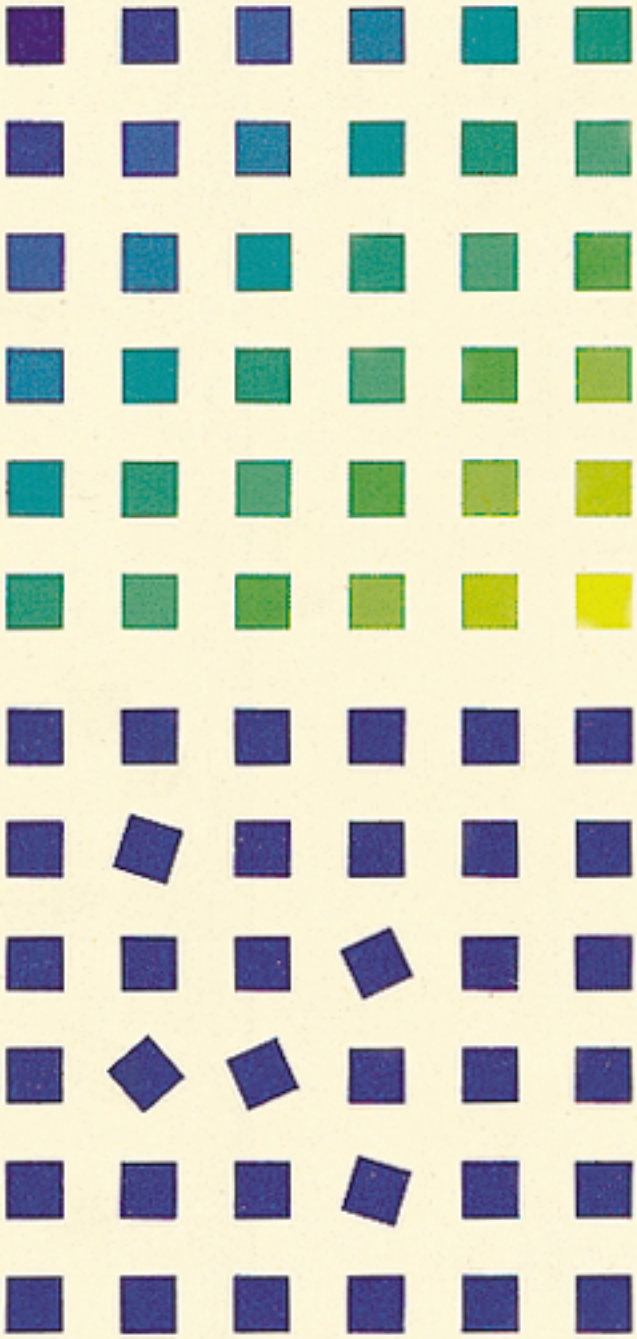
CRISIS IN THE BUILT ENVIRONMENT

THE CASE OF THE MUSLIM CITY

Jamel Akbar



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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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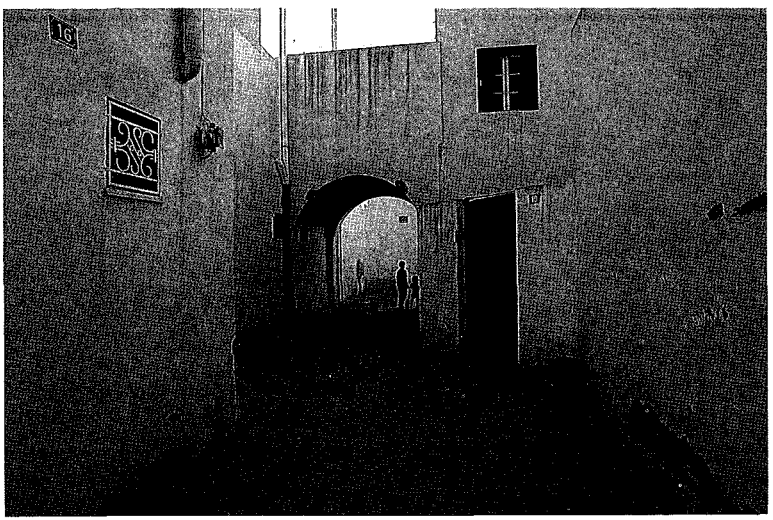
Introduction

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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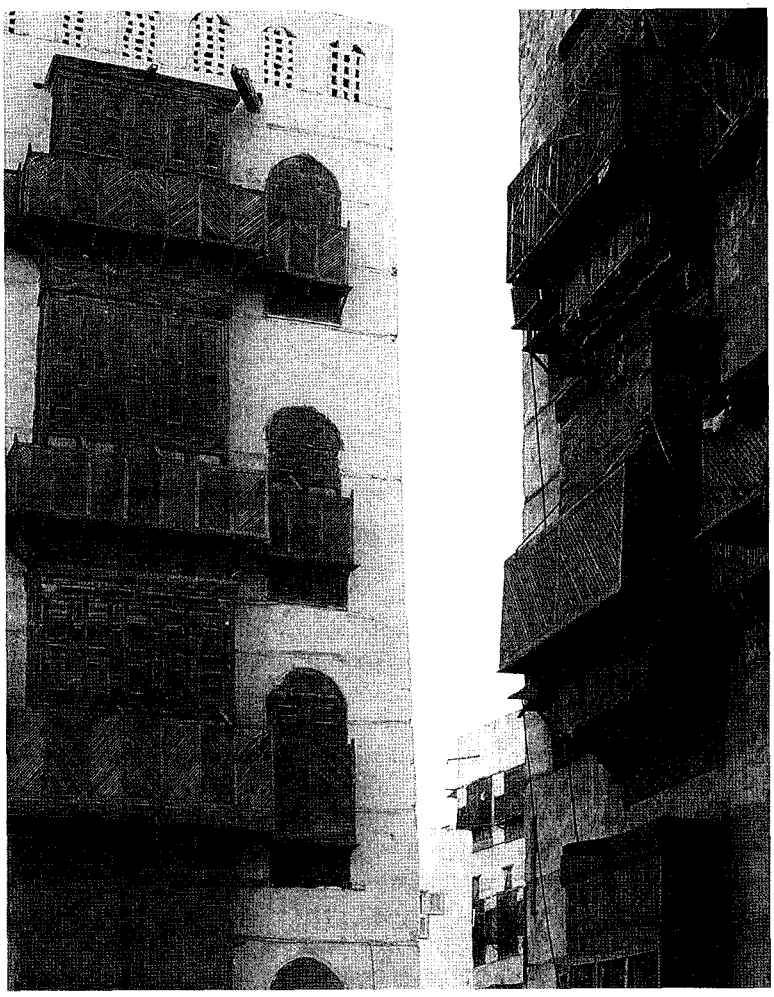

2 Riyadh & 3 Jeddah A contrast in terms of windows few windows in Riyadh while screened windows are all over the facades in Jeddah. Each town had its own homogeneous character.

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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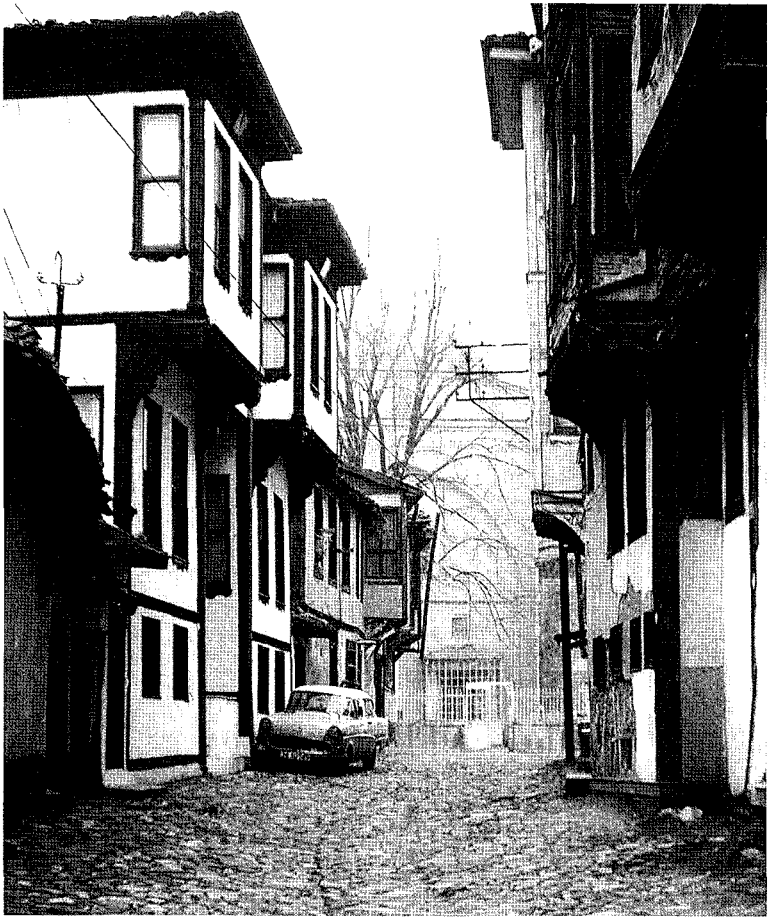

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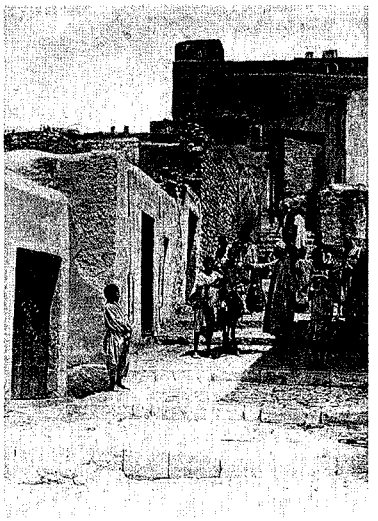
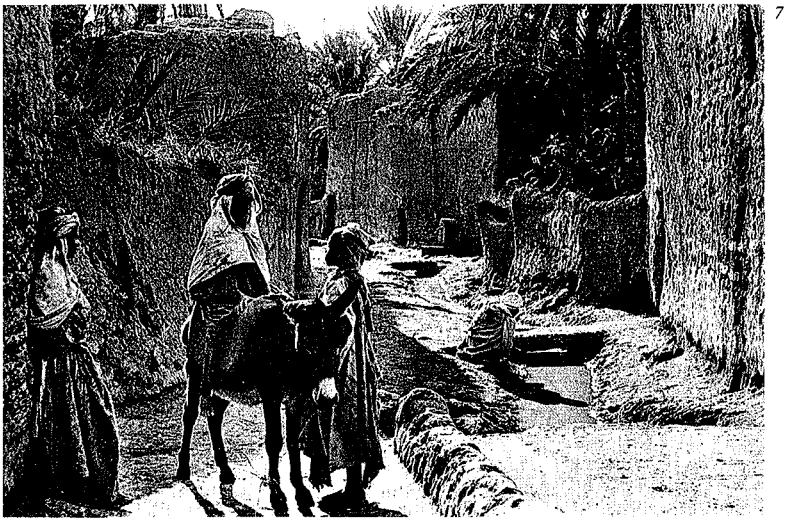
4 Bursa & 5 Safranbolu, Turkey (photos courtesy of D Kuban) Examples of the society's investment in private places Most, if not all, trees shown in photo 5 are planted in private spaces Note that there are no trees in the street in photo 4





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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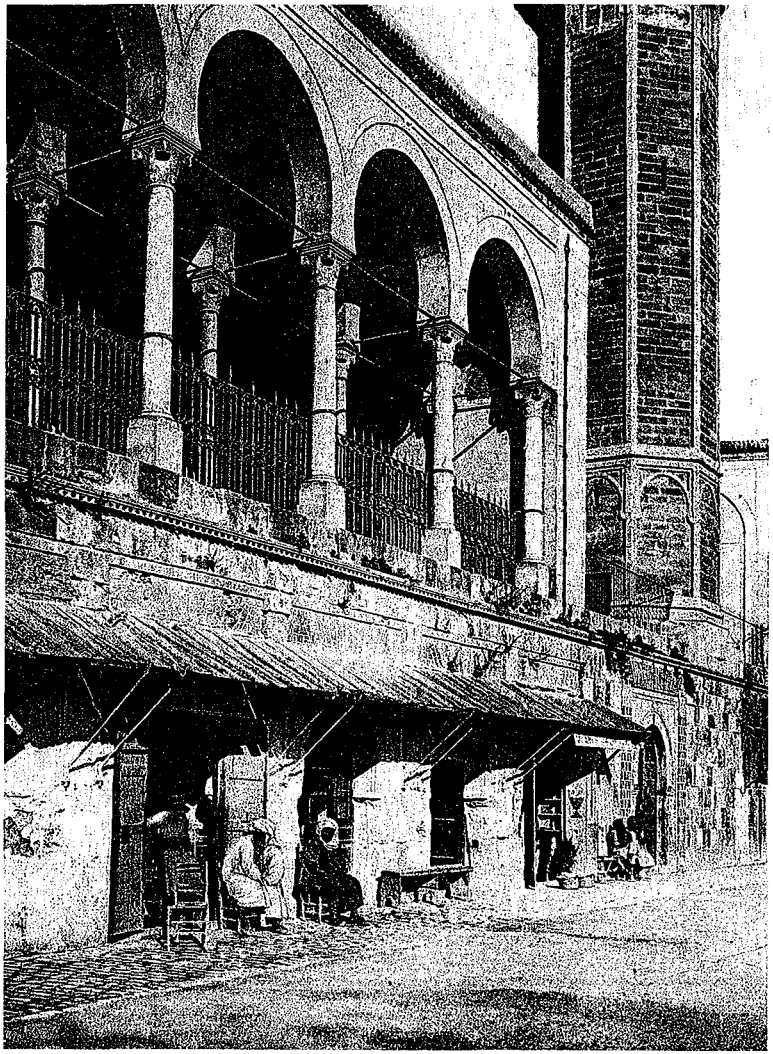

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8 Al-Khobar, Saudi Arabia. The costly irrigation of plants in public places in a desert town

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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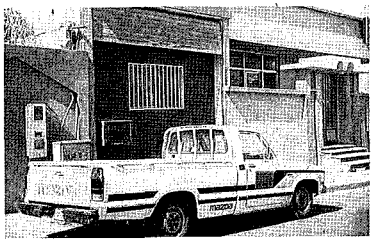

12 Al-Khobar A typical example of transforming a garage into a room.

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

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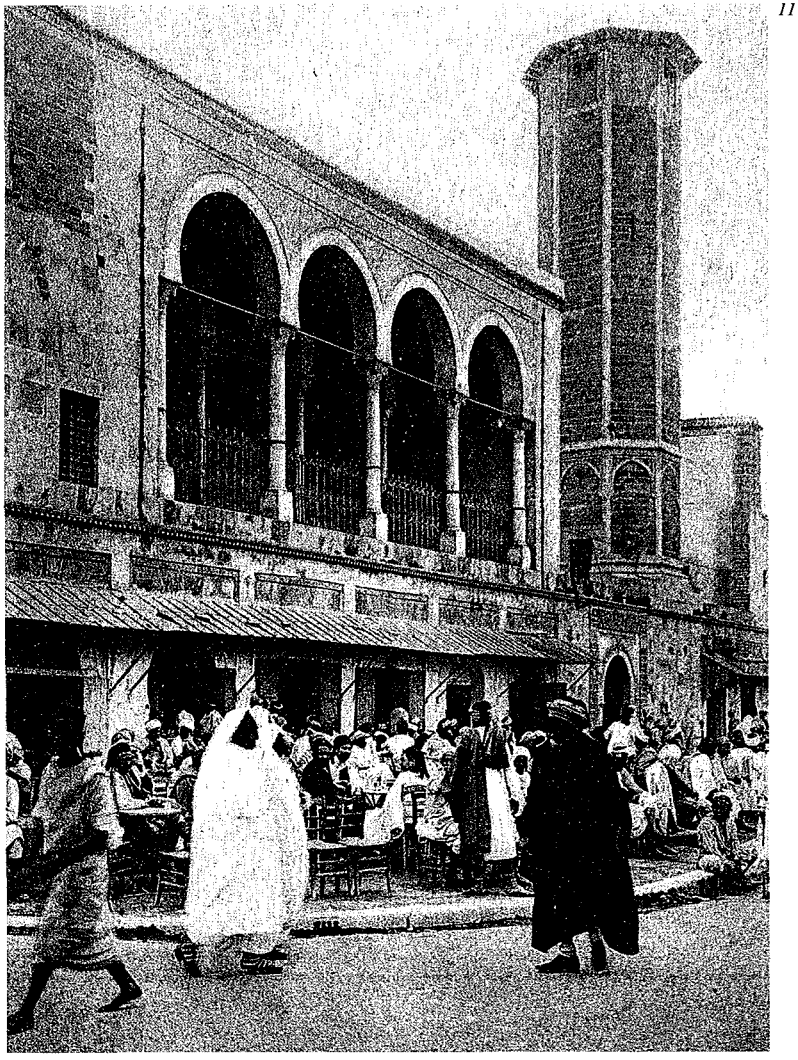


In this study I argue that patterns of responsibility in the traditional environment were different from those today and affected all aspects of the built environment. To name a few examples, traditional patterns of responsibility affected the territorial structure of the city, the conventions and social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

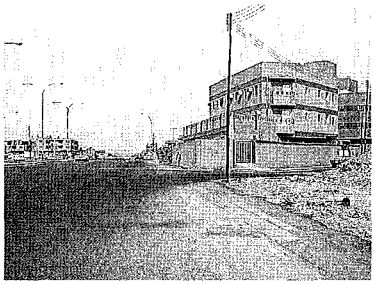
The dead-end street typifies a pattern of responsibility that prevailed in traditional environments. The residents of a dead-end street controlled the street. Nothing that affected the street — such as opening a new door into the street — could be done without the consent of all the residents. It was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

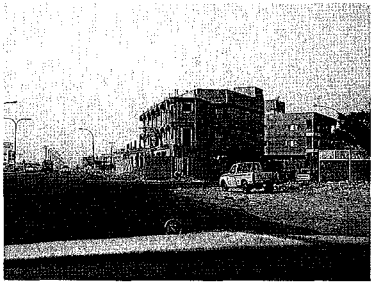
The dead-end street cannot successfully be used in contemporary environments without regard to responsibility. Architects today tend to include dead-end street in their designs; they use terms such as private, semi-private and semi-public spaces without fully understanding the dynamic relationship between 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.

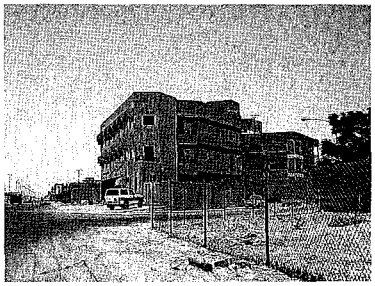
I argue that a society can improve the quality of its built environment by changing the patterns of responsibility that operate within it. The issue is not simple: First, we have to understand responsibility and its consequences, the prime task of this book. I illustrate and explain the kinds of questions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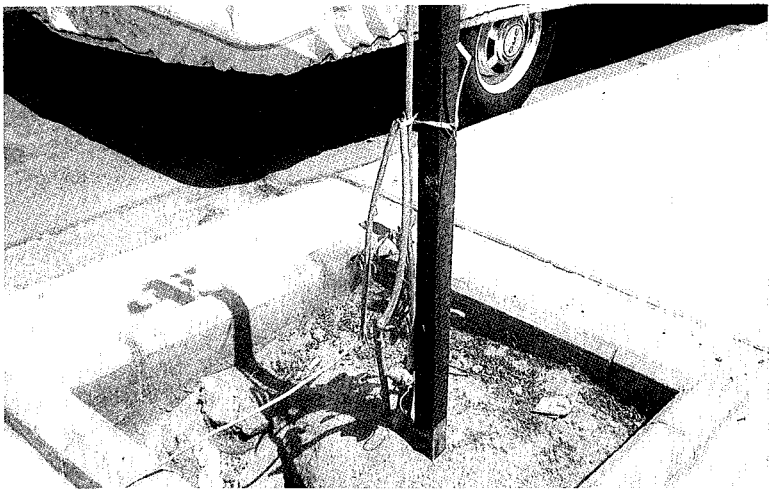
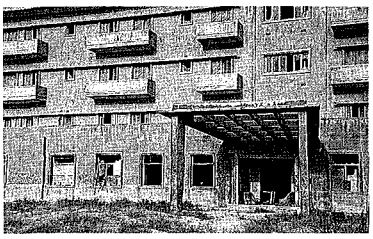




responsibility. Responsibility is embedded in us. There are responsibilities we all share, such as not littering the streets; there are individual responsibilities, such as not littering our homes or allowing others to litter our yards.

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.

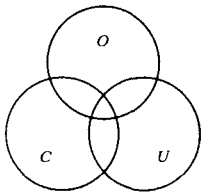


Diagram 1
O Ownership
C Control
U Use

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."

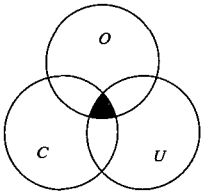


Diagram 2 Unified

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.

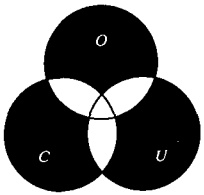


Diagram 3 Dispersed

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.

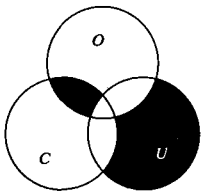


Diagram 4 Permissive

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.

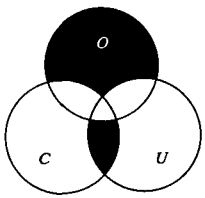


Diagram 5 Possessive

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.

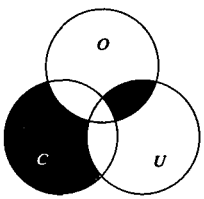


Diagram 6 Trusteeship

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.

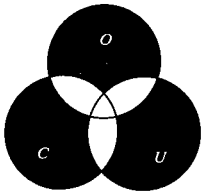
By using this model, we may **predict** the state of the elements in the future. The model's parameters are basic human tendencies which exist in each case and not variables such as economy or tradition. For example, individuals always seek to **improve** their environment, and more often than not desire 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.

1 Forms of Submission in the Traditional Environment

This chapter will discuss in more detail the forms of submission and the mechanisms that affected the shaping and state of the traditional Muslim environment. Since the question of responsibility is closely related to the Islamic legal system (*sharī'ah*), the investigation will cover legal procedures such as leasing, pre-emption, inheritance, acquisitions, ownership and collection of state revenue.[1]

THE DISPERSED FORM OF SUBMISSION



In the dispersed form of submission, three parties share a property: One party uses it, a second party controls it, and a third party owns it. To clarify the impact of the relationship of the three parties on the state of a property, we will investigate *waqf*, an institution common in the Muslim world and often found in the dispersed form of submission.[2]

According to Muslim Law,[3] *waqf* is any property — school, garden, house, shop, drinking-fountain, even Qur'ans for reading in mosques — endowed by pious Muslims.[4] Literally *waqf* means detention or stopping.[5] Legally, it is defined as "detaining the substance and giving away the fruits."[6] The revenue from *waqf* is devoted to a special purpose, usually of a religious or charitable nature, while ownership is immobilised forever. Thus, *waqf* is not owned by any party which shares the property, but is conventionally owned by God.[7]

For a variety of reasons, the physical condition of *waqf* was often unsatisfactory. Properties accumulated without proper management, allowing for corruption at all levels. Since repairs were not made, buildings quickly fell into decay. A good indication of the involved parties' inevitable conflicts and the resulting sad state of the property is the enormous volume of documentation about *waqf* found in Muslim archives: most Muslim countries have ministries of endowments. Scholars ascribe the cause of the failure of *waqf* to the pressure of the demands for funds on the part of the usufructuaries, to the perpetuity and irrevocability of the endowment,[8] and to the role of the guardian or trustee (*nāzir* or *mutawalli*) who often had no

Note Readers who are not familiar with the Muslim world should refer to the following — p. 202 footnote 1 of Chapter 1, pp 45-46; and p. 214 footnotes 1-3 and 6-8 of Chapter 2.

serious interest in the property.[9] The lack of incentive among these trustees and the successive beneficiaries resulted in the deteriorated state of the endowed property.[10]

If we look at the failure of *waqf* within the context of our model, we can see that like many properties in the dispersed form of submission, *waqfs* were torn between the involved parties.[11] The user was often poor and did not invest in the property because he did not own it, and in some cases even misused it. The controller was not interested in its maintenance, and was pressured for more profits.

A case from Mecca is illuminating: a *rubat* (a *waqf* built for the use of pilgrims) was built in the 1930's. The basic structure, a four-storey courtyard building, was sound and well-built but was in a shocking state of disrepair. The trustee of the *rubat* lived far from Mecca. He leased it to a pilgrim guide who, in turn, rented the rooms to pilgrims. The pilgrims, there only temporarily, make no repairs, while the permanent residents did not invest in the building either. The pilgrim guide maintained it minimally to make a profit, while charging the pilgrims much more than he was supposed to. The situation was one of cross purposes. Although the founder invested much, seeking God's mercy, the condition of the endowment deteriorated rapidly because of dissipated responsibility for its maintenance.[12] This form of submission is, indeed, dispersed. The property is not owned by anyone, the controller is indifferent, and the user merely consumes. It is no wonder *waqfs* deteriorate over time; the three claiming parties have divergent aims.

The same is true for agricultural lands:

> Agricultural land deteriorates in the course of time; no one is concerned with keeping it in good trim; the yield lessens, ... In India, instances of the mismanagement of *waqfs*, of the worthlessness of the *mutawallis* (trustees), and of the destruction of the *waqf* property have often come before the courts. Considering all these matters, it can by no means be said that the institution of *waqf* as a whole has been an unmixed blessing to the community.[13]

Al-Wansharīsi (d.914/1508) documented a case that reveal the users' consumption: a house was endowed for the benefit of a *mu'adhin* (who calls for prayer); another for a man who sweeps the mosque. The two men exploited the properties without maintaining them. The properties were so damaged that a great deal of repair was required.[14] In another case, a ruined house that is abutting the mosque became, over time, a dumping place and affected the walls of the mosque.[15] On the other hand, the trustees' lack of interest was evident in the governor Tankiz's expelling those living illegally on the premises of *waqf* schools in Damascus. He obliged these occupants, as well as those who used the spaces as storehouses, to pay rent for past occupancy.[16]

A *waqf* can be in favour of relatives, the poor, institutions[17] or all Muslims, depending on the stipulation made originally by the donor. In most cases it was in favour of specific individuals — mostly rela-

tives — and their successors. In such cases, the profit of *waqf* was divided among the successive beneficiaries who lost interest over time as the number of beneficiaries increased and their individual shares diminished.[18]

Another reason for the failure of *waqfs* is that any change in the property, that is beyond the stipulation of the founder needed a legal opinion (*fatwa*). Within our model, an outsider's intervention dissipates the claim of control. The jurist A. al-Haffār of Granada was asked about a *waqf* abutting a mosque and dedicated for it. The residents wanted to enlarge the mosque by adding the *waqf* to it. He answered that in this case it was permissible to add the *waqf* to the mosque.[19] In another case in which the benefit of a house is given to al-Qarawiyyīn great mosque in Fez, the house deteriorated. The trustee wanted to sell it, but was prevented from doing so and was told instead to improve it.[20]

Yet, as historical examples attest, *waqf* institution did not always function badly. Bridges, roadhouses, mosques, schools, libraries, caravansaries and other elements of the traditional Muslim built environment owe their existence to this institution, and many remained in good condition. The whole educational system in the Muslim world depended entirely on the *waqf*.[21] What then, explains the variable conditions of *waqf*?

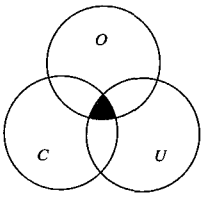
If we trace the origin of *waqf* we find that it was not encouraged by the Muslim legal system.[22] Other than a prohibition against selling the property, there were no rules regarding the property beyond those established by the founder. Donors created many rules to please God by ensuring maximum benefit to society. The crucial issue is that *waqf* can be controlled by the donor and his successors so long as they do not intend to become wealthy as a result.[23] Those who control a *waqf*, if they fear God and want credit for charitable deeds, will act, in fact, as if they seek profit. They will maintain and improve the property. If they do not act as good believers but seek worldly profit, then their actions are not in the interest of the *waqf*.

In the first case the party controls the property and acts to improve it. This party is acting according to the owner's — God's — desire. In this case the *waqf* logically does not belong to the dispersed form, because the controller (trustee) may be seen as an employee of the owner.

In the second case the *waqf* is not controlled according to the owner's—God's—desire. Now we have three independent parties, possibly with divergent interests, sharing a property which is thereby dissipated.[24]

Waqf, therefore, may be found in different forms of submission depending on the behaviour of the parties. If the people act religiously, the *waqf* institution is a blessing to the Muslim community. If they do not, then it becomes desolate. Indeed, any property shared by disparate parties spells ruin.

THE UNIFIED FORM OF SUBMISSION



In the unified form of submission, one party owns, controls and uses a property. The three interests coincide in one party. Under Muslim law this is considered the most desirable state of property. Although not distinguished by the jurists as a distinctive form, all their interpretations and rulings encouraged this type of property. Thus, most of the traditional environment was composed of property in this form of submission.

The main relationship of the single party involved in the unified form of submission is with outsiders, rather than other claiming parties. The owner who resides in his house has a relationship with his neighbours and the society at large.[25] Thus we will examine mechanisms promoting the establishment of the unified form of submission.

Principles of Ownership in the Traditional Environment

"Whoever is killed while protecting his property then he is a martyr." Under Islam, the owner of a property is entitled to defend it as he would defend his life, even if such defence results in the death of an aggressor. This respect for ownership is implicit in the Qur'an and in the Prophet's tradition, and grants owners immense control.[26]

The first principle of ownership is that everything which is necessary and useful for survival is subject to ownership, and conversely, what is not necessary or useful cannot be owned.[27] Meanwhile, such ownership should not harm others, according to the tradition that "there should be neither harming nor reciprocating harm."[28]

The *sharī'ah* (Islamic legal system) invests the claim of control in the owner. Those things that contribute to living cannot be fully useful unless they are utilised, maintained, modified, developed or built. They must be controlled by someone. Almost all definitions of ownership given by Muslim jurists explicitly express the principle of control.[29] 'Ibn Taymiyyah's (d.728/1328, from the Ḥanbali rite) definition of ownership is "the legitimate ability of manipulating the objects."[30]

Ownership of Heights

Need and control without harming others have been the main prerequisites for establishing ownership. The ownership of heights is an illuminating example:

A debate took place regarding the limits of owning what is below a territory. Al-Qarāfi's opinion is that the owner of a territory usually benefits from heights for viewing rivers and gardens or for protecting his privacy by building parapets on his edifices, but such benefits do not exist beneath the ground beyond the foundation. Thus what is beneath a territory cannot be owned.[31]

This opinion was contested by 'Ibn ash-Shat who pointed out that

the owners of territories can, indeed, benefit from the ground by, for example, digging deep wells or basements. He argued that according to the principle of need there is no justification for preventing a person from deepening his well. Thus the owner of a territory has the right to raise or deepen his territory as he wishes so long as he does not harm others.[32]

Regarding controllability as a determining principle of ownership, jurists debated the selling of the space on one's roof as a piece of land. Some schools of law consider the selling of heights-right as a selling of the air above a territory, which is not controllable and therefore illegal.[33] Other schools of law consider it as an ownership and rule that an owner can sell the space on top of his house, as long as an agreement is reached between concerned parties.[34] Meanwhile, all schools of law agree that an owner can sell the upper floor(s) or any part of his building — such as cantilevered parts[35] — as long as it is built, since anything built is well defined and controllable.[36]

The principle of need and controllability grants owners great freedom. It unifies control in the owner. One result was that there was no limit to building height so long as neighbours were not damaged.[37]

Revivification

The general mechanisms that create ownership are 1) establishing it through appropriation, which is the logical origin of any ownership; 2) transferring a property by selling or giving; 3) continuity through inheritance.[38]

Land appropriation was common, since during the early Islamic period towns were expanding and land was often vacant. Not unexpectedly, appropriation has been extensively discussed by Muslim jurists. They recognised unowned and unused land as *mawat*, and followed certain principles in utilising it.

Mawat literally means "dead". With respect to property it means unowned and unutilised land.[39] Land is considered dead if there is no trace of building or cultivation; if it is not used by the neighbouring locality as, for example, a burial ground, or as a source of wood or food for cattle.[40] However, differences among schools of law exist regarding the status of unutilised land abutting urban areas. Is it to be considered dead land or not? All schools of law with the exception of some jurists from the Hanafi rite, consider it dead land.[41]

According to custom, dead lands may be revived and consequently owned by the reviver. *'Iḥyā'* literally means "life-giving"; within our submission model it means that controlling and using dead lands brings ownership to the reviver. Revivified lands fall under the unified form of submission. There is ample evidence from the Prophet's traditions, rulers' actions and jurists' opinions to support the principle of assuming ownership of dead land by reviving it through cultivation or building on it.

The Prophet said, "The people are God's people, the land is God's land, he who revives a piece of dead land will own it, and the unjust root has no right." In another tradition he declared, "He who revives dead land will be rewarded by God (in the day of judgment)."[42] A man who had revived dead land came to 'Ali (the fourth caliph) and said, "I came across a land that was ruined or its (original) inhabitants had left it, and I dug streams and cultivated it." 'Ali responded, "Eat pleasurably (enjoy it) you are righteous not impious, a reviver not destroyer." 'Ibn Qudāmah relates that "Reviving dead lands is the custom in all regions even if there are differences among jurists regarding its regulation."[43]

Differences arises among jurists regarding revivification of unutilised lands that are owned. These are classified into:

1. Unused land that is owned by someone — through purchase, for example — but not utilised by him. It is the consensus that such land may not by revived.
2. Land that is owned by someone who revived it, that has since been neglected and consequently became, over time, dead land again. Mālik's opinion is that such land may be revived again and owned by others. 'Abū Hanīfah maintains that if the original owner is unknown, then it may be revived and owned. Ash-Shāfi'i states that it cannot be revived.
3. All jurists agree that if land that was owned and urbanised by non-Muslims become a dead land over time, it may be revived and owned, such as the remains of the Roman period.[44]

Action which results in ownership is considered reviving if it leads to the conventional use of the intended form of revivification. For example, if the reviver's intention is to reside there, he must erect walls. If his intention is to cultivate, he must supply water to dry land, or drain water from a marsh; then he must plough the land.[45]

Allotment

Allotment is similar to revivification. *'Iqṭā'* literally means the act by the ruler of bestowing or allotting a piece of land to individuals. Allotments are, in general, of two types: the first type is one of allotting fiefs to be owned through revival. The second is that of allotting land with the right of utilisation but not ownership.[46] In both types the ruler may give allotments to individuals from dead lands or lands owned by the state.

According to the principles of ownership (need and controllability) the authority does not have the right to own public lands. The lands owned by the state are the ones given voluntarily to the state by the original owners — which is quite rare — and the lands owned by those who used to rule the conquered areas, such as those properties that formerly belonged to the Persian king and his family.[47] Thus, allotments were often from dead lands.

If the people could revive dead lands, then why was allotment practised? It was practised mainly in cases of new towns. Documented examples of fiefs are numerous. To name one example, al-Balādhuri, in his documentary, *Futūh al-Buldān*, mentioned the word *'iqṭā'* (allotting) more than ninety times. In one citation he reports that when the caliph Ja'far resided (232/847) in Hārūni he "built many buildings and made **allotments** to the people in the back of (the town of) Surrah-man-ra'a ... Then he established the town that he called al-Mutwakkiliyyah." Allotting lands was a common and well-understood mechanism practised by all rulers at all times for establishing ownership leading to the unified form of submission of what previously was a dead land or land owned by the state.[48]

From the principles of ownership we may conclude that unutilised lands were not considered to be owned by individuals or the state, and that lands outside towns and villages were consequently dead lands. Revivification and allotment were the mechanisms for establishing ownership in most, if not all, urban areas.

Principles of Revivification and Allotment

All the principles applied to revivification and allotment provoked and helped the people to act and own lands in the unified form of submission.

Negligence

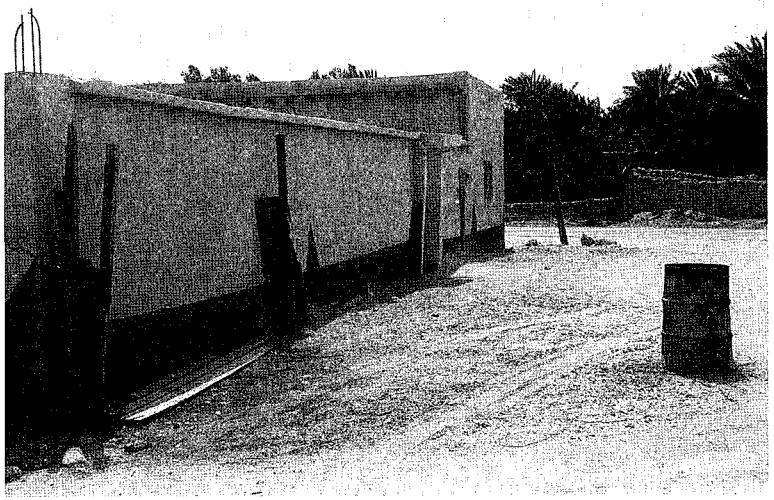
All schools of law agree that the ownership of a property which is not owned through revivification does not lapse as result of the owner's negligence.[49] However, a few jurists argue that some small and unvaluable objects, because of their nature, can be taken over by others if neglected by the owner **for a long** period of time. An example of such objects would be building materials which may be picked up, since the person who picks them up derives benefit from them. This principle does not apply if such objects fall from a building without the owner's knowledge.[50] Ziyad proposed rebuilding the governor's building in al-Baṣrah in order to eradicate the association of his name with the building. He was told that such reconstruction would, to even greater extent, link his name to the building. Thus he demolished it and abandoned it. "Thereafter, most of the dwellings around it were built by (using) its deserted muds, bricks, and doors."[51]

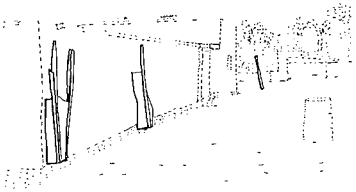
Is the ownership of **revived** dead land rescinded because of the reviver's abandonment? Some of the Ḥanafi jurists consider long-term negligence as tacit permission for others to use the property and not a relinquishment of ownership. Others argue that ownership lapses with negligence.[52] The prevailing school of law in North Africa consider revived land that is neglected for a long time to be dead land again, thus it can be revived by others.[53]

Demarcation and Time Limitation

Does demarcating (*'ihtij ār*) a piece of land with stones or the like constitute revivification? What is the time limit for keeping land demarcated without reviving it? What is the time limit for having an allotment without utilising it? Whether a person demarcated land or was allotted a fief by the ruler, the limit is three years, then his right lapses.[54]

1 1





1 1 Ad-Dighimiyyah village, Saudi Arabia A house that was first demarcated by sticks and then built. Demarcation and revivification is still practised in some towns although considered illegal.

1.2

1 2 Aerial view of Mecca. Lands that are surrounded by walls as a demarcation for revivification.

Regarding demarcation as a first step towards revivification, the Hanafi school of law considers placing stones or other markings around the land merely an action preceding others, giving the reviver the right not to be harassed.[55] The Shāfi'ī rite considers that whoever begins reviving a piece of land by demarcating boundaries, i.e. digging foundations or marking it out or nailing up wood as columns, but cannot continue reviving, has for three years, by virtue of the demarcation, the right of privatation (taking precedence over others) but not ownership.[56] From opinions of jurists and actions of rulers, it is evident that demarcated lands or allotments are not owned and so may not be sold unless they have been revived.[57]

Overlapping Efforts

In order to own the property, the reviver or allottee must exert some effort. Even for demarcation, jurists require that some effort, such as building a wall around the land, be made in order to establish the right of privatation.[58]

The principle of revivification, by its nature, invites the overlapping of efforts. A person may revive deliberately or inadvertently land that is owned by others. However, the reviver's effort is not wasted. The Prophet said, "He who cultivated the land of others without their permission will have his expenses; but not his cultivation."[59] However, if the owner refuses to compensate the reviver, then both the owner and the reviver will share the property as partners. Meanwhile, the reviver will not be compelled to pay the owner the value of the land.[60] If a person builds on land owned by others while the owners witnessed but did not react, then the owner must compensate the builder in cases of dispute. But if the owner objected, then the builder must demolish what he has built and has the right to take away what he has built.[61] Finally, "the reviver is more rightful (in owning the land) than the demarcator," i.e. if a person revives land that is demarcated or allotted to others he will own it.[62] In fact, many cases were reported in which overlapping of efforts took place during the early Islamic periods. Those cases were used as guidelines by Muslim jurists in resolving such disputes.[63]

Permission of the Authorities

All schools of law with the exception of a few jurists from the Ḥanafi rite agree that, according to the Prophet's tradition, the permission of the state is not needed to revive dead land.[64] They also recommend that the state recognise the reviver's right in cases of dispute.[65] Mālik makes a distinction between dead land abutting urbanised areas and those which are distant from it. He concedes that the former requires permission, but not the latter.[66]

Incentives to Act

In all these principles of allotment and revivification, one fact is evident: land is never sold by the state. Rather it is taken at no cost by those who put in effort to make it usable. **This basic concept implies incentive.** Parties are provoked to act in order to own properties. If a party realises that he can claim property without permission from the authority he will do so, simply because for most individuals owning property is a desirable accomplishment. If the party, as a reviver, knows that he will not only own the land by reviving it, but will also be rewarded by God on the day of judgement, he will act. If the party knows that unutilised lands are considered dead land by some schools of law, or has tacit permission of other parties to utilise the land, he will be motivated to act. If he realises that land revived by others but neglected by them becomes dead and can be owned through revivification, he will be stimulated to act. If a party recognises that if he does not utilise his own revived land other parties may revive and take it away, he is apt to act. If a party recognises that he can build by using what others have neglected and left behind, such as wood or bricks, he may act. If the party that is allotted a fief knows that unless he utilises the land within three years, he will lose it, he will be provoked to act. If a party knows that his allotted or demarcated land is not yet owned by him and that there is a possibility such land can be taken over by other parties through revivification, he is more likely to act. If a party knows that if he acts and puts in effort, such effort will not be wasted even if it turns out that the land belongs to another, he will be stimulated to act.

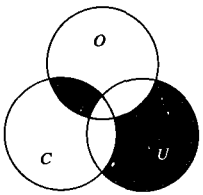
The claims of use and control bring the claim of ownership to the same party, shifting property from the category of dead land to the unified form of submission. If this is the case we should expect the unified form of submission to constitute the majority of holdings in the traditional built environment.

It is a natural tendency of parties to wish to expand; otherwise the Prophet would not have said, "Whoever takes the land of others unjustly, he will sink down the seven earths on the Day of Resurrection."[67] In fact, if the principles of ownership are re-examined in the light of this tendency to expand, it becomes clear that they were established to deal with conflicts between expanding parties.

The inevitable disputes arising between motivated expanding parties has traditionally been solved by communication and dialogue leading to agreement. The resulting built environment was one in which ownership was based on conventions between neighbours rather than legal documents. Many historical incidences demonstrate that most lands were owned without the authority's permission. When aẓ-Ẓāhir Baybars took power (658/1260), he decided to take over all the lands in the hands of those who could not prove legal ownership and turn them over to the Muslim treasury.

The Muslim jurists, led by an-Nawawi, protested that such action is illegal in Islam, and whoever had a property in his possession, owned it. They recommended that the authority should not annoy the owners and owners should not be required to give proof of ownership so long as ownership was accepted by neighbours, which the Sultan did.[68] Intervention by the authorities has thus been minimal in the area of ownership of property in the unified form.[69]

THE PERMISSIVE FORM OF SUBMISSION



In the permissive form of submission two parties share the property. One owns and controls it, the other uses it. It can be leased like a house or rented like a passageway (by the neighbour), or like a place in a mosque, given for free. It may be small in size, like a spot in a party-wall, or as large as a palace. It may be an object such as a tool, or a site such as an apartment.[70] There are two main categories in the permissive form: servitude and leasing.

Servitude

Most traditional towns are compact, with very little public space. Private properties are often found behind or within other properties. A system allowing the residents of these enclosed properties to pass through others' property to reach the public domain was necessary. A property — not party — may have the right to discharge its rain water through the neighbours roof; or the residents of a property may have the right to pass through the neighbour's house; or residents may have the right to discharge their waste through the neighbours courtyard. In other words, sometimes parts of properties must be shared by neighbours. According to our model, servitude occurs when one party owns and controls, and another party uses.

Three mechanisms determine user's rights in these overlapping domains. The first is **subdivision**, in which a property is subdivided and part of the subdivision provided with an access through the other one. Subdivision may often lead to conflict. Al-Yaznāsi was asked about two brothers who inherited land and subdivided it. One share had an access and the other did not. The subdivision agreement did not deal with the servitude right. Later, the brother with the external part denied the easement right. Al-Yaznāsi ruled that since the external owner did not stipulate the denial of easement right, the internal owner will have the right of servitude.[71] The second mechanism is **incremental growth**, in which a property owner precedes others in establishing a path, and then other property owners respect that path.[72] The third is **conventional transactions**. An owner may sell the right of passage through his property to his neighbours.

These three mechanisms resulted in what is known as the easement right. The study of this right helps us to understand the structure of the traditional built environment from the territorial point of view.

Easement right is defined as "an exclusive benefit of an immovable (or property) over another (adjacent) immovable in which the two immovables are owned by different parties, while the benefit belongs to the first immovable even if its owner changes, unless it was relinquished through conventional transaction."[73]

Servitude encompasses three domains: 1) the property which provides the servitude; 2) the property which needs the servitude; 3) an overlapping area of responsibility.

Since the properties belong to two different parties, the relationship between them can be one of dominance and subordination depending on their relative positions. The party of the external property may block the passageway or deny its use to the party of the internal property.[74] Al-Wansharīsi reports a case in which a man sold part of his house. The only access for the gulley of water was through the roof of the part which had been sold. Later, the buyer stopped the flow of water. The jurist ruled that the buyer either had to allow the flow of water or cancel the sale.[75]

Since both properties are at the same level[76] and one became dominant to the other merely because of its position, Muslim jurists recognise the servitude as a right to eliminate or ameliorate that dominance. When aḍ-Ḍaḥḥak wanted to run a stream through the land of another who refused, aḍ-Ḍaḥḥak brought his case to the caliph 'Umar who ruled in favour of aḍ-Ḍaḥḥak.[77] According to the Shāfi'is, in this case aḍ-Ḍaḥḥak have had the right of servitude.[78]

Some jurists went even further, making the dominated party's property an encumbrance imposed upon the dominant party's property. 'Ibn ar-Rāmi (d.734/1334) reports a case in which a man had an orchard behind another person's orchard. The owner of the external orchard wanted to wall his property and erect a gate, while the owner of the internal orchard had the easement right through the external one. The opinion of the jurists was that such a wall could not be erected without the internal owner's consent, because the internal owner would no longer have the freedom to pass. If he comes in at night, they might not open the gate for him.[79] In another case, Suhnun (who was the judge of Kairouan, d.240/854) asked 'Ibn al-Qāsim about two houses, one inside the other, in which the internal house residents have the right to pass through the external one to reach the street. The owners of the external house decided to relocate the door, and the owners of the internal house objected. 'Ibn al-Qāsim answered that if the relocation is a simple one and will not harm the internal owners, they should not be restrained, but if the relocation is radical, such as shifting the door to the other side of the house, then that can be prevented if the internal owners objects.[80] These cases indicate that regardless of any change in the external property, the servitude right may not be hindered. Hence dominance is greatly minimised, if not eliminated, bringing stability to the internal property.

All schools of law approve selling, renting or giving easement rights. A person can sell the right to use a part of his property to his neighbour as a passageway, a gully of water or even a stream through an orchard, as long as the two parties **agree** about its positions and dimensions. The reverse is also possible: the owner can sell the passageway physically, while keeping for himself the right of passage (*haq al-murūr*).[81] However, differences among schools of law occurred on the question of selling the right of servitude by the user to a third external party. If A has the right of servitude in B, can A sell such right to C and not B? Opinions vary. The Hanafi and Zaydi schools of law do not consider the easement right to have material worth (*māl*); thus it cannot be sold or leased. Other schools of law consider the easement right to have material value; thus it can be sold or leased. The two opinions have different impact on the overlapping domain.[82]

Yet in all cases the right of servitude could not be **established** without the owner's consent.[83] The easement right is primarily an agreement between the two involved parties. The dominated party has to have access through the dominant party's property. The dominated party has to accede with the dominant party because of its needs. And when the right of servitude is established, the dominant party has to allow the easement whether he likes it or not, because the dominated party's right is recognised by the law. The two parties are forced to communicate and be in accord. Naturally, it is logical for both parties to want to avoid intervention by an outside authority. The dominant party may fear the imposition of servitude right by the authority. The dominated party fears annoyances and retribution by the dominant party. This type of agreement is a covenant which will not dissipate the property. Moreover, it is a type where the physical environment influences the relationship between individuals.

Leasing

The second type of property in the permissive form of submission is leasing which is not permanent, as is the right of servitude. Moreover, in leasing the party that uses a property can introduce new elements, such as furniture, in order to use the property. The essence of leasing is that the owner gives permission to use his property in return for certain benefit. It is attained through agreements and is known among Muslim jurists as *tamlīk al-manfa'ah* — the action of allowing others to own a usufruct for a certain period of time.[84]

Among jurists, renting is considered a selling transaction since it is the selling of benefits.[85] "In general the lessee owns the benefits through transaction as the buyer owns the object through selling. And the ownership of the lessor will be dropped as the ownership of the vendor is passed on."[86] Therefore, the using party will have the responsibility and freedom to use the property exactly as the owner

does. In other words, this principle pushes the property into the unified form of submission. How, then, are the responsibilities shared?

The lessor is responsible for what makes a property **usable**, such as walls and doors. The owner must rebuild the wall if it collapses, exchange a wooden beam if it is broken, fix the doors and ensure the water supply, since such repairs keep the property usable. That which makes a property **functional**, such as buckets and ropes for the well, is the responsibility of the lessee. Neither of them, however, is responsible for complementary or beautifying elements such as a garden fountain.[87]

In cases of dispute, the concept of usability is a decisive factor. If a wall is threatening to collapse in a rented house or if the water in its well is depleted, then the lessee has the right to terminate the lease. When a cat fell into a well in a leased dwelling in Cordoba it was ruled that the lessor should remove it, as the house could not function without the well being clean.[88] Interestingly, lack of privacy is also considered as a deficiency of usability.[89] The lessor is not compelled to fix such defects; but if he does not he will lose his tenant.[90]

The concept of usability in the resolution of disputes deals implicitly with the different levels of the physical form. The owner is responsible for providing functional walls, roofs, columns, beams, stairs, etc. The tenant is responsible for maintaining them physically.[91] This practice of referring to the physical elements as a decisive tool in cases of dispute, provides freedom to both parties and most importantly clarifies their limits.

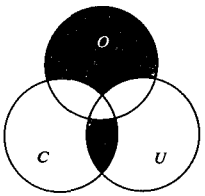
The physical condition of the building overrules the stipulations of the owner. If the owner stipulated at the outset of the lease that the lessee should reside by himself only, then in cases of dispute such stipulation is not considered if no damage is caused to the building.[92] At the same time, the contract stipulation by the lessee overrules the physical condition of the building elements. The lessee may change the function of a leased shop to a bleacher or blacksmith, even if such change would damage some physical elements, as long as it is stipulated in the contract.[93]

The principle of considering leasing to be a selling transaction associated with the above principles is a powerful concept which granted users full utilisation so long as they did not damage the property physically. The principle of measuring the lawfulness of the user's action relative to the damage caused to the physical form contributes to the full exploitation of the property, since it increases the freedom of the user.

In leasing, the relationship between the two parties is based on a covenant. At the outset of the lease, both parties are totally free to accept or reject any item of the lease. In the case of leasing the owner wants the tenant's money; he may seek other interests in the case of lending. In their pursuit of complementary interests they will reach

an agreement. Although the leased property is in the permissive form of submission, all the above principles push the property to the unified form if no damage is done or physical change incurred.

THE POSSESSIVE FORM OF SUBMISSION



The possessive form is also shared by two parties. One party uses and controls, the other owns the property. Although the association between ownership and control is the natural state of properties, if the owner is not capable, not allowed, or not interested in exercising control, then it may shift to the user. It is generally the remoteness of owners from the property which characterises this form of submission. The owner who does not control his property is usually the authority, as with agricultural lands owned by the state but controlled and used by the farmers; or places in markets that are owned by all Muslims collectively but are controlled and used by merchants.

A prominent issue in this form of submission is rules and regulations. Non-intervention by owners, due to lack of interest or feebleness or any other reason, does not grant the user full control. The owner's presence is felt through regulations.

However, rules issued by owners to be followed by possessors (users who control), imply a conflict of interest. If the party that controls and uses tended to act according to the owner's wishes, the owner would not have needed to develop rules. Every rule has a history reflecting actions which the owner considered contrary to his own interest. Thus the relationship between the party that owns the property and the party that possesses is basically a tug-of-war of regulations. This is especially true if the party which owns is physically remote, as is the case with state-owned mines or agricultural lands. If the party that controls and uses acts exactly according to the owner's desires, then the two parties are in fact one, in which case the property does not belong to this form of submission. The fundamental relationship between parties in the possessive form of submission is one of rules. This does not imply that the two parties never agree, but the extent of agreement is not the issue. Logically, owners may be regulators, but not every regulator is an owner.

