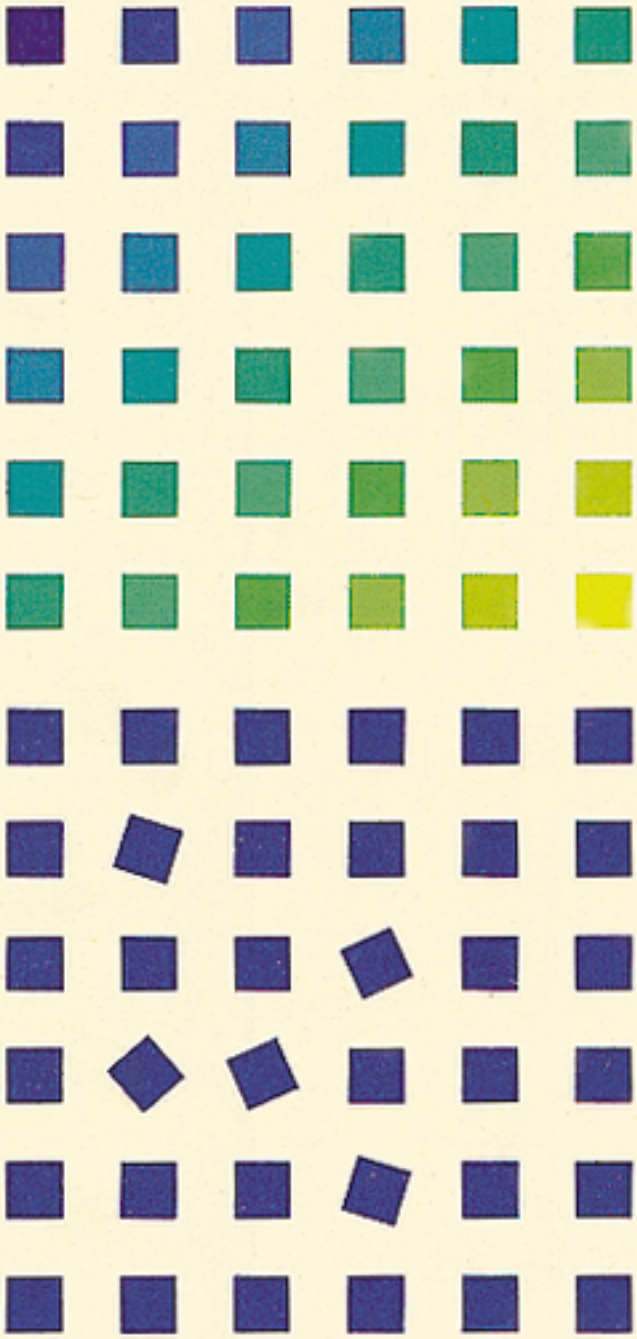
CRISIS IN THE BUILT ENVIRONMENT

THE CASE OF THE MUSLIM CITY

Jamel Akbar



A Mimar Book
Concept Media

A Mimar Book
Published by Concept Media Pte Ltd
1 Grange Road #05-11/12
Orchard Building, Singapore 0923

ISBN: 9971-84-869-4
Library of Congress Catalog Card No.: 88-1100

Distributed world-wide by:
E.J. Brill Publishing Company
P.O. Box 9000
NI -2300 PA Leiden
The Netherlands

U.S A. & Canada
E. J. Brill (U S A.) Inc.
1780 Broadway
Suite 1004
New York, N Y 10019

ISBN Hardback: 90-04-08757-5
ISBN Paperback: 90-04-08758-3

First printing: February 1988
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Editor: Judith Shaw
Production: Harry Tan
Design: Viscom Design Associates, Singapore
Colour Separation: Sixty-Six Lithographic Pte Ltd
Printed by: Tien Wah Press, Singapore

Acknowledgements
Many people have participated in crystallising the ideas and in helping to complete this book. I am grateful to all of them. However, there are four people who deserve special mention: Professors Dogan Kuban, Oleg Grabar and Stanford Anderson for their invaluable advice, and Professor John Habraken with whom I worked for six years as a graduate student at the Massachusetts Institute of Technology, USA.

All drawings, photographs and postcards courtesy of the author unless otherwise indicated.

The translation system of the *Encyclopedia of Islam* is used excluding the letters ḳ and dj which are rendered as q and j. Dates are given in both Muslim and Christian eras respectively.

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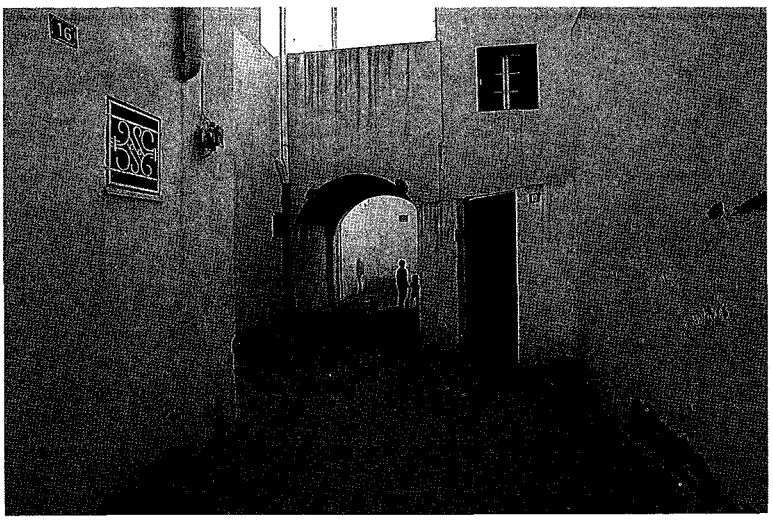
Introduction

Many architects and planners today, concerned with the failure of contemporary environments, have turned to the traditional environments for answers to modern problems. They observe the forms and uses of traditional environments, analyse their rules and patterns, study the physical and social product. The Middle East, for example, may soon have, or may already be having an "Islamic renaissance" in architecture and city planning. Why do most — perhaps all — discussions about traditional built environments ignore the fact that these environments were not designed by professionals?

