rate of physical expansion has been very high, land for residential use is being allocated to Government employees, who have been segregated according to their profession. There are areas exclusively for army officers, doctors, engineers, lawyers and barristers, teachers, police, etc. Each professional group has its own building society and its own type of European house.

The practice of professional segregation has led to a weakening of social relationships in these new areas. Friendship between neighbors is now based on rank and position, which is a complete reversal of traditional Iraqi society as it has existed for many centuries. It is a problem to which careful thought should be given by the Government and the various professions concerned. In the areas where the oriental houses exist, this problem is unknown and neighbors still form part of a closely knit community.

In Baghdad most owner-occupiers of courtyard houses have moved out to the suburbs to live in European-type detached houses. These suburbs have taken the form of spontaneous and sporadic satellites which totally depend on Baghdad for their existence. As a result, a large number of oriental courtyard houses are now occupied by more than one family who have migrated to Baghdad. These changes have come about because of rising standards of living, growth of population, diminishing danger of flood to the suburbs and migration from rural to

urban areas. There are signs of similar tendencies in other cities of Iraq and the Arab World.

The physical structure of the Arab cities are usually divided into two sharply distinct quarters: the old quarter with its narrow alleyways, traditional architectural style, small and densely packed houses, roofed markets; and the new, or rather the not-so-old with wide streets and vast boulevards, high modern buildings, public gardens, and dazzling lights at night.

Social relations between the inhabitants of each section of the same city and basic principles which govern these relations are also different. Remnants of the traditional pattern of social relations, in which kinship and family bonds can be traced even now in the old quarters. This traditional pattern provided in fact the basis of population distribution in the Arab cities in the past. Thus, members of the same family creed tended to cluster near to each other and to live in the same street or quarter. Social cohesion and social solidarity in the old city were thus derived from the community of blood, or place or origin. These factors are not functioning in the new cities or, indeed, in the new quarters in the old cities where neighbors hardly know each other, have no real interest in each other, and do not try to establish personal contacts except on a superficial level. Moreover, their cohesive role has greatly diminished in the old quarters themselves as a result of the recent mobility of the population within the city. Changes in the economic and social status of

the inhabitants of the old quarters encourages them to move to more fashionable quarters in the expanding cities. The old ties are gradually severed, and the old places are usually occupied by new people or by immigrants coming from other parts of the country without necessarily belonging to the same families or villages, as was accepted under the old pattern.

Culture springs from the roots  
 And seeping through to all the shoots  
 To leaf and flower and bud  
 From cell to cell, like green blood  
 Is released by rain showers  
 As fragrance from the wet flowers  
 To fill the air  
 But culture that is poured on men  
 From up above, congeals them  
 Like damp sugar, so they become  
 Like sugar-dolls, and when some  
 Life-giving shower wets them through  
 They disappear and melt into  
 A sticky mess.<sup>6</sup>

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<sup>6</sup>Fathy, Hassan. "Architecture for the Poor". The University of Chicago Press, 1973, p. 21.

## CHAPTER V

## CONCLUSION AND RECOMMENDATIONS

The house is an institution, not just a structure, created for a complex set of purposes. Because building a house is a cultural phenomenon, its form and organization are greatly influenced by the culture milieu to which it belongs.

A house is a human fact, and even with the most severe physical constraints and limited technology man has built in ways so diverse that they can be attributed only to choice, which involves cultural values. Within the various economic and geographical constraints, the biological, physical and psychological makeup of man, and the laws of physics and structural knowledge, there are numerous choices available, particularly since man has great propensity to symbolize everything that happens to him and then react to the symbols as if they were the actual environmental stimuli, socio-cultural forces, therefore, become of prime importance in relating man's way of life to the environment.

Although oriental houses lack proper sanitary facilities, adequate protection against dust-storms and rising dampness, they have gone a long way to meet the religious-social criteria and climatic needs. Their deficiencies can easily be eliminated with the aid of the elementary building technology existing in Iraq and the Arab World at the present time. What is needed is not the replacement of oriental courtyard houses by



European-type houses, but an understanding analysis and appreciation of their advantages over other types of houses. The problem would then be how to rationalize, coordinate and incorporate these characteristics, or their equivalent into the new houses.