A fundamental difference between the possessive form of submission and the permissive form is in the nature of agreements entered into by the parties involved. In the permissive form, agreement is between the owner of a property and the user. The user has no control and no relationship with adjoining properties other than moral or behavioural ones. It is the responsibility of the owner who controls the boundaries to agree with neighbours about, for instance, a party wall. In the possessive form, it is the user's responsibility to negotiate agreement with neighbours. For example, the merchant who appropriates a space in the market will furnish elements to utilise the space; he uses and controls the elements and he

may own them. While he controls and uses the space, he is like the tenant of a house who brings furniture to utilise it. The elements in both examples are on the same level, and both are controlled and used by the user. The difference is that the lessee must agree with the owner and not with the neighbour, while the merchant must obey the owner and agree with the neighbours. In terms of physical elements they are very similar, but in fact they belong to two different forms of submission.

Any property may fall into the possessive form. The prevailing types in traditional Muslim environments are agricultural lands, mineral lands and appropriated spaces such as streets and markets. Two of these types will be briefly examined.

Appropriation

Appropriating places is often associated with markets, where people appropriate places for a period of time to sell goods. They use the space and control it by bringing elements to it and furnishing it to function as a place of commerce, but they do not own the place. This is known among Muslim jurists as *'ikhtiṣāṣ* or "Privatation Right".[94] Some jurists define this right as the ownership of benefit which is different from the ownership of usufruct. The difference is that the owner of benefit (*'intifā'*) only has the right to benefit himself from the property, such as residing in schools, *rubāṭs*, and sitting in mosques and markets, while the owner of usufruct (*manfa'ah*) has the right to benefit from the property and to compensate or sell such benefits to others, as in the permissive form.[95]

The difference between this form and the permissive form is not only the restriction of the user's right of compensation, but is also a function of control. Although the user is not allowed to sell or rent such a place, he controls it. He must, however, yield to the regulations that forbid him from renting or selling the space to others and must follow rules regarding using and control of his place. For example, the appropriator may shade himself by using fabric, a straw mat and an awning so long as he does no damage to the place; he may not build benches or similar structures which obstruct the way of passers-by. 'Ibn Qudāmah states: "The streets and the roads in urban areas, whether spacious or narrow, may not be revived by any person, whether it annoys people or not, since they are shared by all Muslims and relate to their interests, as do mosques. However, servitude is permitted in the wide (streets and roads) ..., to sell, or to buy goods on the condition that doing so does not annoy anyone or harm the passers-by. This (convention) is agreed upon by all residents ... without objection, since it is an allowable servitude, and does no harm. Thus it has not been forbidden, just as passing (is not forbidden)."[96]

The spaces in front of shops at the markets are also spaces used

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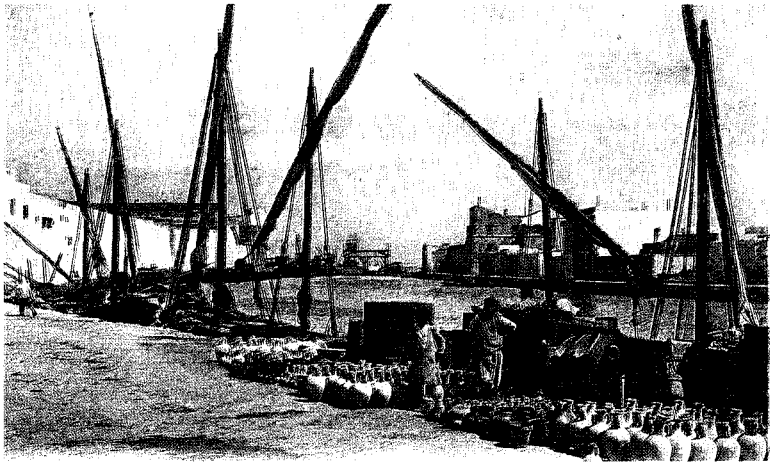

1 3 Safi, Morocco & 1 4 Bizerte, Tunisia Places appropriated by merchants who use and control but do not own the places The boundary has to be settled through agreements However, the merchants have to follow the rules of not building things that would obstruct the way of passers-by

and controlled by merchants and owned by Muslims collectively. Rules have to be followed by these users who control. For example, extending wooden beams, projecting cantilevers and planting trees are forbidden in narrow streets.[97] Places abutting mosques and public buildings belong to the possessive form and follow the same rules for appropriating places.[98]

A theme arising from legal definitions of privatation right is "priorityship," a method by which places are appropriated on a "first come, first served" basis. Priorityship is a principle in Islamic law, and it was the practice in the markets at least in the early periods.[99]

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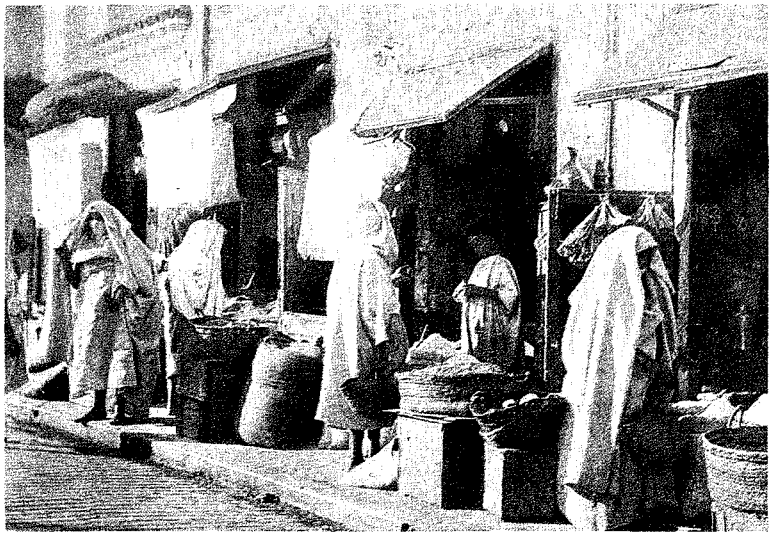

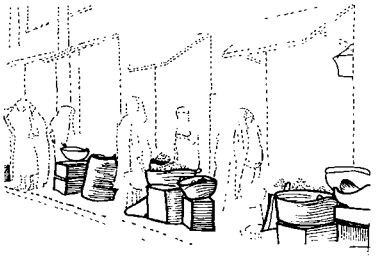

15 Tanger, Morocco. The spaces outside the shops are used and controlled by the merchants They have to follow the rules of not building things that narrow the street

16

16 Constantine, 17 Marrakech & 18 Biskra. The places appropriated on the principle of priorityship.

Appropriators competed for places, and disputes were common. Those disputes are not between parties sharing a property, but rather between the parties controlling and using adjacent properties. Because of non-intervention by authorities, the parties had to communicate and reach agreement, raising interesting legal questions: can the appropriator of a place give the right of privatation to others?[100] Does the appropriator's right to claim a space lapse at the end of the day or does it end when he removes his belongings?[101] The need to resolve issues such as these resulted in the establishment of conventions. For example, a well-practised opinion in North Africa is that if a person usually occupies the same place, and such occupancy is well known to others, then to avoid conflict, the user has the

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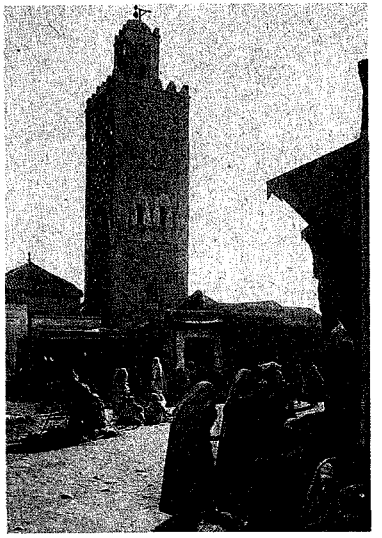

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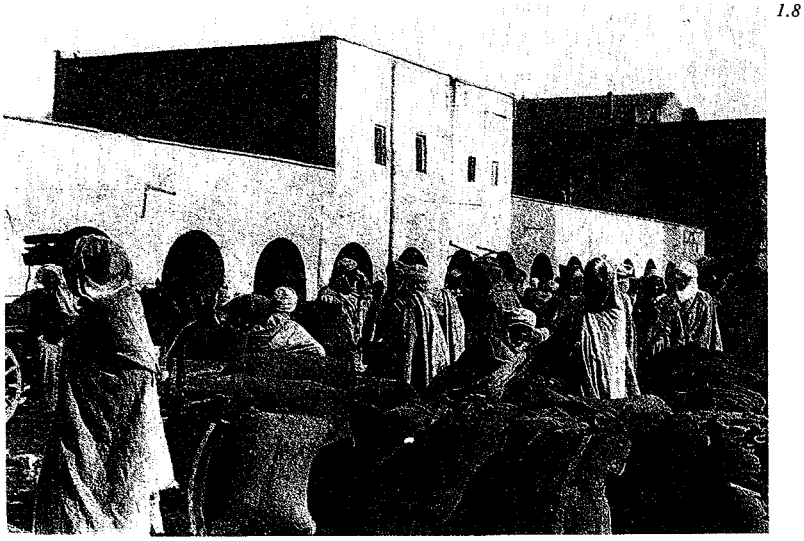
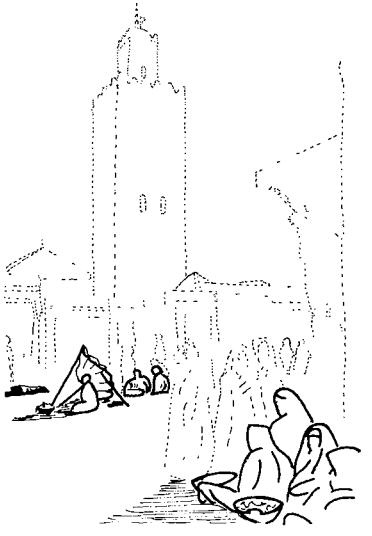




right over others to occupy it.[102]

Historically, priorityship invited competition and stimulated parties to act both by appropriating spaces and attempting to extend such appropriation to claim the place. It invited intervention by others to resolve disputes, raising a much debated issue: does the Governor have the right to intervene in organising the appropriation of places?[103]

In short, priorityship stimulated dialogues leading to agreements between parties who control and use adjacent properties. It also led to disputes that had to be resolved by outsiders. Both possibilities generated conventions.

Although the Prophet prohibited acquiring, building and taxing places in the market, in fact market places were acquired, built and taxed in the early periods.[104] The market inspector (*muḥtasib*) did not have much power in the early periods,[105] but soon his role was clearly defined, and manuals for regulating and organising markets were developed. Ultimately, most market places were owned by individuals.[106] Thus the market as an urban element shifted from one form of submission (possessive) to other forms (permissive or dispersed) during its historical evolution. However, it seems that the practice of appropriating spaces in wide streets — not built markets — continued anyway.[107]

The first intervention by the authority in the Muslim world is evident in markets. As is clear from all manuals of *hisba* the *muḥtasib* was supposed to apply the rules of the authority. The relationship between the party that controls and uses and the party that owns is a tug-of-war of regulation, not agreement.

Agricultural Land

The study of agricultural lands is important when they are in the periphery of urban area, since they gradually transform into urban areas. Agricultural land in general is dealt with in two major sections of the legal system: 1) A property is owned by the state and exploited by individuals. 2) A property is owned by individuals and exploited by others.

In the **first** type the remoteness of the owner resulted in a regulative relationship between the user who controls and the owner — the state. Historically, the state's ownership of land originated in conquest. The conquered properties were considered booty or plunder (*ghanīmah*).[108] Three alternative dispositions of conquered territory were considered:

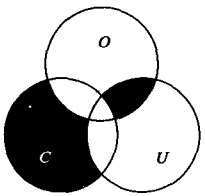
1) Non-Muslims were given back their lands, subject to the taxation of tithe (*'ushri* land).[109] 2) The property of non-Muslims was considered booty, and four-fifths of it was divided among the participant soldiers. The remaining fifth was retained for the public treasury.[110] 3) The property of non-Muslims went to the Muslim community, as in caliph 'Umar's action in Iraq (in as-Sawād), where it became a model for most conquered areas. Those lands — known as *kharāj* lands — remained in the hands of the previous owners on the condition that they paid both the land tax (*kharāj*) and the capitation tax (*jizyah*).[111] The land was owned by the public treasury representing the Muslims collectively as one party, but used and controlled by the original inhabitants as a second party. The relationship between the two parties was not an agreement, but was handled by rules.[112]

The **second** type — in which the property is owned by individuals and exploited by others — generally involves a contract between the owner of the tillable land and the tiller of the soil. It is known as *muzāra'ah, mughārasah, mukhābarah*, and *musāqāt*. Depending on the nature of the contract, the user's control varies from complete control as in *muzāra'ah* to that of being merely an employee as in *musāqat*, which does not belong to this form of submission.[113]

The legality of most contracts of tenancy were subject to debate among Muslim jurists, since they infringe the proscriptions on usury (*riba*).[114] Some jurists approved some contracts while others disapproved them[115] and consequently encouraged the owner of a piece of land to give it free to other Muslims — according to the Prophet's advice — if he cannot cultivate it himself.[116] The conclusion that can be drawn from opinions opposing agricultural tenancy contracts is that private investment in land should be restricted to the portion which the individual is able to cultivate himself. It also implies that excess land should be distributed among those who are landless increasing the percentage of parties who control properties in the environment.

On the other hand, the opinions which approve agricultural tenancy contracts results in increasing the control of the user.[117] The principle of sharing risk between two parties pulls them toward communication and agreement, thereby reducing the control of the owner. But most importantly, the controlling party is composed from the owner and the user having the same interest. In other words, it increases the percentage of the controlling individuals in the built environment. Thus, both controversial cases — where the individual is encouraged to give his land to the landless or agreed with others through contract — results in increasing the percentage of the controllers. This had a great impact on the state of the built environment.

THE TRUSTEESHIP FORM OF SUBMISSION



The Trusteeship form of submission is both rare and unstable. In this form two parties share the property. One controls it only, the other uses and owns it, like a resident of a house who owns it and yet cannot make decisions about it. It is known among Muslim jurists as *ḥijr*, which means "preventing a person from manipulating his own property for some reason."[118] Jurists classify *ḥijr* into two types:[119] First, trusteeship to protect both the owner himself and society, as when a child, a lunatic or a prodigal person is prevented from mismanaging his own property.[120] The second type of trusteeship when the authority controls the actions of insolvent individuals and mortgagers so as to protect their creditors and mortgages.[121] In both cases, if the property is used by the owner, then, since it is controlled by an outsider, it is in a state of trusteeship.[122]

Generally this form of submission is unstable and is always transitional, because the trusteeship property eventually must be transferred to another form of submission. The orphan will ultimately take control of his property, and the insolvent will buy back his debt or lose his property.

This form involves a vigilant attitude between the involved parties. The party that owns and uses a property will try to eliminate the other party's control.[123] In some cases, the party which governs will try to extend its control for a longer period of time. The trustee of an orphan's property who benefits from such trusteeship may try to extend control, but the orphan is watching and waiting.

Finally, intervention by Muslim authorities, in all other forms of submission, was minimal compared to the intervention in this form. The possessive — appropriation of places in the market — and trusteeship forms of submission are the only ones where Muslim jurists debated authority's intervention between the parties sharing the property, that is between the parties enjoying the claims of ownership, control and use.

2 Changes in the Traditional Forms of Submission

If we observe the state of a property in the contemporary environment and compare it with the same property in the traditional environment, we can identify two kinds of change.

First, within the same form of submission the identity of the party may have changed. For example, a commercial street that was controlled by the *muhtasib* is now controlled by the municipality. Or a new class of property may have emerged in the built environment with parties having different identities. An example of this is an apartment in a public housing development owned and controlled by the state.

Second, a property may have shifted from one form of submission to another. An example is a dead-end street that was owned, controlled and used by the residents as one party (unified form), is now owned and controlled by the state (permissive form).

These two types of changes may seem trivial; in fact, they invert the entire structure of the built environment. In both cases, the changes were caused by intervention by the authorities.

Although a history of change in the forms of submission in the Muslim world is outside the scope of this study, a brief summary will help us put both the gradual changes and their ramifications into perspective.

The most significant changes took place in the nineteenth and twentieth centuries. There are many reasons for the survival of the Islamic legal system without much change until the nineteenth century. Among them are a) the belief that the two main sources of *sharī'ah* — Qur'an and tradition — are from God and his Prophet; and that their validity, in any region or any time, should not be questioned. They can only be interpreted within limits.[1] b) The principle set by the Prophet of rejecting new innovation (*bid'ah*)[2]; and c) closing the door of *'ijtihād* (personal reasoning).[3]

The role of the *'ulamā* (the learned religious elite) affirmed the application of *sharī'ah* principles which affected the forms of submission. For example, during the Mamluk period the *'ulamā* were judges, jurists, prayer-leaders, scholars, teachers, and readers of

Qur'an. The essential duty of the *'ulamā* was to give the Islamic community moral guidance as well as to preserve the knowledge of religion. They enforced the morals of Islam. They were the administrative, social and religious elite. As Lapidus relates, "(a)ll realms of public affairs were an intrinsic part of the duties of this multicompetent, undifferentiated, and unspecialized communal elite."[4] The schools of law reached out to include the entire populace. Every Muslim followed a school of law and looked to the *'ulamā* for authoritative guidance on how to be a good Muslim.[5]

Traditionally there was no split between religion and law. Among the *'ulamā, the qāḍi* (judge) played a major role in applying legal principles since he was often more powerful than the governor.[6] He in turn always referred to the *mufti* (jurist or legal counsellor) since consulting others (*shūrā*) is mandatory.[7] Finally, judges were always students of jurists which guaranteed the application of the *sharī'ah* principles to all judgements.[8] Good examples of such applications are the manuscript of al-Jidar (the wall) by 'Īsā b. Dīnār (d.212/827) and 'Ibn ar-Rāmi's (d.734/1334) book on building laws. 'Ibn ar-Rāmi, a building expert who worked with the judges investigating cases of disputes in the environment, first describes the opinions of jurists and then derives a real case to demonstrate the applications of the jurists' opinion.[9]

One may argue that the wide geographical distribution of Muslims and their varied history have meant that variations in interpreting the law do appear, if not in matters of principle, at least in the application of these interpretations. To some extent this is true. For example, Muslim jurists have accepted local customs (*'ādāt*) as a legitimate source of legislation if the custom does not contradict the *sharī'ah*.[10] However, the variety of opinions and rulings in different regions and periods, did not affect the traditional model of responsibility since it relates more to the principles of the legal system than to interpretations. For example, in a case about building a parapet on a roof terrace in which one person uses his terrace while his neighbour demands that it be walled for privacy, we have two different rulings by two schools of law. One ruling forbids the person to use the roof terrace unless he builds a parapet; the other compels the person to build a parapet. Although the two opinions may seem contradictory, they both avoided intervention at the outset and did not impose regulations. Both schools of law believed in non-intervention unless one person sued his neighbour. Once a person has taken his case to court the judge will try to resolve the dispute through agreement (*ṣulḥ*); if he cannot, then he imposes the ruling on one of them. The similarity of the steps taken by the schools of law placed responsibility in the hands of neighbours.[11]

Major changes began with the Ottoman empire, which encompassed many countries in the modern Arab world. The first changes in regulations and codes pertaining to property dealt with revenue-

generating agricultural lands. We will investigate selected changes which illuminate the relationship between the parties involved in manipulating property. These changes were established by authorities for different reasons, and were considered to be reforms. I will not discuss the reasons here, nor evaluate the changes. Instead, three forms of submission, the unified, possessive, and permissive forms, which constitute the majority of the current built environment, will be discussed.

THE OTTOMAN EMPIRE

The regulation of property in most Middle Eastern countries was influenced by Ottoman administration, as those countries, excluding Egypt, were under the rule of the Ottoman empire until the end of the First World War. Property law in the Ottoman Empire was based on the Hanafi school of law, which was codified in 1869 and published under the title of Majallah. It was used for guidance by all the courts of the Empire.[12]

The Hanafi school of law is among the most conservative rites. It stipulates the permission of the ruler as a condition for owning land through revivification, and it defines dead land as the land that is remote from urban areas. According to this school, the ruler also has the right to allot places in the market and organise them. Compared with other schools it encourages intervention by the authorities.

Although the Majallah is based on the *Sharī'ah,* it defines and organises information in a format which eliminates the need for interpretation and dialogue among concerned parties. For example, an Article reads: "The *ḥarīm* (the protected area which may not be revived by others) of the tree that was planted (by the reviver) through the Sultan's permission on a dead land is five cubits from each side; no one other than him (the reviver) is allowed to plant any tree within such distance."[13] This article not only stipulates the necessity for permission of the authority to plant a tree in dead land, but also eliminates dialogue between parties by establishing the five cubits as the distance from the tree from all sides, regardless of its size. The Majallah, by increasing the authority's responsibility is, in effect, a first step towards centralisation.[14]

Prior to 1858 the *timar* system was a prominent feature of the Ottoman land system. In return for military service, cavalrymen were granted *timar*, which is defined as a "grant for an income derived from agricultural taxation for the support generally of members of the provincial cavalry."[15] They were revocable grants given by the Sultan. The *timar* system was the backbone of the administrative and military organisation of the Ottoman Empire, and was based on a territorial unit called *sanjak*. A *sanjak* was composed of one or more villages in which holders of *timar*, or *timariots* lived. Lands held by *timariots* were cultivated by peasants. The *timariots*

or the delegated authority over the peasants reported to a *sanjakbeg*, who was the administrator and chief military officer of a *sanjak*. A group of *sanjaks* comprised a *beglerbeglik*, which was controlled by a *beglerbeg* or "bey of the beys," who reported to the Sultan.[16]

The relationship between the *timar* holder and the authority was based on *tahrirs* (cadastral surveys). Each conquered region was surveyed, and all sources of revenue for each *sanjak* were listed. From these cadastral surveys other documents were established which spelled out the obligations of the *timar* holders and their responsibilities. That is to say, the Sultan or the state owned the property, while the peasants had the hereditary usufructuary rights on the land. Between the peasant and the sultan were many administrative mediators, such as *timariots*, *sanjakbegs*, and *beglerbegs*.[17]

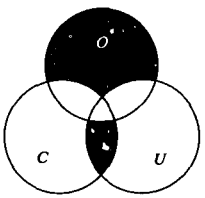
Prior to 1858 individuals could convert unowned land to private ownership through revivification. To prevent that ownership from being rescinded by the state while securing the land benefits for themselves and their descendants, revivers often dedicated the property as *waqf*. One of the main objects of the 1858 Land Code was to stop this reviving of state lands, thus minimising the conversion of dead lands to lands owned by individuals.[18]

Another object was to eliminate corruption by minimising the number of mediators between land holders and the state while holding on to state land. When the Empire found its expenditure outstripping income, it decided to collect taxes directly from the peasants. The Land Code thus contains provisions to strengthen the relationship between the user of a land who controls — the cultivator — and the owner of the land — the state. The customary system of collecting taxes was replaced by a government system.[19]

The Land Code of 1858 divided lands into five categories:

1) *Mamlūkah* property, or property held by individuals in absolute ownership in which the owner could convert his property into *waqf* or bequeath it. Such actions were the highest form of manipulation, denoting a state of pure ownership. 2) *Miri* properties, or properties owned by the state and possessed by individuals who use and control them. 3) *Waqf*. 4) *Matrūkah* property, or property left for public use. 5) *Mawāt* or dead land.[20]

The Possessive Form of Submission



Both *miri* and *matrūkah* properties are in the possessive form. *Miri* property is defined as property owned by the state over which the users have the right of usufruct. The user controls it under the state's regulation. By reviewing the Codes one can observe fluctuations in the regulations, as well as the tug-of-war relationship between the involved parties. For example, under the land code of 1858 the holder of the right of usufruct was not authorised, except by the state's permission, to use the soil of the land to make bricks, plant trees, erect

buildings, use part of the land as a burial place, or bequeath, transfer, or mortgage it.[21] Later, those regulations were changed. In 1867, a law issued the extension of the right of inheritance in *miri* land, followed by a series of regulations controlling succession of *miri* lands. In 1911 the state allowed the holder of usufruct to erect buildings, plant trees, and use the soil to make bricks. Since it was in the state's interest to increase revenues, the state affirmed its ownership of *miri* lands and replaced old regulations which did not work.[22]

The state, like any other party, wanted to increase its holdings and created regulations toward that end. Under the Land Code, for example, properties owned by individuals who die with no heirs revert to the state. Property conquered by Muslims, abandoned by its original inhabitants, and later occupied by non-Muslims, belongs to the state. Property owned by unknown individuals belongs to the state. The expansion of the state placed properties which were originally within the unified form of submission under the possessive form. Furthermore, all *miri* properties could be leased by the Sultan to people, but the lessee could not lease the property to others without the Sultan's permission.[23]

In order to eliminate corruption, every effort was made by the state to minimise the number of mediators between the state and the farmers. Revenue was thus increased, while ownership of the land was retained by the state. The relationship between the state and users of *miri* land came to be increasingly regulated. This relationship was unlike either the traditional Islamic one or unlike the *timar* system. Although corruption existed in the *timar* system, so long as they paid their taxes the cultivators had control of their land. After the Land Code of 1858, regulations serving the interest of the state were enacted. If a regulation did not work, new rules were introduced. Increasingly, the user's control decreased while the owner's control grew. Since the owner was the authority, the result was "centralisation." Centralisation changed the relationship between the two parties. The centralised party's property expanded and the percentage held by controllers was reduced.

Matrūkah literally means "left over," and is defined as land "which is owned by the state, so no one can own it or possess it." *Matrūkah* is divided into two types: lands in cities that are left for the use of the public such as roads, markets and squares; and lands, such as pasture lands, that are assigned to the inhabitants of a village or group of villages for collective use. These lands cannot be sold or manipulated by inhabitants.[24]

In both types, it was forbidden to erect a building on *matrūkah* or even plant a tree "and whoever does, his building will be demolished and his tree will be extracted and such person will be prevented from using the space by the authority."[25]

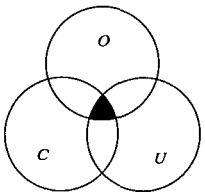
Radical control of the central authority is evident in these clauses which regulate the spheres of action of the owners and the users.

Roads, squares and forecourts of cities were traditionally considered to be owned by those using them collectively; individuals could act without harming others; any user could question the action of others; they fell under the unified form.[26] In this new situation they shifted to the possessive form of submission.

The same shift in form took place with pasture lands. Traditionally these were called *himā* and were in the unified form, owned by the villagers collectively. In the Ottoman Land Code of 1858, they were claimed by the state. Since they were still controlled by users, the new arrangement was in the possessive form of submission. In the case of *himā* and *miri* lands, centralisation reduced the percentage of the controlling parties in the environment by shifting the *himā* and public spaces to the possessive form of submission.

Moreover, If those codes had been fully implemented to the extent of not allowing the users even to plant trees, *matrūkah* properties could be considered to be in the permissive form in which the users have no control. Traditionally, in the permissive form, the nature of the relationship between the two parties was based on agreements. Here it is changed, the user has no choice in the matter; he is compelled to live by the rules.

The Unified Form of Submission

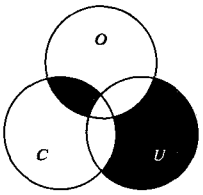


Among the five categories of property recognised by the Land Code of 1858, *mamlūkah* property alone belongs to the unified form.[27] The Code recognises the squares and open spaces inside the villages, not to exceed half a *dunam*, as property owned by the villagers. It also recognises *kharāji* or conquered land, as a private ownership. However if the owner could not cultivate it and pay the *kharāj* tax, then the land was given to others to cultivate in order to pay the tax while avoiding transference of ownership from the original holder. This land is then known as *hawz* land, that is, property previously under the unified form but now shifted to the possessive form.[28]

The authority's intervention with respect to revivification reduced the increase of property in the unified form, while increasing the properties in the possessive form. The Majallah, for example, defines *mawāt* as those lands which lie remote from inhabited areas, implying that lands adjacent to urbanised areas could not be revived.[29] Moreover, revivification can only be made with the sovereign's permission, and he may stipulate that the revivification will lead to the right of usufruct and not outright ownership of the land.[30] Traditionally, revivification led to the unified form; now it can lead to the possessive form of submission if the authority so stipulates.[31] The Land Code went even further, stating that dead lands can be revived **only** by the permission of the authority and such land will be owned by the state. Thereafter, all revived land were owned by the state.[32]

Few regulations concerning ownership within urban areas, were established by the Majallah. Although the dead-end street is recognised as private and belongs to the unified form of submission, users' control was reduced by the central authority. The Majallah gave the passers-by in main roads the right to enter private streets in cases of crowding. The owners of the dead-end street did not have the right to sell it, even if they agree to do so among themselves, nor could they divide it. Moreover, the owners could not block its mouth by, for example, building a gate. Traditionally, all the above rights were possible, since the dead-end street was owned and controlled by its residents.[33]

The Permissive Form of Submission



The classification of the traditional permissive form of submission introduced in Chapter 2 will be used: 1) An easement right in which a party utilises a property without having the right to furnish elements; and 2) leasing.

The Ḥanafi opinion expressing disapproval of compensation for easement right is echoed in various Articles of the Majallah, yet the Majallah gives the user complete protection from the party that owns and controls by eliminating dominance between involved parties.[34] However, the Majallah discourages the creation of such relationships between two parties. One Article reads that "no one should run his new dwelling's water-course through another's house."[35] These codifications, by eliminating compensation between the owners of two adjacent properties, eliminates dialogue as well. Thus, although the traditional principles of easement rights continued new servitude rights could not be established. This ultimately had an impact on the territorial structure of the environment. New properties would not be located behind or within other's properties since each property had to have a direct access to a public space.

The authority did not intervene in the case of leasing. The traditional relationship between the two parties continued.[36] Logically, the least intervention by the authority can be expected in leasing because it follows the unified form. However, this is not always the case.

To summarise changes in the form of submission in the Ottoman empire, the effect of the authority's intervention through codification, regulation and stipulation varied from one form of submission to another. In the permissive form it reduced communication between parties; in the possessive form it changed the identity of parties. The change of the identity of parties changed the relationship between those parties. The *miri* lands, for example, become more regulated. Streets, squares, pasture lands and *ḥawz* lands shifted from the unified to the possessive form of submission. The mechanism of revivification become state controlled and led to the possessive form. The amount of property belonging to the authority

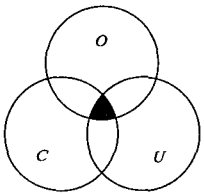
increased, and the percentage of the controlling parties in the environment was consequently reduced. Centralisation changed the traditional identity of parties and also shifted elements from one form of submission to another. But later, in the Arab World, the situation became worse.

THE ARAB WORLD

Egypt was not ruled by the Ottoman Empire in the 19th century, yet similar changes in the forms of submission took place. The first major change was during Muḥammad 'Ali's reign, a regime fully recognised by the Ottoman Empire only in 1841. Most of the agricultural land in Egypt shifted from the unified form to the possessive form during this reign (1805-1848). After the final defeat of the Mamluks in 1226/1811, Muḥammad 'Ali confiscated their private estates, thus becoming the owner of most of the agricultural land in the country.[37] He then gave each farmer three to five acres of land in a sort of hereditary lease arrangement in which the farmers had the right of usufruct and the state retained the right to expropriate land without compensation.[38]

Since then, a series of decrees, aimed at increasing state revenues have been enacted.[39] Over time they have fluctuated and gradually decreased in number. One example of these fluctuating decrees was issued in 1871, giving land holders ownership of their property and at the same time reducing by one-half the land tax to which they were liable if they paid six years' tax in advance.[40] The most radical changes occurred after the Army Revolution of 1952, when regulations were tightened once again.[41]

Until World War 1, Lebanon, Syria, Jordan and Iraq followed the Ottoman land codes and Majallah. Although the Ottoman system was, compared to the traditional system, already quite centralised, it become even more so when those regulations were replaced or modified by a set of others influenced by the West. In 1926 Lebanon and Syria, under the French Mandatory Government, introduced a system of land survey and title registration.[42] In 1930 the French commissioner established the Property Law, abolishing all Ottoman land codes. This was modified in Syria in 1949 by what is known as the "Syrian Civil Code."[43] Most, if not all, Arab states were influenced by Western civil codes. The Egyptian civil code was developed along the lines of the French civil code by Dr. as-Sanhūri, assisted by the French jurist E. Lambert. As-Sanhūri also prepared the Syrian, Iraqi and Libyan civil codes, on which the Jordanian authorities depended in formulating its civil codes.[44] Thus great similarities in property laws can be expected in these countries.



Most Civil Codes in the Arab world do not define private ownership. They claim that codes do not define but rather codify ownership by referring to its limitation and the rights it entails. All definitions stipulate that an owner should manipulate the property within the limits of the law.[45] Thus an owner can act in any way he likes so long as he follows the regulations of the authority. A party that owns, controls and uses a property is subject to the higher authority. This is in contrast to the traditional principle treated in depth in Chapter 5, which states that an owner has complete freedom as long as he does no harm to others, an arrangement which concerns only the relationship of two adjoining parties.

In Syria, the civil code classified land into five categories. *Mamlūkah*, the only category belonging to the unified form, is defined as property that is situated inside the built zones according to limits set by the administration, and what is outside them is owned by the state.[46] Thus a simple provision by the central authority shifted rural lands from the unified to the possessive form of submission.[47]

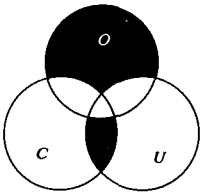
With respect to revivification, the Syrian civil code considered dead land a state domain.[48] The same process took place in Iraq in 1938.[49] In Egypt, nullification of revivification was gradual. It started with Civil Codes that considered unowned land as state domain that could not be revived without the state's permission. But if someone did revive land without permission, his ownership would lapse if he did not utilise the land for five consecutive years during the next fifteen years.[50] In 1958 revivification was limited to specific places in desert area.[51] In 1961, revivification was limited to no more than 100 faddan of agricultural land.[52] By 1964, all desert and uncultivated lands became the state's exclusive property and revivification was abolished altogether.[53] The policy regarding revivification in Egypt and Syria is very similar to that in other Arab states, with similar consequences.[54]

During the Ottoman Empire dead land was recognised, and rules were developed for controlling its revivification. In the modern period, however, the mechanism of owning dead land through revivification was abolished. Any person interested in revivifying dead land must get a license from the state.[55] Hundreds of requirements have to be met with endless paper work and signatures of officials, inviting corruptions at all levels. Furthermore, wrongdoing by an individual on dead land is regarded as aggression against an exclusive domain of the state and the aggressor is held liable.[56]

If we compare this system of revivification with the traditional one, we observe that every action undertaken by the reviver must be reported to and checked by the state. Yet, such actions do not lead to the unified form. They lead only to the rights of control and

use — the possessive form of submission. The nullification of the system of revivification reduced the percentage of property under the unified form of submission, thus reducing the number of parties with real control in the built environment.

The Possessive Form of Submission



As properties became regulated by the state, as civil codes codified and municipalities developed their own regulations, other method of classification became appropriate in investigating this form. The interest of the owner established a logical but profit-oriented classification in the contemporary environment.

One extreme in terms of interest is the case in which the owner expects benefits from the party which controls and uses (possessor), and thus will co-operate with the possessor. Another extreme is the case in which the owner serves the user, as in pasture land. In such cases the owner is not obliged to co-operate.

The authority is the owner of most properties under the possessive form in contemporary environments, and its attitude towards possessors encompasses both extremes.

Interest

We noted previously the obstacles put by the state to dead land revivification and showed that such revivification most often leads to the possessive and not the unified form of submission. But if a person establishes such a right, that is, revives land and holds the right of control and use (*taṣarruf*), what is the nature of his relationship with the owner (the state)? In most Arab countries, the usufructory party has almost complete freedom of control within a system of authorisation.[57] Such a situation may seem surprising: the state discourages or even disallows land revivification, yet imposes no regulations on the parties that control and use. It was found, however, that leaving freedom in the hands of the possessing party results in larger revenue for the state, and is therefore in the owning party's interest.

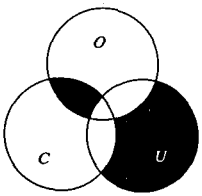
Although the users who control enjoyed considerable control, the relationship with the owner was still a tug-of-war. A new type of regulation, bureaucratic centralisation, emerged, resulting in properties in the possessive form that are more regulated than those under the Ottoman Empire. A quick review of the manuals developed by the states to tax, to guide and to monitor the actions of usufructuaries, and the amount of paperwork resulting from such regulations, demonstrates the extent to which the new bureaucratic centralisation contrasts with the traditional system.[58] In Egypt, for example, the Ministry of Agriculture was given the right to sell uncultivated and desert lands to those who are interested in utilising them.[59] A series of regulations were developed for such transactions. The implementation board was to decide the price of the land, its stipula-

tion, period limit, interest rate, etc. The series of regulations were originated by one committee, implemented by a second, and checked by a third, with results evaluated by a fourth committee. Each committee's work depended on the others' findings. If a certain number of the committee's members do not attend a meeting, then the committee cannot make decisions, and so on.[60]

Disinterest

In the case where the owner does not expect benefits from the possessor, as in dead-end streets and pasture land (traditionally in the unified form), the state also claimed ownership. The Syrian Civil Code of 1949, calls *ḥimā* (pasture lands) *matrūkah murfaqah*, "left-over-for-servitude", land that "belongs to the state, but a group of people have the right to use it according to administrative rules and local customs."[61] These properties legally shifted from the unified to the possessive form where the villagers only use and control. Then the state as an owner regulated those properties.[62]

The Permissive Form of Submission



Two types of intervention took place in the permissive form. The first occurred when the authority claimed ownership and control of public spaces, thus pulling those elements to the permissive form of submission. The second occurred when the authority intervened between parties sharing property, as with leasing, pushing leased property towards the dispersed form of submission.

Public Spaces

The authority assumed the right to intervene in such spaces as streets and squares by claiming them as its property and regulating their use. For example, the Syrian Civil Code of 1949 designated public spaces *matrūkah mahmiyyah*, "left over protected", a category of property owned by the state.[63] The Jordanian Civil Code of 1952 prohibited individuals from planting trees or building on such spaces. If anyone does so, "the building is to be demolished, the tree is to be uprooted and the person is to be constrained from further manipulation of the place under the authority's supervision."[64]

In the traditional environment the street belonged to the unified form. It was, as we shall see in later chapters, owned by all Muslims collectively and used and controlled by them. If an individual user appropriated a place in a street, that place belonged to the possessive form, so he could act freely as long as he did not harm others. As a member of the party which owns and controls, he also had the right to question the actions of others. In contemporary environments, the street has shifted to the permissive form, where the authority owns and controls while individuals only use. Even the character of the permissive form has changed. The user has no part in the decision-making process; he is compelled to follow the rules.

Leasing

Traditionally, leasing was characterised by its covenant relationship between two parties. In present-day environments, intervention by authority favours one party over the other, and because of this intervention by a third party, the autonomy of each party has been lost.

Ostensibly, leasing is an issue in which authorities may not intervene, as it is always a relationship between lessor and lessee which does not affect the built environment from the authority's point of view. However, if tax collection or state ideology (as in socialist countries) is involved, leasing becomes the concern of the state. So, depending on the state's ideology, intervention does or does not take place. That is exactly what happened in the Arab states. In states like Saudi Arabia that do not collect taxes and are not socialist in outlook, little or no intervention has occurred. Socialist governments, on the other hand, intervene frequently. Thus, among all forms of submission, the situation for leasing varied from one state to another. To investigate the effects of centralisation on the state of property, we will examine the situation in Egypt where, more than in other Arab countries, leasing is regulated.

Because of the slow pace of building in Egypt between the two World Wars, a housing shortage developed with inflated rents and a consequent accumulation of controlling regulations. Two types of regulations were in use — the Civil Code, which was concerned with principles, and various decrees, some of which controlled rent.[65]

As often occurs in such cases, decrees which controlled rents in some buildings inflated the rents of other, unregulated, buildings. For example, a major decree concerning rent control was issued in 1947. It affected the rents of buildings built prior to January 1944. Those built after 1944 were not controlled, to encourage investors to build new dwellings at the same time that rent of the already inhabited ones was controlled. This decree naturally resulted in high rents for new buildings.[66] Later, in 1952, another decree was issued reducing the rents of the buildings erected between January 1944 and September 1952. Again, those built after 1952 were not regulated.[67] Since that time, during the Military Regime, decrees have been issued more or less annually to modify previous rent control decrees. These decrees effectively force owners of new buildings to raise their rents, in the certain knowledge that these rents will one day be reduced.[68] Moreover, some owners require lessees to sign a lease for an amount higher than the actual rent, in expectation of future rent-reducing decrees.[69] To solve this problem, the authority devised a new method for controlling rents. A decree in 1962 set the rent of new properties at five percent of the land value plus eight percent of the building cost which allowed for differing interpretations by the involved parties.[70]

These decrees created tension between lessors and lessees.[71] The tense relationship between the two parties that had traditionally been

based on agreements, worsened when those properties that were leased under a rent control decree were later subject to more rent reduction under other decrees.[72] The decrees also created series of games of hide-and-seek in which the involved parties invented strategies: the authority regulates, the owner then invents a solution to bypass the regulation; the authority closes that loophole; other doors are opened by owners, and so on.

Controlled rents were set by committee, using a set of calculations based on factors such as land value and building height.[73] This intervention opened an avenue for corruption that did not exist in the traditional system of agreements. The owner could bribe the committee; or the committee or one of its members could forcefully solicit a bribe by threatening to lower the rental value.[74]

The rent level established by the committee, though characteristically in favour of the lessee in a socialist regime, resulted in violations of the rent control laws even by the favoured tenant. For example, in a new building for lease with many applicants, the owner has a choice of tenants. The applicant who pays most "under the table" will get the apartment. The lessor and lessee have agreed and overridden the authority's control. In this case, unlike in the late fifties and early sixties when the tenant often paid less than stated in the actual lease, the tenant pays more.

If no agreements — that is, bribes — are involved, disputes can be expected. The owners may complain about the committee's decision on the rent level, or the tenants may, after a period of residence, complain about the rent.[75]

Rent control associated with inflation made dwellings a valuable commodity to both owners and tenants. The owner, seeking a higher rent, tended to wait for the best offer. In reaction, the authority established rules to control vacancy periods. The owners bypassed this rule by failing to inform the authority of the date of vacancy. Then the authority ruled that it must be informed of vacancies.[76]

Leased dwellings, being scarce, encouraged investors to lease apartments from owners and then sublet them to others. This is an outcome of the regulation which gives tenants, in case of extended travels for instance, the right to sublet their leased dwelling. The owner cannot cancel the lease if the dwelling is still occupied by at least "a third degree relative."[77] This regulation resulted in reserving more than one vacant dwelling per tenant or owner, thus increasing the housing shortage. Thereupon the authority ruled that no one could reserve more than one dwelling within the same town without an adequate reason.[78] Similar games were played by tenants and owners with respect to leasing or subletting furnished dwellings.[79]

Traditionally, the tenant could change the function of the leased property so long as he did not damage the building. This principle might well encourage the tenants to maintain the property. Under the Egyptian Civil Code, however, the tenant cannot change the

function of the property without the owner's consent.[80] Certainly, this is an advantage to the owner; yet it leads to deterioration of the property, especially if the relationship between the two parties is not amiable.

All these regulations increased the conflict between owners and tenants. An interesting example is the situation in which the owner cannot cancel the lease when it expires. The lease continues even if the tenant dies, to be inherited by his descendants. The owner can only terminate the lease if he indemnifies the tenant. This situation became untenable with some owners trying assiduously to cancel a lease. A new game emerged in which the owners tried to evict low-rent tenants. If the tenant failed to pay the rent within a certain period, the lease could be cancelled. Some owners refused to accept the rent, giving different excuses, so that they could cancel a lease. The lessees could not, under the circumstances, produce a receipt if sued by the owner. Consequently, a rule was passed that if the owner refused to accept the rent the tenant could instead submit it to the representative of the authority in the community.[81]

Another painful example is the one in which the owner has the right to cancel the lease if the building is threatened with collapse. Some owners cunningly exploited this excuse, especially in old low-rent buildings. A decree was issued which forbade demolishing such buildings without permission from a governmental committee. Again an invitation to bribery.[82]

Authority's intervention inevitably favours one party over the other. As rents are reduced or control is assumed by authorities and the owner is forced to lease, the owner loses control. Whether he maintains his property or not, his rent-controlled income does not change. Thus he has no reason to improve his property. Failure to improve the property causes it to deteriorate, which in turn may force tenants to leave. The owner may forbid the tenant to change things in the dwelling, applying restrictions in the hope that he will leave. At the same time, the party that uses the residence may choose not to invest in the property because he does not own it. Thus, the property is shared by three parties: the first who owns it, the owner; the second who uses it, the tenant; and the third who controls it, the owner and the authority jointly. If the interests of these parties are divergent, then the property is dissipated and is in the dispersed form of submission.

The conclusion we drew in the traditional dispersed form of submission, that any property shared by three divergent parties usually spells disaster, holds in the case of rent-controlled dwellings. The situation became so acute that committees were formed to investigate the leased deteriorating buildings and to assess the needed repairs to be made by owners. The committee's finding had to be submitted to tenants and owners. Some owners refused to receive the findings. The authority ruled that a copy should be posted visibly on

the leased property and another copy on the advertisement board of the police station in that community.[83] The property is dispersed. Centralisation has shifted the property from the permissive form of submission to the dispersed and the identity of the controlling party has changed.

In summary, centralisation shifted the relationship of the party of the unified form of submission from neighbours to the central authority which affected the dialogue between neighbours.[84] Most rural lands that were in the unified form were claimed by the state. The mechanism of revivification that was state-controlled during the Ottoman Empire and led to the possessive form was totally abolished.

In the possessive form, bureaucratic centralisation resulted in properties that are more regulated than were those in the Ottoman Empire. Dead-end streets and pasture lands legally shifted from the unified to the possessive or the permissive form and were then regulated. Public spaces ended up in the permissive form where the user is compelled to follow the rules.

The traditional covenant relationship between the parties of a leased property was thrown out of balance, and leased property was placed in the dispersed form of submission and in adverse condition. Because of centralisation, the percentage of the controlling parties in the contemporary environment is far less than in the traditional one. The unified form of submission does not constitute the majority of the built environment; responsibility has shifted. What are the consequences of such a shift?

3 Synthesis of the Forms of Submission

In the first part of this study we considered the structure of each form of submission independently. In this section, we will explore the coexistence of properties with different forms of submission in the traditional Muslim built environment, and then compare this coexistence with the contemporary environment to form a theoretical framework for the second half of the book.

In any built environment, the five forms of submission are entangled in such a complicated way that it is difficult to separate and delineate them. As the composition of the built environment is complex in terms of physical elements so is the coexistence of the forms of submission, since each physical element can be in any form. For example, a resident who owns an apartment in a condominium may own, jointly with his downstairs neighbour, the floor that separates their dwellings. The floor is in the unified form in which the party is the two neighbours together. At the same time, the party walls of the building can be owned by all the owners of the condominium. The external walls of his apartment are in the permissive form in which he is only a member of the owning and controlling party. He may use a parking lot that is controlled by the condominium residents and owned by the owner of the adjacent property — dispersed form. His furniture is in the unified form, though he may have a piece of furniture that he has leased which he controls — possessive. Furthermore, his condominium may be located in a compound owned and controlled by his institution — possessive. The streets of the town he lives in are in the dispersed form. The complexity of the coexistence of the forms of submission invites a careful inquiry.

We have seen that intervention by an outside party was the main reason for a shift of property from one form of submission to another, and that the most affected and effectual claim is control. Because of this intervention, the coexistence of the forms of submission in the traditional built environment differs from the contemporary ones.

From the users' point of view, the coexistence of the forms of submission with respect to control can be classified into two extremes.

The first is one in which users have full control over their properties with no external influence, and each user owns and controls his property. Each property is self-made and self-governed. The whole environment is a series of adjacent unified forms of submission. I will call this coexistence **autonomous synthesis**. The second extreme is one in which users have no control whatsoever and do not own the properties. Paternalism is the policy of the controlling and owning parties and users have little or no responsibility. The environment is composed of properties in the permissive or dispersed forms. I will call this **heteronomous synthesis**. In this synthesis the percentage of the controlling and owning parties regarding users is much lower than the autonomous synthesis.

Most built environments are a mixture of both syntheses, yet it is possible to recognise the prevalence of one over the other. In an autonomous synthesis some owners may lease their dwellings, and this will not affect the state of the environment as much as if it were owned and controlled by one party, as in a housing project. In the first case the percentage of owners and controllers is still high in the environment, while in the second — the housing project — it is low.

The way elements are composed in the built environment invites a relationship of intervention between the parties of the different properties which in turn influence the coexistence of the forms of submission. In Diagram 3.1, because the dwellings are often surrounded by streets (H), the party that controls the street may impose regulations on the dwellings' owners. But if the dead-end street (G) is unified, that is, owned and controlled by the users of that space (a, b, c, d, e and f), and those users as one party cannot impose regulations on the houses' owners, and if the street (H) is controlled by a party that does not or cannot impose regulations on the dwellers, or it is composed of Gs, then this means that the dwellings are merely inside or surrounded by streets and the potential intervention necessitated by the relative positions of properties is eliminated. In short, as long as the parties of such shared spaces as streets are composed of the surrounding parties and do not impose regulations on others' property, the synthesis is autonomous. On the other hand, some properties may be unified but subject to regulation of the shared property's party. Then the synthesis is heteronomous.

Property in the autonomous synthesis, whether unified or not, is not subject to rules. Parties have complete freedom within their property. Hence, the only burdens on the properties' parties are interfaces with adjacent properties. Any dispute between two parties (a & b, as in Diagram 3.1) is their own responsibility. Therefore, extensive dialogue and consequent agreements to settle disputes between parties should be expected in the autonomous synthesis. This is especially true if there are no mediators, rules or principles to settle disputes, as otherwise the built environment would be chaotic. In the heteronomous synthesis, however, any dispute between two

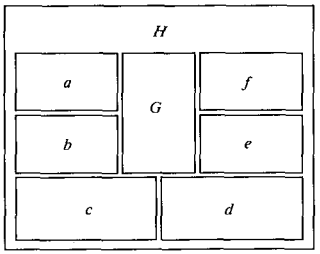


Diagram 3 1 Autonomous Synthesis. An abstraction of a situation in which a, b, c, d, e and f are dwellings sharing a corridor or dead-end street G, which opens to the street H. Street H is owned and controlled by those who use it as one party; i.e., party G is composed of a, b, c, d, e and f; while party H is composed of many Gs. The double lines between properties indicate that each property is totally independent

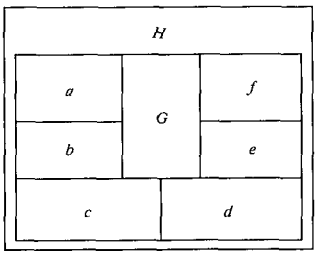


Diagram 3 2 Heteronomous Synthesis. In this case parties H and G are not composed of a, b, c, d, e and f. Party H may even own and control all properties used by others. The single lines between properties indicate that one party, either internal or external, is in control.

properties (c & d, as in Diagram 3.2) is the responsibility of the external dominant party (H). Agreements are not needed. The controlling party creates its own organised environment.

Finally, the two syntheses exemplify two distinct attitudes and ideologies. The autonomous synthesis is a laissez-faire attitude. Its ideology is that each party knows and can accomplish what is best for itself. Non-intervention is the applied doctrine. Heteronomous synthesis, on the other hand, reveals a paternalistic attitude in which the governing body distrusts the capabilities of parties. Thus intervention is seen to be necessary.

At the outset, intervention is most likely in shared spaces such as streets, since responsibility is dispersed among the many members of the controlling party. The more individuals in the party, the less responsibility the individual has. This fact affects the condition of the property. In the same way, the more individuals in a party, the more likely it is that an agency, such as a municipality, will be established to represent the users, creating a party that is remote from the property. This will also affect the state of the property.

SIZE AND REMOTENESS OF PARTIES

In Chapter 2 we used the phrase "change of identity" of parties. The change of identity is caused by a) the change of the **size** of the party and/or b) its **remoteness**. When the municipality claims ownership of dead-end streets, the residents are no longer the owners; the owner is an outsider, remote from the property. The same can be said of control. Public housing, built and controlled by the state and occupied by the needy, is characterised by remoteness of control. As will be seen, remoteness of the controlling or owning party will impoverish the property. Remoteness rarely applies to users, since using implies proximity.

We will use the term "size of a party" to refer to the number of individuals composing a party. The number of participants in a party may increase or decrease. A house owned by a household may be bequeathed and owned jointly by the successors who live in it. An apartment building owned and controlled by an individual can be bought by a corporation, or vice versa. Thus we will use the terms "large" or "small" party to refer to the size of the party.

There is often a proportional relationship between the size and the remoteness of the owning and controlling party. The larger the party the more likely that it will be remote. Naturally, large parties cannot inhabit small properties. Owners of one small house cannot all live in the house. Logically, this proportional relationship does not apply to the using party. If the user's number increases it does not mean that they are remote. To use is to occupy the property.

Another interesting proportional relationship exists between the size of property and the size and remoteness of parties. Ordinarily, a

larger property implies a larger or more remote controlling or owning party. An example is the state, a large and remote party which owns large estates. Obviously, exceptions to this proportional relationship do exist. An individual may own a mansion, or conversely many individuals may jointly own and control a small shop.

NIGH PARTY

Some internal decisions by a resident — such as connecting two rooms — do not affect parties of adjacent properties, and a neighbour's challenge of such a decision would clearly be intervention. However, if the decision to create a window from which the creator may overlook his neighbour's house is opposed by the affected neighbour, this is not an intervention, since the window affects both parties. That is to say, some decisions by the residing party within its property directly or indirectly affect other parties. In the case of direct affect, the affected party can be adjacent, as in the case of digging a well near the property's boundary. Or it may be farther away, as in the case changing the function of a building from a dwelling to a tannery, whose odour can affect the neighbours of another block.