It is true that such studies reveal the accumulation of previous generations' experience, but these experiences were the product of an entire society which had different standards, norms, values and industrial capabilities than ours. Why, rather than investigating the societal **process** that produced the traditional environment, are we only analysing the end **product**?

If we look at any traditional city, town or community we see that the buildings all look the same. The facades resemble each other in terms of building materials, technical skills, locations and sizes of



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1 Hafsiyyah housing project in the city of Tunis. An example of creating new environments by studying traditional ones

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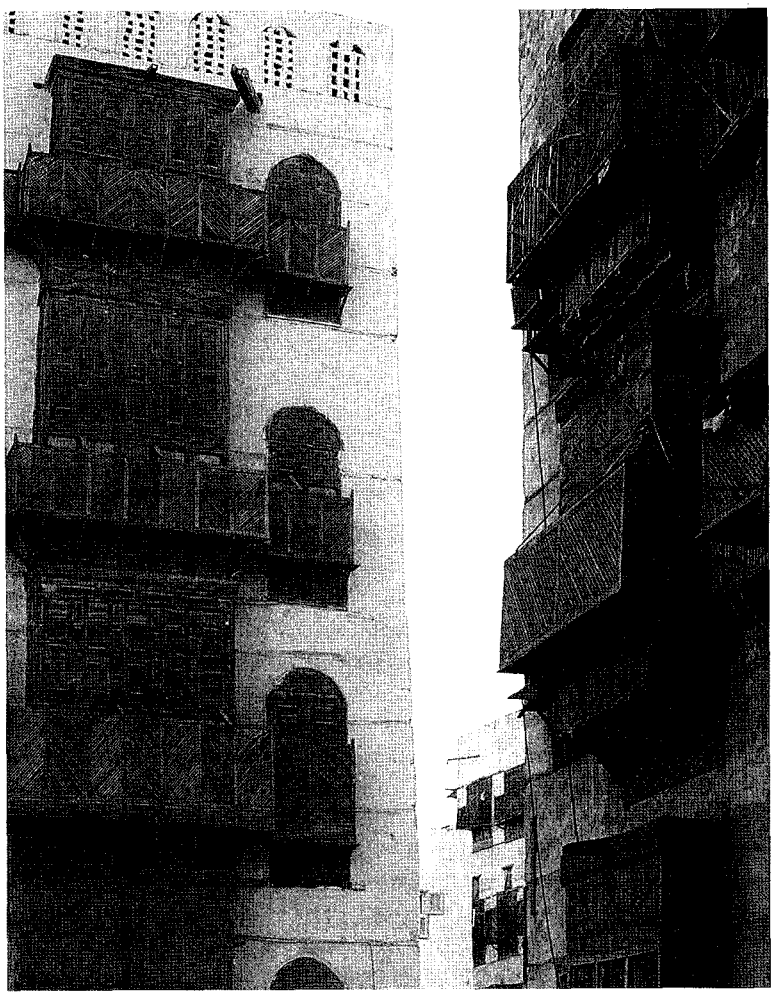

2 Riyadh & 3 Jeddah A contrast in terms of windows few windows in Riyadh while screened windows are all over the facades in Jeddah. Each town had its own homogeneous character.

entrances, windows, rooms and so on, yet each town or community has its own distinctive character. Why are traditional environments so homogeneous? What made the builders and users of a town follow the same conventions?

Why in traditional environments are the material goods of the society found mostly in the private domain, while the reverse is true in today's environments? In traditional towns, for example, the majority of trees are found within private properties; while these days the majority are planted in the public domain. These public provisions often make no practical sense. We have all seen miles of paved roads in poor states in which the cost of a single lighting column could house a homeless family. The percentage of public territories in contemporary towns by far exceeds the traditional private ones. Gates to dead-end streets, quarters and villages, for example, have largely disappeared, and the blame cannot be laid simply on the advent of the automobile. In short, the wealth and territorial distribution of traditional society in terms of public and private has been reversed, why?

Questions also arise about the function of the architect and planner in society. Our professional training is based on a central normative judgement about what the elements of a "good environment" are and how to compose them. Why do we professionals often disagree on what these elements should be?

Traditionally, the role of the professional was limited to monuments. Today we intervene in every physical and spatial element of the built environment through designs, building codes and municipal regulations. Aspects of the environment that were once controlled by local convention are now determined by professionals and decision-makers.

Our basic assumption is that we are capable of understanding the structure of the built environment and thus can intervene to improve it. When our interventions fail we assume that we did not put enough effort for research. We rarely accept the extreme complexity of the built environment, and consequently do not deal with it competently.

Although intervention has required massive and costly bureaucratic centralisation, no serious investigation has been made to evaluate its effectiveness. In fact, official decision-making often invests extrinsic values in the built environment with only minimal consideration given to the implications of those values in a local context. When, for example, a poor state builds an assembly hall that costs a significant portion of the society's income, an ethical-professional dilemma results. When poor people build houses with the best they can afford (which often does not please the taste and standards of professionals), or when users change their environments within a designed housing project (which is regarded as misuse), they are considered ignorant. When users, following conventionally acceptable