### The Problem of Developing Countries

One characteristic of such countries is often the breakdown of folk arts, which cease to have symbolic value and hence no longer communicate. This may well be related to the need of to limit language for purposes of communication, which involves the important question of choice. The problem today seems to be one of excessive choice, and the breakdown of folk art may be due to the fact that the vocabulary is not limited and choice becomes too difficult. Folk art would then be seen not as the result of some mysterious good taste but as the result of learning to make choices among a limited number of approved alternatives. It is interesting to observe the contrast between traditional and new artifacts in Japan, between traditional and new textiles in Mexico, or traditional and new music in India: the lack of taste shown with reference to new products and buildings may merely be an inability to choose outside the framework of traditional forms.

The topic of choice may be relevant to other aspects of developing countries, and may throw light on the whole problem of understanding the relation of built form to the cultures concerned, in turn making clear the value of cross-cultural

analysis in relation to the house and built environment in general. There is a danger in applying Western concepts, which represent only one choice among the many possible, to the problems of other areas, instead of looking at them in terms of local way of life, specific needs, and ways of doing things. One could say that neglect of traditional cultural patterns may have serious results.

Charles Abrams was one of the first to realize this point and deal with it in connection with built environment and the house. He has often commented in his work on how experts and officials deplore traditional solutions in spite of their clear social and climatic advantages. He refers to the adoption, in Ghana, of the English slogan "one family - one house", and points out that the family in Ghana is something very different and its relation to the house not the same, a clear instance of the importance of dealing with the specifics of the solution.

All housing needs to achieve four objectives in order to be successful:

1. It needs to be socially and culturally valid. (Here traditional housing possibly works best.)
2. It should be sufficiently economical to ensure that the greatest number can afford it (in primitive and vernacular contexts most, if not all, people have houses).
3. It should ensure the maintenance of the health of the occupants. (In relation to the climate, traditional housing succeeds, in relation to sanitation it usually fails. However,

community sanitary systems can take care of this problem.)

4. There should be a minimum of maintenance over the life of the building. (Here the evidence is equivocal.)

If we accept that the utilitarian functions of the house are not primary, and at the same time realize that even those functions may be better satisfied by traditional housing than by new housing in many areas, our attitude toward traditional housing may change.

Traditional housing may therefore be much more acceptable (if not, in fact more desirable), than has been assumed, and housing attitudes in developing countries should possibly be adjusted accordingly. At the very least this offers a fruitful field for research.

### Recommendations

It is time for people to become more aware of their own environment and the value of their indigenous architecture that has been passed down from one generation to another. This research suggests that indigenous architecture should be used as a base for a more functional and pleasing environment. A similar view is held by other professionals in the field of architecture.

The need for a public awareness campaign by all possible means is obvious. Such a campaign would emphasize the criteria of both the traditional courtyard houses and the European plan houses, and make the function of both more clear so people can have a better understanding of their housing priorities.

They also should be exposed to the possibilities of deriving important lessons from the old traditional houses. These lessons can be successfully applied in developing new architectural designs which combine the indigenous functional features and the requirements of the modern life style. Then when people have reached a certain level of environmental understanding, they should be introduced to some examples of traditional concepts used successfully in other places similar to their own environment. An awareness of the value of traditional architecture would help people to appreciate it more and use it with pride and dignity.

The main purpose of this thesis study is to try to help solve the problem of the housing quality in the Arab World and other developing countries. According to the previous analysis of the existing housing situation, the future solutions must respond to the climatic factors and the traditional and social functions as well as the need for the modern lifestyle. Building materials and construction techniques should be practical and easily handled by local people house design and orientation should reflect the tastes and heritage of the culture. Housing should help create a healthier, safer and more aesthetically pleasing environment and the research in this field indicates that the best base from which to work is indigenous architecture.

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TOWARD A BETTER ARCHITECTURE IN THE ARAB WORLD

by

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