We need a term to refer to these affected parties. The term should also include parties who, though not affected, still have the right to object because they are partners. For example, the neighbours of a dead-end street or the owners of a condominium have the right to object to an individual's action although they may not be affected by it. A sufficient term is **nigh party**. The nigh party is never remote. It refers to a residing party in cases of dwellings, or partners of shared property in cases of a condominium, or a resident in the neighbourhood in cases such as transforming a property to a tannery. The term nigh party suggests all or any of the participants, residing or affected parties, depending on the nature of the action and the nature of the property.

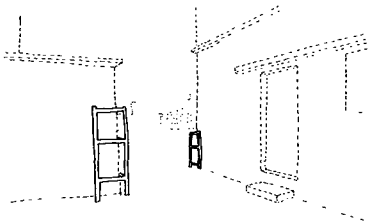
PARTY'S INITIATIVE

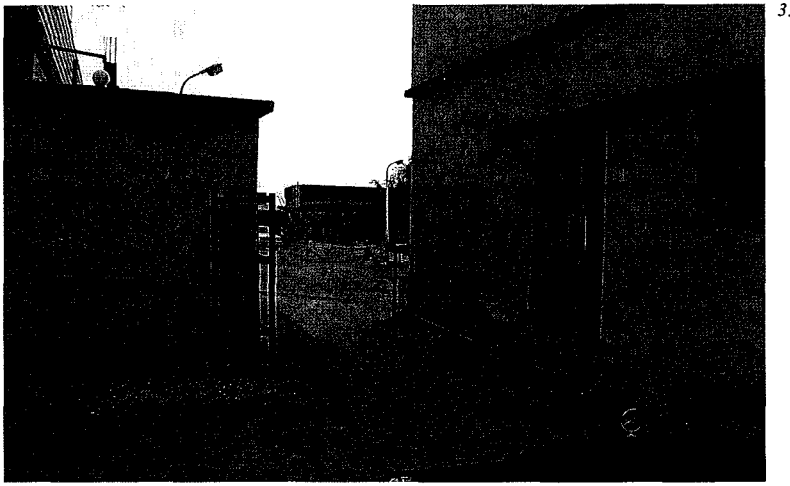
A party's initiative and consequently the property's condition is related to its nighness. Nigh parties are most likely to initiate actions. Remote parties may not be cognizant of the property's needs and may not respond, or may act inappropriately. A house owner who resides in his property is more attentive to his property than an absentee landlord. A landlord pays more attention to his property than does a housing agency.

The nigh party also means the largest residing party, that is, the party composed of the largest number of property users, and the one most likely to take initiative. For example, a corridor in an apartment building can be controlled by one person. This one-person party may not respond the same way a party composed of all residents would. It is possible that such a person is acting as represen-

tative; in such cases all the residents are, in fact, controlling if they have the power to influence that person's decisions. If the residents do not have the power to influence this person, then he may act according to his own interest, which may not match the residents' interests. Thus a small party is not necessarily good. Similarly, a large party is one which is not residing in or using the property. Thus it is remote and may fail to take initiative, since responsibility is dispersed among the members. Hence, it is not good either. A large-remote party is ominous for the property, and conversely, a large-nigh party is commendable.

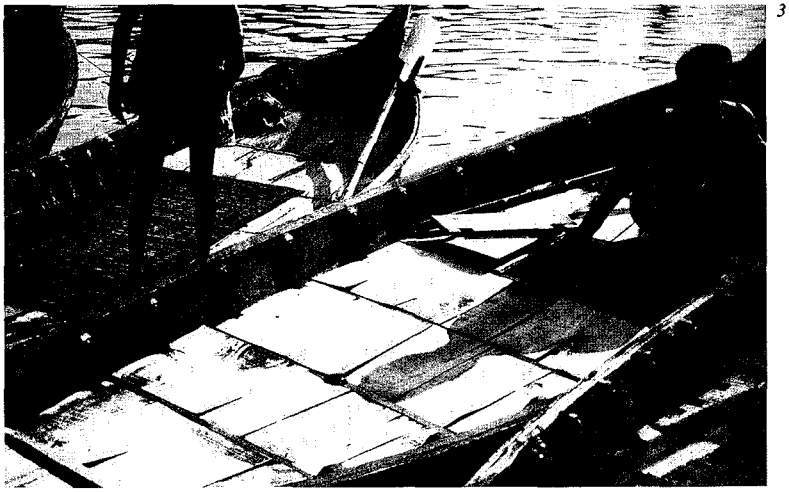
An investigation of the synthesis of the forms of submission explores the relationships between parties of different properties. Since we understand the structure of each form of submission, the analysis of the relationship between the parties controlling different properties is possible. This analysis gives us a comprehensive under-





3.1

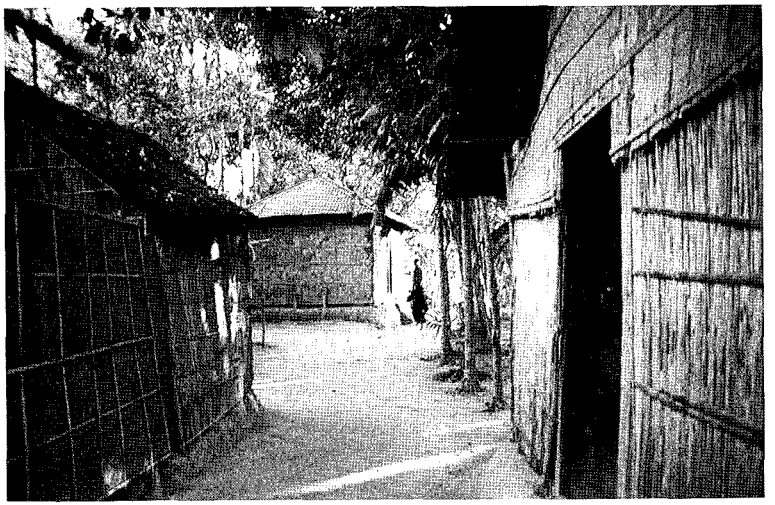
3.1 The corner of a house was hit by a car because the street is narrow at that spot The owner constructed metal pipes to protect his property The next door neighbour did the same. The nigh party initiated action.



3 2

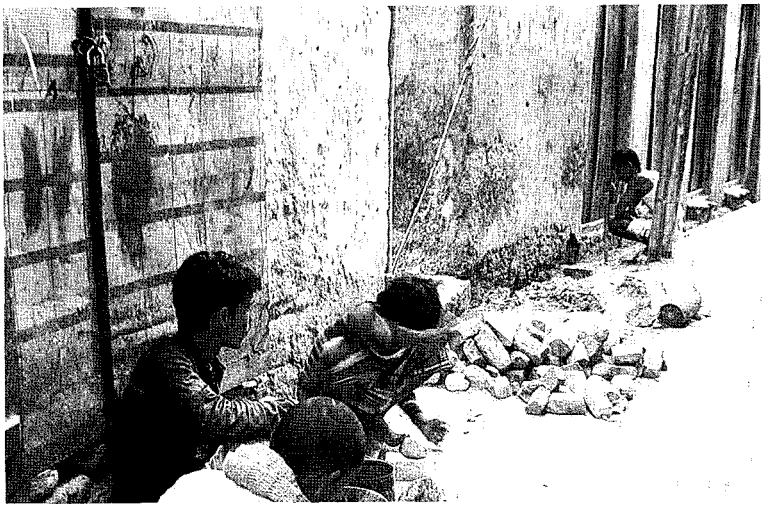
3 2 Old Dhaka Boats owned by those who transport people. Both the owner and the people are very poor, yet the cleanliness and good condition of the boats are striking compared to the surrounding environment, where responsibility, especially for the river, is dispersed.

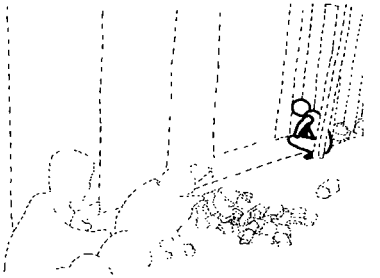
3 3



3 3 A village in Bangladesh. The residents are quite poor as is their built environment Yet, it is striking how clean and well-maintained the spaces outside the dwellings are They are as clean as the inside of the houses. The large-nigh party acts For some observers, this environment may not be satisfactory, but this is the best that can be done in the circumstances.

3 4





3 4 Old Dhaka The extreme opposite of 3 3 A person is urinating in the street that is controlled by a remote party.

standing of the parties' actions, which affects the state of property. The investigation is circular, giving us a comprehensive picture of the differences between traditional and contemporary environments.

SIGNIFICANCE OF THE FORMS OF SUBMISSION

A form of submission does not inform us about the physical nature of property — whether it is large or small, built or open. It does not indicate its function — whether residential, commercial or institutional. It does not tell us if it is public or private. Furthermore, any object may fall into any form of submission. What, then, is the significance of the forms of submission for the understanding of the physical environment?

The model can significantly improve the quality of research on the built environment and the conclusions that are drawn from it. Research on architecture and the built environment in the Muslim world, with the exception of technical studies, investigates the influence or interrelationship between one or more factors and their relationship with the built environment. These factors appear in the titles as such key words as economic, technological, climatic, social and so on. Since the complexity of the built environment often makes it impossible for a comprehensive investigation, researchers select some factors, skilfully isolate them from the totality, and then investigate the impact of those factors on other factors in the environment. Some possible topics are "What is the impact of economy or climate on the built environment?"; "Does the social environment affect the physical environment or vice versa?"; "How does industrialisation relate to the economy and the physical form of the built environment?". Notably, most studies do not consider the question of responsibility to be basic, but rather as one among many factors that can be investigated separately.

In any research dealing with the physical built environment, **case studies are inevitable**. Researchers implicitly or explicitly derive conclusions from these case studies, or use them to test their hypotheses. The problem lies in these case studies, because all case studies involve human behaviour, actions and motives as well as physical elements such as buildings, streets, furniture and infrastructure.

Any human can be a user, controller or owner of property, or a member of a party that uses, controls, or owns property. Thus, there are instances where human activities or relationships between individuals are influenced by their position as a party or a member of a party, and the chance of misinterpreting these sources do exist. At the same time, any physical element in a case study exists in some form of submission which reveals a specific state of well-being. When that physical element is observed without reference to its form of submission, it will be misinterpreted. For example, in a squatter settlement or public housing, the residents may not improve their environment as they do not own or control it. This lack of improvement by residents will affect the condition of the environment. The housing authority considers the state of the property to be disastrous, and researchers are asked to find out why. Economists see poverty as the main cause, sociologists attribute the problem to a social misunderstanding by the designers, the municipality is worried about its physical appearance, and the World Bank is concerned with the lack of infrastructure. Attempts to improve the situation are external, and the question of responsibility is rarely raised. **But because the real problem is not identified, the situation cannot be changed**. For example, if infrastructure is introduced, it will be used by the residents, owned by the state, and controlled by a housing agency or other third party. The infrastructure is in the dispersed

form of submission and is most likely in a dissipated condition. Results will not be satisfactory. Once again, researchers wonder what went wrong.

Another example is the investigation of social interaction between neighbours. Neighbours in condominiums who own, control and use their circulation zones (the unified form of submission) behave differently from those living in leased apartments (permissive form of submission) or occupying public housing (dispersed form). The difference in behaviour is the result of their relative position as parties towards property in the various forms of submission. Since researchers do not take these differences and their causes into account, mistaken conclusions are inevitable.

A commonly misunderstood factor is poverty. Architects and policy-makers often regard the environment of the poor as appallingly inadequate. Those environments that are controlled and owned by users, that is, those in the unified form of submission, are the best that can be achieved by the users given their state of poverty. The issue in such cases is not architecture; it is poverty. On the other hand, a housing project built by the state, controlled by an agency and used by a certain group of people — army officers, for example — may be considered by some experts to be acceptable if not successful. The state of the property is dispersed, but the property itself is maintained by a constant flow of money. The unstable state of the property is camouflaged by wealth, while in the first case — poverty — the unified state of property was camouflaged by lack of wealth. Observers of the two cases will probably conclude, quite wrongly, that the housing project in the dispersed form is in a much more stable state than is the unified property of the poor. Economic privilege has fooled them. We cannot and should not compare two environments in different forms of submission. If we must compare them, we must also bear in mind the difference in the forms of submission.

In cases where researchers focus on the economy, properties may be compared to analyse the impact of the economy on, say, preservation. Comparison of elements from different forms of submission will mislead observers. They may compare a well-to-do neighbourhood with a poor one. The well-to-do families may own and control their properties, which is the unified form. The poor may not own or control their properties, which is the dispersed form. The impact of the economy on preservation is ascertained, but in a very exaggerated way, because a wealthy unified property was compared with a poor dispersed one.

Unless the forms of submission are well defined, these factors cannot be identified. Misidentification and consequent misinterpretation of the built environment have caused continuous failures and sorrow, especially in the Muslim world and in so-called developing countries.

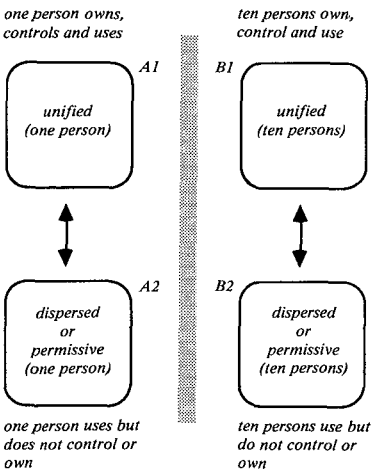


Diagram 3 3

Within each form of submission factors are **unisolatable**. In this model we cannot compare one property with another; we can only compare a property with itself in a different form of submission. The size of the owning, controlling or using party greatly influences the state of the property. A room used by ten people will probably depreciate more than one used by one person, since responsibility for its use is distributed between ten individuals. On the other hand, the room used by one person who does not own or control it (situation A2 in Diagram 3.3) will be in a different state if it is used and controlled by one person who also owns it (situation A1). The same applies to a party of ten persons. Which room will be in a better state, the one used by one person and controlled or owned by outsiders (situation A2) or the one owned, controlled and used by ten persons (situation B1)? Our model cannot answer the question for many reasons. The financial capability, educational level, awareness of the involved parties and other conditions can differ between situations A2 and B1. The forms of submission inform us only about the state of a property within specific parameters. Even if the two properties A2 and B1 are quite similar, there will always be differences in factors such as the location of the property or the users' behaviour.

This point has to be understood. As shown in the diagram, we can only compare properties vertically, not horizontally. To compare properties using this model, all circumstances — climate, economy, building materials, users' educational level, size of the party, etc., must be the same, which is practically impossible. This is the strength of the model. It means that a property can only be compared to itself. The model accepts all circumstances and tells what will happen to the property if the form of submission is changed. For example, it will inform us that a house in situation A2 will be improved if we unify the responsibility as in situation A1. This is why the model has a predictive value.

4 Growth and Formation of Towns

In this chapter we trace the decision-making process involved in the growth and formation of towns in the traditional Muslim built environment. First we will discuss the principles underlying the growth of towns, then investigate the original laying out of towns.

GROWTH OF TOWNS

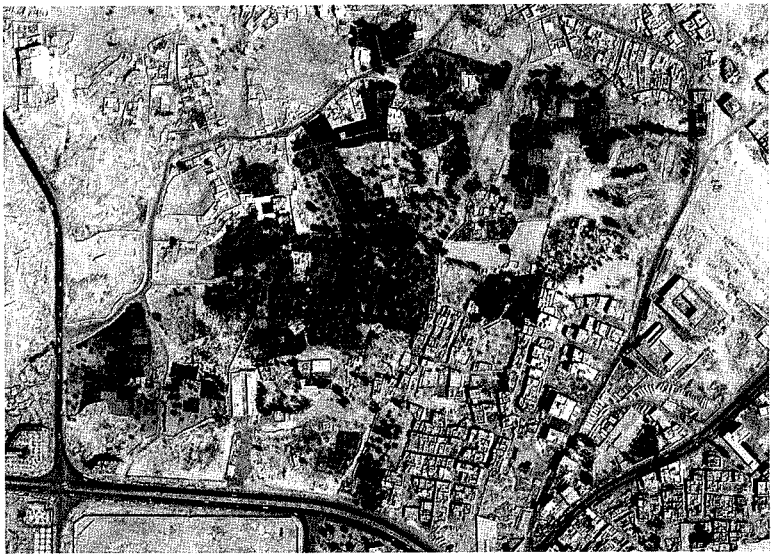
We saw in Chapter 1 that in most areas around expanding towns and villages, revivification and allotment were the main mechanisms for establishing ownership. In that case, a question arises: are the streets spaces left over between the buildings? The answer is complex.

In all towns, expansion is inevitable. Town expansion in the Muslim world is generally not planned by a central authority.[1] Most expand over time, at the instigation of the inhabiting parties, not randomly but according to certain principles. In other words, the form resulting from the town's growth is caused by many small-scale decisions made by the users. For example, the city of al-Medina is surrounded by palm orchards that have gradually been transformed into built areas and continue to change today. These orchards were once dead lands and revivified by individuals or allotted by rulers.

The primary interest of an inhabiting party is in private property, with secondary interest going to outside property such as public spaces. To understand this fact we have to remember the aspects of revivification and allotments discussed in Chapter 1 — negligence, overlapping of efforts, authorities' permission, demarcation and time limitation. If these were the basic mechanisms of establishing ownership in the traditional built environment, then it follows that streets were indeed the spaces left over from buildings.

These mechanisms which produced the organic fabric of winding streets with overpasses and dead-end streets, resulted in environments of varied architectural character. Compare, for example, the low-density residential fabric of Safranbolu, Turkey (Fig. 4.1), in which dwellings are free-standing in private grounds, with Tunis city (Fig. 4.2) where courtyard buildings with no setbacks make a high density fabric. Although the relationship between built and open

4 1



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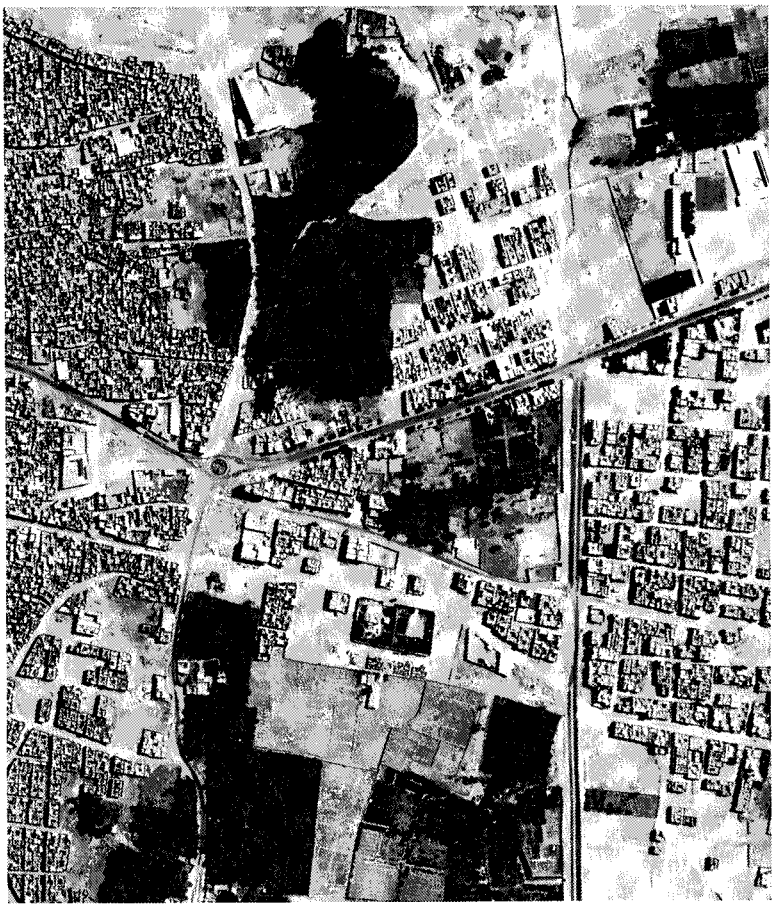

4 1 Aerial view of al-Medina al-Munawwarah (courtesy of the Centre of Pilgrimage Research, King Abdul Aziz University, Jeddah) & 4 2 Hafuf, Saudi Arabia (courtesy of King Faisal University). The transformation of orchards into urban areas.

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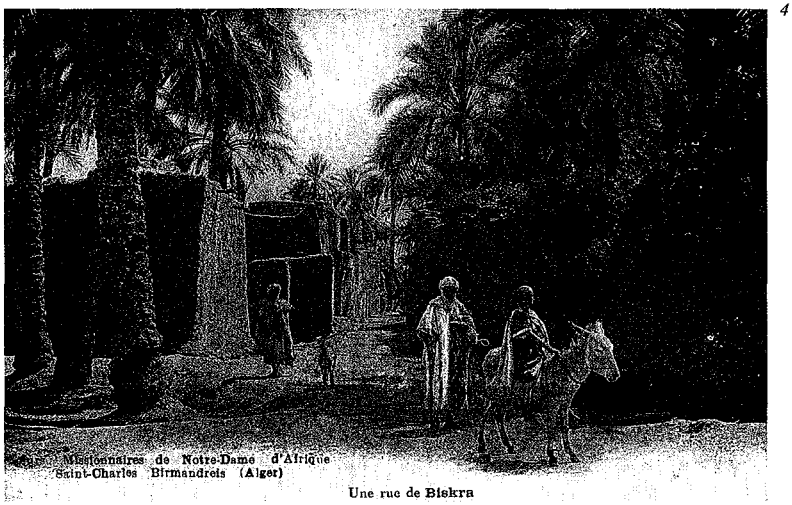

Une rue de Biskra

44

43 Biskra, Algeria & 44 Southern Algeria A possible gradual transformation of orchards into built-up areas.

spaces in the two environments are exactly the opposite, the end results are identical in structure. Both are characterised by an irregular plan of narrow crooked streets.

In neither Safranbolu nor Tunis was there intervention by an outside authority, yet different building types and textures have resulted from the same decision-making process. Thus our inquiry about streets is really a question about private versus public ownership: does private ownership from the public domain or vice versa?

The principle of need and controllability in ownership, as discussed in Chapter 1, suggests that lands which are not utilised are dead lands. Moreover, most jurists assert the possibility of reviving dead land abutting urbanised areas. Al-Māwardi (d.450/1058) argues that the opinion which states that a land is considered dead only if it is distant from urbanised areas is not practical. He adds: "otherwise

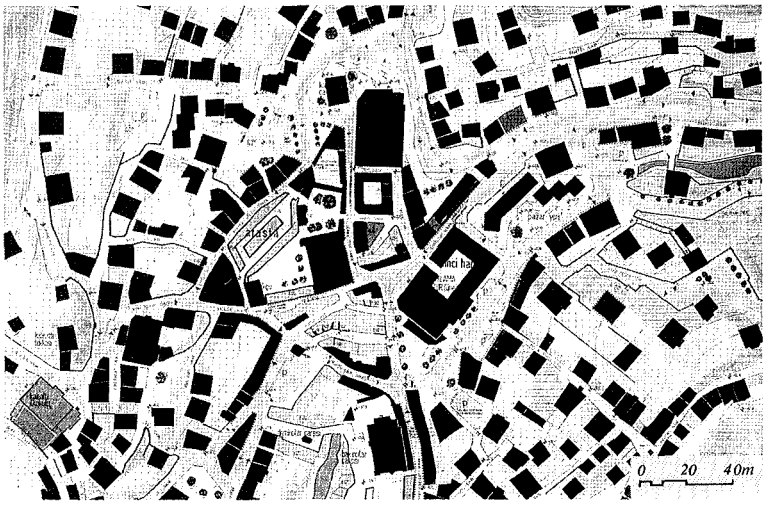

Figure 4 1 A tissue from Safranbolu, Turkey, showing free standing dwellings around the commercial centre. (Source D Kuban, Safranbolu Conservation Plan, 1976)

Figure 4 2 A tissue from the city of Tunis showing buildings abutting each other (Source Association Sauvegarde de la Medina, Tunis, 1968)

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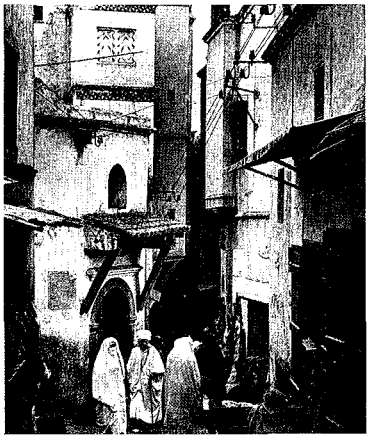

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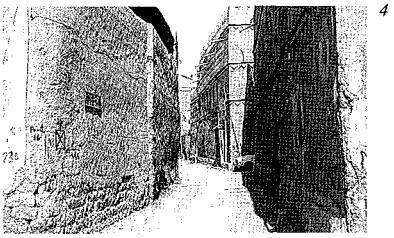
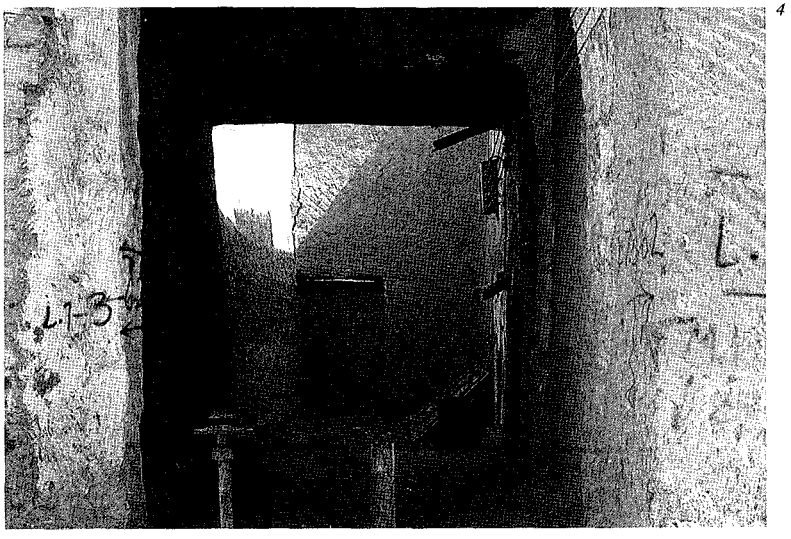


4 5 Traditional Riyadh, 4 6 City of Tunis & 4 7 Algiers They all have winding streets and often overpasses although they are from different regions Note that buildings forming the streets are in a better state than the street; streets are not planted, lit, etc

6 Sidi-Okba – *Rue aux boutiques* J Geiser - Alger



4 8 Tanger. Two people sitting on the fināʾ *in a residential quarter.*

4 9 Sidi Okba. People sitting in the shops' fināʾ

4 10 Riyadh. The usage of the fināʾ *at the end of a dead-end street*

4 11 Ad-Dighimiyyah village, Saudi Arabia Where the principle of revivification, although illegal, are still in use. The photo illustrates the demarcation of the fināʾ *by sticks*

how come buildings abut each other? It is the custom that any unutilised or unowned land can be revived whether it is abutting urbanised areas or not, and in such cases the neighbours abutting dead lands and all other people are alike in sharing the right to revive it."[2] ʾAḥmad b. Ḥanbal was asked about a case in which two men revived two pieces of land and owned them, and later a third person revived the small remaining piece of land between them. Can the two owners interfere or stop the third reviver? ʾIbn Ḥanbal answered that they could not bother him. Al-Maqrīzi in describing al-Fusṭāṭ relates that the people gradually built on the banks of the Nile.[3] Indeed, there are sufficient data to conclude that revivification was a well-known and actively-practised mechanism until the later periods of the Ottoman empire, and was totally abolished only at the beginning of this

century. Since revived dead land is owned by the party that controls and uses it, then the percentage of owning parties that control is high in the traditional environment.

If every party revives the site it desires, then properties will block each other's pathways.The built environment will be composed of compact properties abutting each other with no circulation zones. The term *harīm*, meaning "the zone that is prohibited for others", is always associated with revivification. The *ḥarīm* of what is revived is what the revived land cannot function without, as, for instance, its road and pathway. The *ḥarīm* of a dwelling is defined as "what is added to the property and its rights and servitudes". *Ḥarīm* is also defined as *the finā'*, the external space on the street abutting the dwelling and used exclusively by the residents, as the inside of a dwelling.[4] In fact, this last definition brings the internal parts of a property and its outside needed spaces such as the *finā'* and pathways to the same level of inviolability. The consensus among all rites is that the *ḥarīm* may not be revived by others. It is considered to be a right belonging to the revived land.[5]

The rules of revivification help us understand the traditional environment with its fabrics of adjacent properties with minimal public spaces. We can also see how pathways and *finā'* may not be revived without the permission of the dwellers enjoying the *ḥarīm*. Extensive debates must have taken place between parties to decide what was a pathway and what was not. This is evident from the many disputes about the *ḥarīm*. Suḥnūn (who served as a judge in Kairouan, d.240/854) was asked about a common case (Fig. 4.3) in which a person demarcated a piece of land (A), planted it and claimed that he owned it, while people living behind this plot claimed that a part of the land (B) was their road. The reviver prevented the residents from passing. The residents presented witnesses to confirm that they had used the road for twenty years, while the reviver presented witnesses to say that it had been used as a road only recently. Suḥnūn judged that if the land is in a rural area and the man proves his ownership of the land then he may prevent passage, unless the passers prove that they have used the pathway for fifty to sixty years. But if the land is within an urban area, then the passers' witnesses will be accepted regardless of the duration involved.[6]

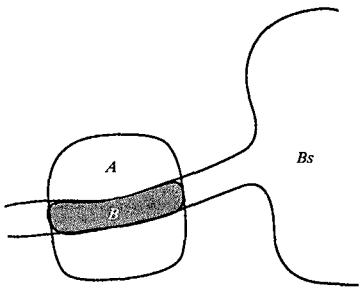


Figure 4.3

In other cases, group of dwellers (Bs as in Fig. 4.3) established the right of passage. Then another party (A) revived a piece of land while allowing the predecessors to pass through the land. A road was thus established within the revived land which would later raise disputes. A case is reported by 'Ibn ar-Rāmi in which two pieces of land were separated by a pathway used by a group of people; the owners of the two lands wanted to change the position of the pathway in order to plant. Although such a change would not harm the users of the pathway, the answer was that the owners could not change the pathway's position without the users' consent.[7]

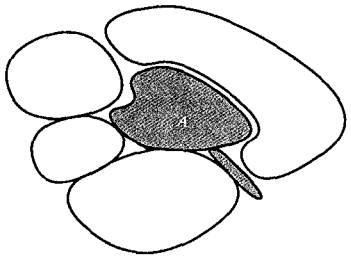


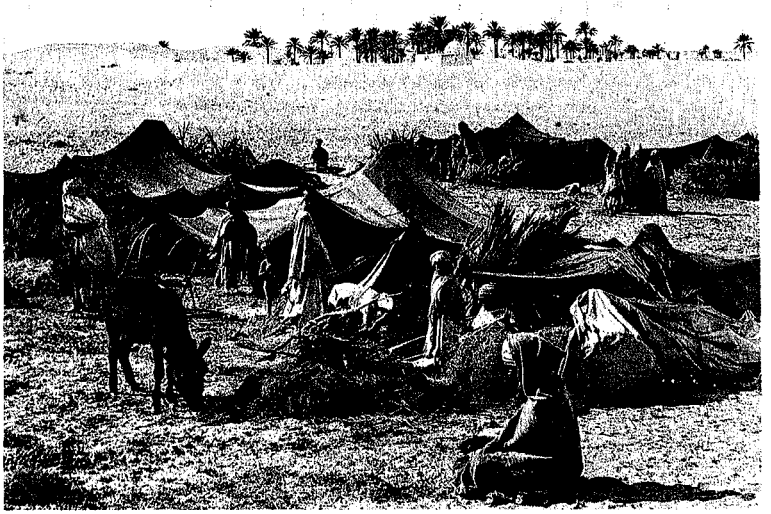
Figure 4 4

A review of revivification and *ḥarīm* can help us understand the need for easement rights, which are a major issue in *sharī'ah*. Individuals gave, sold and rented the right of servitude. Depending on the precedence of revivification among the parties, the overlapping domain took different forms of submission. Cases suggest that the possessive form occurs when the passing-through party that owns the overlapping domain revived first, thus establishing the right of servitude. The second party then must respect this right while reviving. The permissive form, on the other hand, occurs when the passing-through party revives later than the party that owns and controls, thus having to buy, rent or be granted the right of servitude.[8] For example, a group of individuals may revive adjacent pieces of land, leaving a single piece of dead land (A) with no access unrevived in the centre (Fig. 4.4). A party wanting to revive the central piece has to acquire the right of passage by buying or renting it. The reviving party must accept the permissive form.

The involved parties are not necessarily contending — they may be relatives, friends or just neighbours — and agreements are often achieved without dispute. The important issue is that in all cases the parties that use, control and own are always nigh and residing parties and never remote from the site. This is the essence of the autonomous synthesis.

The residing nigh parties decide on the road's position and width. This custom is based on the Prophet's tradition, "If the people disagree on the road, it should be seven cubits." Many other traditions and cases assert the validity and continuity of the principle that the road is decided upon by users.[9] The seven cubits was called *maytā'*, literally "the already dead". *Maytā'* prescribed that the seven cubit width of the roads was the minimum to be left over; it could not be revived at all in cases of disputes. A. b. Ḥanbal (the founder of the Ḥanbali school of law) added, "If a path was used by the people and became (over time) a road, then no one can take anything away from it whether it is little or much." This suggests that when a street is defined by buildings and used extensively, it is *ḥarīm* and may not be revived.[10] Moreover, some jurists' opinion about the legality of projecting cantilevers over main roads denotes that streets are formed by nigh parties. Jurists argue that such projections are permissible because the roads are the remains of the dead lands that could have been revived in the past. Reviving them now is prohibited because of the people's movement, which is not the case for the upper floors. Thus cantilevers projecting over the main roads are permissible.[11]

The paths used by people in revived areas thus influence the relative position, direction, and shape of the roads, which are in fact left over from revived properties. The decisions made by nigh parties individually or collectively shaped the physical environment. Each decision can be seen as an answer to complicated and integrated factors or constraints experienced by the nigh party, such as topo-

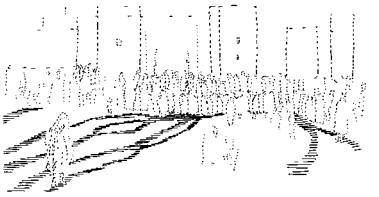


4 12 North Africa Camping by nomads This activity took place often outside city walls.

4 13

4 13 Tunis. Camping would lead to revivification, respecting, however, the pathways

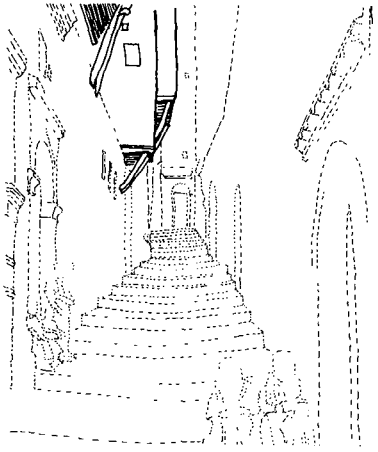
4 14



4 14 Fez, Morocco. Marked on the ground, the pathway that will influence the location of the streets and thus cannot be revivified.

4 15

4 15 Mazagan, Morocco Dwellings' and shops' revivification abutting the city wall The residents using the pathway have the right to object to anyone who would revive their pathway



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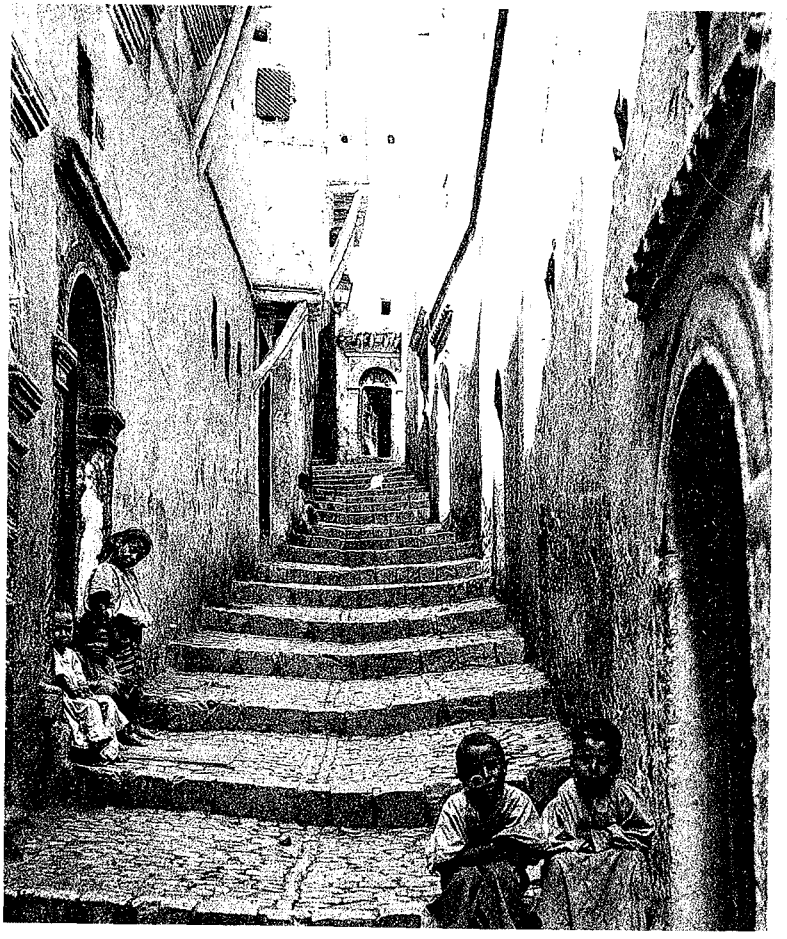
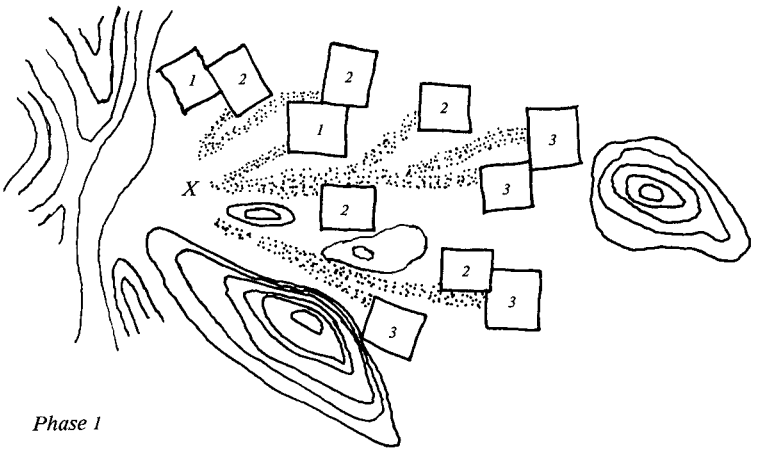


4 16 Algiers A narrow street with projecting cantilevers which is permissible because the street is, in fact, the remains of the dead land that could have been revived

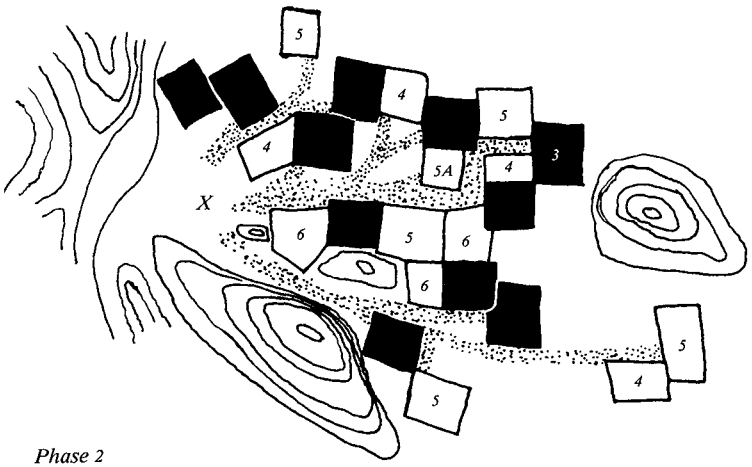
4.17 Al-Hindawiyyah quarter, Mecca. The roads' and pathways' morphology are influenced by the mountains surrounding the site as constraint (courtesy of King Faisal University).

graphy, sources of water, social relationships, availability of materials, etc. Another important constraint on any party are the decisions made by preceding parties. Indeed, the principles of revivification mean "**an accretion of decisions**". Every decision made freely by a party will represent a constraint with which future parties must deal. This concept is most manifested in areas with difficult topography, as in Figure 4.5.

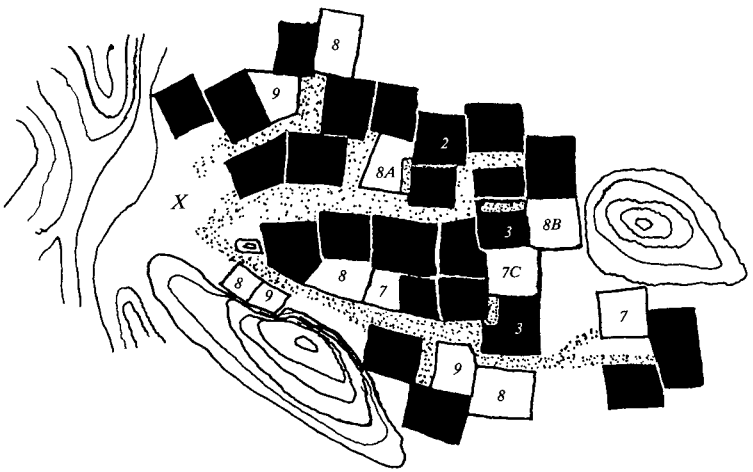
A hypothetical case may help to clarify the situation. In Figure 4.5 a focal point (X), possibly a source of water, is considered with the surrounding hills as a constraint. The numbers on properties indicate priorityship. The higher the number the later the revivification. Therefore the locations of properties and pathways in phase 1 are considered as constraints for the revivers in phase 2. The same is true for phase 3. For example, party 5A in phase 2 will block the path of parties 3 and 4; thus party 5A has to negotiate with parties 3 and 4. It is possible that parties 3 and 4 may not object or that they may even be related to party 5A. Disputes are not necessarily to be expected. In phase 3, party 8B has to establish the easement right through party 3 to minimise the walking distance. The same is true for party 7C, while party 8A must provide the right of servitude to party 2, and so on. In reality, the situation is much more complicated than the one presented here. Actual focal points are numerous, and the constraints are complex.



Phase 1



Phase 2



Phase 3

Figure 4 5 A hypothetical case of accretion of decisions.

FORMATION OF TOWNS

During the early Islamic period the development of Muslim towns varied from centralised to decentralised formations. Muslim towns can be classified into two types with respect to their evolution, "spontaneous" and "created". Spontaneous towns are these developed without planning by a governmental body, such as Karbalā'.

Created towns are the ones founded by Muslims as military town-camps such as al-Kūfah, fortress towns such as ar-Rabāt, capitals or political towns such as Baghdād, or princely towns, satisfying the ruler's desire to remove his residence from the capital to a nearby site, such as Samarra.[12]

As we concluded in the first part, decentralisation leads to the unified form of submission. Therefore it is logical to concentrate our investigation on the created towns, as they are more centralised than the spontaneous ones. Then, if the synthesis of the forms of submission in the created towns is autonomous, it will be definite that the synthesis of spontaneous towns is autonomous.[13]

Many scholars conclude that military town-camps such as al-Baṣrah, al-Kūfah and al-Fusṭāṭ all followed the same process of genesis.[14] The process of planning for these towns was less controlled than were capitals or princely towns such as the round city of Baghdād. Yet all Muslim towns, even spontaneous ones like Aleppo, resemble one another in many aspects.[15]

The original laying out of towns is a good example of the significance of the forms of submission. A great misunderstanding among scholars has resulted from their effort to understand the laying-out and growth of the city from various points of view without considering the question of responsibility. Because of this omission most scholars arrived at premature conclusions. For example, Creswell's superficial understanding of the verb *'ikhtaṭṭa* as "simply marked out," led him to conclude that al-Baṣrah, al-Kūfah and Fusṭāṭ are characterised by a "chaotic labyrinth of lanes and blind alleys, of tents and huts alternating with **waste ground** ... (emphases added)."[16] By the same token, most scholars consider towns laid out by a central authority to be ordered towns.[17]

To investigate the synthesis of the forms of submission, rather than review the process of laying out each created town in detail, I will concentrate on investigating the general mechanisms, such as the meaning of the verb *khaṭṭa*. Then I will examine al-Kūfah, representing a decentralised process of erection, and Baghdād, representing a centralised one.

Terminology

From the study of the legal texts it is clear that an understanding of the differences between *'iḥtijār* (demarcation), *'iḥyā'* (revivification), *'iqṭā'* (bestowing allotments) and *'ikhtiṭāṭ* (the closest English

term would be "territorialising") is the key to our inquiry. In Arabic one can derive from a single word many verbs and nouns that have meanings totally different from the original word. The precise meaning of the derived terms is usually understood from the context.[18] In some cases the hard core of those derived terms has changed over time. When scholars look to the original word to recover the meaning, errors occur. This confusion took place with the word *khaṭṭ*, literally, "line".[19]

One way to grasp the precise meaning of a term is to review its usage by as many historians as possible. Each usage illuminates a different aspect of the term.

Two groups of terms are derived from the word *khaṭṭ* — the verb *khaṭṭa* and its derivatives; and the noun *khiṭṭah* and its derivatives, on which the action is taking place, i.e. the designated site. The definitions of the verb form connote one of or all the following: a party is making straight lines, rectangular things, a well thought-out action based on the acting party's judgements and marking with lines or walls.[20] Most importantly, the word *ḥaẓara* was used by 'Ibn Manẓūr to explain *khaṭṭa*, which denotes the exercise of control. The noun *ḥaẓīrah* relates to spaces that are controlled. For example, *ḥaẓīrah* is used to mean animal fold and is derived from *ḥaẓara*, and means preventing the animals from moving in or out. 'Ibn Manẓūr's usage of the word *ḥaẓara* suggests, among other explanations, the control of the acting party over the *khiṭṭah* or piece of land.[21]

The definition implies that the action of building (*binā'*) immediately follows *khaṭṭa*.[22] All the cases suggest that the two mechanisms are often successive.[23] If not, the term *'iḥtijār* (demarcation) is used. Furthermore, the structure of the sentences used by historians suggests that *khaṭṭa* connotes marking the ground by the respective nigh party, not by a ruler or an outsider. Indeed if the ground is marked out by the ruler, then it is an allotment (*'iqṭā'*). Usage of the word *khaṭṭa* does not, however, rule out the possibility of a party being helped by an outsider party.[24] Excluding a few cases, all the marking-out actions I came across are made by the inhabitants of the *khiṭṭah* (noun).[25] The structure of the sentence tells us who is the acting party.[26]

Bestowing allotment, as defined in Chapter 1, is the act of bestowing a specific site, whose boundaries are established by the ruler, upon a party. *Khaṭṭa*, on the other hand, is the act of marking out land by the party itself, within a specific site through the ruler's permission. The party decides on the boundary, not the ruler. Moreover, an allottee may not revivify the allotment immediately, while the verb *khaṭṭa* indicates that building is immanent. The use of these two verbs by historians are manifested in the "created" towns. *Khaṭṭa* is used to describe Kairouan, al-Kūfah, al-Baṣrah and al-Fusṭāṭ, while *'aqṭa'a*, (bestowed allotments) is used in describing the more centralised system of creation, as in Baghdād.[27] Thus the major

difference between *'aqṭa'a* and *khaṭṭa* lies in the way decisions are made. If the party decides for itself, then the process is *khaṭṭa*; if decisions are made by others, especially a centralised party, then it is *'aqṭa'a*.[28]

Most usages of *khaṭṭa* by historians suggest that it indicates the establishing of boundaries, not designing what is inside them.[29] Furthermore, *khaṭṭa* as verb denotes the size of the party and the site. If it is used with an individual it refers to a dwelling and a person or a family, but if it is used with reference to a larger party — a tribe, for example — it indicates the tribe members as one party and the site as collective ownership of that party.[30] Thus, *khiṭṭah* may include other *khiṭaṭ* (plural of *khiṭṭah*) for sub-tribes which may contain *khiṭaṭ* of various families. Each *khiṭṭah* is claimed by the largest residing party. Thus *khaṭṭa* is essentially claiming and not merely marking out.[31]

To summarise, *khaṭṭa* in the early Islamic period meant the act of claiming a property, often by marking out lines or physical elements to establish the boundary of the property by the inhabiting party or the largest nigh party through the ruler's permission on a designated site. *Khaṭṭa* is the first step towards building, and it does not necessarily mean marking out the internal organisation of the property. *Khaṭṭa* as a verb always refers to a party which acts. The party can be a person, a family, a tribe or any other group of people who jointly form one party. On the other hand, *khiṭṭah* (noun) is the established property of that party. Each *khiṭṭah* may include other smaller *khiṭaṭ* in which each *khiṭṭah* is controlled by the corresponding inhabiting party. The major difference between *khaṭṭa* and *'aqṭa'a* (bestowing allotment) is in the way of establishing the boundary. *Khaṭṭa* means that the party stated in the sentence has decided upon the boundary; for example, he *khaṭṭa* means the party is one person and they *khaṭṭa* (the correct pronunciation is *'ikhtaṭṭū*) means the party is a group of persons. *'Aqṭa'a* implies that the boundary is decided upon by an external party which is often the authority. This means that the only relationship between the authority and a party of a *khiṭṭah* is the permission of the authority. *'Iḥtijār* means demarcation of dead land and not in a specific site like *khaṭṭa* and it does not need the ruler's permission. The demarcated dead land can be revivified by parties other than the demarcator, while the *khiṭṭah* denotes a recognised property that may not be violated by others. Thus, *khiṭṭah* is a property in the unified form of submission, while *khaṭṭa* (verb) is the act of establishing a property in the unified form. The closest English term for *khiṭṭah* is "territory," while the verb *khaṭṭa* is "territorialised" or stuck a claim.

Al-Kūfah

Al-Kūfah was founded as a camp town during the fourth year of 'Umar b. al-Khaṭṭāb's reign (13/634–23/644).[32] When the Muslims in al-Madā'in were attacked by mosquitoes, Sa'd 'Ibn 'Abī Waqqaṣ wrote to 'Umar informing him that they were badly affected. 'Umar replied, ordering Sa'd to adopt a habitable place for the Muslims to which they could migrate, provided that between him ('Umar) and the Muslims no sea should intervene. Accordingly, Sa'd chose al-'Anbār, but there were so many flies that he had to select another site. Then Sa'd sent two men to search for a site, and they found al-Kūfah. 'Ibn Buqaylah presented himself before Sa'd and said to him, "I can point out to thee a site which is outside the waterless desert and higher than the muddy places." Saying this, he pointed out the site of al-Kūfah. Sa'd charged the laying out of the city to 'Abū al-Hayyaj. In accordance with 'Umar's advice, main roads (*al-manāhij*) were to be forty cubits; those following the main roads thirty cubits, and those in between twenty; lanes (*'aziqqah*) seven, and the fiefs' width or length sixty cubits.[33] Consequently, 'ahl ar-Ra'y (a group of men of distinguished knowledge and opinion) gathered to estimate, and then, "if they agreed and decided upon something" Abū al-Hayyaj would decide accordingly.[34]

The first element to be laid out and built was the mosque. When Sa'd arrived at the place destined to be the site of the mosque, he ordered a man to shoot an arrow toward Mecca, another arrow toward the north, a third to the south, and a fourth to the east, and then marked the spots where each arrow had fallen. Sa'd established the mosque and the governor's residence on the spot where the archer had stood. These shots formed a square, in the centre of which the mosque was to be located. Sa'd then ordered those who desired to build dwellings to do so outside the square. They also dug a ditch (*khandaq*) around the square (*ṣahn*) "so no one could intrude on it with buildings." From the square to the north, five roads (*manāhij*) were **marked**, to the *qiblah* (Mecca direction) four, to the east three and to the west also three.[35]

The first decision was about the foundation of the town and its location, which was undertaken by Sa'd himself, with 'Umar's permission and request that no sea should come between the town and al-Medina, where 'Umar was. Although Sa'd had the power to decide on the town's location, he still consulted others. The second group of decisions about the location of the mosque, the governor's residence, the market and the square were made by Sa'd and others. Up to this point the dwellers did not influence these decisions, which were beyond their realm or interest.

Before the advent of Islam the tribe was the major recognised institutional unit and seems to have retained that status for some time afterwards. In settling inhabitants in a town, each tribe had its

khiṭṭah or territory. An important question here is whether the tribes themselves decided on the locations and boundaries of their *khiṭṭah*, or whether they were assigned a location and negotiated the boundary with adjacent tribes. To answer this question we must examine the planning of towns such as al-Baṣrah and al-Fusṭāṭ and then return to al-Kūfah.[36]

Al-Baṣrah was founded in the year 17/638. Al-Balādhuri relates that the "people territorialised (*'ikhtaṭṭu*) and built (their) dwellings."[37] He does not refer to any authority. Al-Māwardi elaborates that the "companions (of the Prophet) had settled in al-Baṣrah during 'Umar's reign and made it as *khiṭṭahs* (noun) for their inhabiting tribes (*qabā'ila 'ahlihā*); they made the width of its major streets which were also used to keep their horses sixty cubits; they made the other streets twenty cubits; and they made the width of each lane (*zuqāq*) seven cubits. They also established in the centre of each *khiṭṭah* a wide forecourt (*raḥbah*) for their horses' stations and for their cemetery. Their dwellings abutted each other. They did not do this without an opinion which **they agreed upon** (emphases added)."[38]

Thus, the *khiṭaṭ* (plural of *khiṭṭah*) were most likely laid out by the inhabitants and not by the authority.[39] If any *khiṭṭah* were marked out by a non-inhabiting party it would be clear from the text. For example, a case is reported by al-Balādhuri regarding a group of people, possibly Persian and known as al-'Asāwirah, who accepted Islam and moved to al-Baṣrah after its foundation. Al-Balādhuri relates that "their *khiṭṭah* were territorialised (*khuṭṭat*) for them ...' This usage of the word *khuṭṭat* denotes that someone else has established for them their *khiṭṭah* or territory.[40]

Scholars forward two contradictory conclusions regarding **al-Fusṭāṭ**, which was founded in the year 20/641 or 21/642 by 'Amr b. al-'Āṣ.[41] The first claims that tribes adjusted themselves to fit a preplanned system of units, i.e. they were assigned *khiṭṭahs* and did not possess them or decide upon their boundaries. The second conclusion implies that tribes possessed and established their *khiṭṭahs*.[42] My evidence supports the second conclusion.