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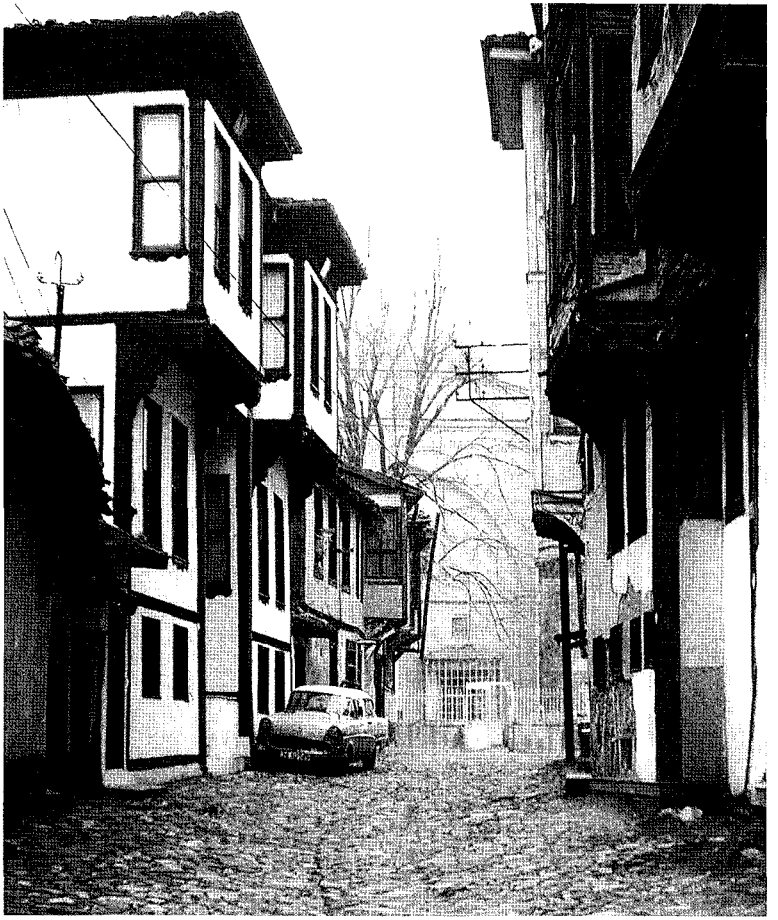

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4 Bursa & 5 Safranbolu, Turkey (photos courtesy of D Kuban) Examples of the society's investment in private places Most, if not all, trees shown in photo 5 are planted in private spaces Note that there are no trees in the street in photo 4

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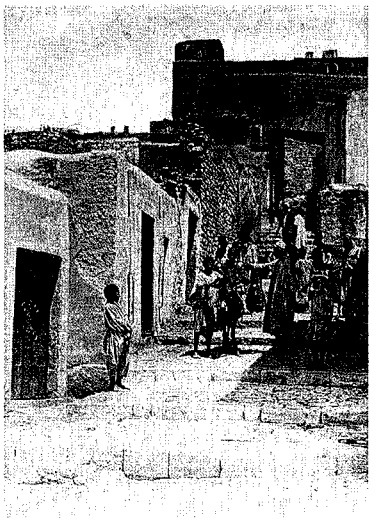

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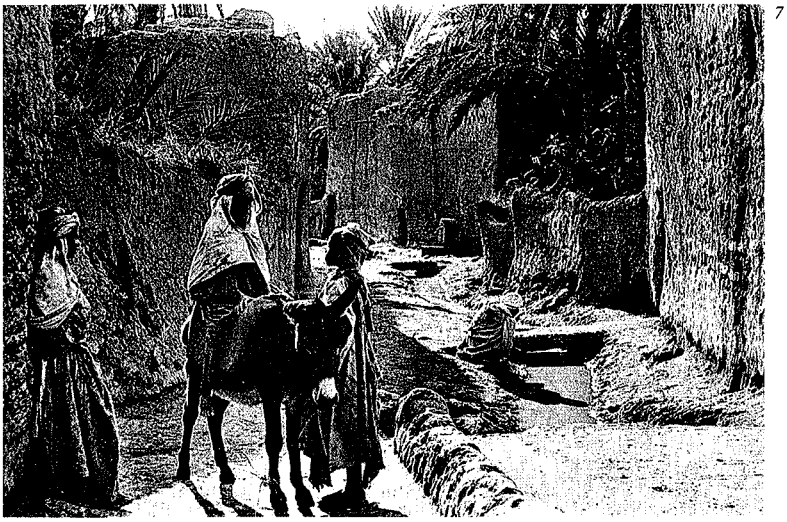

6 Le-Kef, Tunisia & 7 Biskra, Algeria. Compare the condition of streets with private properties

behaviour do not follow government regulations and thereby affecting the street's visual appearance — by building a street bench for example — it is considered violation and a different sort of dilemma is created. The aesthetic quality of the built environment that was refined overtime by the society is now controlled by individuals.

Although societies and their needs change over time, the role of the professional is influenced by a historical role that transcends time. We design buildings to emphasise eternity, to hold meanings for future generations, to impress others, and, above all, not to be changed by others. Our buildings embody "good" design, and it is therefore difficult for us to accept changes made by others (especially users) as improvements.

But the built environment is not static. Every building passes through many physical changes during its lifetime. And even though users constantly change their environments by adding, joining and dividing rooms, altering facades and even changing the functions of their built environment, architects, with only a few recent exceptions, continue to deliver static forms to serve a dynamic built environment. Change has rarely played a role in our theories.

Since our job rarely extends beyond the time that the building is designed or the users have moved in, and since our environments are shaped by complex variables such as economy, politics, material, traditions, etc., architects usually avoid prediction. Our profession, which has rejected the concept of change, does not concern itself with theories with **predictive values**. We do not speculate about what will happen to this desk, that building, street or quarter in the future given all variables and constant factors. I believe, however, that there is a serious need for a theory which will make the future of the built environment rationally predictable so that we professionals can better judge the results of our interventions.

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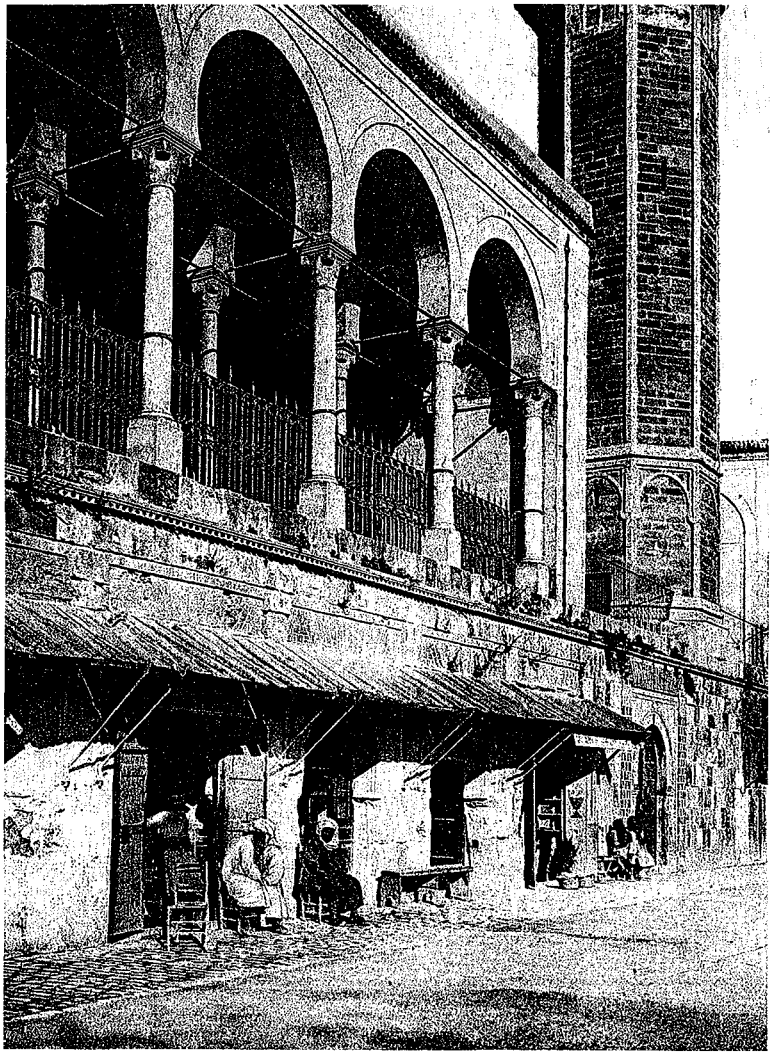

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8 Al-Khobar, Saudi Arabia. The costly irrigation of plants in public places in a desert town

9 Al-Khobar. An example of street stairs built in several stages by the owner.

10 & 11 City of Tunis The change of use of the street abutting the mosque.

Why is there is no tool to measure the performance or potential of the built environment? We cannot measure the efficiency of a chair, room, building or a street. How, as a society can we get the most out of our physical elements during their life span?

The search for answers to these questions has resulted in this book. Working with N.J. Habraken, who introduced the notion of change, control and levels to design thinking, alerted me to the importance of the "time dimension". Gradually, many of my questions came to be linked to a theme that cannot be seen outside the concept of time and change, and which opened a host of new possibilities and clarifications.

That theme is responsibility. Through its patterns, responsibility determines the structure of the environment and influences it.

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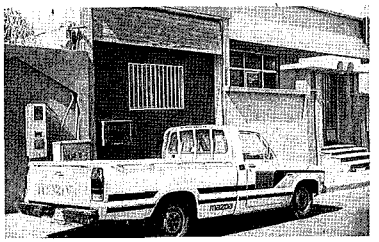

12 Al-Khobar A typical example of transforming a garage into a room.

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13 Riyadh (before) & 14 (after). Ground floor apartment transformed into commercial space

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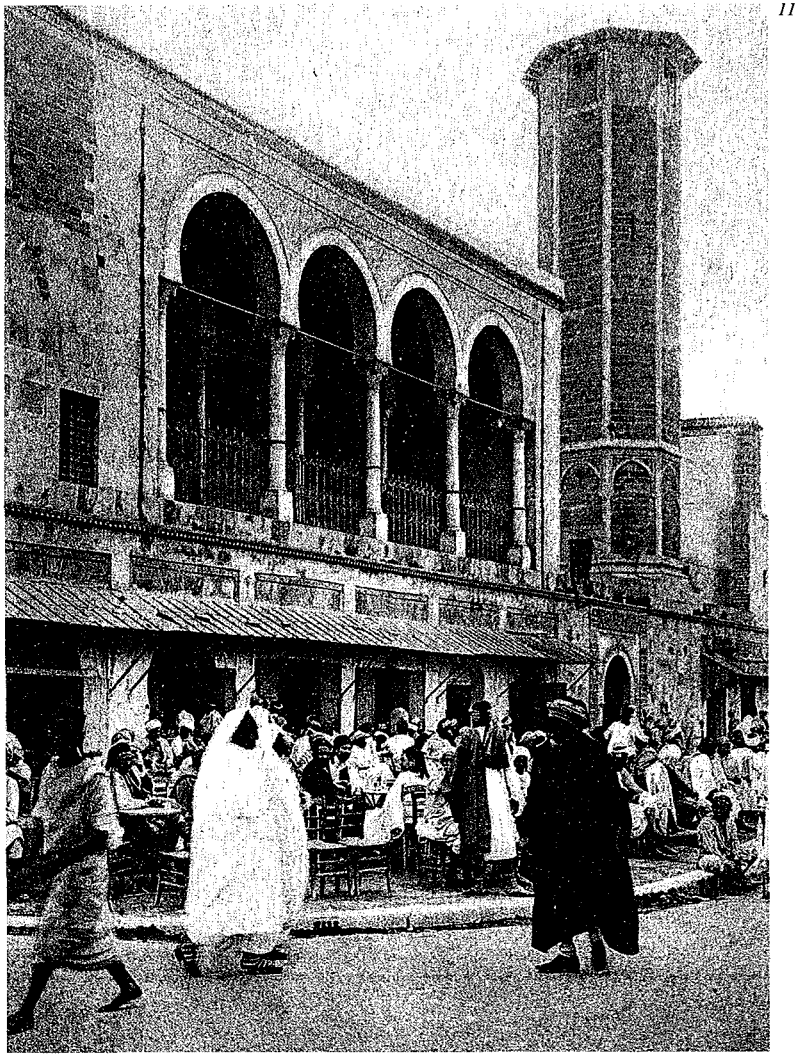


In this study I argue that patterns of responsibility in the traditional environment were different from those today and affected all aspects of the built environment. To name a few examples, traditional patterns of responsibility affected the territorial structure of the city, the conventions and social relationships between the inhabitants, the potential of the physical environment, the building industry and the economy.