When a person camped on a piece of land, it was recognised and respected as a property of that person. This is clear from a case in which Qayṣabah b. Kulthūm possessed a site that became later the site of the grand mosque in al-Fusṭāṭ. When the Muslims decided that Qayṣabah's camp was the proper site for the grand mosque, 'Amr asked Qayṣabah to give the site to the Muslims and promised Qayṣabah that he would designate a site for him wherever he desired. Qayṣabah answered, "You, Muslims, knew that I possessed (*ḥuztu*) this site and owned it, and I am giving it as charity to the Muslims." This case illustrates that even the general himself had no power to compel a person to relinquish a possessed property. Al-Qaḍḍā'i, describing the settling of the tribes, stated that "the tribes conjoined in on one another and they **competed** for places; then 'Amr assigned

Mu'āwiyyah b. Khadīj and ... (three other persons) to take charge of the *khiṭṭahs*, and they abode the people and settled disputes between the tribes, this was in the year twenty one (642)."[43] This statement can have two interpretations. First, the *khiṭṭahs* were already marked out and the tribes competed in selecting them. Second, the tribes competed in possessing sites and those four individuals assigned by 'Amr were in charge of settling the disputes. But the term "the tribes conjoined in on one another" implies that the tribes occupied places by themselves. If the *khiṭṭahs* had been already marked out, then the heads of the tribes would have been informed about their respective *khiṭṭahs* and no disputes would have arisen.[44] To clear the picture we will investigate the *khiṭṭahs*.

Guest cites forty-nine *khiṭṭahs* in the foundation of al-Fusṭāṭ. With the exception of four of them, all were named after tribes or after individuals prominent in the tribes or sub-tribes. Al-Maqrīzi describes the location and the inhabitants of twenty-one *khiṭṭahs* in al-Fusṭāṭ.[45] From his description, again with the exception of the four *khiṭṭahs*, all were settled by tribe members. The tribes did not shrink or expand to suit a standard number of inhabitants for standard *khiṭṭahs*; rather the *khiṭṭah* shrank or expanded according to the group size. Furthermore, from the structure of the sentences which describe the formation of these *khiṭṭahs*, one can easily conclude that the *khiṭṭahs* were territorialised by the tribes. For example, al-Maqrīzi states that "Lakhm (the name of a tribe) started its *khiṭṭah* from where ar-Rāya's *khiṭṭah* has ended, and pushed up (*'aṣ'adat*) towards the north, ..." He also states that the Persians "territorialised in it (in al-Fusṭāt), and they took the foot of the mountain ..."[46] One tribe even had two *khiṭṭahs* at the same time, and used them alternatively: The tribe of Mahrah possessed a *khiṭṭah* in the centre of al-Fusṭāṭ to station their horses on Fridays, and another on the foot of Yashkar mountain in which they resided.[47] The process underlying the formation of *khiṭṭahs* must have been possession and not assignment; otherwise a tribe could never enjoy two *khiṭṭahs* at the same time, especially the one in the centre of al-Fusṭāṭ which was used as a way station by the tribe.[48] The *khiṭṭah* was never used as a planning unit by the authority; rather, each tribe territorialised its *khiṭṭah* and established its own boundaries. If each tribe was capable of establishing its boundary, certainly it controlled, owned, and used it as well. There was no centralisation whatsoever even in the four *khiṭṭahs* that were not named after tribes.[49]

By understanding the situation in both al-Fusṭāṭ and al-Baṣrah and the meaning of the term *khaṭṭa*, we can now investigate al-Kūfah, which is somewhat different. The major difference is that al-Fusṭāṭ was gradually settled over a long period of time, while al-Kūfah was settled all at once. The residents were in al-Madā'in temporarily, and when the site of al-Kūfah was selected they moved.

This may be why a committee was formed to mark down the roads in al-Kūfah.

As was previously mentioned, 'Abū al-Hayyāj and a group of men of distinguished knowledge were given the task of deciding on the main roads of al-Kūfah which radiate from the square; they were to follow the caliph 'Umar's advice on the width of those roads. It is most likely that these men were from different tribes and represented their respective tribal interests. According to aṭ-Ṭabari's report, the decisions were made by 'Abū al-Hayyāj after agreements were reached among those representatives. This implies that 'Abū al-Hayyāj was not a decision-maker, but rather an organiser or even a mediator between the committee members, and that the roads' positions were influenced by the tribes' sizes. The tribes were located between those main marked roads. In some cases more than one tribe shared the site between two roads. Aṭ-Ṭabari's description does not imply that tribes shared *khiṭṭahs*, as is suggested by some scholars, but that they shared the main road or the area between those roads.[50] In other words, the *khiṭṭahs* of al-Kūfah were not used as planning units; the size of the *khiṭṭah* depended upon the tribe's size. For example, Nizār's *khiṭṭah* was sited on the west side of the marked square and contained eight thousand individuals, while *'ahl* al-Yaman, with a *khiṭṭah* on the east side of the square, had twelve thousand.[51] Furthermore, the varying number and direction of roads radiating from the square suggests that the areas in between these roads were not equal. As well as those *khiṭṭahs* which varied in size, a few allotments of uniform size were given to individuals according to 'Umar's advice.[52]

Aṭ-Ṭabari adds that "(the tribes) built (did not mark) secondary roads, which were narrower, running parallel and in between the main roads, and ultimately meeting (not intersecting) with them." Thus, the narrower secondary streets were built which means that they emerged as a result of incremental development of buildings. Or they may have been designated either by adjoining tribes as a boundary between their *khiṭṭahs*, or by members of the same tribe within the tribe's *khiṭṭah*. These streets do not seem to have intersected and crossed the main roads, but rather met them, reinforcng the argument that streets between tribes were decided upon by adjoining tribes, while members of the same tribe developed the streets within their tribal *khiṭṭah*.[53]

The residents of al-Kūfah at its foundation included approximately one hundred thousand soldiers. Each *khiṭṭah* was so large that every tribe had its own cemetery and mosque. All sources agree that each tribe subdivided its *khiṭṭah*.[54] This is logical, because if the authority did not intervene in assigning the *khiṭṭahs* or deciding their boundaries, it would not intervene in the tribe's internal territorialisations. A situation of large *khiṭṭahs* with no intervention means complete autonomy for each tribe.[55]

From the connotations surrounding the noun *khiṭṭah* we can deduce that each *khiṭṭah* holds many smaller *khiṭṭahs*, which in turn may contain other even smaller *khiṭṭahs*. Furthermore, a *khiṭṭah* may contain unbuilt spaces which are owned by nigh parties, as is clear from the descriptions of al-Jīzah and al-Kūfah. In al-Jīzah, it is reported that the *khiṭṭahs* contained open spaces, so that later, when reinforcements arrived and the population increased, each group made room for its relatives.[56] In al-Kūfah two interesting mechanisms took place. When a group of people (*ar-rawādif*) arrived later, either the inhabitants of a *khiṭṭah* would make room for the newcomers if they were few, or, if they were many, some inhabitants would move to join their lineage in a new *khiṭṭah*.[57] This implies that the tribe members as one party admitted newcomers of their tribe to occupy parts of the unbuilt spaces within their *khiṭṭah*. The tribe collectively controlled the spaces within their *khiṭṭah* that were not yet possessed by individuals. Furthermore, some families or groups of families within the tribal-*khiṭṭah* admitted their relatives into their unbuilt territory, indicating that they controlled their own unbuilt spaces.

Each decision in these towns was made by the inhabiting parties. A *khiṭṭah* was therefore in the unified form of submission. Streets, forecourts and squares within a *khiṭṭah* were collectively owned, controlled and used by the inhabiting nigh parties. Each dwelling was controlled and often used by the owner. The major part of the built environment, therefore, was a series of adjacent properties in the unified form of submission, that is, in autonomous synthesis.

Finally and most importantly, the morphology of these towns was the outcome of many small-scale decisions by the users, decisions made from the bottom up. The users occupied properties that formed lanes and dead-end streets, the streets were formed by quarters' boundaries, and so on.

Now we will investigate a centralised-created town in which many decisions were made from the top down — that is, by the authority.

Baghdād (Madīnat as-Salām)

In cities created by the central authority such as Baghdād and Sāmarra, the major elements — main roads, the location of mosques and markets, the city wall — were decided by the authority. It did not, however, intervene in small-scale decisions relating to dwellings. The major mechanism in erecting these towns was the concept of allotments. The ruler allotted fiefs to prominent individuals, such as heads of clans or chiefs in the army, to be developed by them. In other words, the nigh party did not possess a site and did not decide on its boundaries. Yet the synthesis of the forms of submission in these towns was also autonomous. To elucidate this conclusion, we will investigate the round city of Baghdād, known then as Madīnat as-Salām, as it seems to be the most centralised case.

When the caliph al-Manṣūr decided on the site of the city in 145/762, he asked for engineers, builders, etc. from other cities. He then selected honest, virtuous, just people with jurisdictional knowledge and building experience to participate in creating the city. Al-Manṣūr wished to see its actual form, so he ordered the plan to be traced on the ground with lines of ashes; he then entered the prospective gates and walked around. Cotton seeds were laid on the traced lines, saturated with naphtha and set on fire, enabling the caliph to see and sense the city. Then he ordered that the foundations be dug.[58]

According to al-Baghdādi, the plan for Baġhdād was conceived by al-Manṣūr himself and was circular. Aṭ-Ṭabari explains that the city had four equidistant gateways, each named for the city or region toward which it was directed.[59] Because no serious excavations have been undertaken on the presumed site, many scholars have relied on the descriptions of al-Baghdādi, aṭ-Ṭabari and al-Ya'qūbi to interpret the original plan of Baghdād. Their descriptions of the city are somewhat similar, although information varies with regard to its dimensions. The differences in interpretation do not affect our investigation, however, since we are examining the forms of submission.

According to Lassner's interpretation, the city was divided into three zones (Fig. 4.6). The central zone, *ar-raḥbah*, was open space accommodating the palace of al-Manṣūr, the congregational mosque and other buildings for the chief of police and the chief of guards. In the inner ring lived the younger sons of al-Manṣūr and their servants; various government agencies were located there as well. The army chiefs and their supporters lived in the outer ring.[60]

The residential zone was divided into four equal quadrants by four vaulted galleries which ran from the main gate to the gate of the palace area. Each residential quadrant (Fig. 4.7) was bounded by external and internal ring streets and two vaulted galleries. Each residential quadrant also contained eight to twelve *sikkahs* (small streets). These *sikkahs* within the quadrants had strong gates which opened to the ring street, but not to the main court. It is not yet known, however, whether the gates of the *sikkah* opened to the internal or external ring streets or both. The ring streets had a strong gate at each end that opened onto the diagonal gateways.[61] Each quarter was allotted to individuals such as a chief or commander, to be developed. The *sikkahs* of the quarters were named for prominent individuals living in them. Al-Ya'qūbi remarks, "(there is) a *sikkah* known these days as al-Qawāriri, but I have forgotten the name of its owner",[62] indicating the *sikkahs'* individual or collective ownership. Al-Baghdādi describes the buildings as abutting each other.[63]

An important but neglected fact of Baghdād's foundation is that individuals were assigned allotments **outside** the round city, allotments so large that each contained internal streets and lanes. Those streets and lanes were also named after the individuals to whom they

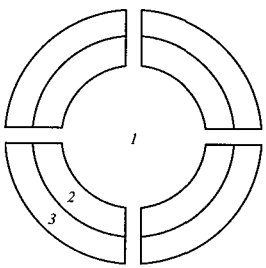


Figure 4 6
1 Ar-Raḥbah
2 Inner Ring
3 Outer Ring

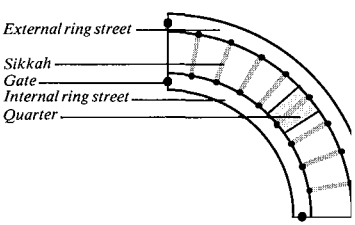


Figure 4 7 Baghdād. One quadrant bounded by two ring streets and the possible location of gates.

had been allotted. Al-Ya'qūbi explains that those allotments (*'arbāḍ*) were divided into four groups. Each group or quarter was assigned to a *muhandis* (a person with building knowledge) who was given financial aid from the authority to be distributed among allottees. The caliph instructed that each quarter should have a market, roads, and lanes, and that the width of the streets should be fifty cubits, while lanes should be sixteen cubits. Furthermore, each quarter should be self-contained, having its own mosques and baths.[64]

Other than this information about the city's major features, we know virtually nothing about the decision-making process for the residential quarters. But had that process differed from what was customary, it is likely that the historians would have reported it. We can assume, therefore, that the principles of *sharī'ah* were applied to developing the residential quarters of Bagdhād. The participation of 'Abū Hanīfah, founder of the Hanafi school of law, in the building process supports this conclusion. The caliph al-Manṣūr insisted on 'Abū Hanīfah's participation in the building of Baghdād and he appointed him as its judge, but 'Abū Hanīfah strongly refused. This may suggest 'Abū Hanīfah's disagreement with the general planning.[65] However, we may assume that in small-scale decisions related to dwellings or streets, the customs of building were preserved. It is worth noting that the judge 'Abū Yūsif, who wrote the book of al-Kharāj, was a student of 'Abū Ḥanīfah. This book, which provides valuable information regarding the principles of allotment, revivification and demarcations, was written at the request of the caliph Hārūn ar-Rashīd (170/786–193/809) and was used as a guideline throughout the empire for building matters. The principles explained in Chapter 1 are based on non-intervention by the authority. It is most likely, therefore, that the authority did not intervene in decisions within the quarters.

The request of the caliph to see the city's outlines suggests that the main lines of the plan were observed, but not necessarily the internal organisation within the quadrants or the quarters outside the round city. The size of each allotment outside the round city, according to Creswell's interpretation, was 538 by 250 to 350 cubits (280 × 130 to 180 m.). The average size of an allotment was therefore 40,000 sq. metres.[66] Although the boundaries of these allotments were determined by the authority, their large size suggests that no intervention took place. Had allotments been small, it is most likely that, as in contemporary schemes, an external party made decisions for the inhabitants. In other words, the larger the size of an allotment the less intervention probably took place, and in Baghdād the allotments were so large that the inhabitants laid out the streets themselves. Even the gates of the *sikkahs* suggest autonomous quarters.

As to the quarters outside the round city, al-Ya'qūbi's description leaves no doubt that each quarter was divided into large allotments. By counting the allotments between the gates of al-Kūfah and al-

Baṣrah, which is the largest quarter and contains twenty-two allotments, and from the number of the roads and dead-end streets in all quarters — six thousand — we can conceive the enormity of each allotment; some even contained markets, mosques and palaces. The allotment of Waddāḥ, for example, contained his palace, over one hundred stationery shops and other shops; the allotment of ar-Rabī' contained the tailor shops among other activities. Al-Ya'qūbi's description emphasises the diversity of function and building elements within each allotment, showing that each allotment was developed by many decision-makers.[67] Most importantly, from the sizes of the quarters outside the city and the round city itself, one may argue that the centralised round city is only a large palace inside the decentralised city of Baghdād.

Thus the residential quarters were in the unified form while the ring streets, the vaulted galleries, the markets and the inner court, controlled by the authority, were not in the unified form of submission. This centralised situation did not last. In the year 156/773 al-Manṣūr built al-Khuld palace outside the round city of Baghdād.[68] Le Strange comments that "the innermost wall, surrounding the Palace Enclosure, must have disappeared fairly early owing to the encroachment of the houses on the latter." Creswell and Lassner cite a series of changes that ultimately led to a total transformation of the city because of actions by the users'. In the long run, this "created" round city could not keep its original form.[69]

We may say in conclusion that Baghdād, like any other Islamic city, gradually changed as a result of the actions of its residing parties. Al-Kūfah was developed mainly by residents, not by a central authority. The morphology of towns in the early Islamic period was formed by the small-scale decisions of the residents. Intervention by the authorities was minimal, and the town's growth was managed by expanding parties, who, in the case of disputes, were forced to communicate. The principles were not codifed and were open to interpretation, necessitating dialogues between parties. "An action is considered revivification if it leads to the conventional use of the intended revivification" is one such principle. Such dialogues resulted in agreements which shaped the physical environment. The organic fabric of the Muslim traditional environment is the outcome of the many small decisions made by nigh parties which used, controlled and owned properties. Decentralisation not only provided a stimulus for parties to act, but also forced communication among them. Decentralisation resulted in an autonomous synthesis.

5 Freedom and Control

While revivification and allotment **established the boundaries** between properties, the principles that will be discussed in this chapter **controlled the boundaries**. These principles were referred to by the authority in resolving disputes between contending parties and to judge actions that affect the morphology of the built environment, such as changing the function of the property which could affect the whole quarter. These principles are the main mechanisms of transforming the physical environment over time. Unlike previous chapters, this chapter will explore the relationship between parties of **different properties**. Without the principles in this and the next chapter one can never understand the structure of the traditional Muslim built environment.

NEITHER "ḌARAR" NOR "ḌIRĀR"

"Neither *ḍarar* nor *ḍirār*" refers to a tradition of the Prophet that translates as: "(T)here should be neither harming nor reciprocating harm"; or "(T)here is no injury nor return of injury."[1] This saying was interpreted to mean that one may alter the built environment so long as the alterations cause no harm to others, and was used constantly by Muslim authorities to evaluate the legality of individual actions in the physical environment. Parties might initiate actions, such as elevating a building, which could disturb the parties of adjacent properties. In the absence of municipal codes, each change was a unique case and judged by refering to this principle.

Jurists differ as to the exact meaning of this tradition, and consequently to its use as a tool.[2] *Ḍarar* is what an individual benefits from at the expense of others, such as, for example, changing a residential property to a factory whose noise or effluent will harm neighbours; *ḍirār* means an action which harms others with out benefiting the acting party, such as opening an unneeded window to look into the neighbour's yard. *Ḍirār* has also been explained as harming oneself so others will be harmed.[3] The usage of the tradition as a tool and the opinions of jurists suggests complete freedom of action if others are not damaged. It also implies the refusal of intervention by outsiders

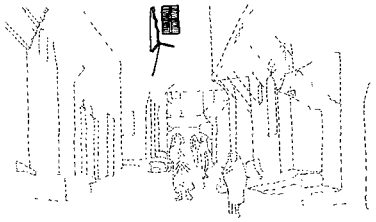
in the decisions of a residing party regarding the internal organisation. One can make changes **within** a property so long as no damage is caused to others. The only actions that a party may not execute are those which affect another's property physically, such as knocking or hammering on the neighbour's wall, or those which affect the party of the adjacent property — for example, intruding on a neighbour's privacy — even if the intrusion is not physical. The tradition implies physical and moral control.

A well-known principle derived from the Prophet's tradition is that "if two damages are concurrent, then the lesser (or less severe) should lapse for the greater."[4] The greater damage means preventing a person from doing something that would greatly benefit him in his property, while lesser damage means the objection of the neighbour as a result of not-too-severe damage caused by that action.[5] Many cases were reported where people raised their buildings, thereby blocking their neighbours' windows and cutting off their light and fresh air. It was ruled a greater injury to prevent the acting party from raising his building than that caused to the neighbours, and the building was raised.[6] In another case, a person established a flour mill in one room of his house; his neighbour objected because such an action generated noise. The ruling based on this principle allowed the milling to continue, since the damage of noise was not considered severe.[7]

INTERPRETING DAMAGE

The principle of damage implies that a party does not need permission to act. When a damaging situation occurs, however, the damage will be felt and consequently interpreted differently by the involved parties. The acting party may not acknowledge the damage it is causing to an adjacent party, and a dispute will arise. Dialogue among parties will intensify, and jurists may give differing opinions. **This dynamic leads to the autonomous synthesis.** To clarify this statement, we will explore the relationship between two properties and the damage caused by openings.

All jurists agreed that people have the right to retain **pre-existing** openings in their buildings, while the damaged party from such an opening has to adjust by raising, for example, the parapet of its building.[8] As for new openings that damage neighbours, some opinions advocate sealing those openings if the damaged party protests.[9] The opinions which advocate sealing the openings are based on determining the degree of damage done to the neighbour, which is open to interpretation and necessitates dialogue among parties.[10] But, most importantly, it suggests protecting the overlooked property from damage which is not necessarily physical. Protecting the overlooked property means recognising the rights of that property. For example, a case was reported in which a high opening through



51 Tanger. A window on the overpass that is screened from the left side suggesting that the space over the street belongs to the house on the right and that the screening is the result of a ruling or agreement between concerned neighbours

which one could look out only while standing on a chair, was sealed because the resident used to step on a chair and look into the neighbouring property.[11]

But there are contrary cases. A person opened a window in his upper floor towards his courtyard but did not raise his courtyard wall high enough. Neighbours on the other side objected that the opening intruded on the privacy of their roof terrace, and, that therefore, the wall should be raised. The person who made the opening claimed that he kept the wall as it was to minimise the load on his wall rather than to cause his neighbours any damage by viewing their roof terrace. The neighbour's objection was not accepted since the person who made the opening could not see into the rooms of the neighbour's house.[12]

Comparing doors and windows on upper floors, 'Ibn al-Ghammāz (appointed as a judge in Tunis in 718/1318) explains that doors are made for movement in and out, and do not cause much harm, while windows are more harmful, since the resident may sit and view his neighbours' houses without being seen. He allowed doors but not windows in cases of disputes.[13] 'Ibn Wahb (d.197/813) ruled that if the door were positioned in such a way that the user would inevitably view the neighbour's house, then the door also should not be permitted. 'Ibn ar-Rāmi explained that the harm could be discovered by standing beside the door or behind the window and looking at the neighbour's house; if the person cannot see what is in the house, then there is no harm.[14] The opinions of other jurists were that no one should be prevented from opening doors or windows in his upper floor room, and he who could cause harm to his neighbour should be told to screen himself.[15]

Many cases exemplify the diverse perceptions of damage held by various parties. A decision made which one party considers a needed change may be perceived by another party as damaging. The differ-

ing perceptions lead to discussion and eventually to agreements or rulings. The jurist's ruling that allowed the openings to remain did not violate the right of the over-viewed properties, as the acting party was asked to eliminate harm while keeping the opening. The principle of damage is simple, yet very logical in avoiding dominance among parties of different properties and generating agreements. Ultimately, the agreement will control both parties. Within this framework, the controlling party, who is often the user, had complete control over his property, which is the essence of autonomous synthesis.

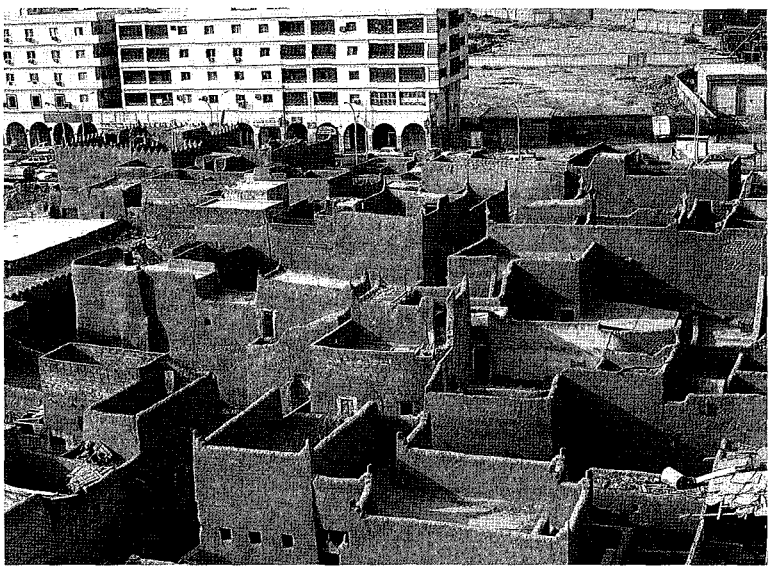
The cases described thus far occurred in urban areas. There are many similar cases of dispute among orchard owners. The same principle applies in both urban and rural environments, or compactly built and sparsely dwellings within orchards. A case is reported in which a merchant in the city of Tunis, who had good ties with the ruling class, opened a window that overlooked from its side the roof terrace of the matrimony judge's orchard-dwelling. The window was screened from the side.[16]

FREEDOM AND DAMAGE

In general, sources of damage between two properties are those which affect a property or a party. Regarding the **party**, the damage is towards senses which can be visual, such as intruding on privacy; or audible, such as changing the function of one's property from residential to that of a blacksmith; or olfactory, as when the functions introduced create dust, odour, or smoke. Regarding the **property**, the source of damage can be direct, such as hammering on the neighbour's wall or burning things near it; or indirect, as by intro-

5 2 Traditional Riyadh Most doors roof terraces are lower than the roof terrace parapets.

5 2



5 3 & 5 4 Windows in the city of Tunis Note that most windows do not face each other

ducing a function which causes the neighbour's property to vibrate. According to this classification and excluding visual damage, almost all damage caused to a party or a property in traditional environments result from changing the function of the property or continuing a damaging function which already exists. Thus to carry out a comprehensive investigation, we will concentrate on 1) the exact meaning of damage caused to parties with relation to the senses — audible, olfactory and visual; and 2) the ability to change function in general and its direct or indirect effects on property.

1) **Audible** damage in general is not considered damage among Muslim jurists. The damage of querns and mills to the neighbours' walls by vibration will be considered, but not the damage caused by sound to the neighbouring residents.[17] 'Ibn Rushd (the judge of Cordoba, d.520/1126) stated that it is well known that sounds such as the sound of blacksmiths, tailors and cotton carders (*naddāfīn*) should not be prevented. The noise is considered less harmful than preventing a person from earning his living would be.[18]

Comparing audible with olfactory damage, 'Ibn 'Abd al-Ghafūr (d.440/1048) states that "sound does not rend the ears and damage the human body." On the other hand, "repulsive odour rends the gills, reaches the intestines, and offends human beings."[19]

Among Muslim jurists **olfactory** damage which is mainly caused by odour or smoke is considered severe. 'Ibn Qudāmah states that the smoke of kitchens or baking ovens necessary for living is permitted, while smoke from bath-fires or the dust of threshing should not continue if protested by neighbours.[20] A case in which the neighbours complained to the judge about the smoke of frying barley in a mill is reported. When the judge asked the experts to estimate the damage and they reported that the smoke was severe, the judge ordered the cessation of the smoke. 'Ibn ar-Rāmi related that no one could establish bath-fires without the consent of the damaged neighbours.[21] As to the damage of odour, jurists also agree that the odour from a tannery should be prevented if neighbours protest. Moreover, people should be prevented from locating latrines or uncovered canals, or any other source of repulsive odour near the homes of their neighbours.[22]

Visual damage differs from other kinds of damage as it involves the behaviour of parties rather than merely the changing of functions. Regarding this kind of damage there are slightly differing opinions among the schools of law. The Shāfi'i rite, for example, did not compel the owner of a roof terrace that is higher than his neighbours' roof terrace to build a parapet, but prevent him from using it.[23] The Hanbali rite compelled the owner of such a roof terrace to wall it, since the person using the roof terrace could view his neighbour's house.[24]

Individual behaviour was also controlled to eliminate damage which would consequently affect the physical environment. In al-

Kūfah there was a *muḥtasib* who would not allow any *mu'adhin* (summoner to prayer) to call for prayer from a minaret without covering his eyes. In Granada a woman flirted with a *mu'adhin*, and he confused the summons.[25] 'Ibn Rushd (d.520/1126) was asked about a minaret to which the neighbours objected because it overlooked their houses. He answered that the minaret should be screened by building walls from the sides that overlooked the houses. He added, "This is what we do in Cordoba in the majority of minarets". 'Ibn al-Hāj (d.529/1135) reported the demolition of a built bench in front of a shop. Some men used to sit on this bench, which was next to a path, and they flirted with women leaving the path.[26]

In all the above cases one common theme is persistent, that is, in principle, in the traditional built environment, any change was made with the consent of the affected parties and not through the authority's pre-stated rules. This means that any decision affecting the neighbourhood was the responsibility of and under the control of the affected neighbours — that is, the largest nigh residing party.

2) Regarding the ability to change the function of a property, in general, any party can undertake any function if it does not harm others. For example, 'Ibn al-Qāsim was asked about a man who had built a mosque and then built his home on the upper floor. He answered that he did not favour this, although the caliph 'Umar b. 'Abdul-'Azīz (d.101/720) used to live in the top of a mosque during the summer in Medina. He added that women would not feel comfortable in such a house because how can a man make love to his wife on top of a mosque?[27] This example may sound somewhat naive, but within the Islamic context it indicates the great degree of freedom that parties enjoyed with respect to using their properties.

We have, however, two extremes on the issue of establishing a function that will cause damage to other parties or properties.[28] The majority of opinions do not prevent the person from changing the function of his property unless the damage is considered very severe, such as irrigating the land with an excessive amount of water so as to damage the neighbour's wall, or burning things that could ignite the neighbour's wall.[29]

The cases indicate the variety of opinions on the subject of freedom of action versus damage. All these opinions imply that control lies in the hands of the residing party. Yet, with respect to continuous damage, from actual instances of disputes it seems that the prevailing practice was to prevent severe damage if it was protested by affected neighbours, while allowing all other changes to continue. For example, 'Assuyūri was asked about a case in which a person brought a cow into his house and then pounded grain to feed the cow. The neighbour protested; he asked that the pounding stop as it would damage the walls through vibration, but the cow could remain.[30]

COUNTERACTING DAMAGES

When 'Ibn 'Abd ar-Rafī' (appointed as judge in Tunis in 699/1300) was asked about newly established bath-fires or tanneries, he said that the initiators of such functions had either to eliminate the damage or have their activities forbidden. In other words, if the damage were to be counteracted, the party's action could continue. Naturally, parties try to act so as to prevent or eliminate damage. All jurists agree on this. But some damages can be counteracted while others can not, as, for instance, in the case of noxious odours.[31]

Regarding **failure to eliminate damage**, al-Wansharīsi (d.914/1508) reported a case in which a person dug a well near his party wall, while his neighbour on the other side, who had a cistern, objected. The cistern and the well were so close that it made the cistern leak. The only way to prevent damage was to fill up the well, which the judge ordered the well's owner to do. Similarly, 'Ibn ar-Rāmi reported a case in which a person planted a fig tree in his yard. His neighbour had a cistern on the other side of the party wall, and the roots of the tree gradually penetrated the wall and damaged the cistern. The fig tree was uprooted.[32] In another case a judge ruled for the removal of the water spout in a narrow street in which rain water damaged the wall of the protesting opposite neighbour.[33]

'Ibn ar-Rāmi addressed the question of whether one can successfully **counteract damage**, and how to set limits. To counteract the vibration of an animal rotating a millstone, he recommended that there should be eight hand-spans between the neighbour's party wall and the edge of the animal's rotation circle. He added that such space should be occupied by rooms, storage areas or at least passageways.[34] There are many instances of measuring and counteracting damages which suggest that they were rather common.[35] In an interesting case it is reported that a person wanted to establish a stable (*'arwa*) in a ruined area which he owned. The area was quite large, bounded by streets on two sides, a stable on a third and a protesting neighbour on the fourth. The owner of the ruined area was asked to build a room nine hand-spans in width with a wall two hand-spans thick, to prevent vibration from damaging the protesting neighbour's wall.[36]

Many other cases suggest that the degree of success in counteracting damage did broaden the limits of the parties' control. This positive mechanism prevented damage to the adjacent property, although limiting the concerned party's decisions regarding the internal organisation of his property — he might, for example, have to build a room abutting his neighbour's wall to counteract the vibration of his change.

An action or decision that could not be counteracted was not permitted. This limitation of control eliminated dominance among **adjacent properties**. The guiding principle with regard to damage was

to give parties maximum freedom while ordering the relationship between them. Each party knew its limits, yet was not controlled. If both parties agreed, the sensitive relationship between two neighbours was regulated and ordered with no external intervention. If they did not agree, the dispute was resolved by counteracting the damage. The party that used the property which it owned was not controlled, but only prevented from harming others. This means that the built environment was composed of a series of adjacent unified forms of submission in full exchange with each other, not restrained by a larger prestated framework.

PRE-EXISTING DAMAGE

Damage can be classified into two types, new and pre-existing or old. An example of **new damage** is a party changing the function of a property that harms neighbouring parties.

Pre-existing damage may be classified into two types.[37] The first is an action taken in the past which will inevitably damage others later on. The party was allowed to take such action because there was no one there to object — an example is building a tannery whose odour will harm future neighbours. I call this a **damaging precedent**. The second type of pre-existing damage is an action which could potentially but not inevitably damage others in the future — an example is the creation of a window that might overlook future properties. All jurists agree that such damage has the right to continue. I will call this a **damaging act**. This classification will help us in clarifying the concept of "accretion of decisions" in the traditional environment.

Unquestionably, "damaging acts" had the right to continue even if they damaged neighbours. For example, 'Ibn Taymiyyah (d.728/1328) was asked about two houses in which the water spout of one house was directly above the other's entrance, and had been in that position since before the second house was built. Did the owner of the latter house have the right to prevent the damage caused by the water spout? He answered that since the water spout had been installed first, it had the right to continue.[38]

As to "damaging precedents", jurists' opinions varied according to the damage caused to neighbours. The damage caused by the smoke of a potter's fire, for example, had the right to continue.[39] In one case, a jurist was asked about houses inside Kairouan city which had been used as tanneries; the tanners had been forced to move out. Thirty years later some tanners wanted to renovate the same houses as tanneries. The neighbours protested on the grounds that the houses had not functioned as such for thirty years. The jurist answered that the tanners had the right to move back.[40] Some jurists, however, will not allow a damaging precedent to continue regardless of the amount of time that has elapsed. For example, a jurist was asked about shops for pounding kernel in the market which had

houses above them. The pounders had been forced to move outside the city, but now they had come back. He answered that since they cause damage they should be moved.[41]

Although opinions varied regarding "damaging precedents", all initiative was in the hands of the affected parties. Previous cases revealed the awareness of the parties regarding damaging precedents. A good example of such awareness is the case of a lime-kiln owner who, having one fireplace, decided to build another fireplace using the same chimney. The neighbours protested on the grounds that this caused additional smoke, and the new fireplace was banned.[42] The cases suggest that a party may damage other parties if its action precedes them. In other words, there was a rather well-established principle regarding the right to damage others if the damage is not severe.

RIGHT OF PRECEDENCE

The freedom of a party to act without harming others led to the very interesting theme of the "right of precedence". A property can possess the right to damage other properties within limits, without being damaged itself. We can consider two adjacent properties A and B in which A has the right to damage B, but B does not have the same right. For example, a person built his house and opened a window that did not overlook other houses. Later the neighbour built a house and wanted the first person's window sealed. The window can remain because the first person preceded the second and had the right of using the window while the second person had to adjust.[43] Does this situation imply dominance between the parties of the two properties? Furthermore, what is the implication of such a relationship on the synthesis of the forms of submission?

Elimination of dominance and an ordered relationship between properties was achieved by the concept of "right of precedence". The term *hiyāzat aḍ-ḍarar* — literally, "possessing damage" — means the right enjoyed by a property to damage other properties because its party preceded other parties in action. The cases suggest that possessing damage is related to a property and not to a party. Let us call the right of possessing damage as the "right of precedence". The following will explain that the right of precedence did not result in a dominance relationship between properties as the term may suggest. I will explore various situations regarding the right of precedence.

Situation one poses the question whether the party which precedes other parties in possessing a right of precedence has the right to continue a damaging precedent. Regarding the right of precedence between two **individually** owned properties, if the damage was caused by the preceding element, it cannot be reversed. In one case in Tunis two neighbours fell into dispute because a canal leaked into the

neighbour's water well. Because the canal was built before the well, the well owner was asked to counteract the damage of leaking.[44]

The right of precedence between **individually** and **collectively** owned property was also upheld. In a dead-end street owned by its inhabitants, one of the houses abutting the dead-end street but which did not have access to that street had a small, covered, long disused septic tank within the dead-end street. The owner of the septic tank wanted to use it again, and the owners of the street could not prevent him from doing so, as the septic tank preceded their dead-end street.[45]

The same right applies to precedence between **collectively** owned and **publicly** owned property.[46] From the observed cases we may conclude that the parties who acted later had to accept the previous damaging acts as constraints.

Situation two poses a different question. If party A preceded party B in building its property, does party B have the right to initiate damaging acts? According to the principle of damage, it can act and if there is no objection will have the right of precedence. Thus, the right of precedence is decided by the preceding **action** and not by the preceding building. For example, if two properties are on opposite sides of a through street, and one party (B), whether or not it preceded (A) in building the house, opened a door that could damage A in the future by limiting A's choices of opening a new door, then B will have the right of precedence.[47] A party may also initiate changes which could be damaging for others if they are similar to damages already caused by other properties. A person may introduce a new element, such as a furnace, which would cause damage, if most adjacent properties had also caused similar damage, so long as such damage did not exceed the damage caused by neighbours.[48] This principle would pull industries having similar damages to the same section of the city.

Situation three: if a party initiates an action that damages someone else's property — a damaging precedent — but for some reason the action is not protested or not counteracted for a long period of time, the acting party will then have the right of precedence. For example, in one case a narrow dead-end street had three doors for three houses. Two of the houses were converted to hotels. The third party did not protest the conversion, and gradually the street became so crowded that the third house was no longer usable as a residence. The house owner's protests were not accepted since the change had been made a long time ago.[49]

To determine the time needed to gain right of precedence, some judges deferred to the Prophets' tradition which says that "he who possessed a thing over his opponent for ten years, is more rightful (if the opponent does not protest)" and considered ten years sufficient time. Other judges resolved each case independently.[50] However, if a person saw his neighbour initiating an action that would damage him

or his property and did not protest in time, his reticence is considered consent.[51] Most jurists agreed, however, that damaging precedents which increase over time, such as latrines or tanneries, may not be gained as a right of precedence, regardless of the years involved, unless the acting party preceded the damaged party.[52]

All these cases indicate a common phenomenon: that is, the users' awareness of their rights. The party residing nearby is aware of its rights and often acts. The possibility of creating the right of precedence is an incentive to react quickly for parties who feel that their rights have been violated. It also means that all cases may be resolved among the parties involved. In other words, the principle of the right of precedence generated an environment in which decisions are in the hands of nigh residing parties.[53]

USERS' CUNNING

A party may initiate an action claiming that it had the right of precedence but did not use such right and will find ways to prove its claim. For example, a person reopened an old sealed window that overlooked the roof terrace of some houses on a dead-end street. The overlooked residents protested. The person who opened the window presented witnesses that the window was pre-existing, and that he had the right to reopen it. His claim was supported by the frame and the lintel of the pre-existing window. It was ruled that the window could be reopened.[54] Many similar cases took place. A party might open a door and be ordered to seal it; a few years later it might reopen the same door on the grounds that it was pre-existing. To counteract such tactics, jurists ruled that if a person opened a door that damaged others and subsequently was ordered to seal it, the threshold and the frame should be destroyed and all traces of the door be eliminated by filling in the opening by using the same building material to hinder the future use of these elements as evidences.[55]

The concept that one property may enjoy some rights over the other made parties aware of their rights. Each party realised its responsibility and the limits of control over other parties. This awareness is clear in a common case of dispute between vertical neighbours: The rain-water of an upper house drained through the roof of a lower house into a cistern owned by the residents of the lower house. The owner of the upper house wanted to change the rain-water drainage, while the owner of the lower house objected on the grounds that this water should, by right, drain into his cistern. The drainage was not changed because it was old.[56] Parties awareness is clearly manifested in the cases of transferring the ownership of a property from one party to another. For example, a person bought a house, and the seller informed him that the rain-water running off his neighbour's house could drain through his new house. Later, the buyer prevented his neighbour from draining water on the grounds

that he was also draining ablution water. The buyer's protest was accepted since rain-water is occasional while ablution water is a constant. The neighbour only had the right to drain rain-water.[57]

A careful examination of documented cases of ownership transfer suggests that agreements are the basics of the right of precedence, and that each party was careful to realise its rights in the physical environment.[58] The right of precedence ordered the relationship between parties as a **series of constraints**. These principles may not have resulted in an organised built environment, but they did produce what I will call an **ordered environment**, in which responsibility is clear and in the hands of the largest residing party. The relationships between parties of different properties were regulated and ordered by the physical environment as a series of constraints, yet these constraints were created by the responsible parties, rather than by an outside authority.

AUTONOMY OF A PROPERTY

If a party's right was violated and the party could not defend its possession, or if the authority confiscated an individual's property using eminent domain, or initiated physical change that affected private properties, then intervention was present and the property is not in the unified form. We will investigate the degree of autonomy enjoyed by properties to clarify the issue of non-intervention in the traditional environment. To do this we will investigate the autonomy of one property against 1) another privately owned property; and 2) against publicly owned property such as a street.

1) Regarding autonomy between **privately** owned properties, "the Prophet cursed him who steals *al-manār*." When asked, "What is stealing *al-manār*?" The Prophet answered, "A man taking a portion from his neighbour's land." *Al-manār* is defined as the marks or boundary between two adjacent properties.[59] A dramatic case is reported in which a person first raised his building one storey; then added another floor; and finally reached four storeys. The raised building could not be described in terms of money being spent on it, but grew gradually in such a way that the encroachment on the neighbour's air property was not noticed. Years later the neighbour wanted to raise his own building and asked the owner of the four-storeyed building to correct the encroachment. The owner answered that such a thing was impossible, but he was compelled to demolish the encroaching parts.[60]

Even if the owner of the adjacent property is a powerful party, in principle, it still cannot intervene in others' properties. For example, the caliph Yazid (d.64/683) decided to enlarge the stream which led to his land through peasants' lands, but the peasants did not allow him to do so. An agreement was reached in which the caliph would pay their land's tax for that year.[61]

With respect to two properties one on top of another, the upper and lower properties are both autonomous. For example, if the walls of the lower floor were ruined and the wood rotted because of water used by the owner of the upper floor, then the owner of the upper floor should repair the damage. In another case, when the owner of the upper floor wanted to transform his property into a mosque and the owner of the lower floor objected, the owner of the upper floor was prevented from doing so.[62] In these cases the owner of the lower floor is autonomous. The reverse is also true. The upper floor owner has the right to stop the lower floor owner from adding a necessary latrine on the grounds that such addition would ruin the walls of the ground floor through saturation, and would inevitably damage his upper wall.[63]

2) The strongest form of dominance by the authority over private ownership is in the area of eminent domain, in which the public's interest demands confiscating private properties. All jurists agree that a property cannot be confiscated so long as the property is not causing damage to the public — by, for instance, threatening to collapse.[64] But if the public's interest is involved, as in the desired extension of a mosque, and the private owner refuses to sell his property, can the authority compel the owner to sell? According to the Prophet's tradition, "(taking) the property of a Muslim person is not lawful without his conciliative consent."[65] When the caliph 'Umar enlarged the Prophet's mosque in Medina (17/638) he bought the surrounding houses except for the house of al-'Abbās, who refused to sell. After winning his case against the caliph, al-'Abbās gave his house as charity to the Muslim community.[66]

This incident is always referred to by jurists in resolving disputes of eminent domain and apparently established a custom of not confiscating private property. For example, in al-Baṣrah, the great mosque was enlarged with the exception of the northern corner which protruded because of a house which stood there. The son of the owner refused to sell his father's house. When the son left town, the governor of al-Baṣrah (during Mu'āwiyah's reign 41–60/661–680) demolished the protruding part to square the mosque evenly. When the son came back, he grieved. The governor satisfied him by indemnifying him five square cubits of land for each square cubit that had been taken from him, and by creating a door that led directly from the remaining part of the house to the mosque.[67] Lapidus, when describing cities during the Mamluk reign, gives examples of disputes between the authority and property owners and managers of *waqfs*. They were consulted by the authority about street-widening projects, and compensation was agreed upon. However, there were rare cases in which private properties were confiscated by the regime, although it was illegal.[68]

Most jurists totally opposed confiscation without proper compensation and consent of the owners. However, a few Māliki jurists

approved eminent domain in cases of desperate public need. Therefore, we have to examine eminent domain in the Māliki school of law, as it is the one rite that may invite intervention.

The public's desperate need seems to be considered in cases of public circulation.[69] If a road is obstructed can the authority confiscate sections of a person's land to provide circulation for the public? Even if such a road is dispensable — if, for instance, it provides short cuts or is easier to travel on than another substituting road — the Sultan cannot compel the land owner to sell. However, if such a road is the only access for the people, then, in the opinion of a few jurists, such as Suḥnūn, the Sultan can compel the owner. But for the majority of jurists, nothing can be taken from the land's owner without his conciliative consent. Furthermore, if the owner has the power he can prevent those who are violating his right. The jurists were asked, how would the people move if this was the only access for them? They answered that the ruler should find a way, and the people should try other alternatives.[70]

In short, privately owned properties were totally autonomous with respect to other private properties. Against publicly owned property, the same can be said with a few exceptions in cases of public need and with compensation. In other words, eminent domain is a compelling transfer of ownership and not intervention in parties' affairs. Even if viewed as intervention, it was often rejected and it was, indeed, very rare to change the structure of the built environment from autonomous to heteronomous synthesis.

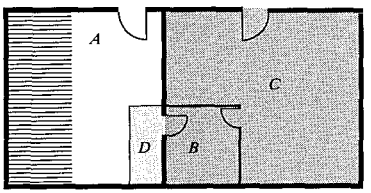
I have used the case of eminent domain in this section to demonstrate the principle of non-intervention between various parties in the traditional built environment. The principles of damage also demonstrate that property rights were not violated, and the concerned parties were not subjected to regulations. The party that owned controlled its property. These traditional principles resulted in autonomous synthesis.

6 Elements of the Traditional Built Environment

The major elements which create the characteristic texture of cities in the traditional Muslim built environment are four: *finā'*, dead-end streets, *ḥimā* and public spaces such as streets and squares. The traditional society placed the four urban elements in the unified form of submission. The claims of ownership, control and use for these three elements and the relationship between them and the private properties adjacent to them clarify to a great extent the mechanisms which gave shape to the traditional environment. These mechanisms inform us about the relationship between parties of differently owned properties, which in turn help to elucidate the state of the built environment. In this chapter, therefore, we will concentrate on collectively and publicly-owned properties.

FINĀ'

Finā' is defined as the space on the street abutting a property, used exclusively by the residents of that abutting property. The three claims enjoyed by the parties of the *finā'* differ according to its location — whether it was on a wide, narrow or dead-end street — and whether or not it was demarcated by the owners. Rulings of jurists regarding *finā'* varied depending on the situation. The following case illustrates the rather complicated reasoning concerning its use. A father gave his son a house (C) that abutted the yard (A) of the father's house. The donated house had a room (B) with two doors, the smaller of which opened onto the yard. The room had a cantilever that projected into the yard. Ownership of the father's house (A) was transferred to another person — not the son. The owner of the room B (the son) wanted to use the space in the yard (D, the *finā'*) abutting his room, as illustrated. He also wanted to pass through the yard (A) to the street, but the new owner of the yard objected. The legal document accompanying the donation (*'aqd al-hibah*) did not specify such usage, but rather stated that the donation of the house included all its internal and external rights. A jurist answered that the recipient had the right to use what was beneath his cantilever and also the right to exit and enter through the small door every now and then; but he could not use it to such an extent that the yard resembled



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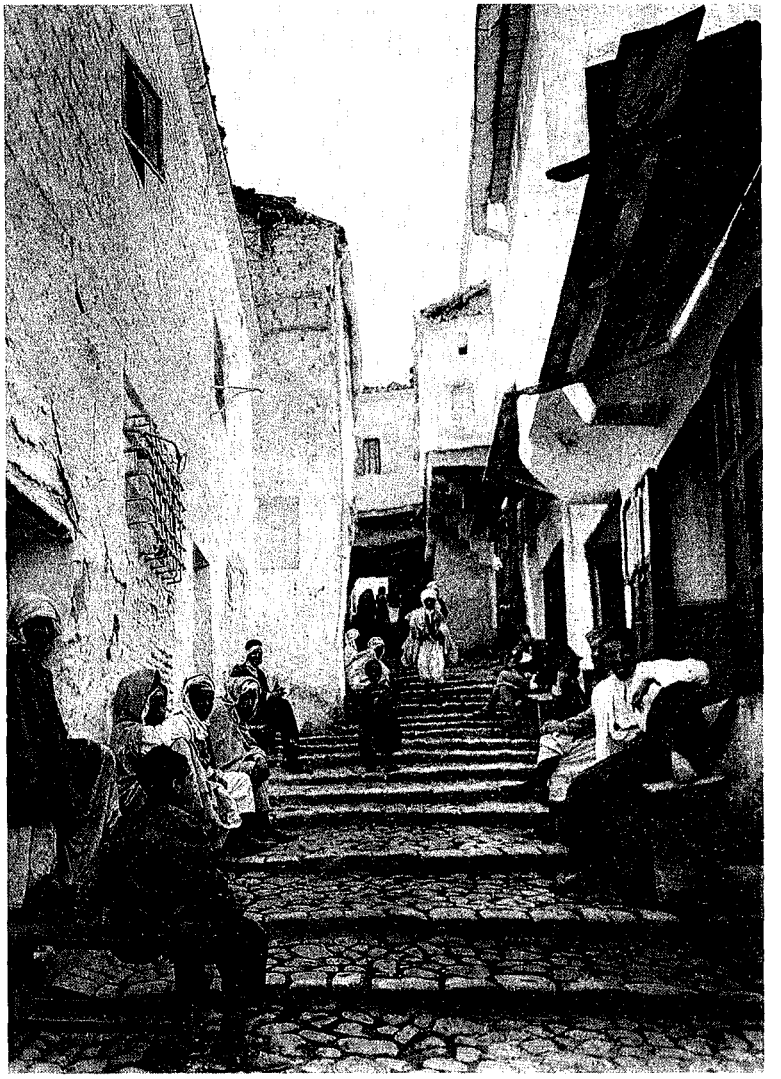
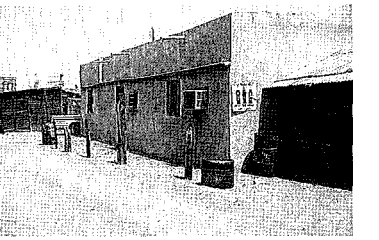




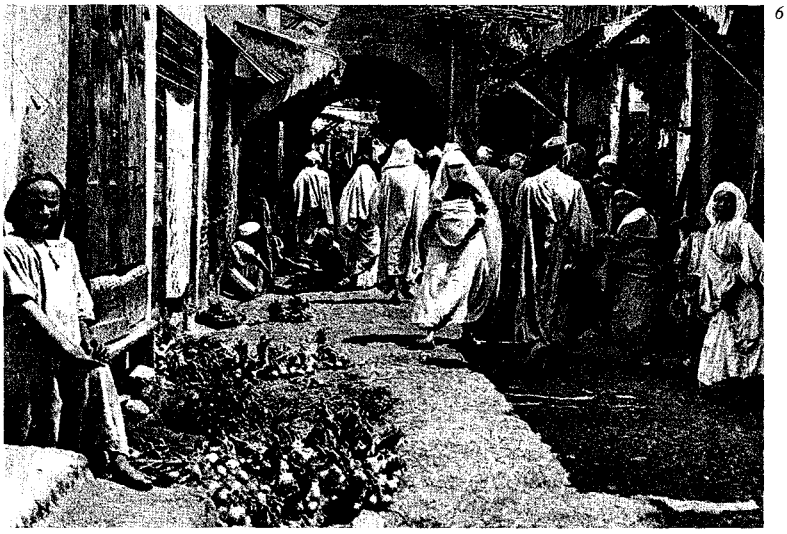
6 1 Ad-Dighimiyyah village, Saudi Arabia A side finā' *whose width has been demarcated by the owner with sticks*

6 2 A cafe in Constantine, Algeria Note the people are sitting in the finā'
6 3 From the same town but with more pedestrian movement and thus more utilisation of the finā' *by shops*

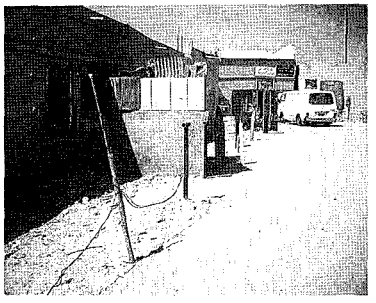
a street.[1] In this extreme case the *finā'* was on another private property. Although the right of the using party was limited, this case illustrates the acceptance of the concept of *finā'* in the traditional environment. Similarly, other *finā's* have their own unique histories.

What is the limit to the area of the *finā'*? This question is not definitively answered by the legal system, but rather has the potential of being answered by the residing party. For example, 'Ibn ar-Rāmi, refuting the opinion of some jurists that the width of the *finā'* is determined by the spot where the water spout pours on the ground, states that its width should be four to six hand-spans, depending on the width of the street.[2] This is logical since long water spouts existed in narrow streets.