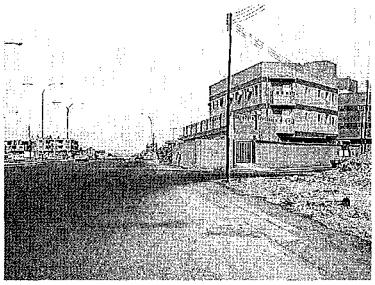
The dead-end street typifies a pattern of responsibility that prevailed in traditional environments. The residents of a dead-end street controlled the street. Nothing that affected the street — such as opening a new door into the street — could be done without the consent of all the residents. It was part of their property. With control went responsibility for maintenance.

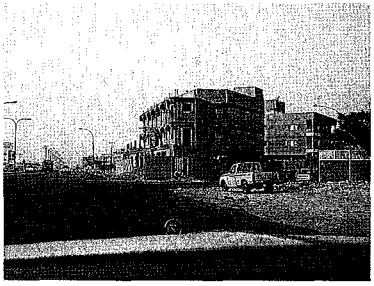
The dead-end street cannot successfully be used in contemporary environments without regard to responsibility. Architects today tend to include dead-end street in their designs; they use terms such as private, semi-private and semi-public spaces without fully understanding the dynamic relationship between form and responsibility. As a result, the contemporary dead-end street is, for residents, the same as a through street. They have no control over it and consequently little interest in it. They are therefore unlikely to maintain it, and the burden of its maintenance falls on the municipality, thus increasing the percentage of public spaces and affecting the social and economic situations.

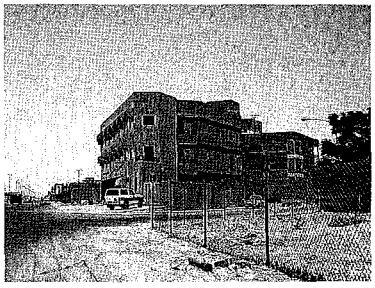
I argue that a society can improve the quality of its built environment by changing the patterns of responsibility that operate within it. The issue is not simple: First, we have to understand responsibility and its consequences, the prime task of this book. I illustrate and explain the kinds of questions which have to be answered if we want to understand responsibility in the built environment.

This work is not about architecture, planning or engineering; it is about the built environment observed from the point of view of responsibility, manifested in the condition of objects that compose our built environment. The observation is expressed in a model. The model is first used to explain the structure of the traditional environment and then to observe the changes in that structure.

Although the traditional environment is the subject of most of the book, this is not a historical investigation in itself. History is used to illuminate the present. This study is not intended to describe a particular region or period of time in all its various details but rather is an attempt to suggest a number of issues by using historical data.







15 Riyadh (before) 16 (during) and 17 (after) Adding a commercial section to the residential part, thus blocking previous openings

RESPONSIBILITY

Most architectural studies are subjective. Whether they concentrate on the traditions, conventions, actions and interactions of individuals; on contextual issues such as economy, building industry and climate; or on formal and quantitative aspects such as sizes, shapes, materials, relationships between spaces and elements, conventions of form and pattern, the evaluations and conclusions drawn are relative, varying with the value system of the observer.

The subjective approach is not the only approach possible. With a little imagination, the physical and spatial elements of the built environment can be considered **by themselves**, with their own inherent values for the investigator to discover. This concept is perhaps too abstract to be readily grasped by the unfamiliar reader. It will help to assume for a moment that the elements of the environment, have, like human beings, individual interest in their own well-being and can talk. The following anthropomorthic scenarios will illustrate how objects can hold values, and what they might be.

It is important in this exercise to ask the right questions. If we ask a sofa, for instance, "Why is your color blue?" it will not respond "The house owner likes blue" or "to match the rest of the house". The answer would probably be something like "I was made that way by the manufacturer." The question is not of much interest to the sofa, and the answer is not interesting to us. If we ask a question that speaks to the sofa's own concerns, the answer is more interesting: we ask "How are you doing?" The answer might be, "I have been placed in a sunny corner which is gradually fading my bright colours away." Or, "Because I have been placed in this hotel lobby I am deteriorating fast. I am used by many different individuals. They place their bags on me and even let their children jump on me. If I don't get some maintenance soon, I will be thrown away." The sofa's interest is not to be discarded.

If we ask a street, "Why are you so wide?" It will answer, "That is how I was planned." The street is not concerned by its own width, although that may affect its state in the future. However, if we ask if everything is fine, then it may reply, "Well, garbage is not collected regularly. Odours from the garbage annoy pedestrians and I am getting neglected." Or, "I have some light poles that aren't working. They need to be repaired."

Finally, if we ask a reception room: "Why are you so large?" the reply certainly will not be, "I am used by a wealthy Muslim or Christian resident" but it may be, "I was built so." The question it would like to hear is possibly, "How are you?" Then it may say, "I am painted annually by users who care" or, "Please repaint me" or even, "I am happy because my owner has divided me into two rooms. I will soon be renovated."

Though these little scenarios may seem silly, we can conclude from them that the man-made objects' interests lie primarily with their **condition**. Their answers are always neutral, in that they do not care if they are used by Muslim or Christian, man or woman. What they emphasise is the way they are treated by the responsible individual.[1]

Observing the built environment in this way offers an objective, value-free method of investigation. The **state** of any object is indeed the only mirror which reflects genuinely and credibly the handling of that object by individuals, be they users, owners or visitors.

Logically, the condition or state of any object is related to the responsibility of those who own, maintain or use it. That condition is related to the individuals who shape our built environment; it is related to all of us. We can easily observe this in our daily lives. Why do people kick Coke, coffee, or food vending machines? Are they only reacting to losing their money, or do they perhaps nor care much about the fate of the machine? Why do cars owned by the state deteriorate faster than those owned by individuals, even though they have the same mileage? These questions can have more than one answer, but one way or another, they all relate to the concept of

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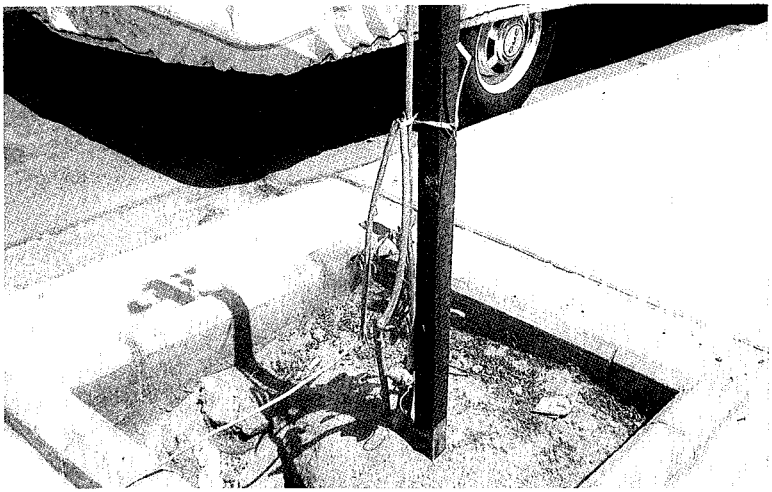

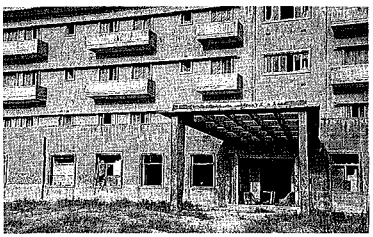

responsibility. Responsibility is embedded in us. There are responsibilities we all share, such as not littering the streets; there are individual responsibilities, such as not littering our homes or allowing others to litter our yards.

Wherever we look we can see traces of responsibility (or its lack) expressed in material form. Consider, for instance, a carpet in a mosque. During prayers, carpets are often displaced by the movement of worshippers. They should be straightened daily. But rather than make that effort, a carpet is nailed to the ground by the mosque guard who does not own it and does not care much about its fate. In photo 18, the small pit next to the tree was caused by the irresponsible irrigation of a municipal worker who saved time by watering it with too heavy a flow of water. The damage caused to the tree will not bother him unless it is noted by his supervisor. By contrast, the covered car in the background of the photograph shows how its owner protects it from the blazing sun. Photo 19 shows a building that has been neglected for more than fifteen years because of a conflict between the owner and the contractor.

To explicate the condition of elements and their relations to responsibility, I have constructed a model which is the result of observing and comparing the state of man-made elements in both traditional and contemporary environments. Observations preceded the model, but in this book, for purposes of clarification, the model precedes descriptions of the built environment.[2] The model presented below could perhaps have been elaborated further. It is formulated here only to the extent that will explain the differences between the structure of traditional and contemporary built environments that resulted from the change of the patterns of responsibility. My investigations of both environments were not intended to be comprehensive, but are selectively detailed.

THE MODEL

The model is a synthesis of two concepts, the concept of **claims** and the concept of **parties**.

The concept of claims is based on the plurality of using, owning or controlling an object. Logically, any object can be used and owned by different persons. A house owned by one person may be used by another through leasing. A classroom chair owned by an institute is used by the student. A park owned by the state is used by the public. From these and other examples, we may conclude that the claim of ownership is different from the claim of use. Control of an object is a different claim again: the mayor may change the function of a building, although he neither owns nor uses it. In the same way the headmaster of the school may decide to divide a classroom. The owner of a house may add rooms if he wishes, but the tenant cannot add a wall to subdivide a room without permission, for he does not control the walls of the apartment he is using. The tenant may, however, rearrange the furniture in his room; he controls the furniture. We can conclude, therefore, that any property is subject to three distinct and observable claims: the claim of ownership, the claim of control and the claim of use.[3]

In some cases these claims may seem unclear. Who, for example, controls a leased car, the owner or the driver? In the context of the built environment, however, the three claims are always distinguishable and the nature of daily use makes them clear: furniture owned by parents will be used and may be controlled by their son. A room used by a guest is owned and controlled by the host. A street used by the people is owned and controlled by the authority, and so on. Likewise, the chair is used by sitting on it; however controlling it is changing its location or its cushions. The car is used by driving it, controlling it is changing its colour. The sewerage network is used by draining sewage, controlling it is changing its flow-direction or capacity, or not allowing others to connect to it. The claim of use regarding a party wall between two neighbours is by the two neighbours using it from both sides.

Therefore, we define **ownership** of a property separately from its control or its use. *Miri* lands during the Ottoman empire, for example, were controlled and used by the peasants who cultivated, but did not own them. The state had the ownership of the land. Similarly, a housing project is owned by the state and controlled by the housing authority.

Control is defined as the right to manipulate elements without necessarily using or owning them. The trustee of an endowment does not own or use the property, but does control it. The hotel manager who does not own or use the room can change the location of the furniture. Decisions to make a new window, demolish a building or close a street all exercise control.

Use is the enjoyment of a property separate from controlling or owning it, such as the student sitting on a chair, the tenant living in a rented house, the guest using a room in a hotel, or the individual using the park or street.