6 4 The usage of the finā' *to display goods in the entrance of a dead-end street in the city of Tunis.*



6 5 Fez. Use of others' finā' *to sell vegetables.*



6 6 Ad-Dighimiyyah village. A small storage room built on a finā'

Jurists agree that a party may **use** its *finā'* for such activities as trading, or storing possessions, or herding cattle, and so on. So long as the using party behaves according to the Prophet's advice and does not damage neighbours or passers-by — by, for example, gazing at them or flirting with women — the party may use the *finā'* as it wishes.[3]

Does the using party **own** the *finā'*? Various schools of law had different opinions. According to the Shāfi'i rite, the *finā'* is owned by the owner of the property that abuts it. 'Ibn Taymiyyah (from the Ḥanbali rite) concludes that since Mālik approved the leasing of the wide *finā'* but not the narrow one, he (Mālik) considered the *finā'* as being owned by the abutting property owner. The second caliph

'Umar proclaimed that the *finā'* belonged to the house owner whether it was on the front or the back of a property.[4] However, 'Abū-Hanīfah considers the *finā'*, like the street, to be owned collectively by all Muslims; abutting residents have the right to manipulate it.[5] There is a consensus among jurists that even if a party owns the *finā'* it should not be allowed to sell it separately from the property.[6]

Control of the finā'

The different opinions regarding ownership of the *finā'* suggest that the party of the abutting property had considerable control over the *finā'*. Logically, the highest forms of control are the ability to build on the *finā'* and join it to the abutting party's property, and the ability to prevent others from using it. Regarding preventing others, all rites agree that no individual can revivify someone else's *finā'*, since a person may use his *finā'* in the future by opening a door.[7] However, most schools of law approve short-term usage of the *finā'* by passers-by, such as sitting in its shaded area if it is not demarcated by the owner of the abutting property. Thus, a party has the right to prevent others from a steady use of its *finā'*.[8]

The variety of opinions given by jurists regarding a party's ability to build on the *finā'* relates implicitly to the location of the *finā'* and the width of the street, with the exception of 'Abū Hanīfah who denies the right to build on any *finā'*. For example, 'Ibn Taymiyyah from the Hanbali rite approves parties building on their *finā'* if they do not damage others on inactive streets. The Māliki rite's opinion is mainly concerned with the principle of damage.[9] 'Aṣbāgh reports a case in which a man demolished the sitting area on his *finā'* and incorporated it into his house. The Sultan asked 'Aṣbāgh for his opinion. He saw that the street was wide and therefore advised approving the action, which the Sultan did.[10]

As for erecting simple structures such as benches or sheds, or planting a tree in the *finā'*, most jurists did not object so long as the neighbours did not complain.[11]

The *finā'* was used and controlled by the residents, and some were owned by the using party. Any *finā'*, therefore, could be in either the unified or possessive form of submission depending on ownership. In both cases the *finā's* shape was determined by the nigh residing party. But if someone built on his *finā'*, does this mean he had a new *finā'* abutting his previous built-*finā'*? This question brings us to the next element, streets.

PUBLIC SPACES

In Chapter 1 we elaborated the notion of appropriating places in the markets in which priorityship was the underlying principle. The relationship between the owner and the party that uses and controls these places is characterised by a tug-of-war of regulations — the

possessive form of submission. In examining the growth of towns, we concluded that the irregular pattern of streets was greatly influenced by the principle of revivification, and that it was formed by the decisions made by the residing party according to certain constraints such as easement rights. We will now examine public spaces in general and streets in particular and their morphological transformation over time, and address the question of whether they were left over spaces or not.

Public spaces were highly susceptible to encroachment. Even those planned by an authority, such as Baghdād, have been encroached upon by abutting properties. In the markets of traditional environment, shop owners displayed goods in their *fināʾs* to attract customers, while peddlers occupied strategic locations such as gates. In residential streets buildings encroached upon available

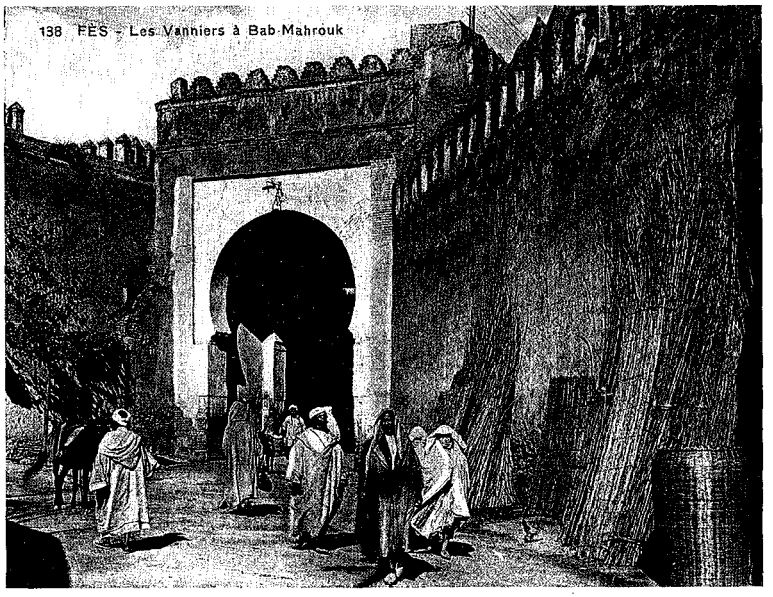
6 7

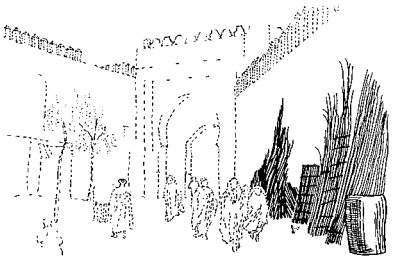
6 7 Tetuan, Morocco Shopkeepers displaying their wares in the street

6 8

6 8 Kairouan, Tunisia The appropriation of a spot in the market by peddlers.

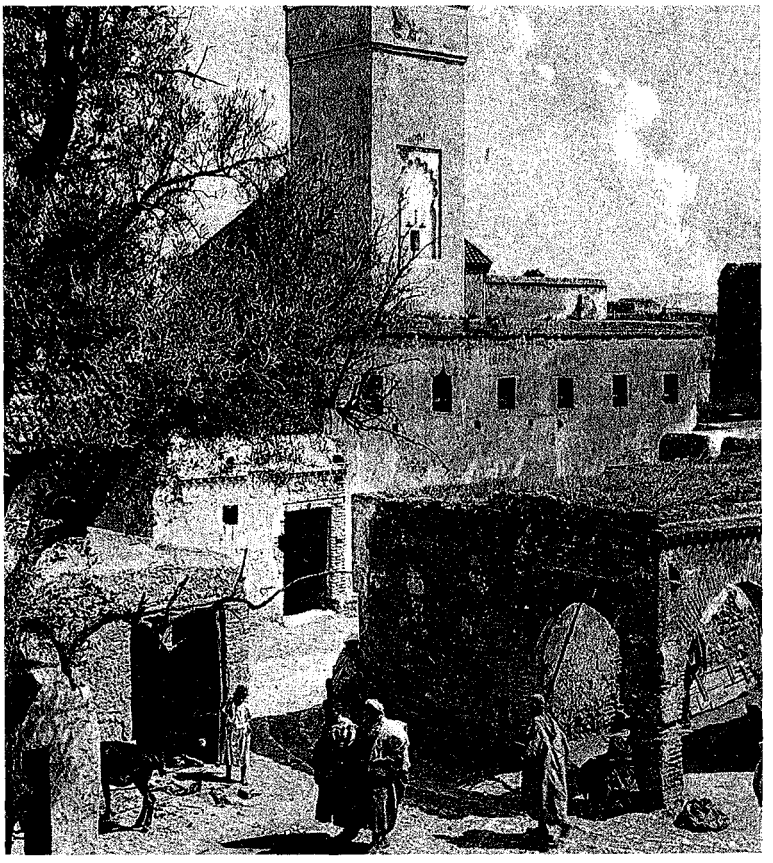
6 9

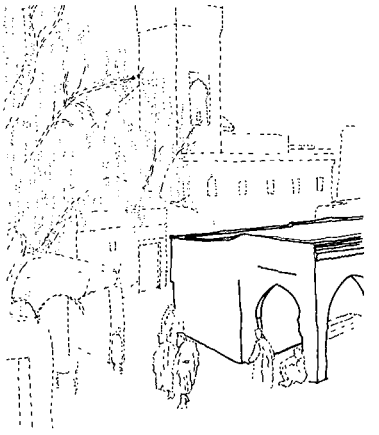


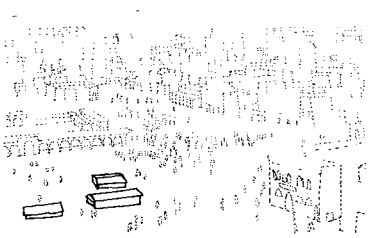


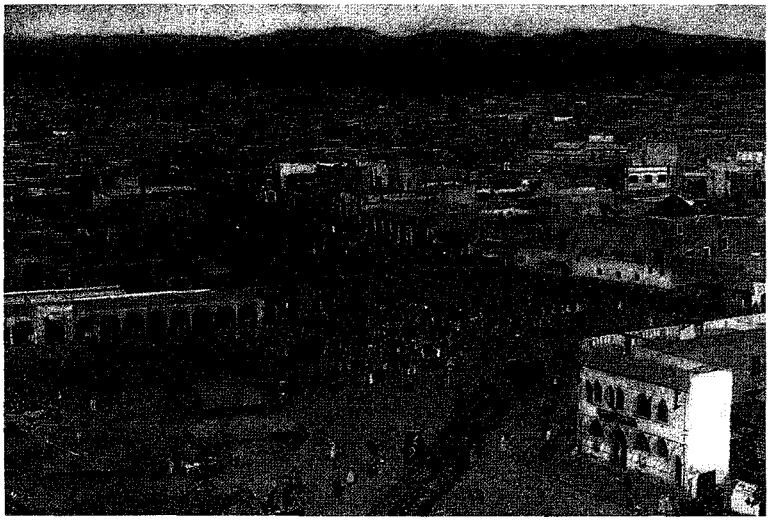
Spaces abutting public buildings, city walls, etc. in which the controlling party is remote or large and does not exercise its control are often occupied by nearby owners. For example, 6 9 from Fez, shows the use of a city wall by merchants to store reeds; 6 10, from Taza, shows a building that is possibly built within a square, 6 11, from Marrakech, shows a few buildings growing in the open space. These all illustrate the susceptibility of public spaces.

6 10









6 11

public spaces. They also grew over public buildings on public spaces such as mosques, city walls and schools.[12] The question is then: why were public spaces so susceptible?

On the appropriation of parts of a street, rulings varied, depending on the history of the street itself. For example, in a case from Medina (1268/1852) a group of people sued a neighbour who, by extending part of his house across their lane, transformed it into two dead-end streets. The appropriating party claimed that when he bought the house the previous owner told him that the lane had originally been blocked by his house. He was, therefore, merely rebuilding his property on the street. He won his case. In a similar case in Sabtah, 'Ibn Rushd (d.520/1126) ordered the demolition of a building that encroached upon and blocked a narrow through road. The group that was suing emphasised that the road, although narrow, was well known as a through street and was used extensively. They presented witnesses to prove their claim and won their suit.[13] In both cases, judgements were based on examining the previous condition of the street. Thus each new decision was judged by examining the historical situation of the street. Any simple action by a party, such as building a bench on one's own *finā'*, could play a role in determining the future form of that street.

The main principle applied to through streets was that preceding actions might continue while every new action was immediately questionable. This suggests that various streets had different rulings in cases of changes made by abutting parties. The more publicly active and well-defined the street, the less likely the action would be approved. The less active and less publicly used the street, the more likely that the action of the abutting parties would not be objected to, would continue and consequently, over time, be considered a part of the abutting property.

When abutting properties expand, the expanded part is often in the possessive form of submission, since it is not yet owned by the appropriator. Years later, the appropriator legally can claim ownership of the encroaching segment, thus changing it to the unified form of submission and consequently affecting the morphology of the street. The form of the street evolves through many small-scale decisions made by the residing parties. As a result of the acts of abutting owners, a street may change over time from a very susceptible pathway outside a town to a well-defined, heavily-used, and possibly commercial street.

Ownership of Streets

The consensus among jurists is that the street and all other public spaces were owned by all Muslims collectively, not by the authority. When 'Aḥmad b. Hanbal (d.241/855) was asked about appropriating part of a wide street, he answered that such action was worse than taking from one's own neighbour, since taking from the neighbour's property is an appropriation from one person, while taking from the street is an appropriation from all Muslims. 'Ibn Taymiyyah (d.728/1328) was asked about a man who bought a house that he wanted to extend. He bought part of the street from the public treasurer, since some individuals testified that the land belonged to the public treasury. 'Ibn Taymiyyah answered that no one has the right to sell any part of the Muslim's road. The public treasurer does not have such a right unless it is proven that the land is owned by the public treasury — if, for example, it was owned by a person who transferred the ownership to the public treasury. He recommended punishment for those who testified that the land was owned by the public treasury.[14]

What kind of space is a street that is owned by all Muslims collectively? A public way is defined as a road upon which the passers-by are countless.[15] The implication is that inaccessible streets, isolated streets, or streets on the outskirts of towns are not yet well-defined enough to be public ways. They therefore follow different rulings regarding appropriation by abutting parties.

Control of Streets

If the street is owned by all Muslims collectively and cannot be sold, then ownership, because it is frozen, increases the importance of the claim of control as a determinant of the street's morphology. Although all Muslims as one party are supposed to control streets collectively, there are cases in large towns such as Cairo and Damascus where the authority claims responsibility for controlling major streets. In other words, in major cities, the more active the street, the more intervention by the authority can be expected.

Certainly, the owners who control — all Muslims — do not all

meet to decide if one individual may plant a tree or remove his bench from the street. There must be a system or principle for such collective control. The principle applying to main through streets is that any individual may act and change elements in the street so long as no damage is caused to the public and no one objects. Absence of objection implies tacit aproval of the action. If, however, even one individual objects, then the action may not be allowed, depending on the damage caused. The objection of one individual means that all individuals of the controlling party have objected.[16] 'Ibn 'Ābdīn (d.1252/1836) relates that even a *dhummi* (Christian or Jew) has the right to object to an action made by a Muslim on a through street.[17]

The Role of the Muḥtasib

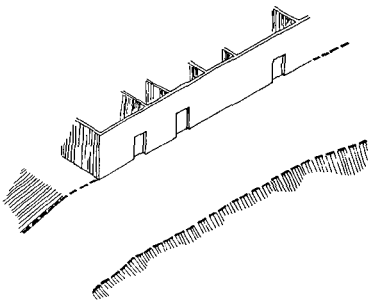
The post of *muḥtasib* or market inspector is wrongly viewed by some scholars as controller of the streets. On the contrary, his role covered inspecting and organising markets and industries and controlling the religious behaviour of individuals, such as urging them to pray.[18] The *muḥtasib* had no official role that could influence the morphology of the street, with the exception of the market, where he encouraged certain traders to gather in particular sections of the market.[19]

Every Muslim has the right to be a volunteer *muhtasib*. The *muhtasib* is viewed as *farḍ kifāyah*, a collective duty, the performance of which is obligatory for the community; if a sufficient number of people fulfill the duty, the rest are relieved of it. Jurists emphasise that the *muhtasib* did not have the right to intervene between disputing parties on his own. His intervention between two disputing neighbours was contingent upon a request to do so by one of them.[20] The reason given is that each person has the right to forgive or demand retribution on his own. However, the *muḥtasib* represented the community in supervising and preventing the actions of some individuals to which the controlling party — all Muslims — might not pay attention, as responsibility was dispersed among the members of the large controlling party.[21]

The only responsibility that *muḥtasibs* enjoyed which affected the street was representing the community to prevent the public from misusing the street. Manuals of *hisbah* are full of such detailed tasks as prohibiting people from throwing dirt into the street. The *muhtasib* also had the right, as did any other individual, to stop people from adding or changing elements on the street — such as installing a water-spout that would drop water on passers-by or building a bench that would narrow the street.[22] In short, the role of *muhtasibs* regarding streets did not reduce the street's susceptibility to encroachment.

However his role did enhance the quality of the built environment technically. All manuals of *hisbah* emphasise the *muḥtasib*'s duty to control craftsmen and the building industry.[23] It was his responsibil-

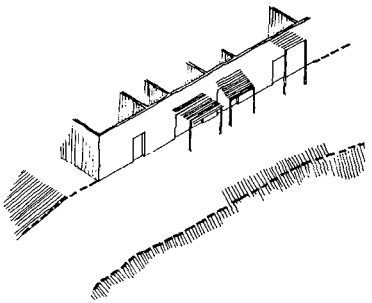
ity to protect customers from deceptive manufacturers and builders. According to as-Saqaṭi (*muhtasib* of Malaga at the end of the 11th and the beginning of the 12th century) this duty is derived from the Prophet's tradition: "Thee who deceived us is not one of us."[24] In other words, the *muhtasib* intervened to control the quality of building materials and their technical assembly, but never intervened in their organisation on the site to form buildings, i.e. the design of the building itself.



1 Establishing shops

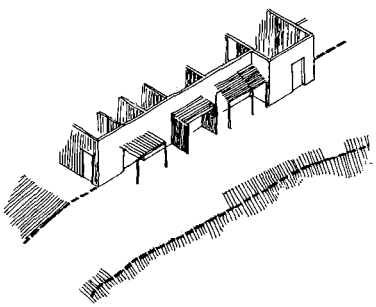
Encroachments on the Street

As there was no municipal control over streets, the objections of the passers-by were the main means of control. Streets varied in their degree of publicness from major heavily-used thoroughfares to isolated streets with limited use. Objections of passers-by and the ruling of judges, therefore, also varied. All jurists agree that no individual is allowed to appropriate any property from the street on the ground level.[25] It is reported that when 'Abū Hanīfah plastered his wall that abutted the street, he would tear down the old plastering so as not to appropriate a part of the Muslim's road. 'Aḥmad b. Hanbal rejected one of his students because he plastered his wall around the street door without scratching down the previous plastering, and thus appropriated the thickness of one finger from the through street.[26]



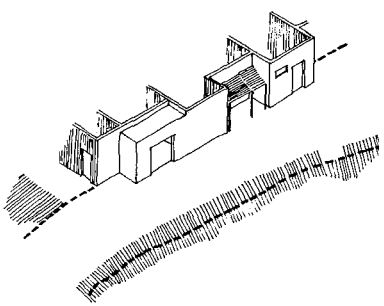
2 Erecting columns and roofing the appropriated space.

These are the opinions and the practices of the jurists themselves, but individual cases did not always tend in this direction.[27] 'Ibn ar-Rāmi relates that it was common for people to appropriate parts of the street. He added that some people transformed rooms of their houses which abutted the street into shops. They erected columns on the street and roofed the new space.[28] In another case shopowners tried to build a wall to connect the columns and their shops, thus narrowing the street.[29] The two cases are illustrated.



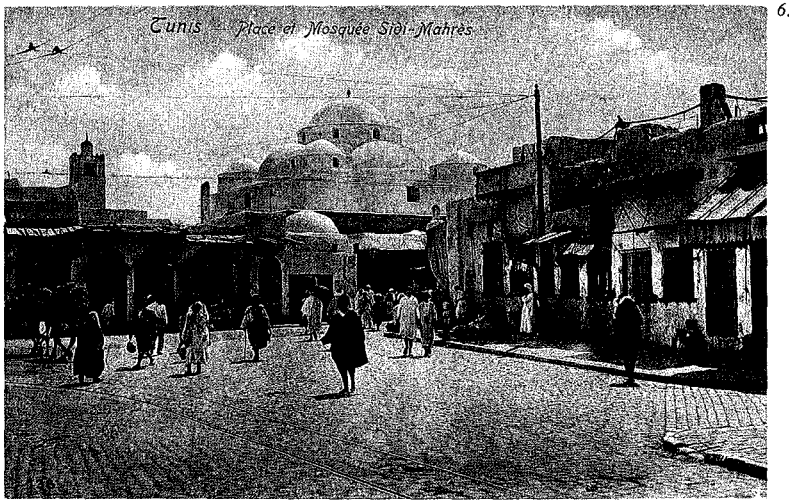
3 Building walls, connecting columns and shops

There were a few standards used by **some** jurists to resolve disputes in the case of objection to an action that causes no damage: For example, a street was considered wide if its width was more than seven cubits.[30] Or, according to 'Ibn Kināmah (d.186/802), the people should leave a width sufficient for circulation of the heaviest and largest possible loads along the street, such as loaded camels.[31] Or, if a person's two neighbours from both sides have already encroached upon the street or were originally beyond his property line, then he (the middle property owner) has the right to extend his property line since he does not damage passers-by.[32] This principle might be the reason behind the crooked continuous edge of many streets in the traditional built environment.



4 Extending property line by including the spaces to the property.

Finally, actions that benefit members of the community — such as digging a well or building a cistern for the public's use in wide streets — may continue if they do not cause damage to the public, regardless of objections by passers-by.[33]



6.12

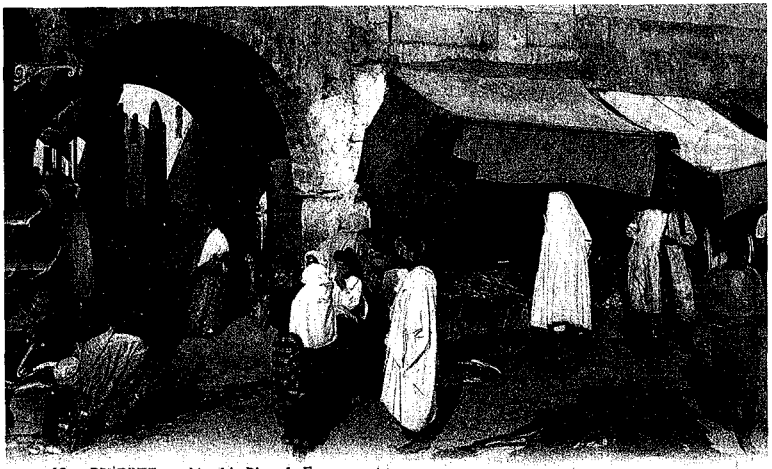
6 13

6 12 & 6 13 The same site at two different periods of the city of Tunis, where peddlers occupied part of the side-walks

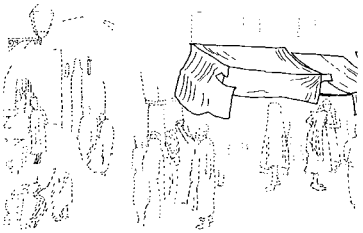
Under these principles, some areas on the edges of streets change from the possessive form to the unified form of submission, thus changing the street's morphology.

Another form of encroachment is from upper floors, such as cantilevers (*rūshān, janāh, zullah, khārijah*) or overpasses (*sabāṭ, ṣābbah*) that connect two houses, or room(s) that belong to one or two houses. The principles applied are similar to those pertaining to encroachment on ground floors, but with the abutting property having more freedom. Many jurists allow intrusion by upper floors regardless of objections raised by others, so long as the extension does not damage the public. Their reason is that the acting individual has preceded others in benefiting from upper spaces.[34] The street's morphology vis-a-vis upper floors was determined mainly by the actions of the residing party. If an action caused damage, the objec-

6.14

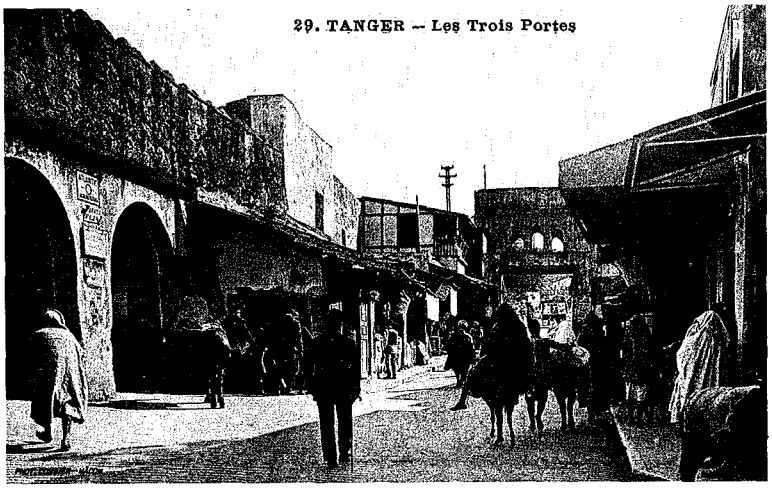


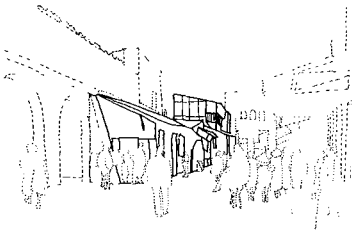
48 BIZERTE. — Marché, Place de France. — LL



6 14 *The first stage of encroachment by extending awnings in Bezerte, Tunisia.*

6.15

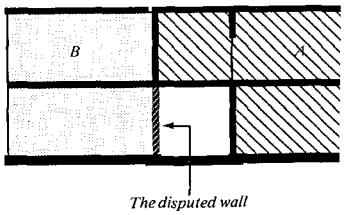




6 15 *Tanger Shops that already encroached onto the street.*

tions of the public and neighbours were taken into account, denoting collective control. The only rite that prohibited the building of overpasses was the Hanbali rite, but 'Ibn Qudāmah's statement, objecting to their possible future damage to riders, that "we have seen these (overpasses) quite often," along with the fact that overpasses do, indeed, exist in the traditional Muslim built environment, suggest that the opinions of the other rites prevailed.[35]

These overpasses are very common in the traditional Muslim built environment, but their evolution was not documented unless a dispute took place. For example, 'Ibn aẓ-Ẓābiṭ relates a case in which a person owned two houses on opposite sides of a street and built a room across it. After the owner died the two houses passed to two different owners (A&B), and the room over the street belonged to house (A). A dispute took place between the two owners regarding the wall that supported A's room in B's house. The owner of the



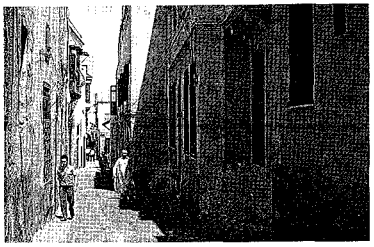
6.16

Rue et mosquée à Tunis

6 18

6 16 & 6 17 City of Tunis. The property line on the right is zigzagged According to the principle of damage, the owner of the middle property in both photos has the right to push his property line so that the street edge will be a continuous line. The same is true in Algeria (6 18) and in Taza, Morocco (6 19).

17



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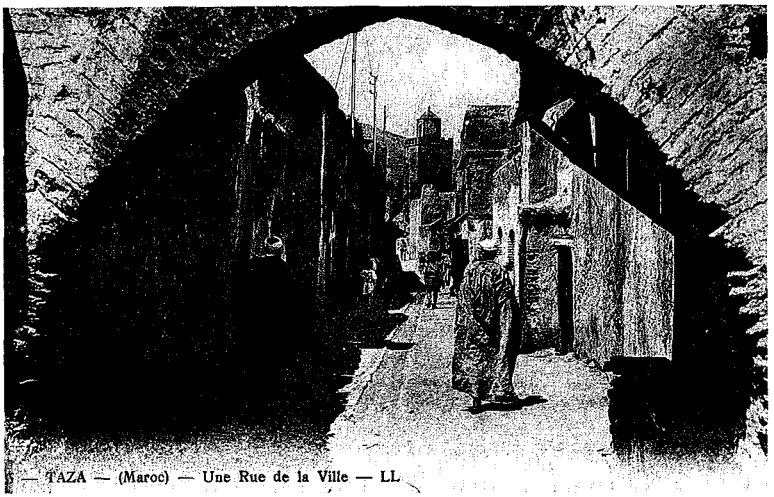
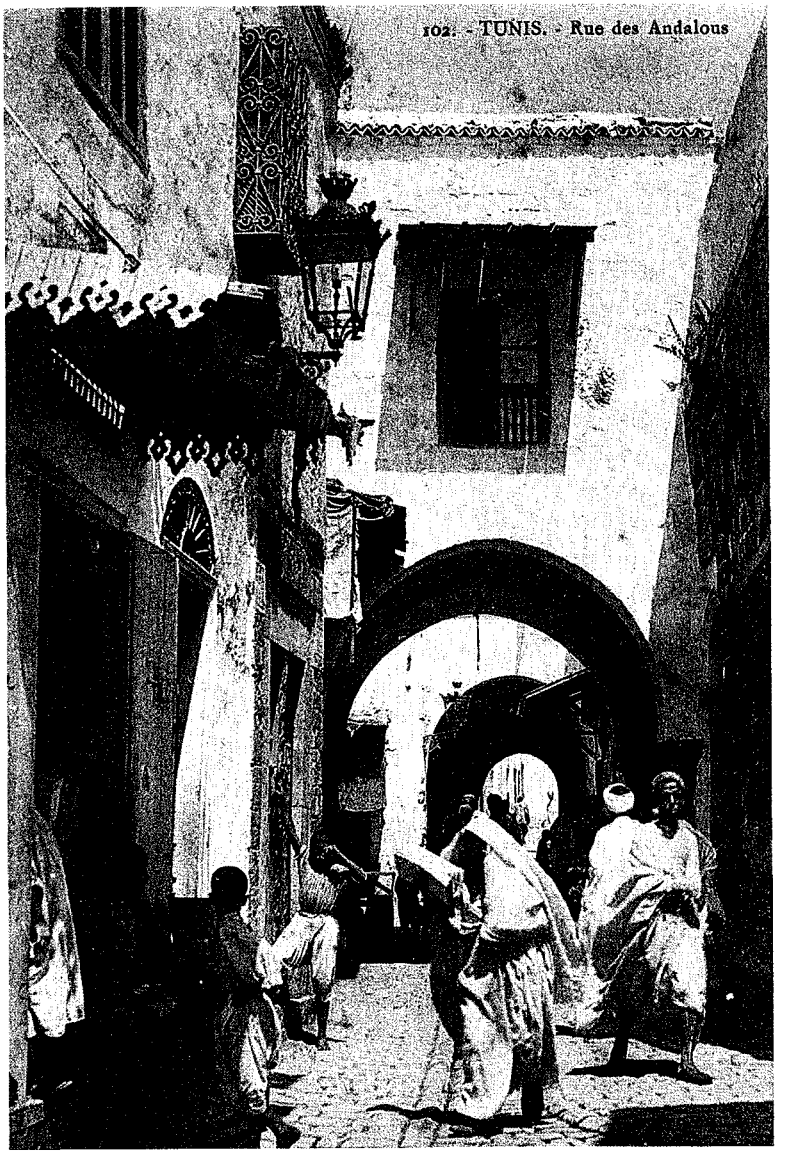
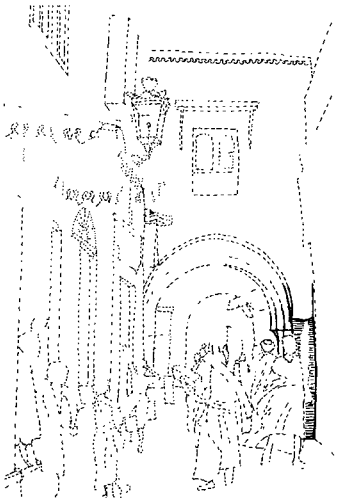


room (A), claimed that the wall should be owned by both of them since it carried his room, and his arches — possibly the arches that carry the room — were one hand-span deep in the wall (see photos 6.20 and 6.21). The other party (B) rejected A's claim on the grounds that his house's wooden beams were in the wall. 'Ibn aẓ-Ẓābiṭ ruled that if the room and the wall were perfected — that is, built at the same time — then the wall belongs to both of them. If, however, the room was added later and was resting on the wall (which can be determined by investigating the wall's construction) then the wall belongs to B.[36]

Jurists agree that if someone demolished his cantilever or over-pass, and his neighbour then appropriated the same space, this

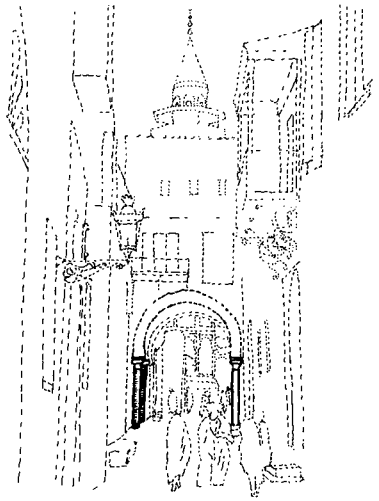
6 20





6 20 & 6 21 Overpasses in the city of Tunis. Note the location of columns supporting the overpass in the street From them, one may infer which ow built the overpass In photo 6 20 it is most likely that the owner of the hou on the left built the overpass because the columns are located on the right photo 6 21 it is difficult to tell from t columns since they are on both sides the street It appears, however, that t overpass was added after both buildings were completed.

neighbour is more rightful in occupying it, since the first appropriator did not own the space but only preceded others in using it.[37] In other words, overpasses and cantilevers were in the possessive form of submission because they were owned by the public and controlled and used by the abutting party. The characteristic relationship of regulation in the possessive form of submission between the owner and the controller who uses is evident from the expected damage of their height. Over time, the clearance of an overpass may diminish as the ground level rises, thus causing damage to the public. In such cases, the overpass or cantilever should be elevated or demolished or



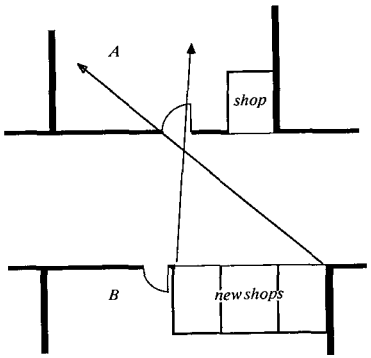
the road surface should be lowered by the user. Although the abutting party did not cause the damage it has to follow the rules.[38]

The Street as a Medial

The street as a public space separating two properties did not cause any intervention by the authority in the affairs of the surrounding private properties. Nevertheless, we have to study how change in one private property will affect another private property between which the street is a mediating public domain. Since privacy is a major con-

cern in the Muslim world, we will investigate cases in which changes made by one party provoked another party to protect its privacy. This is especially observable in cases of establishing a shop and opening a door in front of another's property.

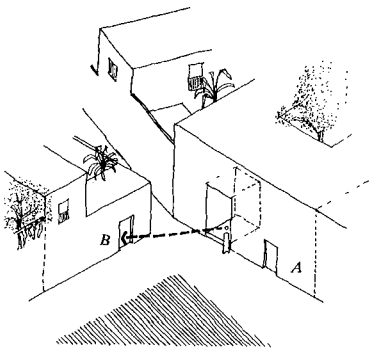
The damage caused by establishing **shops**, compared to that caused by merely opening doors, is considered severe because people sit in shops and thus affect their neighbours' privacy. Yet transforming a sector of a house into a shop seems to have been a very common practice. 'Ibn Wahb (d.197/813) states that in cases of wide and intensively-used streets, an owner may open as many shops as he wishes, since privacy has been already disturbed by passers-by. However, al-Qarawi was asked about a house owner (A) who had a shop on the left side of his house (as illustrated). The owner on the opposite side (B) wanted to transform a room on the right side of his house into three shops. The owner of the first house (A) objected on the grounds that the damage caused by a person working in the new shops would be severe. Owner B argued that the street was wide, intensively used and one of the main streets in the town. By assessing the damage, it was accepted that the total angle of vision of the three shops severely exposed the entrance to A's house. Thus, the new shops were closed while the owner of the first shop (A) had the right to continue in his damaging act.[39]



In another case, a person (A) opened a shop in a through street. The shop was positioned in front of a dead-end street that had a door to B's house. B objected to the shop on grounds of damage to privacy, as illustrated. 'Ibn ar-Rāmi investigated the case and reported to the judge that a person sitting in the shop could not see inside the

6 22

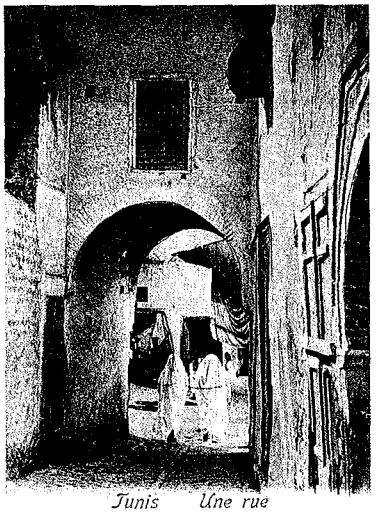
6 22 & 6.23 City of Tunis. A wide street and a narrow street respectively. Doors and shops on wide streets meet opposite each other more frequently than on narrow streets because of the principle of damage The creator of a new opening must respect the existing openings as a constraint. The damage caused by shops is considered severe compared to that caused by doors since a person sitting in the shop invades the privacy of his opposite neighbours. In photo 6 23 note that the window of the house on the right is screened so as not to overlook the house on the left.



house, but could see who was standing within the door. The judge ruled for continuation of the shop.[40]

Opinions regarding opening a **door** onto a through street that might damage opposite neighbours by invading their privacy varied among jurists and towns.[41] 'Ibn ar-Rāmi relates that regardless of the opinions practised in other places, if the street is more than seven cubits wide, the new door will be allowed in Tunis.[42] 'Al-Qarawi relates that in Medina, if the damage is proved, the new door will not be allowed even in wide streets. He adds that damage is ascertained by having someone stand on the internal threshold of the door (*al-'uskuffah*); if he can be seen from the new door, the door will be considered damaging.[43] Although jurists' opinions and the implementation of these opinions varied in different towns, the judges ruled only after a complaint by the affected party was presented.

Each of the disputed cases was judged differently. That is why we see doors swerved from or in front of opposite neighbours doors, shops or windows. Almost any combination of openings is possible depending on the condition of the street as a mediatory area, the relationship between neighbours and the damaging acts enjoyed by properties abutting them. The street's morphology might influence abutting properties, but the streets' party (Muslims collectively) did not intervene in the abutting parties' affairs. This situation reflects the existence of independent private properties — autonomous synthesis. Shops, as an urban element that determined the street's morphology, had been decided upon by the affected parties and not by the codes of the authority.



Tunis Une rue

Photo Garrigues Tunis 126

A theme arises from the cases of conflict regarding doors, shops, cantilevers, overpasees, *finā'*, and encroachments on the street by buildings, as well as cases of disputes about right of precedence. The resolution of such conflicts never takes into account the damage caused by the ruling of the judge towards the new action. For example, if a created door is proved to cause damage, the owner of the door must seal it or change its position. How he does it or how it affects the internal organisation of his house is his problem. Even an overpass will be demolished if it damages the public, regardless of damage to the acting party. Later we will explore the influence of this principle on traditional Muslim society.

The above principles were applied with respect to public spaces in general. Jurists did not distinguish between a street and, say, a square when making their rulings. The result of a ruling differed, however, depending on the morphology of the space. In a square, a property owner might not cause objections if he opened a new door because his opposite neighbour is far away, while objection from a passer-by might prevent him from building a bench that would hinder the circulation of traffic.

In summary, public spaces were owned by Muslims collectively and controlled by them according to certain principles. The principle

of the objection by passers-by, in practice, implies that control is limited to those who use such spaces constantly. Since the public were the users, public spaces were in the unified form of submission. As responsibility was dispersed among the controlling party's members, public spaces became very susceptible. The susceptibility of such spaces meant that the morphology was basically determined by resolutions between the actions and the objections of the controlling party — the agreements of the nigh residing party. The street changed over time through users' actions from an ill-defined to a well-defined form. In extreme cases, the street's edges were transformed from the unified form of the public to a demarcated *finā'*, which is possessive form, to a private property in the unified form of submission, and, ultimately to a point beyond which the street could no longer be possessed. Its form could not change further unless unusual factors created a new situation.

Decisions regarding public spaces were made from the bottom up. Public spaces were basically the result of an accretion of decisions determined by priorityship, which regulated and ordered the relationship between parties. The non-dominance of public spaces towards adjacent properties is indicated by their susceptibility.

ḤIMĀ

Ḥimā is an urban element in the unified form of submission. It is defined as the protection of a piece of land form being revived or owned exclusively by individuals so that it can be owned and used by a specific group of people or Muslims collectively.[44] Lands which are indispensable to the public such as sources of salt, forage, pitch and building materials (such as quarry where stones can be acquired with little effort), should not be owned by one person but should belong to all Muslims, i.e., it is *ḥimā*.[45]

The convention among jurists is that some urban elements will not function properly if they are owned by the state or any individual, such as pasture lands and riverbanks.[46] 'Abū Yūsif relates that "if the residents of a village have a common land for grazing animals or cutting wood, that land is owned by them. They can sell it or inherit it ... as any person does with his property." Regarding control he adds that the inhabitants of a village have the right to prevent others from grazing animals or cutting wood from their land, if such use would harm them — the owners of the land. This is especially true if many villages exist in a valley or on a mountain where the residents of each village have their own pasture land.[47] Indeed it is the convention that pasture land as *ḥimā* is owned and controlled by its users. Even cases were documented in which the inhabitants of a village divided the pasture land of the village among themselves denoting the acceptance of this convention in the society.[48] Thus, the traditional society unified responsibility of such spaces in the hands of the users.

DEAD-END STREETS

A dead-end street can develop in two ways. It can be planned, if a group of individuals subdivides a piece of land and designates part of it as a dead-end street. Or it can emerge over time, through incremental growth by abutting properties as a space necessary for circulation. In resolving disputes related to dead-end streets, very few jurists consider the street's process of evolution. They often use the term "*ghayr nāfidh*" (not penetrable) with the terms *zanqah, zā'ighah, rā'ighah, darb, zuqāq, sikkah* or *ṭarīq*, to refer to a dead-end street. Their description is purely physical regardless of its evolution, with the exception of some jurists from the Hanafi rite who deal with a dead-end street when it was developed through incremental growth as a through street.[49] All other rites, and some jurists from the Hanafi rite treat a dead-end street as privately owned by the residents.[50] Hence, there were well-developed principles regarding ownership and control of such spaces.

Ownership of Dead-End Streets

No individual is allowed to make any change in a dead-end street — such as opening a shop or projecting a cantilever or overpass or digging a well — without the consent of all the partners.[51] The partners are those who own properties abutting the street and **have access** to it. 'Ibn Qudāmah relates that if a resident compensates the partners in order to make a change in the dead-end street, it is as lawful as if all partners were one owner.[52] 'Abū Yūsif (d.182/798) states that the principle of damage will **not be applicable**, but the acting party should get permission from his partners.[53] From similar descriptions we may conclude that a dead-end street is owned by the abutting residents and controlled by them collectively. It is considered private property, in which an action by any partner will be permitted if all partners agree; the principle of damage does not hold within the dead-end street.[54] However, most actions that abut a dead-end street will be judged using the principles of damage. For example, most jurists agree that, so long as it does not damage others, an individual may open a window in his wall towards a dead-end street, since it is within his own property.[55]

Regarding the use of a dead-end street, it seems that the concept of *finā'* holds in terms of use. A resident may station his cattle near his door, or may store things to use in maintaining his house, so long as he does not hinder circulation. 'Ibn 'Ābdīn adds that the situation of usage of a dead-end street is just like that of the partners of a house who reside in it; they use it, but no one is allowed to build in it without the consent of the other partners.[56]

Control of Dead-End Streets

The principles underlying control by the residents of a dead-end street may be clarified by examining cases of disputes, since these principles were not explicitly stated by the authority.

In general, two principles were used. The first was that if one member of the controlling party made a change and the others did not object, tacit approval of the action was assumed. For example, a person opened a door on a dead-end street that had fifteen dwellings, and no one objected. Eight years later, some of the residents objected. It was judged that during the residents' silence their right to object had lapsed. Even had the period of their silence been less than eight years, their objections would not be considered.[57] Thus, non-objection by any member of the controlling party was considered tacit agreement.

The second principle was that the existing morphology of the dead-end street would be the basis of control. Any new change had to be made through agreements by all members. In case of a conflict among the controlling party we must look at the existing morphology of the property. If some members desire a change and all but one agree to it, the action cannot continue. If the action does continue, then control is not collective. Collective control is not like voting, where the action is approved if more than fifty percent of the members approve it. If, in the face of minority objection the majority's desire continue, then we may use the term "majority control." If an action by one member did not cause damage but affected some members and not others, such as building a bench in the dead-end street which would affect the closest neighbours but not all the residents, the objection of nearer neighbours would have more weight than that of others. In a case such as this the term "majority control" is more appropriate than control or "collective control."[58]

Opinions of jurists and rulings on cases are based on collective control within the dead-end street. For example, in one case a man owned all but one of the houses on a dead-end street. The owner of the houses built a gate (*darb*) in the mouth of the dead-end street. The owner of the one house objected, although the gate did not damage him. The judge ruled that the gate be demolished by the houses' owner. The judge was informed that the owner was out of town, possibly on purpose. He ordered the demolition and sale of the gate to cover the expenses of labour.[59]

If, however, the action was not within the dead-end street but would affect it, rulings were not all based on collective control. To illustrate, I will explore the opening of a door onto a dead-end street. The opening of a door by a house owner abutting the dead-end street without previous access to it is the threshold at which this owner will gain the right to participate in using, controlling, and owning the space.[60] This is almost as if a group of people own a property and

another individual tries to share the property for free. Indeed, from cases, a house with access to two dead-end streets was considered very convenient, as it provided a short cut from one side of the quarter to the other and increased the property's value.[61] What made doors unique for tracing collective control is that they, as well as windows, were elements which an individual could change within his property without encroaching on the dead-end street.[62]

There are two issues regarding existing doors in dead-end streets: Repositioning one's own door and increasing the number of door-users.[63] In the case of repositioning a door, most legal opinions advocated collective control, while a few advocated majority control if the affected members of the party agreed.[64] If a member wanted to open a new door and seal the previous door without harming others, although others objected, could he do it? All schools of law seem to have agreed on this question, and based their rulings on majority control; the objection of the affected member would be considered and not the objections of others. 'Aḥmad b. Hanbal illustrated the different possibilities in a simple principle: if someone objected, even though the relocation would cause no damage, then the door could only be relocated in a position closer to the entrance of the dead-end street. Since relocating the door further from the entrance gave the relocating member the right to penetrate deeper into the dead-end street (*haq al-'istiṭrāq*), and would therefore affect the members living deeper in the dead-end street, it could not be allowed.[65]

All schools of law have similar opinions on the second issue, increasing the users of one door.[66] If an individual owned two houses back to back, each house having access to a dead-end street, and the owner transformed the two houses into one, then it is legal for him to use both dead-end streets. However, it is illegal for the owner to build a passageway between the two houses so that he can reach one of the houses from both dead-end streets. This was because the action would give the residents of each house the right to pass through a dead-end street that it did not provide access for, which could establish over time the right of pre-emption to a house not served originally by that street.[67]

In summary, regardless of its evolution, a dead-end street was considered to be privately owned by the abutting residents who had access to it. The residents controlled the space, and, since they were the users, the dead-end street was in the unified form of submission. Any action within the dead-end street was judged through agreements and not on the principle of damage.[68] If the members of the controlling party did not object to a member's action, it was considered tacit agreement. Opinions of jurists and rulings on cases were based on the principle of collective control. The exception to collective control was in the case of the door. Since it is unique, some jurists consider majority control in cases of relocating a door. Col-

lective control was based on agreement between the residing parties and never on intervention by an outside party. We would expect intensive dialogue between the members of the controlling party in cases of disputes.

Thus, all urban elements were in the unified form of submission, which is autonomous synthesis. The principles of *finā'*, public spaces, *himā* and dead-end streets resulted in an environment with a high percentage of owners who control. One can generalise that the number of owners and controllers in shared spaces was nearly as high as the number of users, which is the essence of autonomous synthesis.

7 Size of Party Versus Size of Property

The relationship between the size of party and property is fundamental to responsibility. In a large party, responsibility is dispersed among members, affecting the state of property. In general, the smaller the property owned and controlled by the using party with no intervention, the more autonomous is the synthesis. There is, however, a limit. If a property is very small, the party may lose interest.

This chapter examines the mechanisms which affected the sizes of the parties and properties in the traditional Muslim built environment. There are five main mechanisms: *ṣadaqah*, *hiba*, inheritance, pre-emption and selling. The size of the party had no limit — it could be one person or a government. The size of a property, on the other hand, was limited in terms of divisibility. In traditional environments, some properties, such as, for instance, a large house, were divisible; others, such as a small room or a small shop, were divisible but might not function properly if divided. A third group of elements, such as a mill or well were indivisible.

MECHANISMS OF CHANGING SIZES

Ṣadaqah is giving money or property as a charitable gift. It is highly recommended in Islam and was commonly practised. Individuals gave away parts of their property as *ṣadaqah*, thus increasing the size of the party. For example, a case is reported in which a person gave his three sons the lower floor of his house as a *ṣadaqah*. Several years later he gave the second floor to two of them and kept one room for himself. Before he died he sold parts of the house to pay his debts. After his death, the sons wanted to cancel the sale on the grounds that their father sold a property that had been given to them.[1] In this case the disputing parties could subdivide the property, transforming one property in the unified form of submission into several properties also in the unified form. If, however, the *ṣadaqah* is part of an indivisible property, then the size of the party increases. In a charitable gift that caused another dispute, a man gave his grandchild a room, a quarter of a well, the latrine and the passageways of the house as a *ṣadaqah*. In this case the party of the well increased.[2]

Hiba: Another mechanism that affected the size of the party and property is *hiba*, gift or donation. A major difference between *ṣadaqah* and *hiba* is that *ṣadaqah*, although a donation, is irrevocable.[3] Another is that *hiba* is not valid unless it is actually given to the donee. This means that to complete the *hiba* procedure a divisible property must be divided. 'Ibn Zarb was asked about a man who gave half his house as a *hiba* while the donee continued to live with him. He answered that it would not be valid unless they divided the house through agreements.[4] Thus, the donor was compelled to divide the donated property. The principle of *hiba* often led to a decrease in the size of both party and property in the unified form of submission.

It is not recommended for a donor to change his mind. According to the Prophet's tradition: "he who takes back his present is like him who swallows his vomit."[5]

Inheritance was a major mechanism in the change of sizes of parties and properties. Many scholars are disturbed by the Islamic law of inheritance. Regarding the size of **property**, J. Brugman, for example, says:

> The Islamic law of inheritance is characterized by an excessive fragmentation of the estate ... In the past, in a rural economy as was prevalent in the Islamic empire, its effect seems to have been unfavorable because it led to the fragmentation of land into plots of uneconomical size, ...[6]

G. Heyworth-Dunne states:

> The laws of inheritance are the worst enemy as it is impossible to introduce any system of land distribution into the Muslim world while the Muslims retain the method of dividing up estates and lands on the death of the owner. One of the main reasons for the very small holdings and the existence of fragmentation is due to this sacred system of the *Sharī'ah* method of division. An allotment or allocation of several acres is completely unrecognisable within two generations. One of the advantages of the *waqf* system was that it kept estates together.[7]

On the other hand, regarding the size of the **party** S.D. Goitein concludes from the Geniza documents:

> With very few exceptions, all documents coming from Egypt, whether issued by Muslims or by Jewish authorities, describe the houses concerned as being held in joint, undivided, ownership. This means that the parts of a house, which normally formed the object of a contract, were units of account, not real segment of a building. A house was divided into twenty-four nominal shares, a division modeled on the twenty-four *girats*, or parts of the *dinar*. The same division, as is well known, was also adopted in the apportioning of an inheritance in Islamic law. The shares transferred by sale or gift could be very small ... The majority of the transaction recorded concerned portions of a house amounting to 1/6 or more, which means that they normally were large enough to form separate apartments ... When one or several partners in a house were absent for prolonged periods — for example, on a business trip to India or Spain — or were unable or unwilling to contribute to its maintenance, the house decayed and soon parts of it became uninhabitable.[8]

This conclusion was also supported by Fernea from his observations in both Iraq and Nubia. Refering to the co-owners, he states that:

> (t)hey are unable to agree either upon a price for selling it or how to share the costs of repairs, and often it seems best to forget about it altogether and let the whole thing go to ruin.[9]

The previous quotations suggest two contradictory conclusions. Quotations regarding the property claim that the law of inheritance subdivides a property into useless portions, while quotations regarding the party claim that inheritance increases the number of owners, thus leading to irresponsibility which ultimately will ruin the property. Both claims may be correct but they overemphasise the negative sides of the system. As will be seen, the principles of inheritance in the Islamic legal system unified responsibility in small parties in cases of dispute; thus increasing the percentage of the controlling parties in the built environment.

Shuf'ah: In some cases, the mechanisms described above resulted in a larger owning party with consequently dispersed responsibility.[10] In these cases there is a reversing mechanism which reduces the number of the owning party. *Shuf'ah* or pre-emption is such a mechanism. *Shuf'ah* is defined as the right of the co-owner to substitute himself for the purchaser if the other co-owner(s) decide to sell his or their share. The pre-emptor stands in the shoes of the purchaser and takes the property subject to prior equities, thus reducing the number of owners in the owning party.[11] *Shuf'ah* derives from the Prophet's tradition that "the right of pre-emption is valid in every joint property, but when the property is divided and the way is demarcated, then there is no right of pre-emption."[12] The right of pre-emption prevailed in the Muslim world and was accepted as a convention.