To grasp the relationship between these three claims, we will use a Venn Diagram of three overlapping circles, with each circle representing one claim.

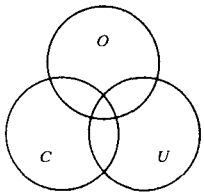

Diagram 1
O Ownership
C Control
U Use

The second concept in our model is that of **parties**. The decision made by a party is obviously based on the interaction of values, norms, and motivations, and on instinctive, cognitive, cultural, social, psychological, traditional and religious factors. All of these factors converge in a specific decision. From the point of view of the property — not the persons — property can be owned by one party only. A house can be owned by one person, two brothers, one family or a company. Any decision regarding the sale of the house is made by all the partners as one party. The two brothers who own a house may disagree between themselves about whether to sell it or divide it, but eventually the decision must be made by both of them as one party. How that decision is arrived at is irrelevant.

The same notion applies to control. Property is controlled by one party only. The decision to transform a vehicular street to a pedestrian mall is a single decision. Decision-makers and residents may disagree, but ultimately the decision must be made by the controlling party whether or not to transform the street. Similarly, the decision to join two rooms to form one is a single decision. The family members may disagree about it, but eventually the decision must be made. Even if such a decision is not accepted by some members, it is still a decision made by one party.

For the purposes of this model, use operates in the same way as ownership and control. Property is used by only one party regardless of whether that party is one person, a family or the public.

Obviously, the size of the party will affect the condition of the property. The condition of a bench used by a one-person party will be different from that of a similar bench in the park used by a party of thousands. The same argument applies to control and ownership, although with different impact on the property. A property controlled by a party of many individuals will behave differently from a property controlled by a party of one individual, but regardless of the size of the controlling or owning party, any decision is one decision.

Use is a different question. To avoid complication, we will not deal with it in the first part of the book. Later, we will explore it further and illustrate that considering the users as one party is not a handicap, but instead is of great advantage to this model.

We have seen that the claims of ownership, control and use can each be exercised by one party only. One party can, however, exercise more than one claim. A single party may, for example, own,

Diagrams 2-6 Forms of Submission of Property. Each dark area in the diagrams represents one party In Diagram 2 the one dark area means that one party exercises three claims; in Diagram 3 it means that three parties share the responsibility of the property in which each claim is enjoyed by one party; in Diagram 4 one party owns and controls while a second only uses.

control and use a property. Each party can have the right to one or more claim, but two parties cannot share the same claim.

By investigating the possible relationships among the three claims and the number of the parties that can be involved in sharing the property, we arrive at five basic forms. I will call these five basic forms the "Forms of Submission of Property."

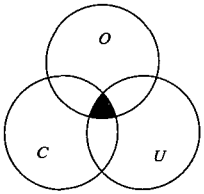

Diagram 2 Unified

The first possibility is called the **unified** form and occurs when the same party owns, controls and uses the property (Diagram 2). In this case the party has only to deal with itself. The individual who both uses a house and owns it does not need permission to change things in his house.

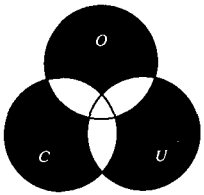

Diagram 3 Dispersed

The second occurs when a property is shared by three independent parties: one party owns the property, a second controls it and a third uses it (Diagram 3). In this situation, which is called the **dispersed** form, each party must deal and communicate with the other two parties. Such an example is an endowment or *waqf* in which a property is devoted to God, not owned by any human, is controlled by an appointed trustee and is used by a third party such as elderly people or students.

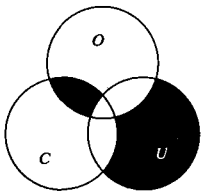

Diagram 4 Permissive

Between these two extremes lies a third possibility where a property is shared by two independent parties. This sharing may take three different forms, depending on the relationship between the parties and the claims: In the **permissive** form (Diagram 4), the party that uses a property has to deal with the party which owns and controls that property, such as the tenant of a rented apartment and his landlord. In the **possessive** form (Diagram 5), the party that uses and controls a property has to deal with the party which owns the property, such as the peasants who live on and cultivate land owned by a lord, or as leased furniture used and controlled by the lessee and owned by the lessor. The **trusteeship** form (Diagram 6) occurs when the party that controls the property has to deal with the party which owns and uses it, such as the trustee of a property owned by an orphan who lives in it.

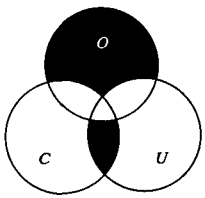

Diagram 5 Possessive

The relationship between the parties involved in sharing a property both affects and reveals the state of the property. For example, the tenant of an apartment may not maintain it adequately because he does not own it. The owner of an apartment may not maintain his leased apartment as he would if he lived in it himself. The relationship between the parties affects the condition of the property, which, in turn, reflects the relationship between the parties.

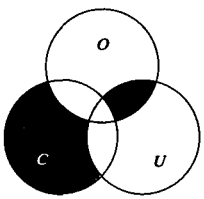

Diagram 6 Trusteeship

Any object submits to one of the five basic forms, but **not to two forms** at the same time.[4] To find out to which form a property belongs, one has to observe ownership, control and use. Without such observation, the five basic forms can easily be confused. For example, a house owned by two brothers jointly as one party, both of whom control and live in it, is a very different form than that in which the house is owned by one brother but lived in by both. In the

first case, the house is owned, controlled and used by one party; in the second, the house is owned and controlled by one party — the owner — and used by a second party — the two brothers jointly. The owner is only a member in the using party. In the two cases, the property is submitted to two different forms.

To simplify communication, each form of submission has been given a name which reveals its distinctive nature — either about the condition of the property or the kind of relationships between the parties involved.[5] Later, we will see how the forms of submission for the same property differ in the traditional and contemporary built environments. Then we can compare the traditional and contemporary forms of submission by referring to the names only.