Jurists give co-owners the right of pre-emption in cases of indivisible property. Different rulings were applied, however, with respect to divisible property in which the pre-emptor was one of the following:

1) *Sharīk*, literally "partner" of a co-sharer, in which the members of a party own an undivided property such as a mill. 2) *Khalīt*, literally a 'mix,' in which the members participate in appendages and immunities such as the right of way in a dead-end street or the discharge of water. 3) *'Al-jār*, literally, "the neighbour."[13]

According to the Ḥanafi rite, the right of *shuf'ah* will be considered according to the above three classes in order. For example, the first person to have the right of pre-emption in a house located in a dead-end street will be the co-owner of the house, then the residents of the dead-end street and finally the abutting neighbour who does not have access through the dead-end street.[14] This view reduces the size of a party while enlarging the size of the property enjoyed by a party. On the other hand, rulings of the Hanbali and Māliki schools, which do not give the right of pre-emption except to partners, reduce

the size of a party without enlarging the size of the property.[15] To name a few examples, there can be no pre-emption between upper and lower story neighbours. The partners of a dead-end street will not have the right of pre-emption if one of them decides to sell his house.[16]

Most jurists agree that the right of a pre-emptor in a property owned by more than two members is proportionate to his share in the property.[17] In a house owned by three individuals jointly, one of which has 1/2 the house, another has 1/3 and a third has 1/6, the co-owners will pre-empt proportionally according to their shares if one of them decides to sell.[18] This principle increases the share of the member who holds a larger share. Hypothetically, over time, the owning party will be composed of one individual in whom responsibility is unified.[19]

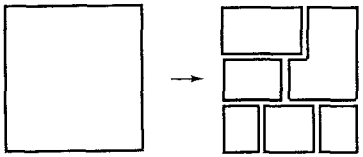
DISPUTES AMONG MEMBERS

The above-mentioned mechanisms — *ṣadaqah*, *hiba*, inheritance, pre-emption and, obviously, sale — interacted over time and led to a mobility between properties and parties and a complex relationship between the members of the owning party that was susceptible to disputes. For example, 'Ibn Rushd (d.520/1126) was asked about a man who bought a house and documented it in his wife's name. Years later he died and his wife married another man, only to die herself one year later. A dispute took place between the successors of the first husband and the successors of the wife regarding the ownership of the house.[20]

Since each member of a party has his own interest to promote, the larger the party is, the more susceptible to disputes. Agreement among the members to maintain their property improves it, while failure to agree, over time, impoverishes the property. The decision to subdivide the property results in the breakdown of one property owned by a large party into smaller properties owned by smaller parties, increasing the autonomy of the environment as the percentage of the owning party increases, and strengthening the direct relationship between property and party.

All legal principles and consequently rulings by jurists, whether intentionally or intuitively, **aimed** at **subdividing** a property and **reducing** the party's size, thus placing the property in the unified form of submission. This tendency resulted in great territorial shifts with minimum physical change. In other words, the boundary between properties changed dramatically over time, while physical change was comparatively small. The principles guiding the rulings of the jurists may be summarised as follows:

1) The collective owners of a property could subdivide their property without any authoritative intervention so long as they were in accord with one another. 'Ibn Rushd was asked about the residents



of a few villages who agreed among themselves and subdivided their communal pasture land. 'Ibn Rushd answered that if it was clear that the pasture land was for their exclusive use, then the subdivision was valid since they all agreed. In this case the large property of a large party in the unified form was transformed into smaller properties for small parties, also in the unified form.[21]

However, subdivision by the authority would take place if one of the successors required it. Furthermore, in the process of subdividing a property, an individual could compensate others in order to obtain a better share. The jurists' concern in such cases was not the result of the subdivision — whether it is divided geometrically and functionally or not — their main concern was agreement among parties.[22]

2) If the partners could not agree on a non-divisional issue that could affect the result of the subdivision, the above principles of subdivision should continue. For example, in a house owned by two individuals and resided in by one of them, the non-resident partner wanted to subdivide the house and asked the resident partner to move out his belongings so they could subdivide it. The other refused. It was ruled that if the subdivision was possible without moving furniture, the owners should divide the house at once.[23] Jurists from Cordoba were asked about cases of jointly-owned properties in which the co-owner who refused to subdivide the property intentionally went away. They answered that the judge should then subdivide the property and appoint a representative to accept the missing partner's share.[24] The authorities attitude was to eliminate obstacles to reach a subdivision of the property.

3) If **any** member of the owning party desired subdivision, the property should be subdivided if it could be done without damage to the property. 'Ibn Lub was asked about a one-storey hotel in a village owned equally by two men. One of the partners wanted to subdivide while the other refused. He ruled that the one who refused to subdivide should be compelled to, unless it could be proved that the subdivision would damage the hotel.[25] This principle stimulated co-owners to agree, because otherwise the property would be divided.

4) If some elements are owned by an individual within a jointly-owned property and the partners decide to subdivide or sell the property, the owner of these elements will not be compelled to sell. Al-Māziri was asked about a person who, before he died, gave his daughter a room with its access and *finā'*. If the successors wanted to sell the house, would she be compelled to sell? He answered that she would not be compelled to sell the room and its *finā'*.[26] This ruling is quite interesting, since it results in a small element owned by one person within the property of others. The ruling did not question the functioning of the large property, but rather satisfied the desire of the small element's owner, and led to a unified form of submission to that element which might disturb the owner of the larger property,

thus inviting dialogue or dispute. This would result either in creating a small property in the unified form within the larger one or convincing the owner of the small property to sell.

5) The **final** principle is *muhāya'ah*, which is defined as subdividing the usufructs of a property, such as a house owned by two persons in which each of them will reside alternately for a specific period of time, or one will reside in the upper floor and the second on the lower floor without subdividing the property. However, if one of the partners wanted *muhāya'ah* but the second asked for subdivision, the property would be subdivided. Again, this ruling leads to smaller properties owned by smaller parties.[27]

DIVISIBILITY OF ELEMENTS

If a dispute took place between the successors of many properties in **different** locations and values, then each property should be subdivided if one successor desired it. If the successors of shops and houses could not reach an agreement, the shops and houses would have to be divided.[28] These rulings, indeed, must have forced co-owners to reach agreements; but they also resulted in smaller parties and smaller properties in cases of dispute.

As to indivisible elements, i.e., elements that need breaking or cutting or elements that may not be as useful if divided, the Hanafi, Shāfi'i and Ḥanbali schools of law do not approve subdividing such elements by compelling the co-owner to do so, since this subdivision would harm all partners. These elements include mills, latrines, wells, canals, small rooms and walls between neighbours. 'Ibn Qudāmah argues that subdividing a party wall by cutting it would damage both owners; the partners can divide the wall vertically by marking it. This opinion has the advantage of preventing damage to all partners. In some cases, however, members of the owning party may present obstacles to one another and, over time, ruin the property through their irresponsibility.[29]

The Māliki school of law expressed varying opinions regarding the division of indivisible elements.[30] According to the Qur'anic verse, "For men is a share of that which parents and near relations leave; and for women is a share of that which parents and near relations leave whether it be little or much, a determined share,"[31] Mālik had the opinion that one should subdivide any element that contains a usable space such as a room or a small shop if any partner requires it, even if some portions will be useless.[32] Another opinion by 'Ibn al-Qāsim (from the same school of law) believes that in disputed cases the indivisible elements should be sold and the proceeds distributed among the partners.[33]

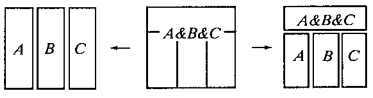
Finally, the Mālikis oppose subdividing some elements in which damage would be **severe** for all partners, such as a well. 'Ibn al-Hāj (d.529/1135) was asked about compelling a partner to accept sub-

dividing a well. He answered that the customary way to divide a well is to erect a diagonal wall in its upper part, so that each partner will have one side of the well in his house. 'Ibn Lubābah relates that in such disputes he ruled the building of a round wall around the well in which each partner has a door from his side to be closed after using the well.[34] The well is almost the only element in which all jurists disapprove its division because of its unique nature. As it has to be used by a large party, however, it is still in the unified form of submission.[35]

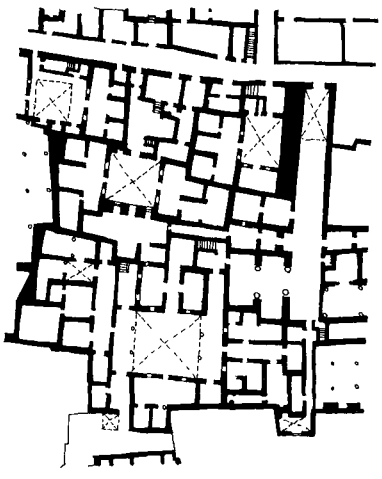
PRINCIPLES OF SUBDIVISION

The main concern of jurists in resolving subdivisional entailments was the easement of one property through another. Most subdivisions created a relationship between the parties of adjacent properties that would not have existed otherwise. To clarify the principles of subdivision we will, first, examine the courtyard as an element in the unified form of submission. Second, we will use the passageway as an element in the permissive form. Conversely the courtyard can be in the permissive form and the passageway in the unified form of submission.

If dividing the **courtyard** or the yard (*sāhah*) of a house will result in damaging some partners, the courtyard should be considered an indivisible element. In dividing a house that has rooms and courtyard, the partners may divide these elements if each person benefits equally from the rooms and the open space (situation 1). But, if dividing the courtyard damages one partner by denying him access to his share or storage space or a place to station his cattle, then the courtyard, unlike the rooms, should not be divided.[36] Likewise the roof terrace was treated just like a built space or a room if the lower floor owner does not use it.[37] If the rooms are divided and the yard is not, then the subdivision will transform a large property of a large party into many small properties of small parties which are the rooms, while the courtyard is controlled, owned and used by the adjacent residing members as one party collectively (situation 2), thus all elements are in the unified form of submission.



situation 1 *original situation* *situation 2*

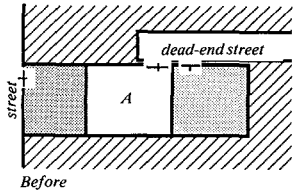


City of Tunis. An example of properties sharing courtyards and passageways as overlapping domains. Source: Association Sauvegarde de la Medina, Tunis, 1968.

The organisation of a courtyard that is controlled and owned by the surrounding residents resembles a dead-end street that is controlled and owned by its residents. We should expect the same relationship between the members of the owning party in terms of responsibility.[38] Cases suggest that the yard, when not divided, is a property in the unified form of submission; the claim of control, as in the case of the dead-end street, is a collective one and not majority control.[39]

In the case of a **passageway** as a subdivisional entailment that results in a property in the permissive form of submission, it was possible to subdivide a property on the condition that an entrance hall or

a passageway will be owned by one partner while the other partner(s) will have the right of servitude. 'Ibn al-Qāsim approved a common case of a house located between two neighbours (house A) and owned by them; the owners decided to subdivide the house in such a way that one of them would own the passageway while the other would have the right of servitude (area B).[40]



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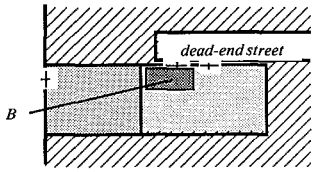


After

However, if two partners agree on a certain subdivision that denies access to a partner, such as a division that will not allow the upper floor owners to circulate through the ground floor, the subdivision is illegal unless the owner of the upper floor finds an access for himself.[41]

Many cases of subdivision resulted in an overlapping domain under the permissive form of submission. The relationship between the user and the owner who controls was frozen; no change that would damage either one could be made without the other's agreement. Because the relative positions of the involved properties invite dominance, the law tried to eliminate such dominance between the properties in two ways: Firstly, the owner may not hinder the user's right-of-way. If a house owner desired to make changes while a second person has the right to pass through the house, the change should not touch or hinder the passageway.[42] Actions by owners that touched the users' right of way were challenged by users.[43]

Secondly, the user may not make any change without the owner's consent. 'Ibn ar-Rāmi relates that if one house has the easement right through another, and the owners of the internal house subdivide it into two dwellings and want to open another door into the passageway within their own wall, the external owner has the right to prevent them.[44] In fact the easement right is a constraint on the owners of both properties. This relationship is very similar to that between two neighbours which is based on accretion of decisions. The possible dominance between the parties is minimised if not eliminated by freezing any change without agreements.[45]

TERRITORIAL TRANSFORMATIONS

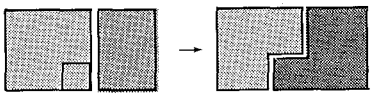
It is possible to classify territorial transformation into the mechanisms of subdivision and joining. Inheritance tends to divide properties into smaller units, and could potentially result in a built environment composed of small, possibly unusable, sectors owned by independent parties. As has been pointed out, however, reversal mechanisms such as pre-emption, selling and buying transactions did operate to counteract this tendency. We have seen that, following judgments of the Māliki school of law, properties were divided into smaller portions if the partners requested it, which may have resulted in useless shares. These small hard-to-use properties, in fact, had the potential of being joined to other larger ones. Thus, over time, the boundaries between properties shifted a great deal.

A glance at the ground floor plan of a block in the traditional tissue of Tunis (Fig. 7.1) reveals many possible territorial transformations. For example, house 11 took a sector from house 10 to create an entrance to the dead-end street. Between house 9 and house 5 there was a territorial shift, as was the case between houses 1 and 39. Most, if not all of the shops in the periphery of the block have been transformed. As to the upper floors (Fig. 7.2), the owner of house 9 transformed his upper floor into three units (9a, 9b, 9c). House 30 on the upper floor was originally two houses connected by a staircase to resolve the difference in levels of the original two houses. According to the maps of 1968 of the Association to Preserve the Medina of Tunis, the upper floor of house 31 belonged to the ground floor owner. When I visited the site in June 1983, it had been transformed and joined the abutting upper floor unit (31A). Indeed, examples of territorial transformations are endless.

Previous information regarding change of parties' and properties' size explain the irregular layout of properties in the traditional Muslim built environment. Such irregularity was not planned, but grew from many independent agreements between neighbours. It was the outcome of the decisions and the actions of the residing parties. The residing party's action does not take into account the regularity of the quarter's layout; its main objectives centre on self-interest, resulting in a property owned, controlled and used by itself. Although the built environment is not orthogonal and therefore may not seem organised to superficial observers, for the residents it was very clear, since responsibility was in their hands and well defined.

Users' needs change. One family expands and needs larger property, others break down, and their property is larger than needed. An owner may sell part of his house to another who needs an additional room because he has transformed one of his rooms into a shop, and so on. The constant change in users' **needs** will affect the internal organisation of a property as well as its size. This is an essential characteristic of an **ordered** environment, which may not take place in an organised environment controlled by an outside party.

The majority of transformations were based on agreements and have therefore not been documented, but traces can be seen in plans of the traditional city fabric. Transformations were documented in cases of dispute, most of which were highly intricate and concerned small properties.[46] The following are few examples. A woman sold a shop to her neighbour; later they disputed over the rain-water gully that ran on the shop's roof. It belonged to the woman, but the buyer wanted to stop it (illustration 1). In another case a person bought a room and half the courtyard. A dispute took place regarding the water collected in the courtyard (illustration 2).[47] The third case is a house that was inherited and divided into two parts; the adjacent neighbour bought the part abutting his house and opened a door to it, thus having access to a private road. The owners of the private



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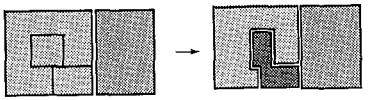

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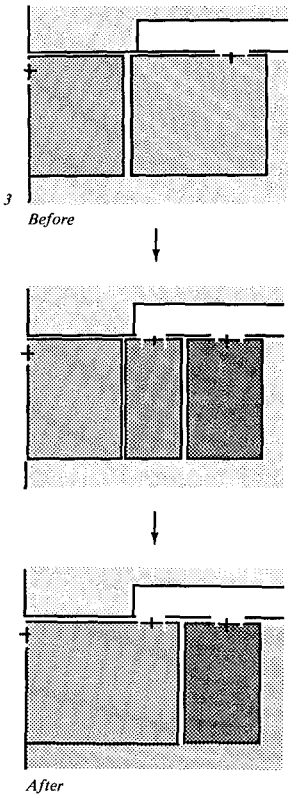
Figure 7 1 City of Tunis. Territorial transformation on the ground floor. Source: Association Sauvegarde de la Medina, Tunis, 1968

Figure 7.2 City of Tunis. Territorial transformation on the upper floor
Source: Association Sauvegarde de la Medina, Tunis, 1968

road objected the opening of the new door (illustration 3).[48]

I have argued in Chapter 4 that although a compact built environment in which buildings abut each other is, in terms of the built open relationship, exactly the opposite of an environment composed of free-standing dwellings, they are very similar because both are in autonomous synthesis. The principles of subdivision practised in dividing buildings was also used in subdividing orchards with free-standing dwellings. To give one example, a *jinān* — an orchard often containing a building, owned jointly by a woman and a man. The woman's share was three and a half sixths, while the man's share was two and a half sixths. The partners divided the *jinān* into two halves between them according to the land area, on the condition that the man would cast and give the woman an extra half sixth. When they did, the woman's portion included more grape and fig trees. The man objected, but was informed that he could not change the subdivision agreement. He compensated the woman for the exchange. Ten days later when the grapes ripened, the man changed his mind (about the compensation) and a dispute took place.[49] Although the basic concern of the partners in this situation was the crop, and in buildings it is, for example the rights of servitude, the same principles of damage and agreements were used.[50]



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In conclusion, while *hiba* led to smaller parties and properties, and *ṣadaqah* and inheritance increased, in some cases, the size of the owning party, all mechanisms of subdivision in the traditional environment resulted in unifying responsibility in small parties. For examples: co-owners may subdivide their property so long as all agree; they also have the right to compensate each other as part of the agreement-reaching process. The authority's attitude was to eliminate all obstacles to subdivision. If one individual demanded subdivision, the other co-owners were compelled to subdivide. The rulings of subdivisions may result in useless portions, which co-owners would like to avoid, thus forcing them to divide if no agreement is reached to the exception of indivisible elements that were also in the unified form. Pre-emption increased the share of the member with the largest share and ultimately unified ownership in one individual. Smaller parties and properties increased the percentage of owners in the built environment. Notably, owners are often, if not always, controllers in private properties. The principles of subdivision resulted in autonomous synthesis.

To a superficial observer, it may seem that autonomous synthesis leads to the increase of population often seen in traditional quarters within contemporary Muslim cities, with concomitant problems such as overloaded infrastructures. This was not the case when users had control, which brings us to the final chapter. What happens if responsibility shifts from the hands of the nigh residing parties?

8 Consequences of the Shift of Responsibility

The consequences of the change of the model of responsibility in a society are numerous and ongoing. This chapter must, therefore, remain open-ended. It is a series of comments that explore some of the effects of this change as well as the major characteristics of both traditional and contemporary built environments. In some cases, I assume that the reader will draw his own conclusions about the existing environment without further elaboration. A brief description of the contemporary situation may serve to set the basis of discussion.

CONTEMPORARY REGULATIONS

In traditional environments, intervention by the authority was occasional, for political or other reasons, and was not implemented through regulations meant to be followed by all users. An instance of this non-general intervention was al-Ma'mūn (d.218/833) in Cairo ordering the owners of ruined properties to rebuild them or lease them to others to be developed.[1] During the Ottoman Empire, however, regulations were codified. Article 1195 of al-Majallah (1869) prohibited a person from projecting any elements towards his neighbour's property. This situation had traditionally been based on local agreements, not government regulation. Another article allowed any individual to open a door towards a through street, an act which, in the traditional environment was governed by the principle of damage.[2]

Municipalities that guaranteed the application of these regulations were established fairly late. In the Ottoman Empire, the edict of 1272/1856 established municipal committees. In 1284/1868 the committees' responsibilities were mainly related to public spaces, such as market affairs, widening narrow roads, illuminating streets and cleaning the town. The president of the committee was to be appointed by the governor and the committee members were to serve without compensation. In 1294/1877 the committee was expanded and its responsibilities increased. Employees were needed, thus generating new opportunities to collect fees for such things as building permits. In 1296/1879 a decree gave the municipalities the

right to confiscate private properties, if necessary to solve town problems such as opening new streets "according to modern planning principles and laws of Architecture and Art." Now the committee's major responsibility was to organise towns.[3]

Municipalities became more and more powerful and began to intervene. They started by forcing users to adjust to improvements in public spaces. The first interventions in the users' realm were technical. In 1925 in Syria, people were asked to use bricks or stones in their buildings.[4] Thereafter, more regulations were developed to protect one user from another — again an area traditionally based on agreements. Article 807 of the Egyptian Civil Code reads:

> (1) The owner must not exercise his rights in an excessive manner detrimental to his neighbour's property. (2) The neighbour has no right of action against his neighbour for the usual unavoidable inconveniences resulting from neighbourhood, but he may claim the suppression of such inconveniences if they exceed the usual limits, taking into consideration in this connection custom, the nature of the properties, their respective situations and the use for which they are intended. A licence issued by a competent authority is not a bar to the exercise of such a right of action.[5]

The regulations went further in determining the limits of eliminating damage. Article 819 of the Egyptian Code states that a neighbour is not allowed to have a direct view (window) over his neighbour's property at a distance of less than one metre, unless the opening was built first, in which case the latter neighbour cannot create a window opposite. This article limited the owners' choices regardless of the function of the overlooked property and regardless of the opening size. So long as the distance was 100 cm. or more, the owner could open a window of any size; if it was only 99 cm. he could not![6]

Contemporary regulations have one thing in common: control of the built environment by a central authority, resulting in the shift of elements from one form of submission to another. The most conspicuous example, the dead-end street, shifted from the unified to the permissive form of submission. Another result has been a change in the identity of parties: the state's intervention in leasing properties changed the identity of the controlling party from the lessor to the authority.

Another example of this shift is the *finā'*. Traditionally the *finā'* was outside a property line and was in the unified or possessive form of submission. The authorities in Egypt decided, however, that a building should have an external *finā'* **within** the property and it should not be less than half a metre in width, i.e. in order to satisfy regulations, the user should have unbuilt spaces within his property.[7] Thus in contemporary environments the *finā'* remains within the property. The owner uses it but does not control it; he cannot build in it. It is in the trusteeship form of submission if the resident is the owner, or in the dispersed form if the owner does not reside there. A simple rule dispersed control of property that was traditionally in the unified or possessive form and outside the property line.

Recently, in a Riyad city newspaper, there was an argument regarding the new setback regulation for buildings (passed in 1392/1972) which was to be one fifth of the street's width, but not less than 3 metres or more than 6 metres deep. Most streets also had side setback requirements. A reader said that such a space would not be useful for the owners, and thus the owners should be compensated by the municipality. The mayor asked, how could the municipality compensate an owner for property that it did not take? He added that the regulation is to the users' advantage because such a space would be needed as parking space if parts of the building were transformed to commercial use.[8]

An interesting attitude of decision-makers is that they develop regulations and then refer to them as principles that should not be changed regardless of their validity. In this case, because of the possible future existence of commercial buildings, all residential buildings were required to have front setbacks. There are obvious disadvantages to such a rule. Side setbacks for ventilation between buildings separate these buildings from each other, thus increasing the wall surface exposed to the sun and consequently transforming concrete buildings into ovens in summer. Side windows are always closed for the sake of privacy, and air-conditioning is costly. Setbacks from all sides reduce the size of the land available for building, thus helping to eliminate courtyards. These buildings are neither introvert nor extrovert. The side setbacks have another negative economic aspect: by increasing the width of plots, the area to be provided with infrastructures in the city is being enlarged. Since these unbuilt setbacks have the potential of being built as an expansion, many owners tend to violate the rules of the remote party (municipality) which does not have the capacity to control the city by building in setback areas and thus overloading the infrastructure of the city. Thus, setback regulations passed for lighting and ventilation had unexpected, if not reversed consequences.

Regarding front setbacks, let us imagine that the traditional principles of damage were applied in which the residents of the street had control. The owner of a building would be allowed to transform it into a commercial one if he could resolve the problem of his customers' parking. If the street were narrow or heavily used, then his customers' cars would hinder circulation and the conversion would be challenged by residents of the street. The customers would know from experience that it is hard to find a parking space in front of these shops and would not shop in them, because they know that if they hinder circulation they will get into trouble with the residents who control. Because the street cannot accommodate parking, the owner would try to provide parking space to attract customers. Even those who wanted to lease a shop would pay more for a shop with parking space, thus encouraging owners to provide parking spaces. Owners would therefore develop conventions to solve such prob-

lems. This process seems more logical than a blind rule to be followed by all residents.[9]

Authorities controlled properties through building permits. In 1296/1879, during the Ottoman Empire, fees were collected as income to the municipalities with no rules to be followed. Gradually, building permits were coupled with an ever-increasing number of regulations. Without a permit, a property could not be connected to the city infrastructure. Now, practically everywhere, the owner must present a set of drawings to obtain the permit.[10] Thus the aesthetic values of the permit-givers are imposed on the permit-users. During the 1970's in Jeddah, the elevations of buildings on main streets had to satisfy and be approved by the mayor himself who is an architect. Buildings located on minor streets had to be approved by municipal officials who in turn had to satisfy the mayor's taste. In some cases, elevations were so lavish that costs rose as much as 20%. Furthermore, during building, the owner could not make any changes from what was granted in the permit.[11] This rule discourages builders from improving their designs. Indeed, owners often saw errors when they saw the building on site in three dimensions, but they could no longer make changes.

ORDERED VERSUS ORGANISED

Contemporary authorities aim to produce an organised environment. This is done in two ways: by providing or improving infrastructure, governmental facilities and public places; and by controlling the built environment through regulation.

In this first form of organisation — providing infrastructure — municipalities are proud of their improvement of streets and squares. We have all seen miles of paved side-walks outside cities

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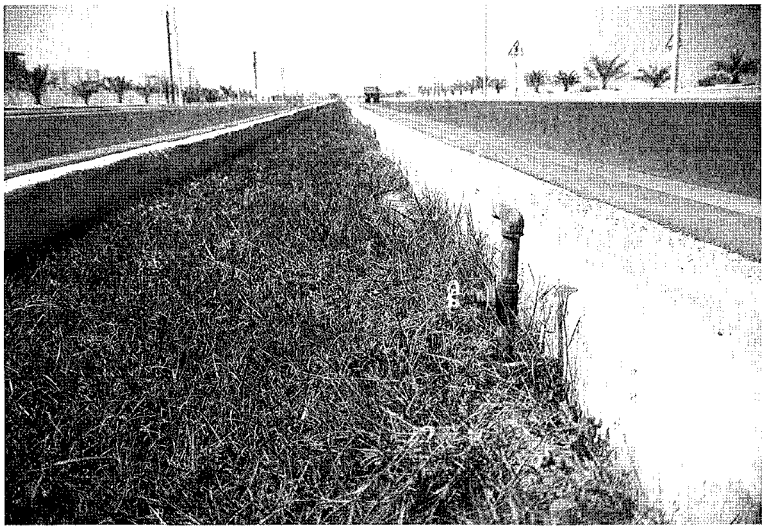

8 1 Al-Khobar. The irrigation pipes in a road out of town Compare it with photos 4 & 5 on page 10

where pedestrians are few.[12] The term "beautification" is well known among officials. The mayor of Jeddah, for example, became famous by his strict control of the city; there are many sculptures, wide sidewalks, marble seats on the streets, etc. But in such instances, especially in poor countries, the society's wealth is spent on public spaces that, unlike dwellings, are the least used by the inhabitants. These spaces are in the dispersed form of submission, since they are used by the public while controlled by municipalities.

In the traditional environment, most if not all plantation and landscaping was found inside the heavily occupied areas — private properties. In contemporary environments, however, especially in cities of wealthy states, trees are planted in public spaces. The heavier the traffic, the more trees are planted by the authorities. It is ironic that the tree, which is supposed to filter the air and please the eye, is often found in those spaces least occupied by people and as elements in the dispersed form of submission they require constant maintenance at public expense, dissipating the wealth of the society.

Contemporary governments also engage in redevelopment projects, especially of town or city centres. In these projects the government buys the land from the owners, demolishes some buildings and hires professionals to develop proposals for improvements. Great efforts are made by officials and professionals to discuss the smallest details of the project, yet the question of responsibility, if raised at all, is assumed to be the province of the state. When the state bought the land, the form of submission changed: the responsible party was no longer an immediate owner but a remote one. Indeed, the perception among decision makers of an organised environment is one that is controlled by them.

The second method of achieving organised environments is to tell people what to do. Contemporary regulations are often **prescriptive** — they specify what to do — and ultimately decrease the control of parties. Moreover, prescriptive rules eliminate communication between parties. To give an extreme example, a municipality may develop a complete set of rules and specifications regarding party walls or fences between neighbours. The neighbours do not have to communicate to build the wall, because responsibility is decided upon by an outsider. In other words, the more prescriptive rules, the less communication between parties; the less control a party shares with others, the less control a party can enjoy. By the same token, the fewer **proscriptive** principles — telling what **not** to do — as in traditional environments, the greater the communication between parties. In the case of the party wall between the neighbours mentioned above, the first decision to be agreed upon is whether or not to have a party wall, then its height, materials and colour. Proscriptive principles imply that what is not forbidden is allowed, increase the parties' control and establish relationships between neighbours through agreements.[13]

The Built Environment as an Ecosystem

Holling and Goldberg advise planners that "rather than asking project directors to substantiate the ultimate success of their projects, they should be asked to ensure that unexpected and disastrous consequences be minimized. This is turning things around 180 degrees ..." The good sense of this advice may be appreciated by considering the following human intervention in an ecosystem: In order to kill the mosquito that vectors malaria in Borneo, the World Health Organisation sprayed village huts with DDT. Although spraying improved the level of health in the area, there were disastrous ecological consequences. The thatched huts of the villages were occupied by a small community of organisms — cats, cockroaches and small lizards. Cockroaches that ingested DDT were eaten by the lizards. DDT became concentrated in the lizards which were then eaten by cats and gradually poisoned them. But cats had performed a hidden function in the ecosystem: they ate rats. When the cats died, woodland rats increased in number, and fleas, lice and other rat-borne parasites presented a new health hazard. The problem became so serious that living cats had to be parachuted into these villages to control the rats. The DDT also killed the parasites and predators of the small caterpillars that cause damage to thatched roofs. The caterpillar is now uncontrolled, causing the roofs of the huts to collapse.

Commenting on the above intervention in the ecosystem, Holling and Goldberg argue that most interventions are characterised by three conditions. First, the problem is isolated from the whole; second, the objective is narrowly defined; and third, the simplest and most direct intervention is selected.[14] Indeed these three conditions were evident in Egypt when the state intervened in the issue of rent control. That intervention had adverse effects and eventually resulted in unforeseen housing shortages and a dispersed state of properties. The same can be said regarding setbacks. It can be argued that the reason for these unexpected results is that built environments are complex, interdependent urban systems. They depend on a succession of events which may not be linear.[15] One can argue that the complex structure of the built environment is beyond our understanding, and that **any** massive intervention can result in unexpected and possibly harmful changes. Regulations are such massive intervention.[16]

In the case of Borneo, those who intervened did not understand the hidden function of the cats. The same is true in the built environment. When we architects see a thing that we do not like or understand, we often ignore or misjudge it. Many things have hidden functions, and we may not always be able to see them. We often do not understand the irregular layout of rooms in traditional buildings. The houses of al-Fusṭāṭ (Fig. 8.1) are a good example. An architect would never design rooms like these, even if constrained by the site.

Figure 8.1 Al-Fusṭāṭ Traditional dwellings showing the users' preference in having certain elements in certain forms but not all elements depending on the constraints of the site. Source: Creswell, The Muslim Architecture of Egypt *(Hacker Art Books, New York, 1978), V 1, pp.122–126*


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He would try to solve the problem logically and geometrically. However, for the user there are a series of **preferences**. Certain rooms should take certain forms, but not necessarily all rooms. The user who knows the site modifies its constraints to suit his exact needs. For the acting party an irregular room can be used as storage, while the courtyard or reception room has a much more important function. Thus, when we see an element that is irregular, or when we see an unusual relationship between elements such as a kitchen with no window or a latrine opening into a room, it often means that such an arrangement is insignificant for the user. Or perhaps the user is forced into it in order to satisfy his other more important preferences.

Another extreme example: it may not be acceptable that rainwater flows through the water spout of one house into a room inside the house next to it. In traditional environments this relationship existed because of the right of precedence. A person (A) objected that his neighbour (B) is building a room in the courtyard in a way that his own (A's) water spout will be inside the room of his neighbour (B) and thus some day his neighbour may remove the water spout. It was ruled that the water spout owner (A) could bring witnesses inside his neighbour's room to look at the spout to affirm its existence.[17] In this case, the preceding party had complete freedom while the second had to deal with the water spout as a constraint. That is to say, **in order to have an ecological evolution in the built environment in which each party will have full freedom with no external intervention, the environment should be seen as a series of constraints.** This is how I defined an ordered environment in which the relationships between parties of different properties are regulated or ordered by the physical environment as constraints. Meanwhile, the physical environment is shaped by the responsible parties. Damaging acts and damaging precedents result in the right of precedence which established and ordered the relationship between parties.[18]

A major unexpected change which resulted from the authorities' intervention was the elimination of agreements between parties. This change affected the quality of the environment socially as well as physically.

In traditional environments, agreements resulted from elements between properties such as the party wall, the passageway between two neighbours and the overpass. These elements were often under the permissive, unified or possessive form of submission. Because parties had freedom of action within their properties, the places of conflict between different parties were the interfaces between private and private, public and private, individual and communal, and movement and place. At these interfaces the conflicts and resolutions between parties are played out. They were the boundaries where conventional, personal, deviant and aberrant behaviours came to the surface: the undesirable movement of one party towards

another triggered a situation of conflict which was often resolved through agreements.

I will explore the most common form of boundary between dwellings, the party wall, a physical element which dominates both neighbours. The traveller Nāṣiri Khaṣru who visited Cairo in 439/1047 describes a neighbourhood of free-standing dwellings: "(e)ach owner can do the needed repairs to his house at any time without annoying his neighbour."[19] The description indicates the burden of party walls on the residents, since, if they want to make any change in that wall, they have to ask their neighbours.

Although the Prophet proclaimed that "no one should prevent his neighbour from fixing a wooden peg in his wall," most opinions of jurists approve leasing the party wall to neighbours so long as the leasing period and quantity of the wooden beams are known.[20] A party might even buy all or part of a party wall, bringing the party wall to the permissive form in the case of leasing or to the unified

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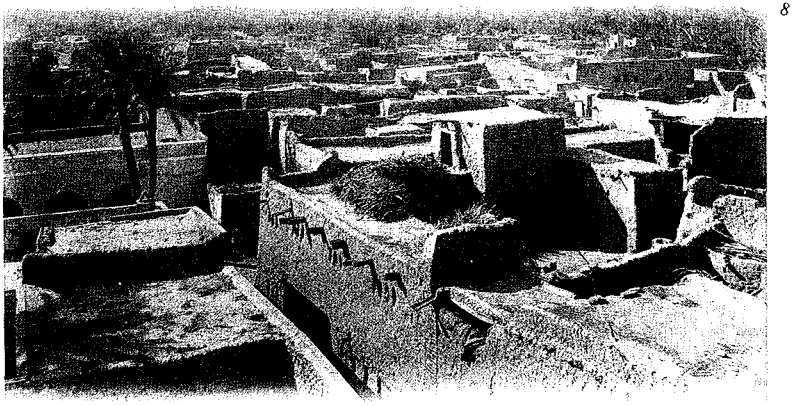

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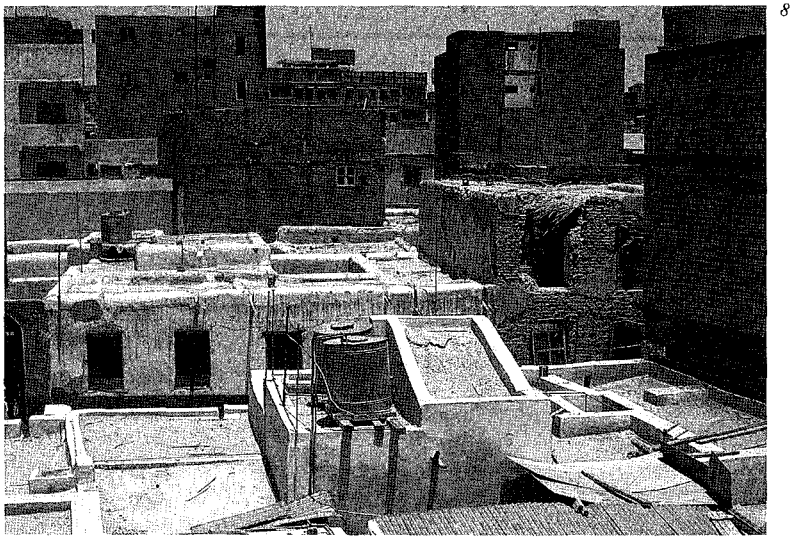


8 2 Sidi Okba, North Africa and
8 3 Taif, Saudi Arabia. Both show the characteristic single party walls between neighbours. See also photo 5 2 p 96

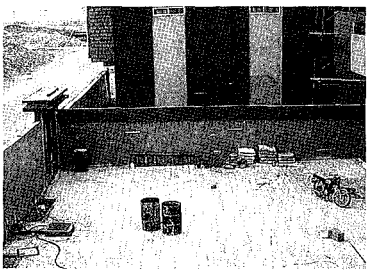
form in the case of buying in which the owning, controlling and using party is composed of both neighbours jointly.[21] These **single** party walls have always forced the two adjoining parties to communicate. For example, if the owner of a party wall wants to plaster it he may enter his neighbour's house to do so.[22] Party walls also contain the potential for conflict. Over time, if ownership is transferred or later generations were not informed about the ownership of the party wall, disputes could occur. It seems that this was such a common source of dispute that methods and principles were developed to resolve them by investigating the wooden beams, doors, shelves, the upper part of the wall — such as parapets — and the corners.[23]

Imagine the traditional built environment as a network in which each property owner has a relationship to adjacent owners. The owners of properties in one block relate to each other through water spouts, cisterns, party walls and the right of servitude.[24] Each block relates to others through windows or doors or even overpasses with the right of precedence.

This network does not exist in the contemporary environment. Instead, we often see **double** party walls, each one of which stands as a reminder of poor communication among discrete parties as a result of intervention by a central authority. In contemporary environments, there are some single party walls, such as the walls between units in a housing project, but these are controlled by housing agencies and are not supposed to be touched by the users. There are also single party walls between neighbours or friends if they agree on them. It is becoming a convention among owners of free-standing dwellings in Riyadh not to build a (double) wall between the houses, but rather to plaster or even raise the neighbour's wall if he does not object.

When conflicts about party walls are resolved, the relationship between neighbours, especially for future generations, is characterised by agreements. Far from causing conflict, party walls produced social bonds among neighbours. Every single party wall — in the traditional environment most houses had three party walls — stands as a monument to human relations and understanding among parties. Thus, despite the autonomy of properties in traditional environments, there were relationships between the parties. Relationships between parties in contemporary environments, on the other hand, are reduced if not eliminated altogether. Properties are not autonomous, which is characteristic of heteronomous synthesis.

In the traditional environment, party walls were always in the unified or permissive form of submission. These two forms of submission are characterised by strong agreements between the two parties or the members of the owning party that control and use. Thus, the boundaries can not be violated. Nowadays, regulations may encourage parties to harm others, since any action that does not



8 4 Riyadh A single party wall between neighbours that is becoming a convention some owners build on the property line so the neighbour will use the same wall by plastering it from his side, sometimes even raising it

violate the regulations is permitted. The authority took the responsibility for protecting owners from each other and failed. They will continue to fail in the future, leaving the sensitive interface between properties open to violation and damage.

One unexpected consequence of this massive intervention is that the powerless owner cannot act to protect his property from his neighbour's latrine leakage. This is why we see all kinds of hygiene problems in contemporary low-income settlements and even in some traditional environments occupied presently by residents who are not owners and/or powerless. The residents of a dead-end street are no longer in control, and thus cannot object to the latrine leakage. With the state taking responsibility, parties know that if they damage a neighbour's party wall, the only weapon the powerless neighbour has is to file a complaint to the municipality — a long process requiring endless paperwork. A committee will be formed to investigate the case, and the finding of the committee can be always challenged by the violating individuals, etc. The unfortunate owner has to follow up his protestation constantly or forget about it. This alternative is fast becoming the norm, especially in poor states where municipalities are helpless. Responsibility is dispersed with dire results.

By contrast, when traditional proscriptive principles rather than regulations were applied, resolutions among parties were dealt with — in each individual case — through ad hoc judgements by those involved in the conflicts. Each resolution of conflict resulted in a unique physical arrangement depending on the nature of the dispute and agreement. That is why we find some windows overlooking properties while others do not. The traditional proscriptive principles satisfied various needs and situations; they emphasised the human relationships between parties and rarely dealt with artifacts. The outcome was "diversity within unity." Contemporary prescriptive rules, on the other hand, deal with qualities and quantities of artifacts, fixed ranges of numbers for dimensions and densities, zones for functions, and so on, all of which are mass produced. Although based on human needs, they are not designed to deal with diverse human requirements: one regulation provides for all. **The traditional attitude was one-to-one; the contemporary attitude is one-for-all.**

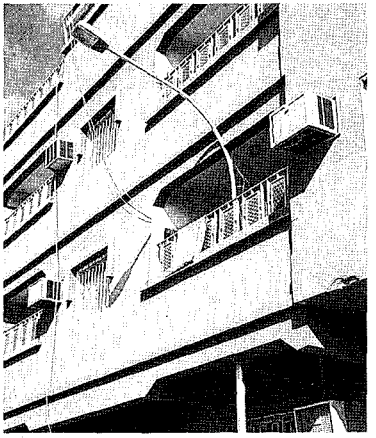
Traditional one-to-one proscriptives were applied on all levels of the physical form. A chair cannot be used by stepping on it to look into a neighbour's yard since intruding upon a neighbour's privacy damages him. The same principle applies at higher levels, such as transforming one's dwelling into a tannery. Contemporary one-for-all regulations, however, control all physical elements **equally** to a certain level. Every decision above the parcel level, such as street's morphology, for example, is controlled by the municipality; other decisions, such as misusing a chair, are not.

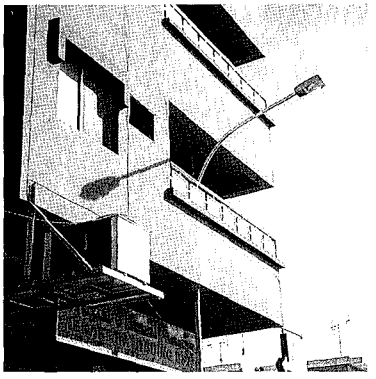
When we observe many individuals acting similarly, we recognise convention: users using the same building materials, locating reception rooms adjacent to entrances, etc. Thus we may define convention as the sum total of similar individuals' actions over a certain period of time. However, people change, life-styles change, the attitudes of parties change, and so, in turn, conventions change. We cannot derive rules, explicit canons or patterns of use from the traditional environment as some professionals try to do. Traditionally, for example, people were concerned about privacy and developed conventions such as not having windows on ground floors. If we abstract this as a pattern or rule, what happens if the concern for privacy is no longer important? If regulations are derived from conventions, then they must be continually revised to serve the changing society. This is an impossible task. If, however, parties develop their own agreements, then a gradual and continuous change of convention results. For example, the water spout in wetter areas were challenged by neighbours using the principle of damage traditionally prevailed in desert towns such as Riyadh, even in narrow streets, potentially harming passers-by. Because all residents benefited and no one objected, it was established as a convention. Compare water-spouts in Riyadh (photos 2 on page 8 and 4.5 on page 74) with streets in North Africa. Although the same principles were used, two different morphologies regarding water-spouts developed.

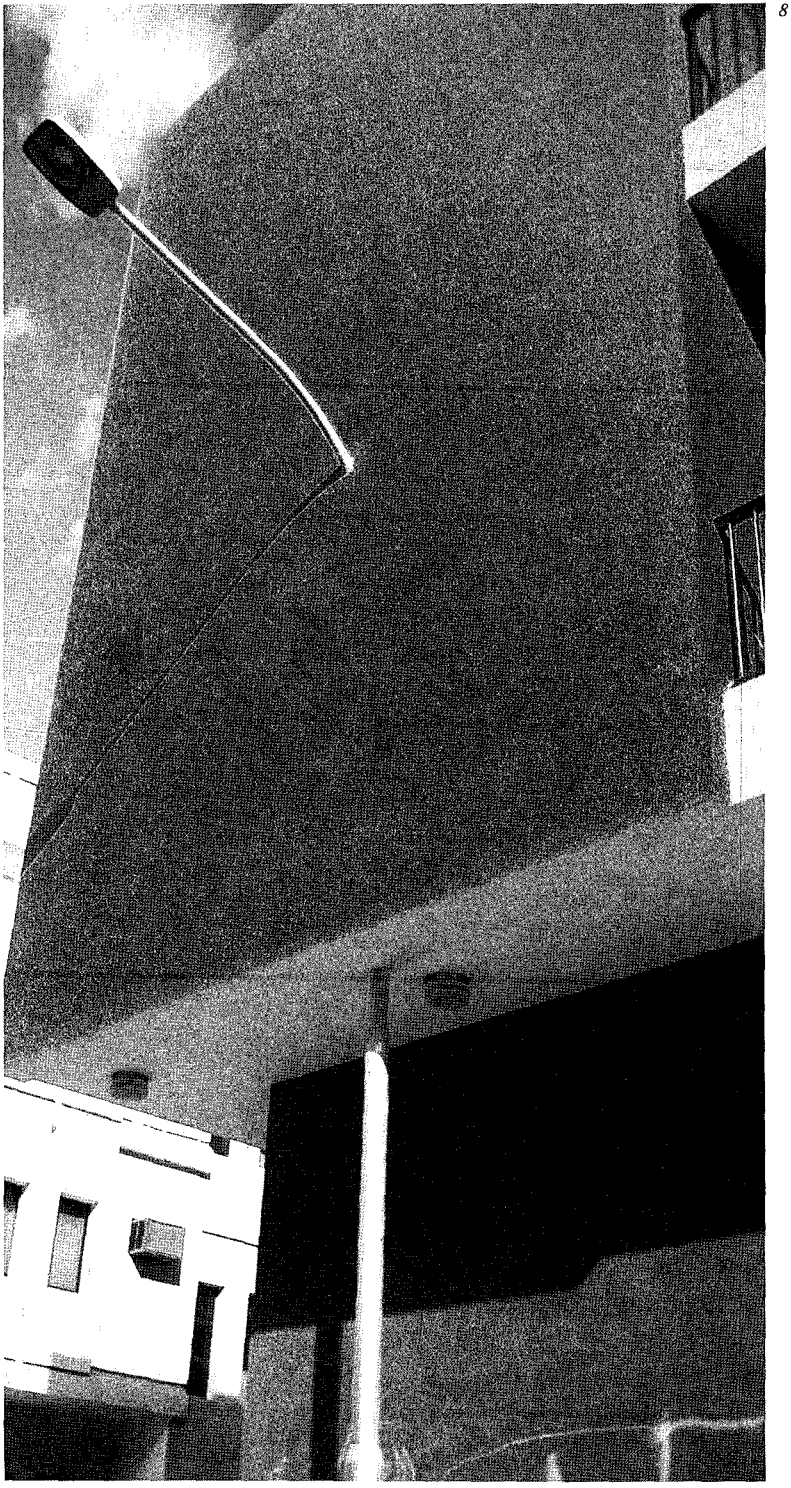
Factors contributing to the establishment of conventions are numerous; three seem to be the most important ones. The **first** is need: people tend to change the physical environment to fit their needs. This seems to be an innate tendency of human beings. The photos are examples from contemporary environments.

8 5

8 5 An owner of an apartment building decided to change his ground floor to commercial space According to the municipal regulations he had to demolish the walls of the front yard and he did so It is difficult, however, to demolish concrete columns, so he transformed them into lamp posts.

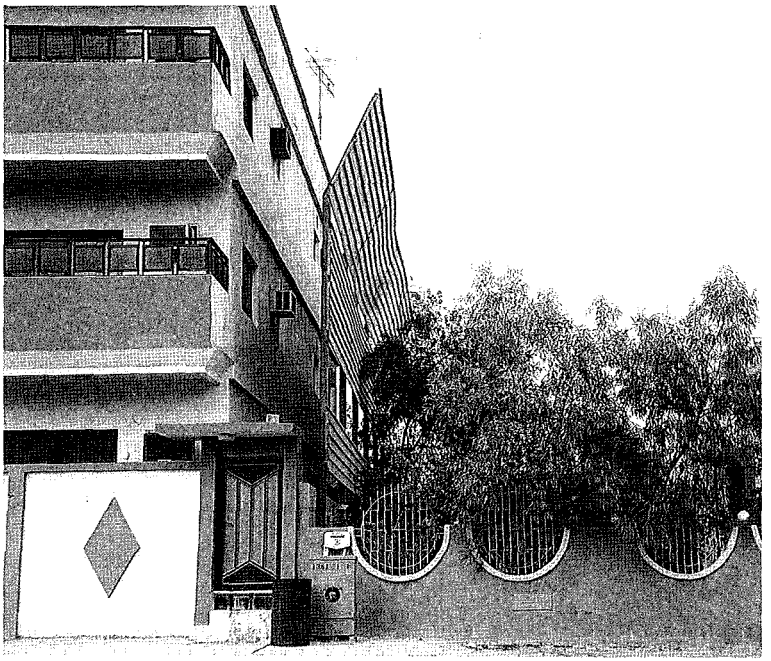


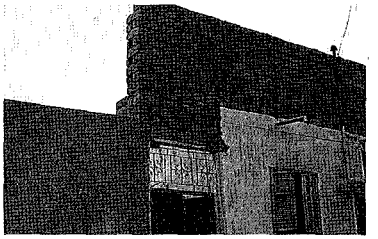




8 6, 8 7, 8 8 & 8 9 From one quarter in al-Khobar in which the users' desire to expand the upper floor was so strong that they incorporated the lighting columns into their properties thus instituting a convention.

8 12





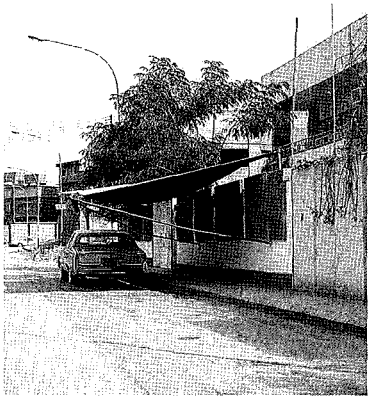
8 10, 8 11 & 8 12 The need for privacy that pushed owners to screen their houses by adding wall, cloth or metal sheets. These are examples of personal adaptations which can be seen all over the world.

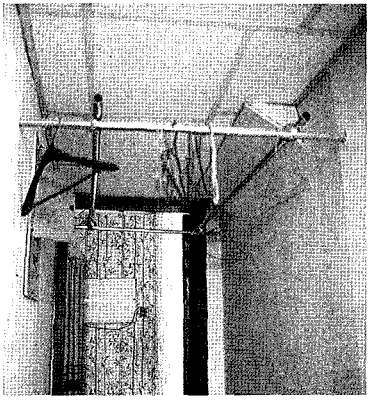
8 13
8 14

8 13 & 8 14 Old Dhaka. Two ways to utilise space above a waste-water ditch.

8 15 Old Dhaka. The creation of a small entrance by taking away part of the staircase.

8 16
8 17





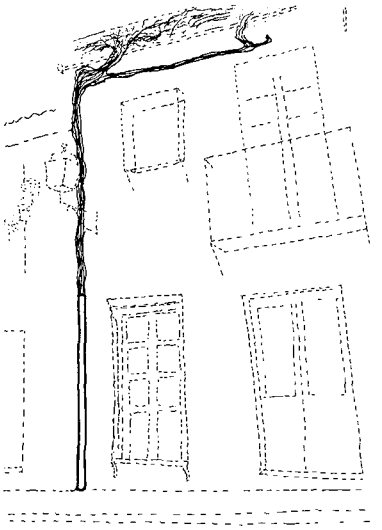
8 16 Riyadh. Since it is prohibited to build on the side-walk, the owner constructed a cloth cantilever to provide shade for his car.

8 17 A resident constructed pipes to hang clothes thus transforming a corridor into an occasional cupboard.

8 18 Granada. A very interesting camouflage of the grapevine inside a pipe on the facade in the ground floor

The **second** factor is user ingenuity: users who live on a site and experience its problems often invent their own solutions. The residents of the Fakhiriyyah neighbourhood in Riyadh were annoyed by the width of their streets, which are ten metres wide. The side-walks built by the municipality are two metres wide on each side with lighting columns, leaving six metres for vehicles. Parallel parking on both sides hindered circulation. In order to provide parking space, one resident suggested that, since there are almost no pedestrians, the municipality remove the side-walk between lighting columns, leaving just enough to protect the columns.[25] The photos show examples of similar innovation.

The **third** contributing factor is the convincing example. Users trust things if they see them work; a working solution easily spreads. The photos show two examples. The first is from al-Khobar, where in one quarter it is becoming a convention that a user can divide his two-storey building into two dwellings with an external staircase



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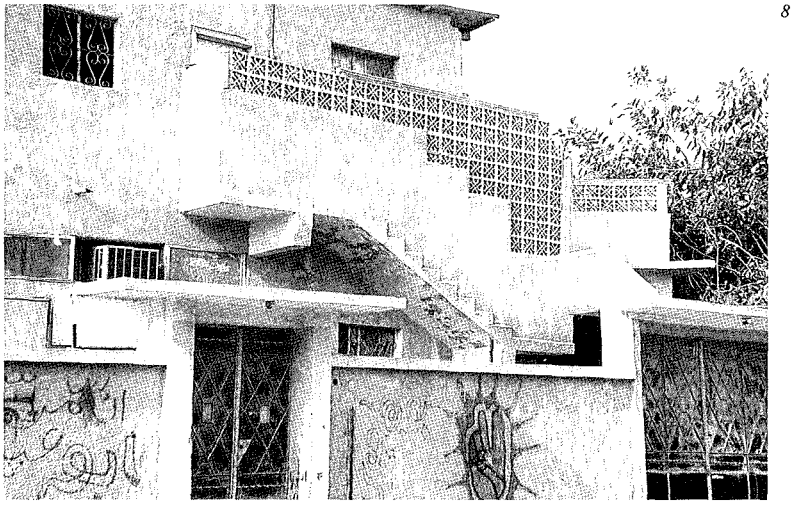

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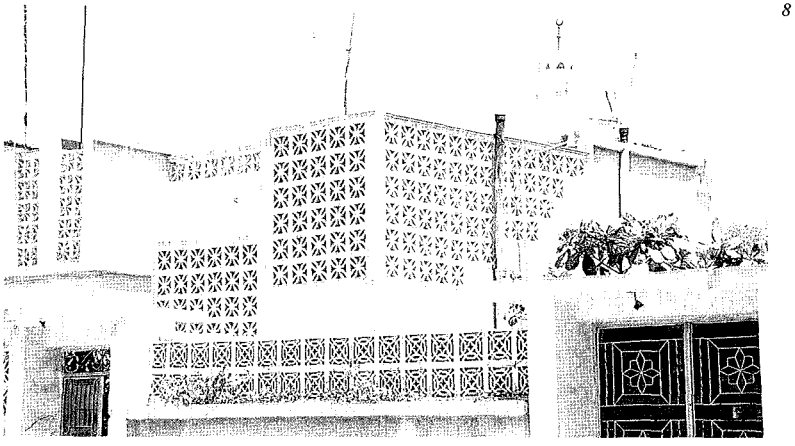

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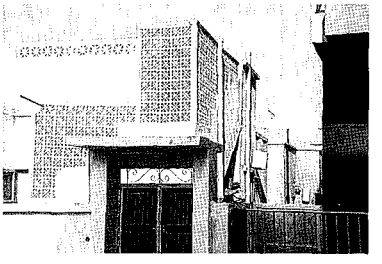

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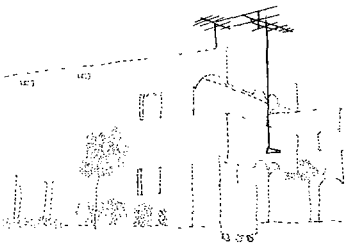


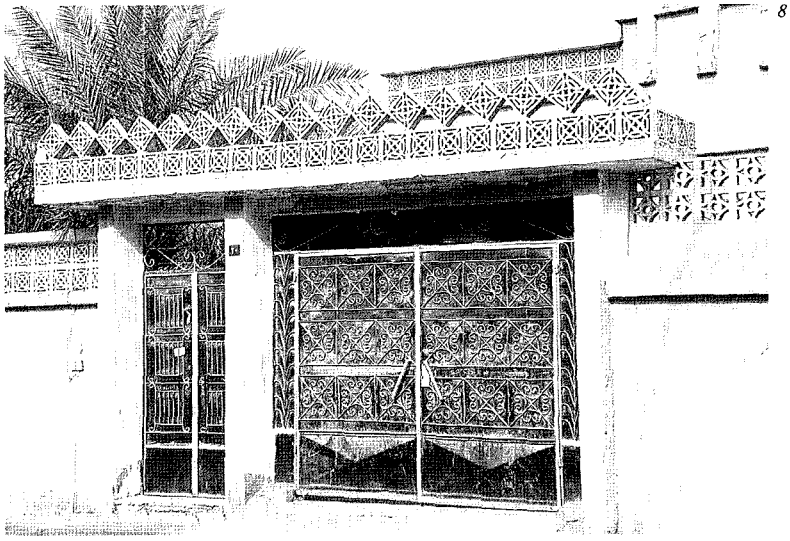
enclosed by screen blocks to provide access to the upper floor (photos 8.19, 8.20 and 8.21). The second example is from the al-Jubail housing project. One user solved his problem by placing an antenna on the concrete water spout, since the original design did not support this need. His solution quickly spread (photo 8.22).

In traditional environments, these three factors flourished through several mechanisms:

Collective solution seeking. Traditional proscriptive principles contributed to the development of better solutions by nigh parties. We have seen that in disputes regarding doors, shops, encroachment on the streets, etc., the resolution of the conflict did not consider damage that the acting party inflicted upon itself. If a newly-created door is proved to cause damage, the creator must seal the door or change its position. How the party accomplished this was the party's problem. Parties gain different experiences from such critical situations. Each party has to deal with its unique constraints to find proper solutions, and this widens the range of the society's experience. One-for-all contemporary regulations narrow the range of such experiences.

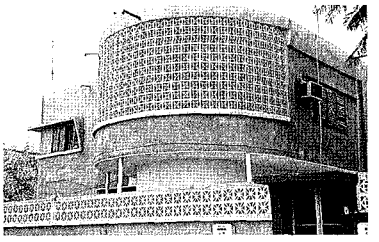
For example, if it is found through research that a certain technique is more appropriate to party walls in a particular region, and the use of that technique is required by regulation, the society loses the opportunity to profit from users' — and, more importantly, builders' — experimentation which, through the exchange of experience over thousands of walls, will result in better solutions. In other words, the built environment can be viewed as an open laboratory in which users, given the chance to experiment with an element, will find the best solution to a given problem.

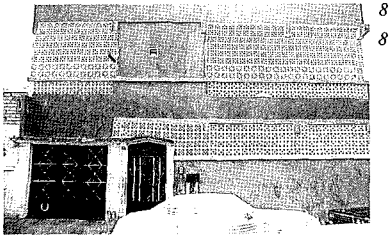
This argument can be illustrated by following one element through different situations and then reviewing the use of different



8 23

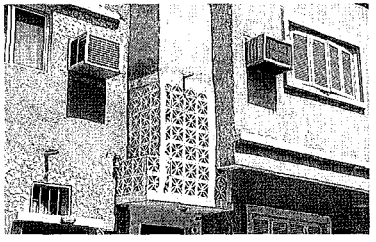
8 23 The screen block used as decorative elements

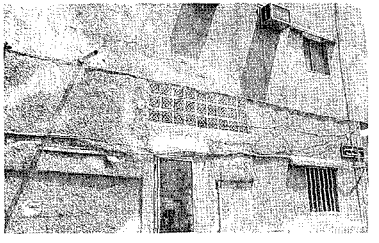


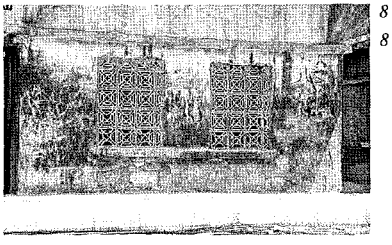


8 24
8 25

8 24 & 8 25 Different experiments using them to screen balconies







8 27
8 28

8 26, 8 27 & 8 28 The blocks used in a stair well, an entrance hall and a window

elements to solve a particular problem. The element from the contemporary environment whose use we will follow is the precast concrete perforated screen block (photos 8.23 to 8.28).

The different uses in different locations for different purposes reveal new potential for the society. In other words, if the built environment is viewed as a laboratory in which users inflect and experiment with an element, ultimately someone will find the best solution **and that solution will spread.**

As for using different elements to solve a particular problem, let us look at attempts by opposite neighbours to cover part of the street in a traditional environment (photos 8.29 to 8.34).

Action precedes permission. In traditional environments the acting parties did not ask for permission, They made a change, and if the

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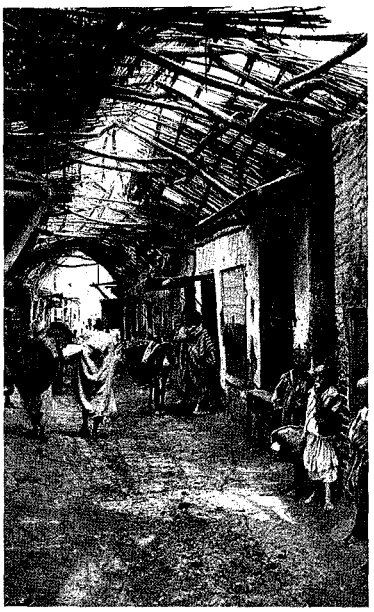
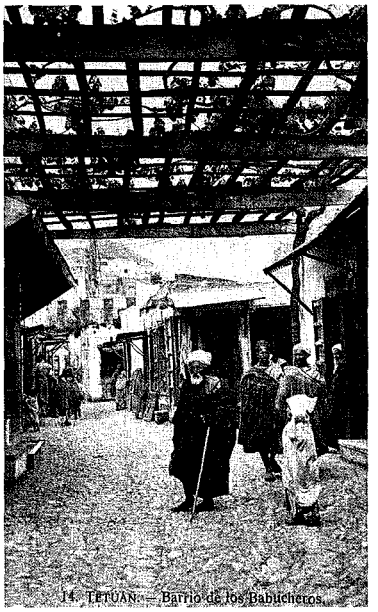
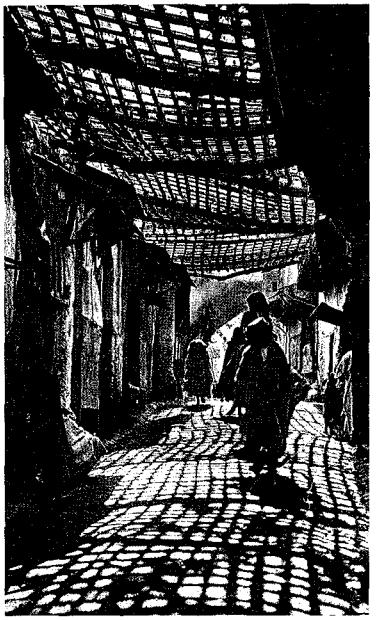


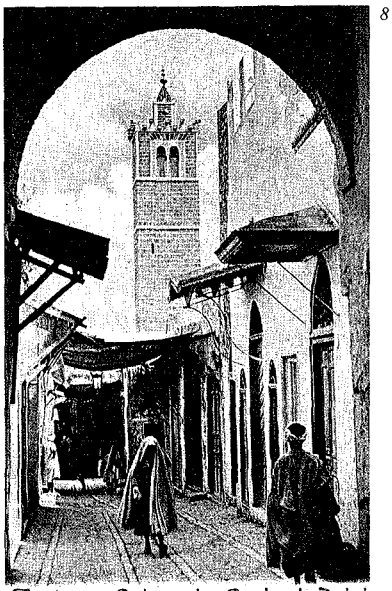


In Marrakech, Morocco, some people used straws and saplings (8 29). Others used dried brackens (8 30). In Tetuan, Morocco (8.31), and Tlemcen, Algeria (8 32), they constructed beam-supported lattices for creeping plants, while in Fez, Morocco, the lattice is supported by tree trunks (8 33) In the city of Tunis, cloth was used (8.34). Through experiments like these, multiplied many times, the most efficient solution for a given town or region will be found The solutions are often without cost, but they are always the product of agreements between neighbours.

neighbours experienced damage, there was a judgement as to whether the change should be permitted. This gave people a chance to try different solutions.

Refinement through conflict. Conflicting interests between parties within autonomous synthesis refined the conventions. If a person wanted to change the function of his property into a mill, but knew his neighbours would object, he might, if the site were very suitable, try to counteract the damage or convince the neighbours to let him continue anyway. There are positive and negative aspects of the site that he, as a miller, can see and experience. If these aspects are worth fighting for, he may win. Other millers may join him, gradually transforming the neighbourhood. In this case, the decisions were made from the bottom up by those who experienced the place and thus decided the locations of industries within the town, not by the authority's planners with their statistics, charts and predictions. We have seen many cases in which owners of industries tried to move back to properties from which they had been moved out, and in some cases they managed to do so. There is an ecological evolution in industries, as well as in all other aspects of the traditional environment. However, if the miller could not transform the property, it may be because the site is more suitable for a residence, and the residents therefore stood firmly against such a transformation. In other words, the forces between nigh parties' interests often decided the proper morphology and function of the traditional environment within the town's constraints. This is why some Muslim towns resemble each other in the way they allocate functions although they were not planned or controlled. One may argue that the same prin-





Tunis — Entrée du Souk el Belat

ciple holds nowadays where industries are very damaging. If the users have power and realise the severity of chemical damage caused by a plant, they will eliminate the damage by compelling the plant to counteract the damage or move. And we all know about corrupt decision-makers or strong lobbying by industries against users.

Traditional Muslim environments changed gradually and harmoniously because the party in control of convention was composed of the members that were subjected to it. Thus consensus among parties was achieved. When regulations did not exist, parties had to settle disputes by dialogue. Successful inventions and applications by users and builders were transmitted to others through dialogue within a society that pushed for more experiences. Thus conventions were reinforced. This is the only explanation I have for the strong, coherent conventions in traditional environments. Although the nature of conventions may differ totally from one region to another, the degree of coherence of convention is similar in all traditional environments. In one town, ground floors may have no windows, and only a few small ones are found on upper floors; in another town, large openings with wooden screens are found all over the facades (see photos 2, 3 and 4 on pages 8 and 10).

In contemporary environments, however, no consensus is needed. The regulations developed by a central authority according to its own norms and values reduce the influence and role of nigh parties, thus eliminating agreements. By minimising communication, parties are isolated, resulting in weak conventions. Each party has its own way of doing things. In short, **the more regulations imposed by a remote party where responsibility is dispersed, the weaker convention**

will be. The fewer regulations imposed by outsiders where responsibility is unified, the stronger convention will be. Centralisation is destructive to conventions.

Because of the strong conventions in the traditional environment, the selection and distribution of elements by different parties was relatively similar, with courtyard houses, overpasses, bent entrances, etc. Over time, each region developed a certain model of dwelling. For example, the *qā'a* house in Medina has very specific relationships between elements that repeat themselves in most houses, with variations to suit the sites (Fig. 8.2). The *qā'a* itself (Figure. 8.3) is always divided into three bays, shown as 1, 2 and 3 in the floor plan. The central bay (1), known as a *jila*, extends vertically up to the roof and is shielded by movable covers that are always controlled from the ground floor. The *jila* is always abutted by the *diwān* which is composed of two bays (4, 5), one of which (4) is always uncovered like a courtyard.[26] These relationships define the typology of houses in that region.[27] Most, if not all, regions have their own traditional dwelling, each with its own specific model. Through trial and error, those who lived in the area generated the model. This is observed most clearly in the case of traditional climatic solutions in different regions. The same climatic principles may apply, but each region, even every town, has its own well-adjusted climatic solution to meet its exact cultural and environmental needs. Once the convention or model is developed, it is difficult for individuals to violate it. Only the best inventions prevail. Thus the principles of the traditional environment that gave freedom to individuals also generated binding conventions. **Freedom was framed by convention.**

Contemporary environments, on the other hand, reflect the values and norms of decision-makers rather than the needs of nigh parties. In Taif city the mayor, who holds a degree in landscaping, transformed many undeveloped spaces in the city into parks. In Jeddah, the municipality ordered the merchants to put "wooden Islamic pattern decorations" in their shops. Later, the Ministry of Interior stopped them on the grounds that fire regulations prohibited these decorations. To whom should the merchants listen?[28] This notion that the existing environment reflects the decision-makers norms, along with the phenomenon of eclecticism among users, resulted in radical differences in the environment antithetical to traditional environments. The organic fabric of the traditional Muslim built environment reveals the activity of several independent parties following the same convention on all scales. The contemporary grid fabric reveals the rigidity and dullness of a central party.

The master plan of Riyadh has recently been revised, and the regulations have been changed. Side and rear setback requirements in a few residential areas have been abolished. Officials and professionals accepted these changes as improvements and as a sign of

Figure 8 2 al-Medina. The qā'a *traditional dwellings. The adjustment of the model to fit diverse sizes and sites Source: The Center of Pilgrimage Research, King Abdul Aziz University, Jeddah (redrawn by Lamia Nugali).*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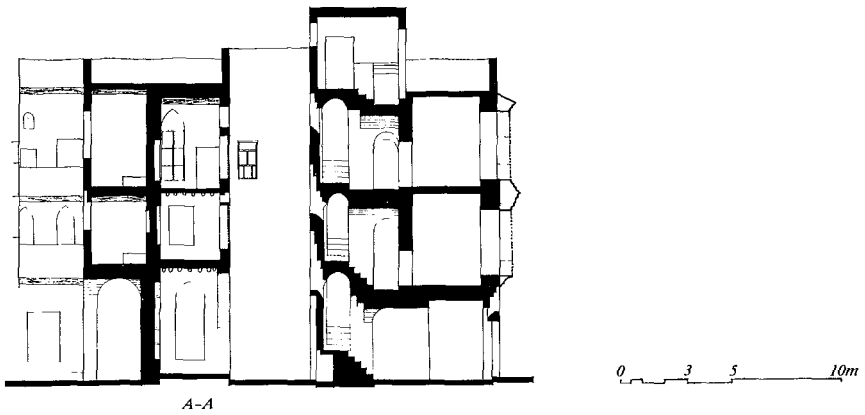

Figure 8 3 al-Medina
Floor plans of the qā'a *type houses. Note the relationships between the elements. Source: The Center of Pilgrimage Research, King Abdul Aziz University, Jeddah.*

8 35 Aerial view of the qā'a *house type in Medina. The octagonal openings in the roofs are the* jila. *The* diwan *is adjacent to it and is always uncovered. Source: The Center of Pilgrimage Research, King Abdul Aziz University, Jeddah.*

growth in consciousness.[29] Such growth in consciousness concerned, for example, privacy: the minimum distance for unobstructed window openings is now not stated specifically but rather has to be calculated by a mathematical formula which will give different distances depending on the situation.[30] Although these regulations may seem to be improvements, they are really only one set of regulations replacing another. The residing parties are more concerned about their privacy than they are about regulations (see photos 8.10, 8.11 and 8.12), and they will find their own solutions as they have for centuries. Nigh parties will act to improve the site for themselves; regulations cannot do that. Replacing regulations with other regulations will not help, unless the new ones recognise nigh parties as responsible parties.

TERRITORIES

Massive intervention in complex urban systems shifted elements of the traditional environment from the unified form of submission to other forms, changing territorial organisation, social relationships and initiatives of responsibility. The quarter as a territorial organisation broke down; streets within quarters became owned and controlled by authorities. This breakdown ended the shared responsibility among nigh parties, reduced communications and altered the entire social organisation.

Did territorial organisation affect the social organisation or vice versa? Are the residents of a dead-end street related because they share the responsibility for that space, or did a group of relatives gather together to form the dead-end street? Describing quarters during the Mamluks period Lapidus states:

> The fundamental elements of Mamluk period social organization — the quarter, the fraternity, the religious community, and the state — seem to have prevailed throughout the Muslim world ... Almost universally, Muslim cities contained socially homogeneous quarters. In Aleppo and Damascus the basic units of society were quarters, which were social solidarities as well as geographical entities. Small groups of people who believed themselves bound together by the most fundamental ties — family, clientage, common village origin, ethnic or sectarian religious identity, perhaps in some cases fortified by common occupation — lived in these neighbourhoods.[31]

The quarter is believed to have functioned as a unit because the residents were united, being of the same tribe or profession. This unity, however, could result from almost **any binding theme**. Traditional quarters were based on coalescences of villagers, the founding of new ethnic or governmental districts, religious sects, Muslims and non-Muslim ethnic minorities, specialised crafts, etc., suggesting that the territorial organisation generated the social organisation.[32] But neither the territorial nor the social organisations were stable in traditional environments. All kinds of social quarters existed, while the territorial structure was also changing. From the laying out of towns in Chapter 4, we concluded that the early towns were a series of adjacent territories, each territory or *khiṭṭah* containing other smaller territories or *khiṭṭahs* that held smaller territories, and so on. In Diagram 8.4, 1 is the purposely or intuitionly left-over space from several sub-tribal territories (A's); each A contained several B's and a shared space (2), while each B contained private properties (C's) that share a space (3) and so on. Each C controlled its own property and was a member in the controlling and using party (B) that owned the shared space (3). These occupants along with other B's were responsible for their shared space (2), while spaces in 1 are the responsibility of the whole group of A's. Thus the territorial organisation is the same as responsibility zones and possibly mirrors the physical organisation of the quarter.

As urban populations grew, the original territorial structure of

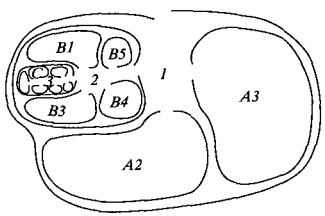

Diagram 8 4 Responsibility zones is the same as territorial organisation and possibly physical layout. Letters refer to parties while numbers refer to space. Each party A is composed of several Bs, while each party B is composed from Cs.

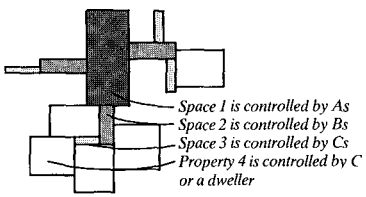

Diagram 8 5 Territorial structure of early towns. The rectangles represent shared spaces while blank squares represent private properties.

towns changed. Over time, buildings came to abut one another, filling the open spaces between *khiṭṭahs*. Also, party walls between *khiṭṭahs* or quarters were sold and leased among neighbours, and properties were divided and enlarged. We saw in Chapter 6 that a person owning property that opens on a dead-end street is a member of the responsible party of that space. Thus the responsibility layout that was based on a system of tribal loyalty changed as a result of a physical transformation in the built environment. The change in physical organisation changed the zones of responsibility. The synthesis was still autonomous, however, because all properties, including dead-end streets, squares, and streets, remained in the unified form of submission.

Gradually, because responsibility was dispersed among the large party owning and controlling the streets, and strong among the smaller parties owning and controlling the dead-end streets, the streets and the backs of dwellings that did not have openings and *finā'* became the boundaries of quarters. This is why in traditional fabrics we see physical built-blocks of **diverse sizes** separated by streets. Each built-block contained one or more quarters; sometimes more than one built-block formed one quarter, depending on the participants and the speed of transformation over time. A resident could always be a member of two quarters if he had access to both of them. In other words, the most stable structure was the one based on responsibility. While social, physical and territorial structures and responsibility zones changed, the pattern of responsibility remained the same. Modern centralisation destroyed this pattern.

Diagram 8 6 Transformation of responsibility zones. Property C became a member in quarter A1 and A2 through expansion or having access to another quarter or dead-end street.

If a traditional environment is composed of autonomous territories, we can expect the gate to be a conspicuous element. Gates are, in fact, one of the major characteristics of autonomous synthesis. Because a party controls what goes in and out through its gate, the gate is a very important sign of autonomy between independent territories. The following historical case should make the point. Trying to avoid a conflict between the soldiers of Anushirwan and the king of the Turks, Anushirwan grumbled; "The men were on the point of destroying my camp; and thou rewardest me by throwing suspicion upon me!" The Turk swore that he knew no reason for the act, saying:

> Brother, thy troops and mine look with disfavour on the peace we made, because they have thereby lost the booty depending on razzias and wars that might be carried out between us. I fear they undertake things to corrupt our hearts after our mutual agreement of sincerity, so that we may once more have recourse to enmity after our new blood relationship and our friendship. I deem it wise, therefore, that thou allowest me to build a wall between thee and me with one gate through which none from us will go to you and from you to us, except the ones thou wishest and we wish.[33]

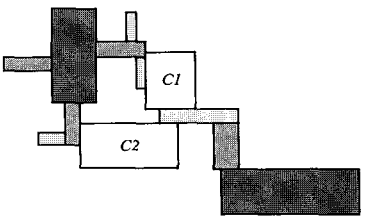

Diagram 8 7 Transformation of the territorial structure. Party C1 and C2 became members in two quarters.

This gate separated two territories of the same level; it was just like a door between two houses which is controlled from both sides and which both parties avoid. Most if not all gates, however, are con-

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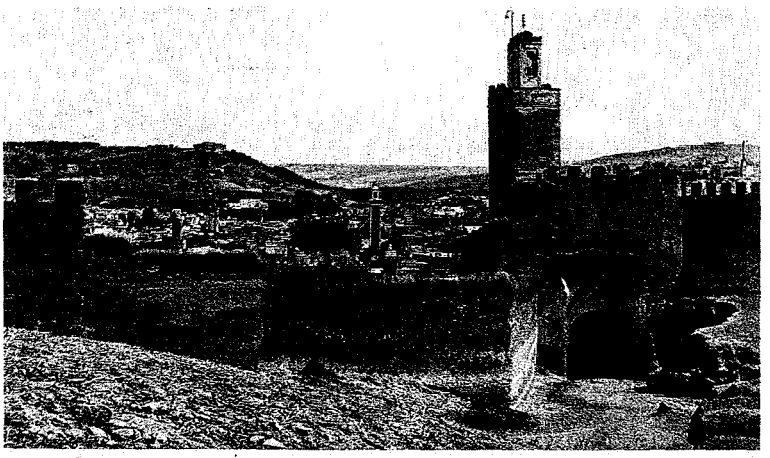

15 *FES. — Porte Bab-Guissa et la Ville* LL

City gates were so common that no Muslim town existed without them They were one of the well built elements in the town. 8 36, 8 37 & 8 38 are from Fez (8 36 is the gate of Bou-Jeloud, 8 37 is the gate of the Kasabah while 8 38 is Bab [gate] Guissa)

trolled from only one side. Examples are doors or gates of dwellings, dead-end streets, quarters and towns.[34] If gates prevailed in traditional environments, the authority could not penetrate beyond gates. Consequently, the maintenance of such spaces would have been the responsibility of nigh residing parties, not the society as a whole.

Some market gates still exist in the city of Tunis, while others can be located by identifying the traces that still remain. In residential areas, two types of gates were common: gates of quarters and gates of sub-quarters, such as dead-end streets. Intervention, logically, began with gates of quarters because they were external and responsibility was dispersed among a large number of residents. With dead-end streets, however, responsibility was more concentrated and owners objected. Thus gates of dead-end streets still exist, while gates of quarters can only be inferred from literature.

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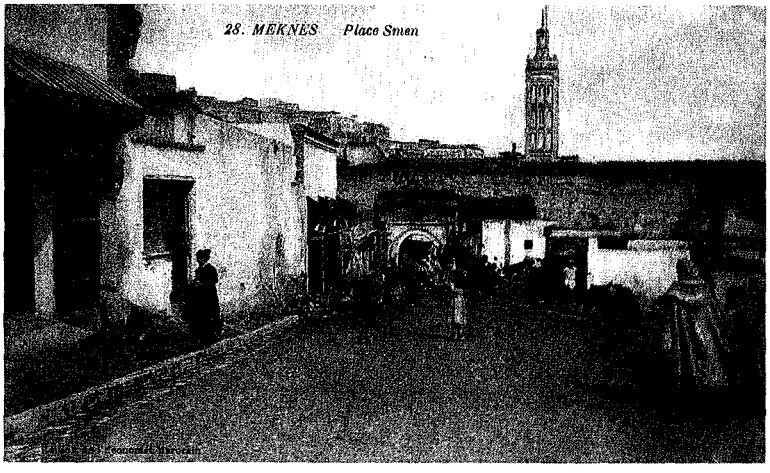
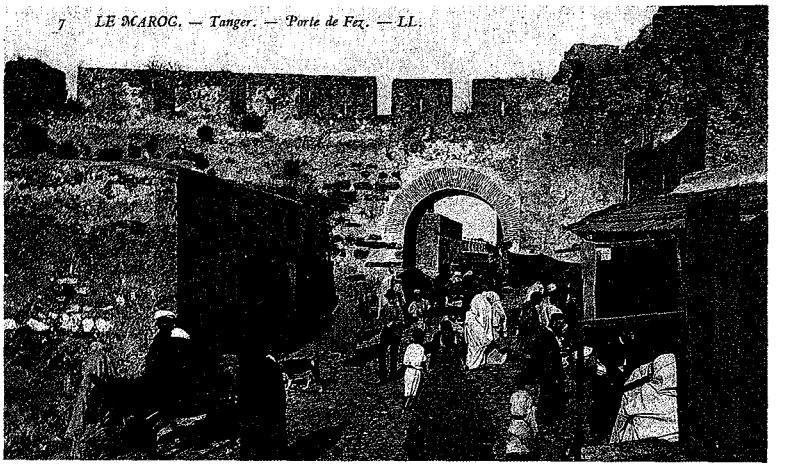
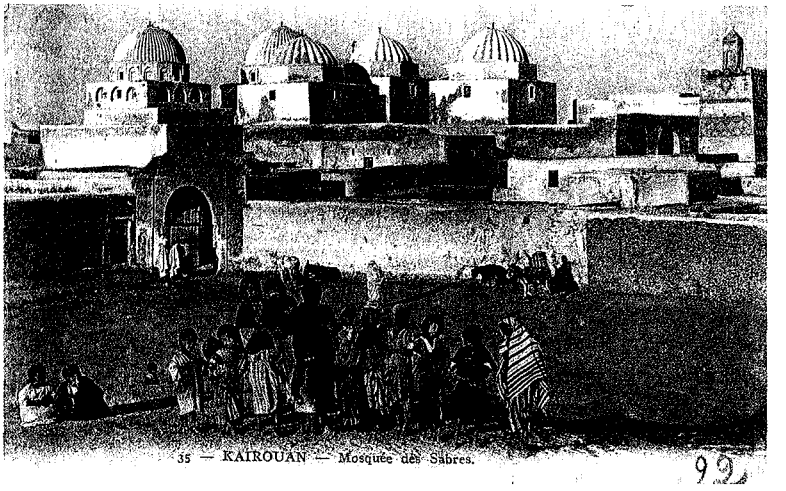


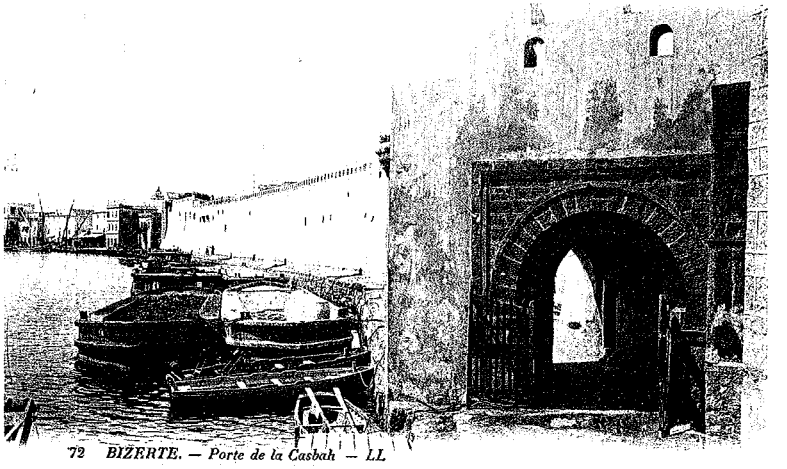
8 39, 8 40 & 8 41 Meknes, Morocco



8 42 *Fez*



8 43 *Kairouan.*



8 44 *Bizerte, Tunisia*

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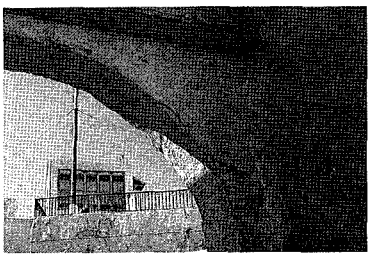

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8 45 Sidi Bu-Said 8 46 City of Tunis The most common trace of gate is the upper part of the wooden frame with holes on both sides.

8 47 & 8 48 Gates within markets in the city of Tunis

Gates were so common in the traditional environment that historians did not document them in detail unless they were unusual. Describing his visit to Isfahan in 444/1052, the traveller Nāṣiri Khaṣru states, "I saw the markets of money exchangers in which there were two hundred exchangers; and each market had a wall and a very strong gate."[35] Furthermore, the vocabulary of gates was refined, indicating both their importance and prevalence. 'Ibn Manẓūr defines "*darb*" as the gate of a dead-end street while "*daraba*" is the gate of a through street.[36]

Gates of quarters were usually erected by the residents,[37] occasionally at the request of the authorities. In 864/1459 there were so many thefts that a group of wealthy people built gates for the new quarters of Cairo. In 903/1497 the governor of Cairo ordered those who do not have gates in their quarters to build them, and the residents did so.[38] Unlike gates of dead-end streets, the gates of quarters were often built for security reasons, and although sometimes left open during the day, they were usually closed at night. In a festival in al-Fusṭāṭ in 302/941 where most of the population participated, the streets were exceptionally not closed during that night. Gates used to be closed after al-'ishā' prayer (usually two hours after sunset), and others were closed just after sunset. During troubled times, however, when thieves, civil war, or invasion threatened, gates were closed for defense purposes. During the civil war in Cairo (791/1389) the gates were guarded and armed. During the political instability in Cairo in 923/1517 the same thing happened.[39] Those gates often had watchmen or guards. Manuals of *hisbah* usually have sections elaborating

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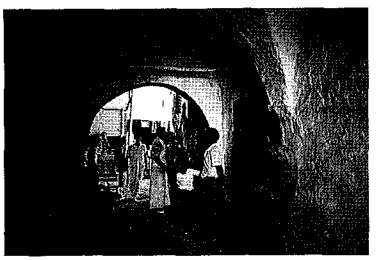

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8 49 & 8 50 Gates separating the residential quarters from the markets in the city of Tunis

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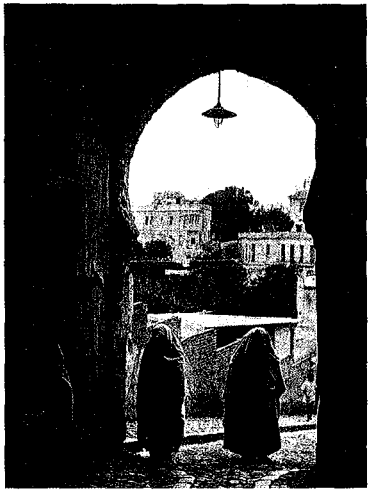

8 51 Tangei in 1889 A festival and the open gate

8 52 A gate from Casablanca looking out.

8 53 & 8 54 Tangei Possibly gates of quarters

the duties of the guard. For example, late arrivals could not enter unless they gave the password; the guard should not divulge the secrets of the residents, etc.[40]

The block of the city of Tunis that showed the territorial shift (Fig. 7.1, page 138) had eight dead-end streets with gates (Fig. 8.8). The inner part of dead-end street 3 was still very clean, while the outer part was filthy. I asked one resident about the maintenance of their dead-end street. She complained that before the gate was removed all the residents used to clean the areas in front of their entrances; now that the gate has been removed, the space is public and the municipality that is supposed to clean it is careless, as are the tenants of the dwellings in the front part. Her family and their adjacent neighbours have a system of washing their houses on different days; whoever washes his house also washes the back part of the

Figure 8 8 City of Tunis. Dead-end streets that were owned by users and marked by gates now become public spaces. Source: Association Sauvegarde de la Medina, Tunis, 1968.

dead-end street.[41] In this case, the sad state of the street resulted from careless residents. The owners of the inner houses could not compel them to keep the space clean because they have no power now that the space is no longer in the unified form of submission.

The existence of gates up to the beginning of the 20th century implies that most, if not all, spaces within the traditional environment were in the unified form of submission.[43] The dwellings, subquarters and quarters were controlled by the nigh residing parties. This indicates the minimum existence of spaces controlled by the central authority. From the Geniza documents Goitein, referring to al-Fusṭāṭ, concludes that "the documents do not contain a word for public square which can only mean that there was none."[44]

Intervention has eliminated gates in order to control the quarters. In Cairo in 1213/1798, French soldiers demolished some gates of

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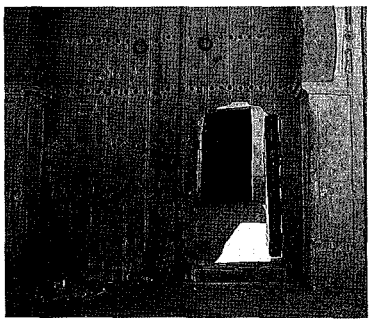

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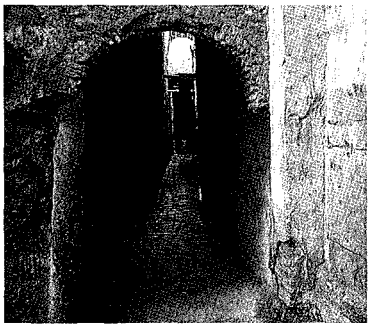

Dead-end streets 2, 3, 4 & 5 of Fig. 8 8 of Tunis still have traces of their gates 8 55 of dead-end street 1 still has its gate; it was not demolished, probably, because the street did not look like a dead-end street, but looks rather like the communal space between three houses. 8 56 is the inner side of dead-end street 3 8 57 is a view looking towards the entrance of the street. Dead-end street 4 is composed of two streets, one behind the other. The inner street is notably cleaner than the external one Photo 6 4, on page 109 taken from the middle of the outer street, shows the location of the gate, while 8 58 is the second entrance of house 9 8 59 is the location of the second gate. The same for dead-end street 5, also composed of two streets one behind the other. Although there is no wooden trace of the gate, the drawings of the Association for Preserving the Medina indicate the existence of the external gate. The internal dead-end street was shared by two dwellings; one of them is on the ground floor (house 31, Fig. 7 1 on page 138) and the other is on the upper floor (house 31A, Fig. 7 2 on page 139). The owner of the upper floor informed me that in the early 60's when the municipality of Tunis implemented a sewage system and placed a manhole in their space, their gate was demolished. Later, the owner of house 32, Fig. 8 8 opened a door to their space. He complained that they had lost their own space [42] 8 60 is the inner dead-end street (dead-end street 5 in Fig. 8 8) and showing the location of the demolished gate. The new door of house 32 is on the left

quarters and through streets. The residents of dead-end streets resisted the demolition. In the same year, more gates of the quarters and some gates of dead-end streets were demolished, and their wood was sold as firewood. In the early 19th century, all but a few of the remaining gates were removed by order of the authority, with the claim that the city was very safe.[45] When gates were removed, the spaces behind them were no longer private but became part of the public domain. This increased the percentage of public spaces in the built environment, thus increasing the responsibility of the authority.

Another sign of vanished autonomy is found in **names** given to elements in the urban environment. If the traditional environment was composed of territories in the unified form of submission that were marked by gates, then quarters, markets, squares, streets and dead-

end streets would be named after their occupants. Indeed, names in the traditional environment did indicate territories. All the names in al-Balādhuri's (d.279–892) documentary are territorial. He gives the name of the dead-end street, then the owner after which it was named, and does the same with all elements.[46] Al-Maqrīzi (d.845/1414), for example, says that *darb* (street or dead-end street) al-'Aswāni is named for (*yunsab*) the judge 'Abi Muḥammad al-'Aswāni, and so on.[47] Furthermore, the names were sometimes positional, such as the street of *mā bayn al-qaṣrayn* (what is in between the two palaces). Interestingly, these names survived for centuries even though their original founders died. Goitein, describing Cairo, concludes: "Our documents reveal the interesting facts that six hundred years after the Muslims' conquest, the main quarters were still being called by the names of those ancient Arab groups such as Banu Wā'il, Khawlān ..."[48] The names lasted even though the morphology of the space changed. Al-Maqrīzi, describing large open spaces (*riḥāb*), explains that even if such spaces are built up, the name of the open space remained in some cases.[49]

In contemporary environments, governments have intervened and changed the territorial names to a linear system of names. In 1262/1847 a decree changed the territorial names of Cairo by numbering and naming streets in order to make it easier for outsiders to find their way. Most, if not all, names are linear or named by the authority after famous individuals.[50]

To conclude, there were minimal public places within traditional environments. Responsibility was clear in all spaces and in the hands of the residents. The environment was ordered. Contemporary environments, by contrast, reflect the strong dominance of the authority over territories. All outside spaces are owned and controlled by the dominant central authority. All outside spaces are public, with wide streets, no gates, few dead-end streets. The high percentage of public spaces are all in the dispersed form of submission. It is an organised environment, but not necessarily an ordered one.

INITIATIVE OF RESPONSIBILITY

An innate tendency among humans is to take better care of one's own property than of the property of others. In traditional autonomous synthesis, the outsider party, the authority, did not take care of the spaces that it did not own and control, but rather distributed these tasks among the residents. Meanwhile, properties in the unified form of submission were cared for by their parties, and principles were developed to deal with shared responsibilities among large parties.

The **first** of these principles was that everyone participated in building and maintaining major public elements of benefit to the entire community. City walls are a good example. In 792/1390 the

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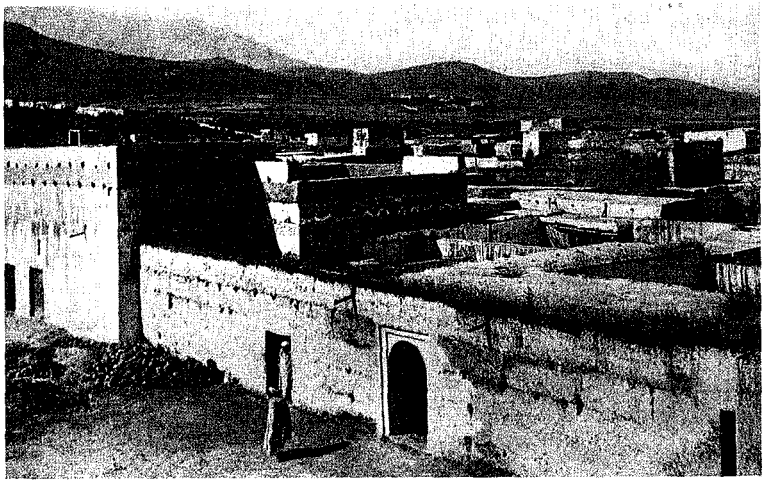

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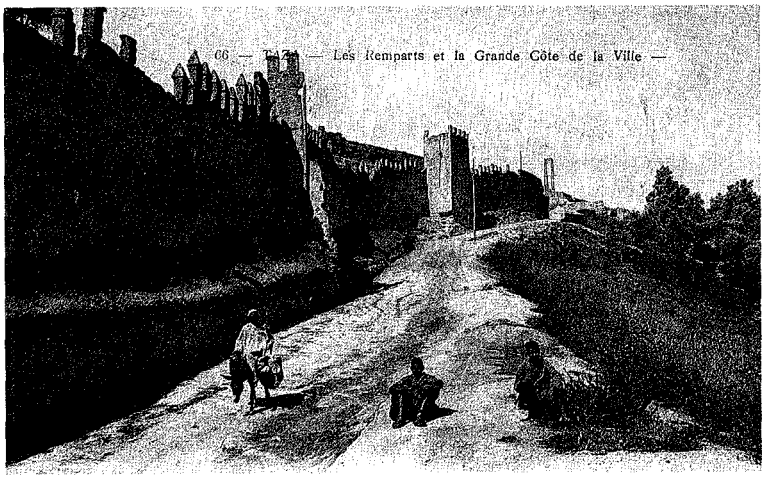

8 61 Bini-Mellal & 8 62 Taza. City walls whose maintenance is legally the responsibility of all the residents since they all benefit from it.

inhabitants of Aleppo participated — either voluntarily or under compulsion — in the reconstruction of the city wall. However, when al-'Abdūsi was asked who should pay for the renovation of the city wall of Fez, he answered that it should have priority over other renovations from *waqfs* of the city.[51] Al-Barzali from Tunis ruled that citizens should participate by paying for the renovations in proportion to their property values, while owners of dwellings that abut the city wall in such way that the city wall is part of the property wall should be compelled to renovate the abutting parts. If they could not, they must sell parts of their property and do the needed repairs.[52]

The **second** principle is that tasks for the general public's interest but not considered crucial, such as lighting the city and fire fighting, were distributed among concerned parties. Lapidus concludes that during the Mamluks' reign, "(i)nstead of distributing the tax on the

city as a whole, the people most directly concerned were held responsible."[53] In 383/993, each shopkeeper of Cairo was ordered to have ready a water bucket as a precaution against fire. Manuals of *hisbah* often ask shop owners to be ready for fires. To illuminate Cairo, al 'Azīz Billāh ordered that lantern should be hung out at night by the owners of shops and gates of quarters, dead-end streets and houses.[54] It was common practice for shop owners to sweep and water the spaces in front of their shops. The many disputes about overdoing it indicate the prevalence of this practice. For example, if the wetting were more than usual, the shopkeeper would be liable for any cattle that slip and fall.[55]

The **third** principle is that each party is responsible for the mess it creates. This attitude places parties in critical positions to act. For instance, although shopkeepers were not responsible for mud resulting from rain-water since they did not cause it, still if each shopkeeper swept the mud away from his shop and the mud accumulated in the centre of the market, then the shopkeepers were compelled to sweep up the collected mud. Al-Lakhmi (d.478/1085) was asked about the mud near waste water; he answered that each group of people should remove the mud in front of their space.[56]

In some cases authorities compelled residents to level or pave streets. The Sultan al-Ghūri in 909/1503 compelled the residents of Cairo to level their streets, and until the 19th century the authority of Cairo used to compel the residents to do the same.[57] Such an attitude is understandable since the authority as a party does not control or own the street. However, legally the authority does not have the right to force residents to solve a problem they did not cause. On this question, the judge 'Ibn Tālīd states that it is not the residents' responsibility to level streets if they refuse, but rather the responsibility of the public treasury. 'Ibn ar-Rāmi relates that there was a road outside Tunis which became impassable when it rained. He asked the judge 'Ibn 'Abd ar-Rafī' (d.733/1333) to compel the residents living beyond it to level five hand-spans of its width. The judge refused and asked him to bring him the owner of the majority of the lands involved. The judge then convinced the owner to do the levelling.[58]

The mess resulting from private properties is obviously the responsibility of owners and they should eliminate it. In Kairouan, washing water flowed from some houses to the street through small holes under doors. When informed about it, the judge of Kairouan proclaimed that whoever did not stop the flow of water would be punished. One of the house owners was flogged thirty lashes because his servant did not follow the order. In another case, a person objected that a ruined property abutting him which neighbours used as a dumping place was damaging his walls. It was ruled that it is the responsibility of the owner of the ruined property to remove the dump near his neighbour's wall. However, the owner of the ruined property had the right to compel the neighbours to clean his prop-

8 63 Marrakech The people are not compelled to level the street even if it is blocked by rain water since they did not cause the problem. It is the responsibility of the public treasury

erty. Such cleaning would be distributed among neighbours according to the number of inhabitants per dwelling.[59]

The **final** principle is that any element used by a specific group of people should be maintained by them. Differences between users were not about who should do the repairs, but how they should be done. For example, aṣ-Ṣā'igh was asked about a small dam that had been demolished. How should those who benefit from the dam share the cost of repairs? Should it be according to the property's area or value or the amount of benefit the properties gained from the dam?[60] A dead-end street is a good example of shared responsibility among nigh residing parties. Whether all parties agreed or some were compelled to agree, how should they share the responsibility if, say, they want to build a gate? In one case it was decided that the cost would be shared according to the resident's wealth, since the poor do not have valuables to guard from thieves. Another opinion was that the cost should be considered according to property, since an improvement in the space would increase the value of even poor peoples' property.[61] The parties in autonomous synthesis initiated responsibility, since this made the best of their properties, whether dwellings, dead-end streets or through streets.

Autonomous synthesis always produced the best possible result, given the constraints of the time and place. One may argue that the traditional open canals were unsanitary, but this was not a matter of responsibility, but rather of technology (photos 8.13 and 8.14). Those canals were the best that could be done at that time, given the residents' poverty and low technical ability. The population of the walled city of Lahore increased from 50,000 in 1850 to 449,000 in 1982 and the city of Fez from 81,000 in 1926 to 449,000 in 1982.[62] This growth adversely affected the traditional quarters. Obviously, if we judge an infrastructure built to accommodate 1/10 of its existing population, as in the case of Lahore, the judgement will not be positive. In the Muslim world cities were flooded with low-income

migrants. Authorities could not cope, and residents, who initiated improvements in the past, no longer had the power to control their environments. The result left the traditional quarters in a sad state. Professionals are using modern criteria to judge the situation and therefore draw a mistaken conclusion. They are confused.

The quality of the traditional environment was well controlled by the nigh residing parties. The infrastructure was in the unified form of submission, controlled by the residents who used. A newcomer would need such services, but in order to connect his property with existing infrastructure he had to get the **consent** of the residents who controlled. There were conventions giving users the power to disallow others to use their infrastructure, which ultimately controlled the population of the environment. To give one example: a new house may only be connected to the waste-water canal if the owner of the new house pays the owners of the canal his share of the cost. If the canal runs through any house, then he must also get the consent of that house owner. Obviously, the owners of the canal will not give permission unless their canal is capable of supporting a new house, because it is their responsibility to keep the canal in good working order. The convention regarding repair of the canal in Tunis was that the resident of the first house should repair what is in or in front of his house and participate with the resident of the second house in repairing the part in front of the second house. Both of them share the responsibility of helping the owner of the third house repair his section, and so on. Anyone who refused was compelled to cooperate. The responsibility of sweeping the canal was shared among the residents. 'Ibn ar-Rāmi gives a detailed answer to all the possible cases depending on the slope of the street, the direction of the flow of waste-water and the **number of inhabitants of each dwelling**, since a large family would produce more waste.[63]

Responsibility is dispersed in the heteronomous synthesis of our organised contemporary environments, and although it may seem to be doing well, compared with autonomous synthesis it costs our societies too much. To give one example, officials signed a five-year contract to clean a city of over half a million people for five years for more than US$350,000,000.[64] The city certainly needs its waste materials collected, but the role of the contracting company goes beyond that. They have to pick up what irresponsible people throw away. What created this irresponsibility is the plethora of public spaces that are not in the unified form of submission. Those who clean are often careless. Their main objective is to satisfy the contract, not to have clean space as is the aim of the responsible party. Consider by contrast the Zarqa refugee camp in Jordan where the residing ladies clean the street. Here the burden of cleaning has became a social event that costs the authority nothing.[65]

An outsider party does not always care about the fate of the residing party; it will find and implement the proper method for itself to

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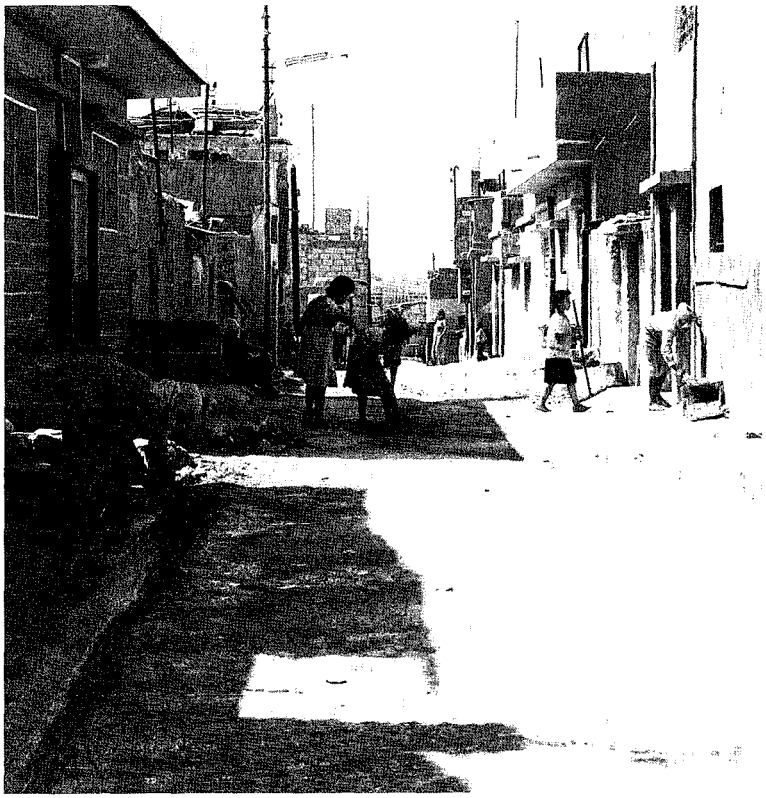

8 64 Zarqa refugee camp, Jordan. The collective street cleaning (Courtesy of A.K. Obeadat)

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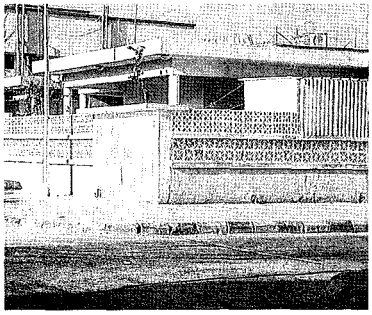

8 65 A fence in al-Khobar that was raised after the street level was raised only to be raised once more when the municipality repaved the street without removing the first layer

8 66 The reverse. levelling the street left some doors hanging in the air.

These are signs of conflict.

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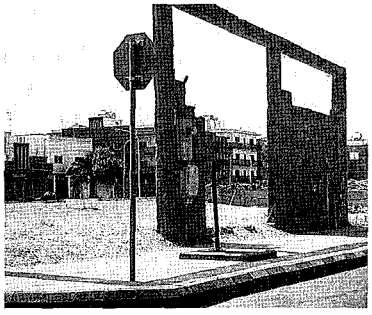

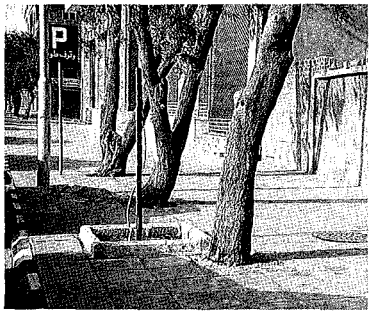

8 67 Site of a demolished building. The owners of the property did not dare touch the wall that supports the electric meter.

8 68 Al-Khobar When the municipality decided to pave the side-walks and plant them, it did not recognise the existing ones that were planted by the previous administration.

solve environmental problems which may create a physical "sign of conflict." For example, there are many cases of municipalities paving streets that resulted in a street level higher than the house entrances.[66] When the Jeddah municipality paved the traditional part of the city, it did so without first providing a sewerage system and made the street level so much higher than the houses that in some cases residents have to climb steps to reach street level. The residents blame the municipality, the municipality admonishes the construction company, the company reproves the engineers who rebukes the labourers. Responsibility is indeed dispersed. In the unified form of submission, however, a party has no one to blame except itself.