Before investigating the five forms of submission, some clarifications are in order. First, although the importance of the owning party is fundamental, it must be distinguished from control. Ownership confers certain rights, but an owner — according to our definition — cannot do whatever he wishes with his property. Consider for a moment decisions that would affect the built environment — changing a facade, building a second floor, closing a street. These activities are all decided upon by the controlling party, not the owner. Certainly, the owner can also be the controller; that is, one party can exercise two claims. Within our definition of ownership, the only roles of the owning party are its capability to transfer ownership and to change the controlling and using party.[6] The owner may influence the decisions of the controller. But the owning party cannot force the controlling party; if it could, then the owning party would be, in fact, in control.

In addition, the controlling party is distinct from the owner and user because the controlling party is subject to regulations. Conceivably, regulations could prohibit the owner from selling his property. Likewise, the user could be ordered to use the property in a specific manner. But most, if not all, building regulations are aimed at limiting control. For example, the municipality may regulate: "Owners may not have their buildings exceed two storeys ..." This rule implicitly assumes that owners are usually controllers. If the controlling party is not the owner, then the rule commands the controlling party.

Ownership and use can be easily observed. We need only ask who the owner is, or identify the user who, unlike the owner or controller, is using or occupying the property. In the case of the controlling party, identification is more difficult. The primary method of identifying the controlling party is by detecting **change**. The party who changes or manipulates an element controls that element or has permission from the controlling party to do so. This is where history is significant for our model. By detecting change in a property over time, we identify the controlling party.

Our second concern is terminology. In investigating a rented house, we see that the walls are used by the tenant but not controlled

or owned by him (Diagram 4, permissive); the furniture, being used, controlled and owned by him, is a different form of submission (Diagram 2, unified). Since each object in the built environment may have a different form of submission and objects or properties are always in complex spatial arrangements, we must develop clear terminology in order to ensure consistency of meaning.

In the man-made built environment every space is composed of physical elements. A room is made of walls, as is a house. The street is formed by buildings, etc. If we refer to one, we imply the other.[7] To identify the forms of submission we will investigate the physical elements which compose the space without referring directly to them. If the form of submission of a house is permissive, while the rooms are possessive, this means that while the external or party walls are only used by the tenant, the interior partitions are both used and controlled by him. If the physical element cannot be indicated by a space, then I will use physical terms, such as a party wall that has a different form of submission from that of the rest of the house.

The words "property" and "territory" are terms which needs careful consideration. Conventionally, the term "property" is linked to ownership, not control or use. People usually consider an apartment building that is owned by one party and inhabited by many families as one property regardless of the number of involved using parties. The same applies to territory. The term "territory" is confusing because it often implies the control of a place without necessarily the ownership of it. Here, if the terms property and territory are used they will refer to the forms of submission. An object, a building, a street or a site is considered one property or territory if it is within the same form of submission for the **same** parties.[8] Property will refer to physical elements while territory often refers to spatial elements.

The same object will be viewed and treated differently by the different parties concerned, although its form of submission is the same. For example, a corridor in an apartment building is, for a tenant just like a street: he does not own it or control it; he only uses it by passing through it (Diagram 4, permissive). For the owner of the building, the same corridor is like an item in his storage: he owns it, controls it, but does not use it (Diagram 4). Physically, this corridor looks like the dead end street of a traditional Muslim town. In terms of responsibility it is, in fact, totally different. A dead-end street has a different form of submission.

Within each form we will examine several properties in which scale or nature are not the issues. Consider a person (A) owns a party wall standing between him and his neighbour (B), and the neighbour (B) rents from him an area of that wall against which to rest a wooden beam. We will deal with that rented spot of the party wall as a "site", which the neighbour (B) uses but does not control or own. This is the same model of responsibility as in a rented house which the tenant uses but does not control or own. i.e., the same form of submission

(Diagram 4, permissive). Alternatively, if the party wall were owned by the two neighbours collectively then it would belong to a different form of submission (Diagram 2, unified) i.e., the two neighbours as one party own, control and use the party wall.

In using this model our task is to examine the physical state of properties. In order to understand it, we will investigate the relationships between parties. The state of the property is the outcome of the actions of the party (or parties) which controls, owns and uses it. The method of this inquiry does not involve questions about the values held by parties. The party's norms, religious, cultural and traditional values are irrelevant in the context of our model and may jumble our perspective. I ask that the reader free his mind from all factors such as economics, climate, geography and tradition and concentrate only on mechanisms. I do not underestimate the importance of those other factors, but they are not my concern now. If we train ourselves to observe each state of property from its own point of view, the forms of submission will become obvious. Then we can examine these other factors and their effects in a clearer light.

By using this model, we may **predict** the state of the elements in the future. The model's parameters are basic human tendencies which exist in each case and not variables such as economy or tradition. For example, individuals always seek to **improve** their environment, and more often than not desire to **expand** their properties or territories if they have the chance. They also try to **impose** their norms and values on what they own, control or use. They try to **avoid** and hinder the intervention of outsiders.[9] Perhaps these tendencies which seem to be the expression of our biological nature and a kind of territorial expansion of ourselves regardless of the geographical, political or climatic situations, are basic to human societies. This is why the concept of responsibility is important if the model is to have predictive value. Although these tendencies are relative depending on the societies' education and discipline, and they also vary among the individuals of the same society, yet, as will be seen, each form of submission has a distinct relationship with the involved parties which consequently affects the property's condition. For instance, the relationship between the two parties of the permissive form is often one of agreement, the trusteeship form is one of vigilance, and the possessive form is usually one of regulations.

Finally, our model which is developed from observations, throws new light on the built environment that not only helps us recognise problems, but in doing so creates many more, thus crystallising our understanding of the structure of the built environment. The model not only profits from observations of the built environment but leads to new ones. This is what K. Popper called the "search-light theory of science."[10] This model should not be construed as an end in itself. It is only a tool to help understand the influence of responsibility in the built environment.