If the traditional principles of maintaining the environment were applied today, providing infrastructure would be the residents' responsibility, because they are the ones who need it. Its maintenance would also be their responsibility because they are the ones who cause the mess. Lighting and planting public streets and spaces would be the users' responsibility because it is a distributable task. Thus the authority's only responsibility would be taking care of things that are not crucial and that the residents did not cause, such as, for instance, levelling minor streets. This is assuming that streets are not in the unified form of submission; if they are, then the authority can advise or compel the residents to pave or level the streets but should not perform that task itself. Paving major streets for traffic and providing highways would be the residents responsibility since it is a necessity, just as the traditional city wall was. Everyone must share its cost or participate by labour. In this scenario infrastructure is in the unified form of submission.

How much will this system save the society financially, and where will the users get the money from to carry those responsibilities? Government income comes from the peoples' hands and land; placing both the cost and the responsibility back in the peoples' hands would call for a rethinking of the distribution of the society's wealth. Such redistribution would probably not work today, not because it is impracticable, but rather because of the mentality of those judging the system. Assigning others to do things without control and ownership will fail. Asking people to clean or level a street without giving control and ownership is like asking someone to clean someone else's house. People will only take care of streets that they control and own. But authorities today will never accept this position because today's users are neither aware of the built environment's problems nor do they have the financial capability to deal with them. Their wealth is not in their own hands. Intervention that isolated users and took away their responsibility developed ignorant powerless individuals. Traditionally, users were informed and were aware because they shouldered responsibility.

Infrastructures in contemporary Muslim environments are in the dispersed form of submission and are controlled by governmental

agencies. The network of infrastructure is not territorial, but linear. It is ironic that pipes for water and sewage run parallel, often in two different trenches, yet are controlled by different parties simply because they are viewed as two different disciplines requiring two different skills! Each party has its own interests; each wants more employees and funds. When an agency does its job, it finds the simplest, cheapest and most durable solution, not necessarily the best solution for the user. For example, when water flow-meters were installed in al-Khobar, to save labour two meters for two properties were installed simultaneously because the water connections of the two properties were initially adjacent to each other. Thus the meters were adjacent, regardless of the location of wet cells (bathrooms and kitchens) within the properties. As a result, users have to make long connections. The party controlling the water mains in the city has saved a few hours of labour, but the users have to pay for and maintain longer pipes forever.

If they are given the chance, users will find ways to solve their immediate problems. For example, the residents of some communities have to wait months for the authority to connect them to the water network. The authority distrusts the residents' ability to make their own connection. One may ask, however, who will try to get a better connection and avoid future problems, the resident or the authority's employee? The resident may hire others to do the connection, but he will make sure that it is done well. Some residents went ahead and made the connections themselves. Fearing that the infrastructure would be overloaded, the authority proclaimed that whoever does so will have his water disconnected for two months and be fined.[67] But the remote party cannot guard the infrastructure like the nigh residing party can. God knows how many properties, through corruption, have been connected without flow-meters.

Centralisation was introduced to Muslim and Third World countries along with new technology. Unfortunately, this new technology

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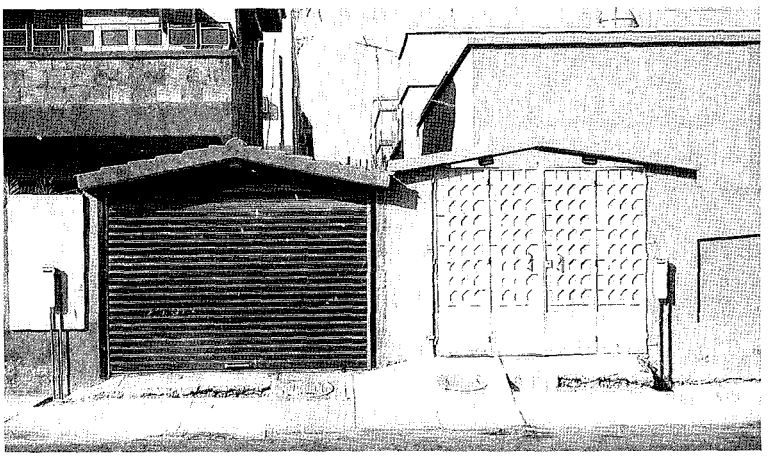
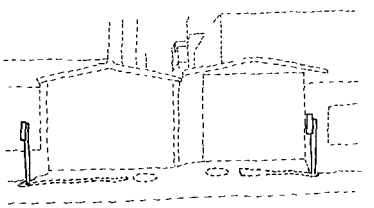
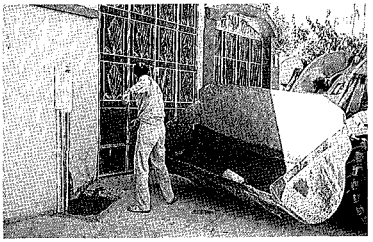
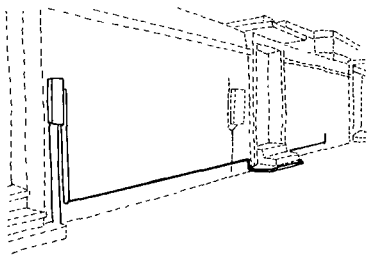




8 69 *Sample of adjacent flow meters*



8 70 Workmen installing the flow meters simultaneously for two properties. Note that the water connections are adjacent to each other and at the threshold of the entrance Digging the hole, installing the meters and applying concrete (as in 8 71) to cover the connection hole are all mass-produced To apply concrete, a tractor is loaded with concrete and passed through the holes one by one Note that the tractor is being driven on the side-walk The water agency's employee's interest is in the connection of flow-meters, not the condition of the side-walk Most water connections made by controllers are inside properties, few are from the outside (8 72)



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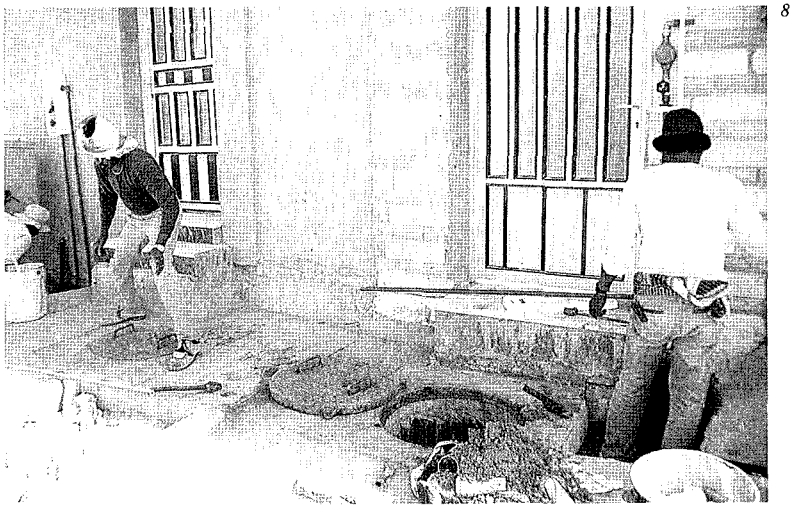

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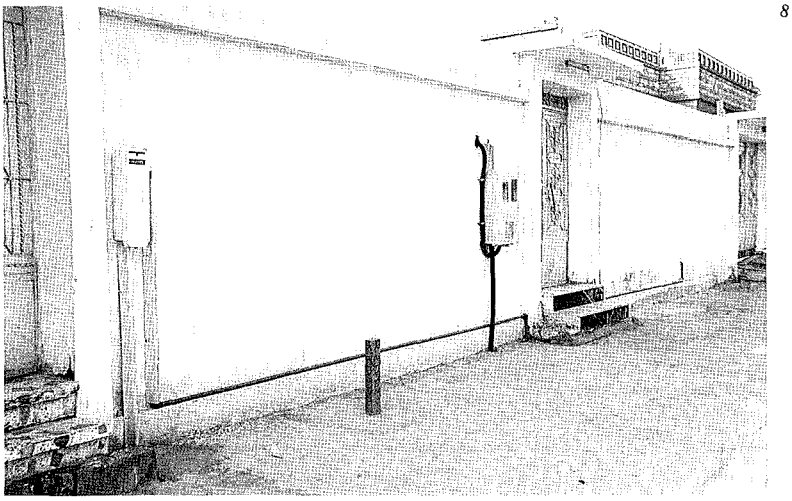

was not tested under the principles of traditional autonomous synthesis. Had it been so tested, principles could have been developed to place infrastructure in the unified form of submission. Consider, for instance, a sewerage system in the unified form of submission. All connections inside a property are the owner's responsibility, while the collector pipe in the street, the manhole etc., are the responsibility of all the residents sharing it. They have to coordinate their pipe's connection with other larger pipe-collector owners, and so on. Because users are responsible, this may lead to the development of, for example, gadgets to control or count the maximum amount of waste and its type per dwelling, dead-end street and/or community. For example, in order not to damage their sewerage, people will be careful not to throw grease down kitchen sinks. Assuming that such pipes are within properties in autonomous

synthesis, the boundaries between territories of the unified form of submission (location of gates) will have the potential of being the points of connections, manholes, gadgets, etc. Any new addition of floors by a property owner will be challenged by neighbours, since this could overload their shared sewerage system. In other words, the unified form of submission, unlike remote party control, guarantees that the system will be constantly guarded.

Placing infrastructure in the unified form of submission may not, as one might conclude, lead to the development of one trench containing all services. In a town in Northern Ireland, services were put in one trench with different levels to serve housing complex. The gas main leaked into a drain, accumulated there and caught fire in a house, with consequent loss of life.[68] The reason for this failure is that this trench was in the dispersed form of submission. According to the submission model, the trench was shared by many agencies to provide services such as gas, water, sewage and electricity. The trench was just like a room full of furniture with each piece controlled by an independent party. It is better to have many trenches in the unified form with each trench made for a network, rather than having them all in one trench. However, if one party controls the infrastructure, i.e. all networks, then the one trench will function safely. Placing the one trench in the unified form of submission means that all pipes and wires will be controlled by the same party. This party will learn that gas is dangerous and may leak, and will separate it, keeping water, sewage and drainage in one trench. We all know about blackouts caused by irresponsible drilling. When the nigh party maintains one network, it will not ignore other networks.

The above scenario has been created by accepting the contemporary situation in most Muslim states in which waste of a city has to be collected for treatment. Why does the waste from one house have to tour the city from one pipe to another in order to be processed or treated somewhere else? Placing infrastructure in the unified form of submission will result in a different organisation of industries. A nigh residing party may decide to treat its waste on site rather than paying for its journey through the city's pipes. A group of neighbours may decide to generate electricity and handle waste disposal in their quarter, thus leading to the development of all kinds and sizes of waste disposal apparatus, such as digesters.

The accepted notion that the authority is responsible for such services as waste disposal has resulted in centralising them. Waste has to be disposed of massively, and consequently technology is directed to such goal. But for Third World countries, is it wise to dispose of waste materials in this way? The cost of importing, installing and maintaining sewers differs from one town to another and may not always be economical. And even if installing sewers is affordable, they will not be economical in the long run just because they are in a dispersed state. Users who do not own or control the system will

overproduce waste, causing problems that require constant maintenance.

If the above argument is not convincing, let us assume that the sewage of the city has to be collected in one place, and residents have neither the necessary skills nor the time to do it. Small companies or industries will develop to build and maintain the necessary infrastructures if the residents, not the authority, have responsibility. A group of neighbours will hire a company to build their infrastructure. They will try to get the best quality for the lowest cost, and they will supervise their infrastructure's implementation as they do with their own houses. They may ask companies to install most services in one trench to save labour. This will push industries to develop the technology needed to accomplish such goals. Prospective residents will try to build within infrastructured areas, spreading the cost among more users. Thus, the system will generate a compact built environment which is economical to the society.

A glance at an aerial photograph of most contemporary cities in the Muslim world will reveal vast, unutilised often infrastructured areas. A switch to the unified form would dramatically reduce such waste. Furthermore, investment in infrastructure is not well utilised. In some states, telephones inside properties are rented by users, owned by the government and controlled by agencies — dispersed form of submission. There is a chronic shortage of telephone lines, but powerful property owners somehow manage to install many telephone lines, thus taking away lines from future unbuilt neighbouring properties. If those lines were in the unified form of submission, the powerful owner would not be able to make his transformation unless he provided new lines; he either pays to provide the lines or lives with his property's share through devices that allow him to utilise what he has.

Because the infrastructure system is linear and not territorial, the built environment is full of signs of conflict between different government agencies. The side-walk that is supposed to be for pedestrian use is now filled with traffic signs, fire hydrants, telephone booths, electricity poles, transformers, manholes, etc. (See photos 8.73 and 8.74) These elements would be more organised if they were controlled by the nigh residing party. In poor countries there is no reason to have electric poles and lighting columns on streets bordered by buildings other than the distrust of the nigh residing party by a remote party that controls. Wires and street lamps could much more economically be installed on walls of buildings. This possibility would push the industry to develop the needed technology, saving the society's wealth.

One may argue that the existing shortage of infrastructure is caused by the unexpected growth of population; but technical advancement and availability of materials nowadays by far outstrips population growth. The Egyptian pyramid that took decades and

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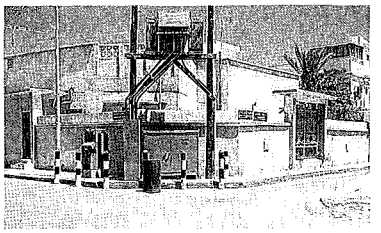

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more than 100,000 labourers to build might take a few months and a few men using today's technology. Infrastructure is the most technical part of the urban environment, requiring the most co-operation among nigh residing parties. I have selected it to make the point that placing elements in the unified form of submission in contemporary environments can be done. If infrastructures are manageable, other elements are, too.

The crisis of the modern environment should not be blamed on growth of population and shortage of resources. They are simply the result of placing elements in the dispersed form of submission. This crisis will never be resolved until the form of submission and the pattern of responsibility is changed.

Abolishing traditional principles of ownership and revivification created land speculation. Land that once had no value is now the first obstacle to building a house. Because land now has value, large land owners subdivide their property, increasing population density. Assume for a moment that land, in and of itself, has no value, that its value depends on materials invested in it, such as buildings and crops. It makes no sense to destroy the materials invested in the site in order to sell the land. If the land has no intrinsic value, no one would buy undeveloped land unless it were strategically located for a specific function, such as commerce.[69] For houses, people will revive dead lands, not buy them. Cities would spread horizontally rather than become overcrowded. And if the responsibility for providing infrastructure rested with the nigh residing parties, the spread of cities would not tax the existing infrastructure.

If our objective as professionals and decision-makers is to provide decent housing for all people, then people should have the area needed for building. Growth of population, within the nonsensical existing policy of centralisation, has to mean larger cities unless we overcrowd people. Horizontal growth, on the other hand, will devalue lands of strategic location and free them for other purposes. When infrastructure is controlled by a remote party, people will connect to it by any means, thus overloading it. The problem will never be solved until infrastructure is placed in the unified form of submission and land speculation is abolished. This argument is difficult to accept because our evaluations and judgements are rooted in the premise that land has intrinsic value. But this was not the case until revivification was abolished. How many palm trees needing years to grow, and how many historic buildings were destroyed by owners in order to subdivide land that suddenly had value?.[70]

What is good for educated individuals is often misused by the uneducated. It is not only a matter of different values and norms. We have all heard of high-quality projects misused by occupants. The lavish furniture of army housing units in a wealthy Gulf state were moved to roof terraces only to be ruined by the harsh climate. Why, then do governments provide people with buildings beyond

8 75 A rich man's house in the old city of Tunis now occupied by poor people Note the use of the courtyard

their living and educational standards? Education, not housing projects, is the best investment for a society's wealth. E.F. Schumacher emphatically makes the point that through education, organisation and discipline a society can overcome poverty, not through immaterials such as a lack of natural resources, capital or infrastructure.[71] Why provide high-quality environments for the poor or uneducated if they will only be misused? If instead we educate the members of the nigh residing parties, they will realise that their environment is unhealthy and will improve it themselves. The quickest way to improve the quality of the entire physical environment is education. Without it, the situation will remain unchanged. Only a small fraction of the built environment's quality can be raised by the authority. Growth of urban population as a result of centralised policy by governments is outstripping efforts to improve the situation. But if urban elements, including infrastructure, are in the unified form of submission, and if the society's investment is in education, then the quality of the built environment at all levels will improve as the society improves.

POTENTIAL OF THE PHYSICAL ENVIRONMENT

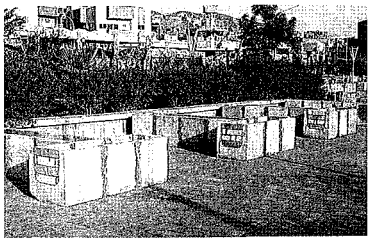
Concerning the potential of the built environment S. Anderson states, "the physical environment is an arena for potential actions and interpretations. This 'potential environment' is reinterpreted by each user, thus yielding his or her subjective environment — the environment that is effective (or influential) for that person."[72] Property in the unified form of submission can better accommodate individuals' changing needs than other kinds of properties. Being free to change their physical environment, the users realise its potentials and do exploit it, thus resulting in endless subjective environments. An unexpected result of centralised control in the

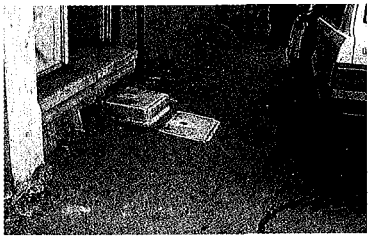
built environment, however, is its limited ability to accommodate users' diverse needs, leading to an environment whose potential remains largely unrealised.

The principles applied in traditional environments — such as the principle of leasing, the principle of damage that allows parties to act and be judged if the damage is felt by neighbours, the principle of damaging precedence, etc. — all contributed to the imaginative exploitation of the physical environment by users. The potential of the physical environment, what it can support, accommodate and tolerate, depends on the degree of responsibility enjoyed by the direct user.

To return to the example of party walls, non-interference by authorities in traditional environments resulted in the acceptance of single party walls as a convention. Since it is economical to build using others' single party walls, especially if a parcel of land is surrounded by neighbours on three sides, the convention stimulated controlling parties to build. Abutted buildings with single party walls between territories have the physical potential to accommodate users' changing needs. Territorial shifts over time, for example, do not require mass demolition or rebuilding, but often building or demolishing only a single wall, or opening or sealing a door. The potential of the environment, coupled with the freedom of parties, allowed parties to inflect their environments and discover new uses. Goitein concludes that almost any function can be found in any quarter of al-Fusṭāṭ. For example, a street of cobblers could inhabit shops of perfumers. A physician could have a sugar factory in his house.[73] The historian al-Maqrīzi's (d.845/1441), describing Cairo's past, ended up devoting a large portion of his book to physical and functional changes. In describing the quarters that are called *khiṭaṭ*, he states that the quarter of *khān* al-Warrāqah (the caravanserai of the stationers) now accommodates a mill and some houses. He describes many houses that have been transformed into schools and monasteries. He gives the location of large houses that divided into smaller ones or vice versa. He states, for example, that the area known as as-Sudūs "used to be many dwellings and now they have all become one house." Describing one market that has dwellings in the upper floors he states that "for a while such a place used to be a market for selling books and then it became tanneries."[74]

Managing physical change in traditional environments through conflicts between parties is rewarding to observe. An *'Imām* (leader in prayer) changed a small sector of a mosque into a room for educating children. He opened it to the street and at the same time created a door to the mosque. Some individuals objected that the *'Imām* was using a part of the mosque, while charging people to educate their children. He should lease a shop or transform a room in his house for this. The judge answered that the *'Imām* should retransform that sector to join the mosque again.[75] To grasp this





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8 76 Concrete seats in Mecca transformed into flower-boxes and used to form small seating places.
8 77 A needy person in Riyadh uses discarded washing basins as steps.
8 78 An old refrigerator is used as an electrician's tool cabinet These are perhaps extreme cases from well-to-do countries, but they illustrate the infinite potential of the user's imagination The situation in poor states is more interesting

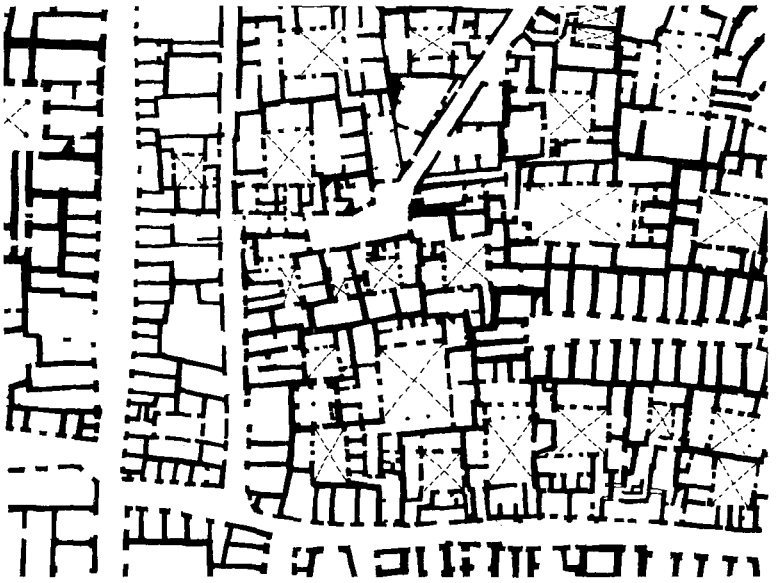


Figure 8 9 City of Tunis. Series of similar connected built spaces around open spaces to form different buildings. Source: Association Sauvegarde de la Medina, Tunis, 1968

theme, it all takes a visit to a traditional quarter to observe numerous crafts such as blacksmiths, dyers, carpenters and shopkeepers living side by side with or within houses.

If we examine a portion of the traditional compact fabric, we see a series of connected built spaces surrounding an open space. The dimensions of the built spaces are quite similar, with two, three or, at most, four different-sized spaces repeating themselves and joining to form small or large buildings as *madrasas* and *khāns* or even continuous fabrics such as markets (see Fig. 8.9). The same organisation of space accommodated a variety of functions and sizes. These spaces, depending on their shapes and locations, have well-established names that denote their accepted position in the building — such as attic and basement. *Al-murabba'ah* is a living room that is always square in shape and has a specific position in the traditional courtyard house of the al-Hasa region of Saudi Arabia. *Al-līwān, al-kindiyyah, al-'isealah* and *'as-sijm* are all positional names of rooms in the same region. *Jila, dahlīz, ṣuffah, hiwā, ṭārmah, ursi,* and *nīm* are samples of names of specific spatial patterns in different regions.

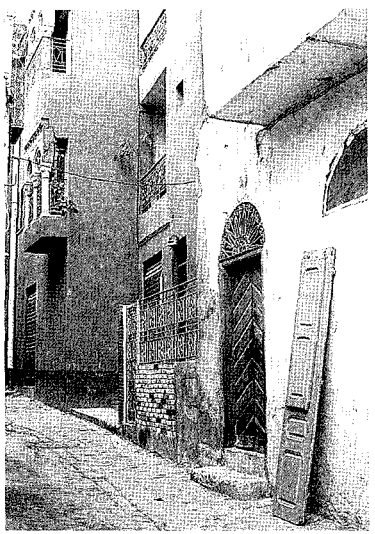
How did this similarity occur? Did people realise that a series of two or three spaces of similar size repeating themselves in a specific way would allow them to generate a variety of physical organisations with minimum effort? Or were there other constraints that generated similarly-sized spaces, technical constraints such as the length of wooden beams or the high cost of long spans? Either way, the subtle interaction between the people and their available resources resulted in a structure that did accommodate their needs. Perhaps available technology limited the dimensions of the rooms, which in turn

influenced peoples' use of spaces. Alternatively, it may have been that the customs of the people demanded certain sizes and layouts of rooms; then both the rooms and the technology had to serve this need. One may even argue that the evolution of the traditional physical environment was the outcome of a circular mechanism of cause and effect, with each constraint influencing the others. The experience of generations established the size and organisation of spaces needed for an adaptable built environment.

Properties that are not within the unified form of submission are less able to accommodate change, not because the physical environment cannot tolerate the change, but rather because the residing party is not allowed to make it. This was also true in the traditional environment. The neighbour of a *waqf*-house bequeathed part of his house to that *waqf* before he died. A *waqf* house is not in the unified form of submission. 'Abū 'Ibrahīm al-'Andalusi was asked whether the trustee of the *waqf* would be allowed to use the bequeathed part to enlarge the *waqf* house. He answered that the trustee should try to avoid any physical change even if it was a handful of sand.[76] In this case the controlling party's freedom was limited and this affected his ability to exploit the property. The same is true in our contemporary heteronomous synthesis, which is full of regulations designating areas as residential, commercial and industrial zones. Even traditional quarters were regulated in order to conserve them. In Tunis a user was reluctant to allow me to photograph his upper floor. He is a wholesale merchant and stores and exhibits shoes in that space — illegally, according to the municipal regulations.[77]

Although conservation has many noble goals, it ultimately leads to regulation of others' property, with results that are often the reverse of the intention: owners might lose interest in their properties because they are regulated; they either move out, sell them or lease them, pushing the property to the dispersed or permissive form of submission.

In contrast to the contemporary physical forms, traditional physical forms were simple in all aspects. Most architects create complex buildings by taking advantage of new technology and building materials. They do so not because of their genius, but rather because it is easier. The simplicity and perfection of traditional buildings demands a certain flair of real understanding that is beyond most architects' experience. The weight of experience of the whole society lies behind the traditional buildings. This raises the issue of the relationship between building technology and the physical environment. Does technological progress imply and justify the so-called "architectural movements" in the Muslim world, or is technology there to serve human needs? In Third World countries the avant-garde movements seem more attractive to architects than the real needs of societies. Do Louis Khan's National Assembly at Dhaka and the economy of one of the world's poorest countries meet at some point



8 79 A house owner in Tunis who rebuilt his property by using contemporary materials before the act of preservation was passed

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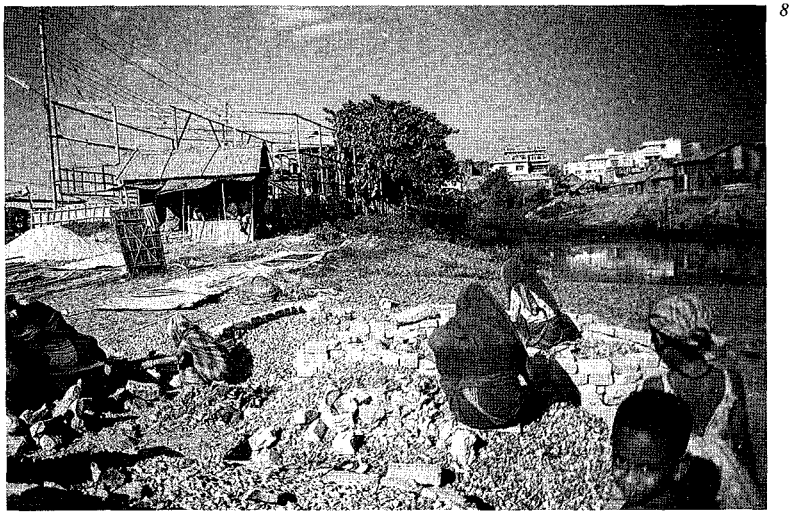


8 80 & 8 81 Dhaka One shows the National Assembly building in which most materials were imported while the other shows a scene where old women are laboriously breaking up bricks to be used as aggregate in concrete. Do they meet?

of rationality? It is a dilemma of the professional ethic. When a designer gets a job, it is his golden opportunity to impress the world. So far, the majority of professionals that are trusted by their societies do not seem to know where they are headed. They run after movements. A movement appears and a generation of architects adopts it, only to be fed-up after a while and ready to swallow another movement. Technology is misused.

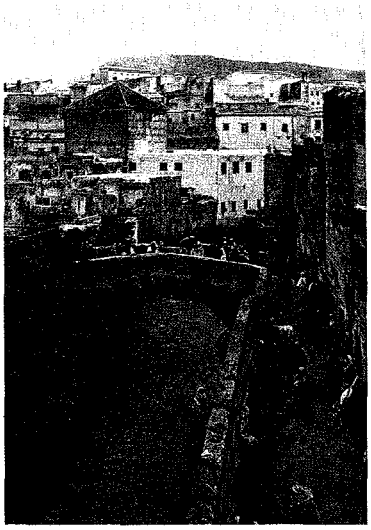
The extraordinary similarity of traditional Muslim buildings within the same region results from two factors. The first is industralisation. Building materials were small and mass produced and could be assembled in endless combinations. More importantly they were easily handled. The second factor was the freedom with which building materials were assembled on site. As explained earlier, it was the

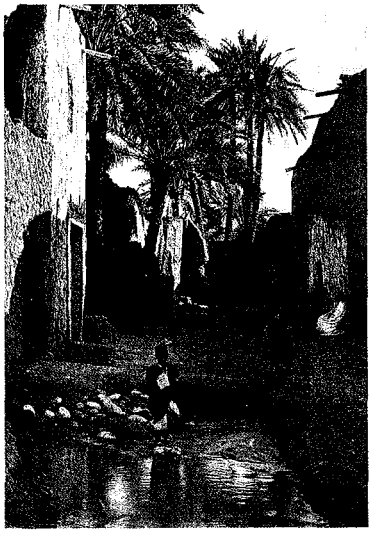
role of the *muḥtasib* to control industry to protect users from fraudulent manufacturers and builders. The manuals of *hisbah* are full of regulations and codes regarding the control of the building industry and materials. However, the way those building materials were assembled on the site to form buildings was left totally to the residing party's desires and discretion. The residing party tended to follow convention, not because he was required to, but because it worked.

The attitude of authorities in Muslim cities today is the opposite. More emphasis is placed on design than on building materials and other specifications, taking the freedom to follow convention out of the hands of the user.[78] The results have not been satisfactory. For a better contemporary environment, building technology must be directed towards the production of smaller components that are easy for the mass of users — who should control — to handle. The smaller the building components are within the hands of the parties' of the autonomous synthesis, the better the environment will be. When small-scale decision-makers, i.e., users, are given control, the outcome is a lively "variety within unity", apparently unachievable through centralised decision-making, which produces a uniform monotonous environment even when small-scale components are used. All the modalities of this issue are still open to discussion, but history teaches us a lesson. User control, it seems, is the path towards that unreachable, perfect simplicity.

Another painful change that resulted from outsider intervention has to do with choice of materials and application of auxiliary elements. In traditional ordered environments, the best materials and facilities were found in private properties under the unified form. Examples include paved planted courtyards with well-maintained dwellings, and facades decorated with wooden screens. All elements were under the control of the nigh parties. Comparing the inside of these properties with the unpaved, unplanted and unlit streets outside (see photos), clearly illustrates that the wealth of the society was invested in the private spaces where people spent most of their time. Contemporary organised environments, on the other hand, reflect the dominance of centralised authority. Most physical elements are under the control of the central party: streets and side-walks are paved and well lit; they are lined with trees and have seats and fountains. The use of the wealth of the society shifted when responsibility shifted; it is now thrown into the least occupied spaces.

What are the psychological affects of the autonomous synthesis on the Third World societies? For most people today, owning a property is a life-time goal that affects all their future plans and attitudes — for example, they can be easily corrupted to get the needed capital. Autonomous synthesis gave us environments with the maximum number of owners.





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8 82 Fez, Morocco & 8 83 Baskra, Algeria Examples to societies' investment in private places Compare the condition of streets and people with private buildings

TWO CASE STUDIES

Life in the past was simple and quite slow, allowing the traditional principles of autonomous synthesis to function. Nowadays, professionals argue that the complexity and sophistication of life forces the shift of responsibility to a central party. I maintain, however, that advances in technology should generate simple techniques helpful to the mass of users. Infrastructure was selected to illustrate the possibility of placing elements back in the unified form of submission. How do such recent developments as speed of building, the mobility of society and new building materials affect the situation? The following cases shed some light on these questions.

In Taif, Saudi Arabia, a quarter was developed, within five years, using contemporary building materials and techniques. The residents are quite mobile. Some live there only in the summer, others move away in the summer and rent their buildings out, yet the shared interest in the quarter has brought parties together. The interesting fact about this quarter is that, beyond approving the original layout of the parcels, the municipality could not implement building regulations, and thus owners had full freedom of implementation. The morphology of the area was determined by the residing nigh parties within the constraints of the original layout. Traditional principles such as damaging acts, damaging precedents and right of precedence were not enforced because they were not recognised by the municipality in cases of disputes between parties. Yet, to the extent that the relationships between parties of different properties were not ordered by the physical environment as constraints, the morphology of the area evolved through agreements among parties and therefore resembled the traditional environment. For example, the nigh residing parties created through streets, dead-end streets and an overpass. Single party walls were common elements, and some dwellings were of the courtyard type.

In the early 1960's, title to a large piece of land was obtained from the government and sold to another party. In order to get maximum area of land to be sold, the new owner subdivided the land into three large blocks, 180 × 40 metres (Figure 8.10). Thus land that was supposed to be revivified was sold, reducing the residents' financial capability for building. Each block was divided into 18 parcels of 20 × 20 metres and, in some cases, was further subdivided into smaller plots of 10 × 10 metres, resulting in inner parcels without access. This led to the development of dead-end streets, owned by residents and often marked by gates. Notably, those dead-end streets used by owners are in better condition than those used by lessees.[79]

Because the long blocks do not allow easy movement from one street to another, the community convinced some owners to develop a two-metre-wide street within the blocks. Each owner was asked to give up one metre of his property (street G, photo 8.89). The community decided to have another street (street H) through the adjacent

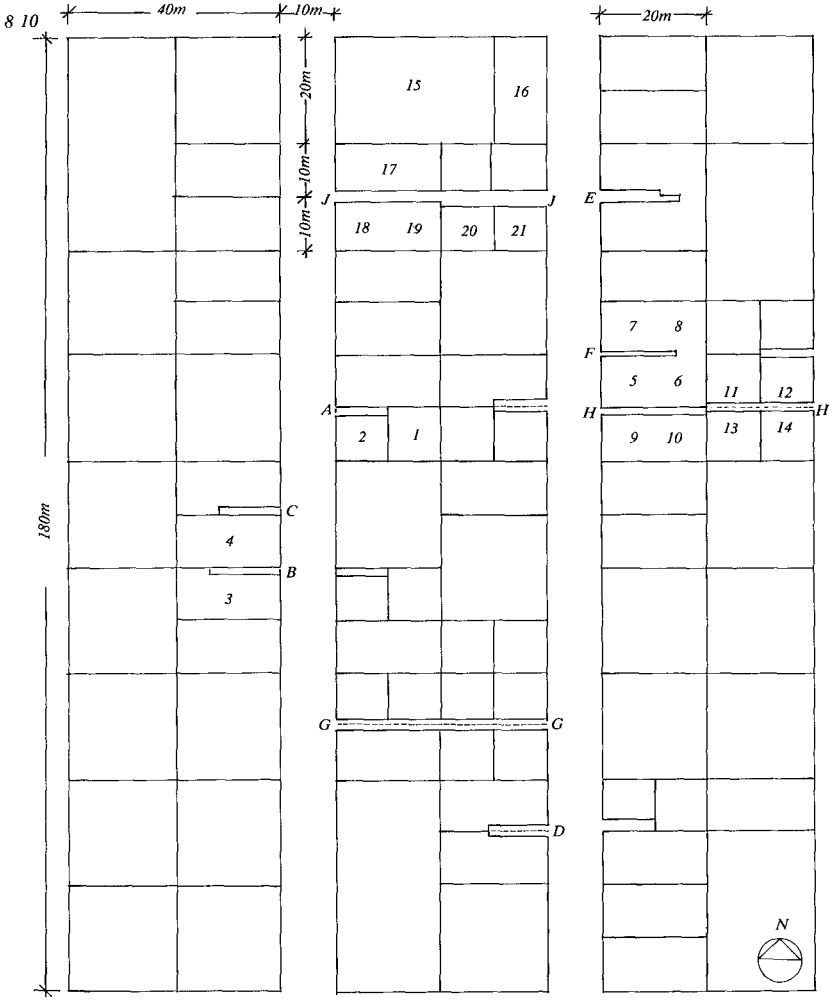


Figure 8 10 Taif. Layout of three blocks showing the locations of studied streets (Survey by the author, 1982)

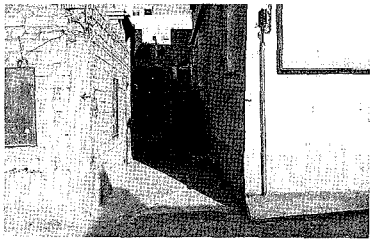
block since it would shorten the distance to a nearby large mosque. The owners of properties 11, 12, 13 & 14 each gave one metre of land to create a street so that, if the residents on the western side of the block did the same, there could be a through street. The owner of parcels 9 and 10 was generous and left 1½ metre to make a wider street, but the owner of the four parcels 5, 6, 7 and 8 did not leave the agreed-upon setback. His reason for not complying was that he already lost part of his property to create a dead-end street (F) to serve his parcels (6 & 8). His refusal created tension between the two neighbours. When the owner who did not give up a setback built an apartment building on parcel 6 and later opened a door to the narrow street, the neighbour who did give a setback objected, since the neighbour was using a street he did not contribute to. A dispute developed and the community intervened to try and solve the conflict. They failed, and the owner of properties 9 & 10 built a wall on his own property, thus

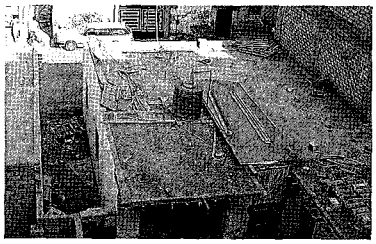
8 84 Dead-end street E & 8 85 Dead-end street D. Compare the condition of dead-end street D with E which is tiled and well maintained. Dead-end street D was created through agreements by the owners of the two abutting parcels that were originally one (20 × 20 metres.). The residents leased the property and do not use the space, because it was developed to be used by the future residents of the inner half of the parcels. Gradually the space became a dumping place since the abutting properties were leased

8 86 The gate of dead-end street A that is shared by two houses House 1 owns, uses and controls the space while house 2 has the right of servitude but rarely uses it. The two parcels were owned by one owner who sold the inner parcel and the dead-end space on the condition that he would have the right of servitude

Dead-end streets B & C are exclusively private and were developed by the owners for future sale or lease of the inner parcels. They thus have the potential to be shared dead-end streets in the future. House 3 is occupied by a person who did not build a second party wall along the dead-end space, but rather plastered the wall of house 4.

8 87 A dead-end street used by a large party in which some members do not own the space. 8 88 A space used by the owners. The condition of the two spaces reflects the degree of responsibility enjoyed by the users





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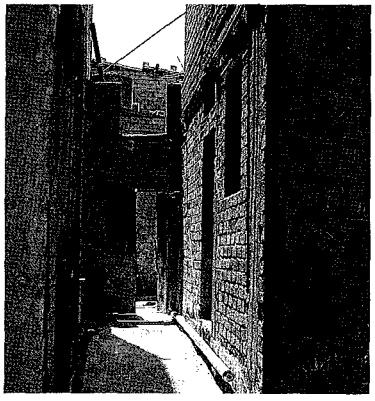

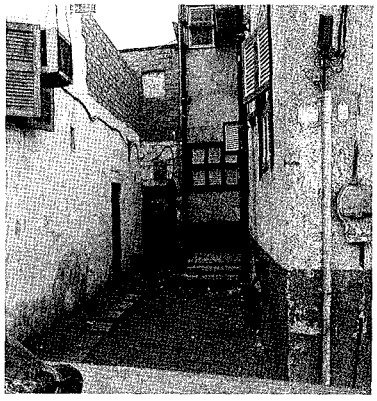

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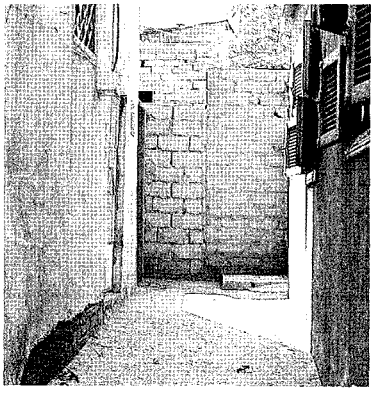

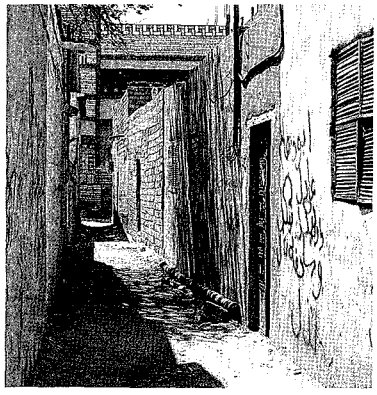

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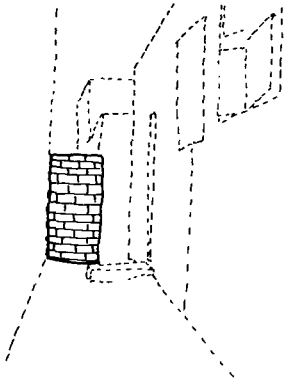

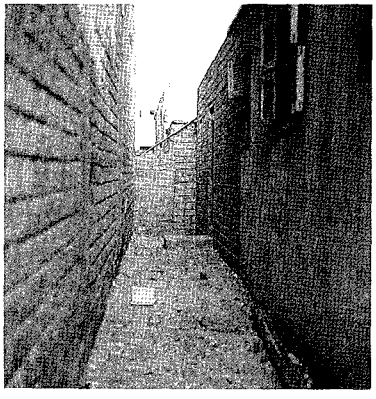

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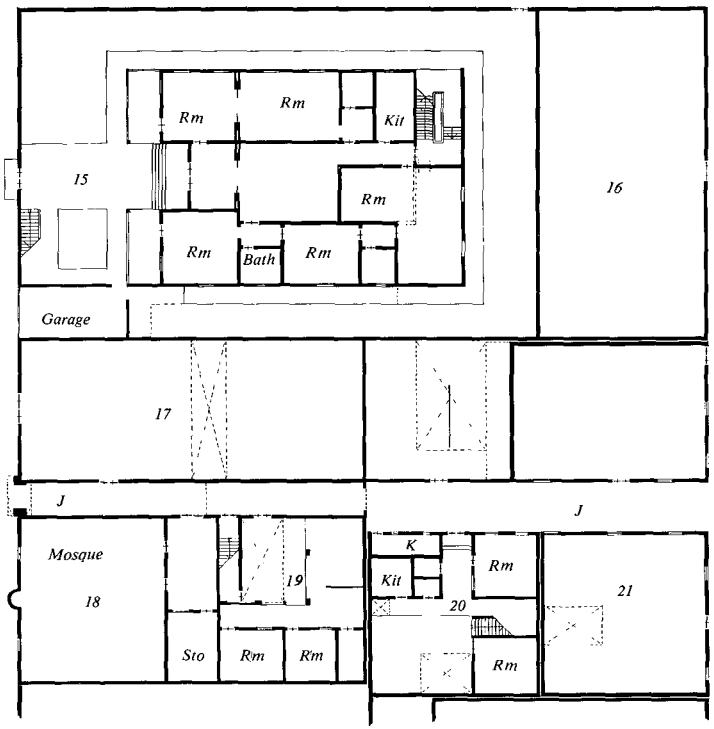


Figure 8.11 Taif Ground floor plan of a street (J) formed through agreements

8 12

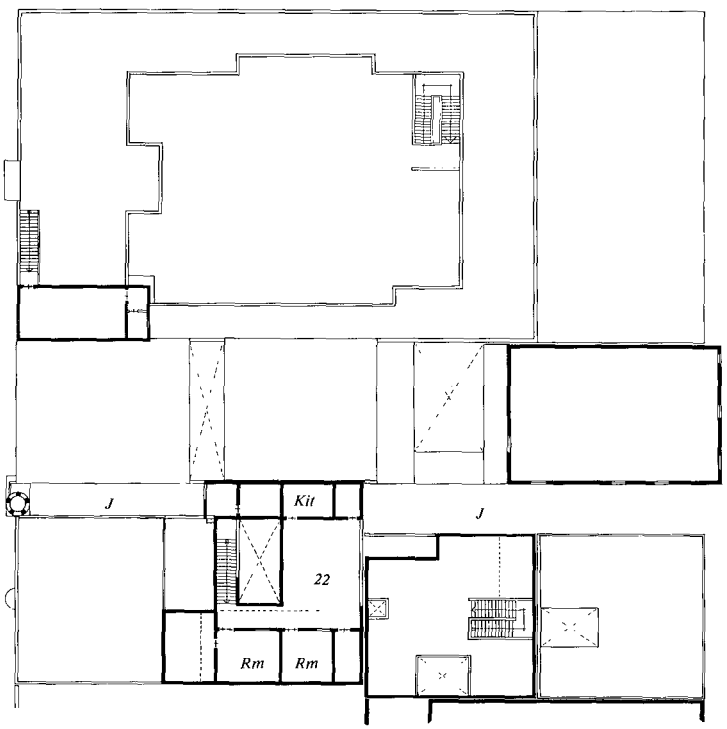
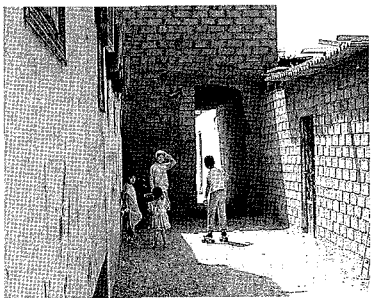
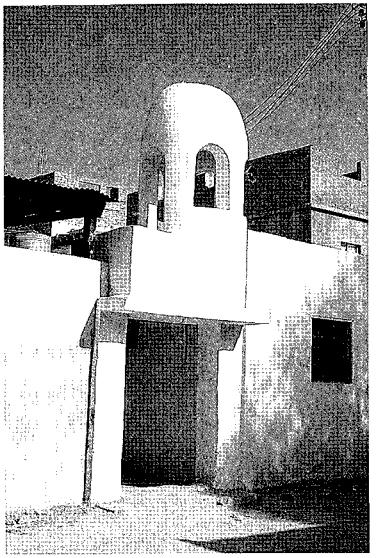
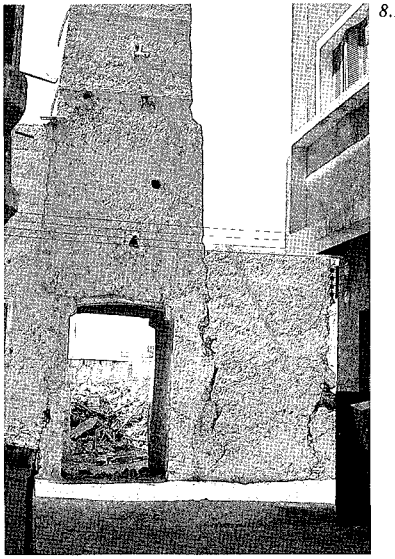


Figure 8 12 Taif. Upper floor plan of a street (J) with an overpass.



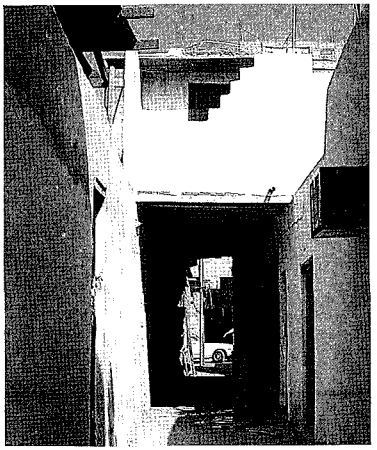


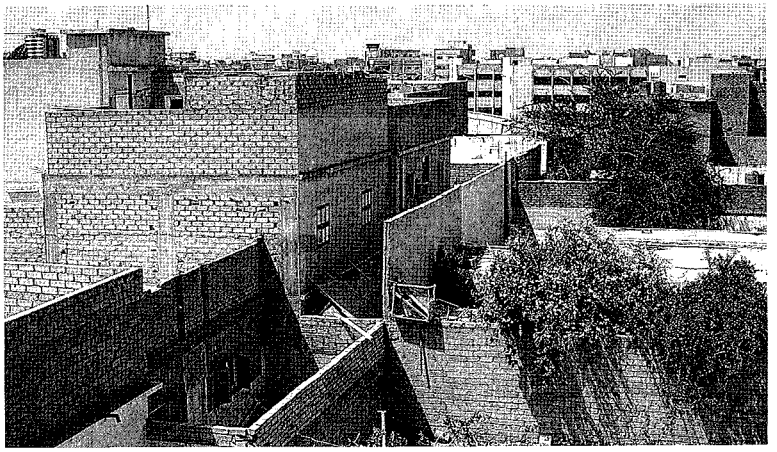


8.93

8 91 The opening made in the wall surrounding the parcel to form the street.
8 92 The minaret resting on the storage party wall. Photo 8 94 shows the overpass.
8 93 A minaret from traditional Riyadh Agreements have generated similar forms (compare it with 8 92).

14





8 95

8 95 Agreements have resulted in many single party walls between neighbours in this community. Almost all the walls in photo are single party walls.

blocking the street (photo 8.90) and transforming it to two dead-end streets. The community cannot sue either one since the street is not recognised by the municipality and the principle of damage is not practised.

Street J, which was created through agreements, is possibly the most interesting element in the neighbourhood (Figure 8.11). The community decided to build a small mosque; from this decision came the idea of developing a through street abutting the mosque. The owners of properties 20, 21 and their opposite neighbours each gave 1½ metres, and a dead-end street three metres wide was created. The community raised money and bought parcels 18 & 19 to build a mosque and a house for the *'Imām*. The owner of parcel 17 gave 1½ metres of setback, and the street was created. The mosque's parcel left only ½ metre as a setback. When the community decided to build

the mosque, the owner of property 17 allowed the community to use his wall to rest the beams that carry the minaret. Later the community decided to add a second floor on top of the *'Imām's* house and lease it for the benefit of the mosque (house 22, Figure 8.12). When the second floor was built, they extended it over the street, creating an overpass which rests on the party wall of property 17 (photo 8.94). The owner of house 20 also donated an ablution place (K) to be used by the community.

Only some qualities of the traditional environment can be found in this quarter since not all the principles of traditional environments were used. Although the majority of the residents in this area are of low and middle income and the quarter was created rapidly, the owners donated parts of their cash-bought land (not free as in revivification) to form both through and dead-end streets. These spaces are safe for children to play. The street of the mosque is tiled and lit, as are most dead-end streets. The single party walls have brought neighbours together. Although the first occupants were related, nowadays the residents are from different incomes, professions, tribes and even nationalities. The social relationships that have been created by the physical environment are very strong. All residents knew each other and even in some cases marry each other. Although municipal regulations prohibit having warehouses in the area since it is designated as residential, the residents help each other cover-up if checked by the municipality. The warehouses are built with house facades.

In another case, individuals from three tribes have recently settled in the area of ad-Dighimiyyah in the eastern region of Saudi Arabia. The residents are nomads who decided to live there during the summer months, but because some services are being provided by the government — such as electricity, schools, a clinic — many are settling there year round. Jobs are available in the nearby oil-producing town of Ibqiq. In most aspects the process of settling has been traditional, including revivification, but because the right of precedence and the principles of damaging acts and damaging precedent have not been fully implemented, a unique situation has developed. Since nowadays the land has a value, people demarcated pieces of land that are often larger than needed. The demarcation was by nailing wooden sticks in the ground. Depending on the owner's financial situation, the next step in demarcation was either to build a wall and a few rooms with facilities within the demarcated site, leaving some spaces as *finā'*, or to connect the sticks with metal sheets, forming a fence around the land. The metal sheets are easily made by unfolding oil barrels available from the nearby oil town.

In such a situation of revivification, one might expect a town with narrow streets, since streets are what is left over from the demarcated properties. Surprisingly, streets are wide because it is to everyone's advantage to have wide streets to accommodate vehicles. Further-

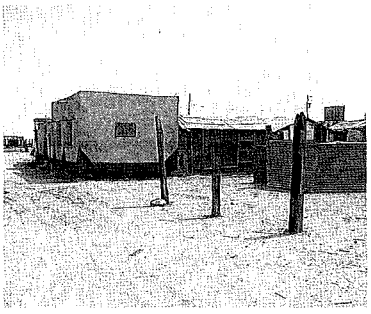
more, most streets are orthogonal because people know that it is easier to built infrastructure in them.

The negative aspects of this town resulted from the fact that the traditional principles were not all implemented. There is no judicial authority in the town to implement the traditional principles in cases of conflict. Thus, some individuals may intrude on the street or even block it while others cannot object.

The major difference between Taif and ad-Dighimiyyah is that in Taif the parcelling of land was not done by the nigh residing party. In both cases, the nigh residing party is not protected by the law; he is powerless. Weakness (as in Taif) or absence (as in ad-Dighimiyyah) of a central authority will often lead to environments generated by agreements that will have some of the qualities of the traditional environments: dead-end streets, social interaction between residents, investment in private rather than public spaces; and the generation of conventions — for example, the use of the pitched roof that is picked up by the residents from the nearby town where pitched-roof buildings were built by westerners and developed as a convention. At the same time, there are intrusions into streets: parties may damage each other without the sanctions that held in traditional environments.

From these case studies it is clear that the traditional principles can be fully successful only if the nigh residing party has the control and the ability to defend its rights. All the traditional principles leading to the unified form of submission must be applied. If they are applied piecemeal, the consequences in each case will be different

8 96



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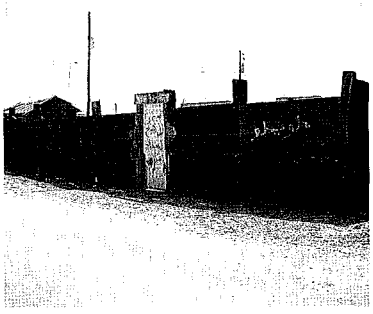
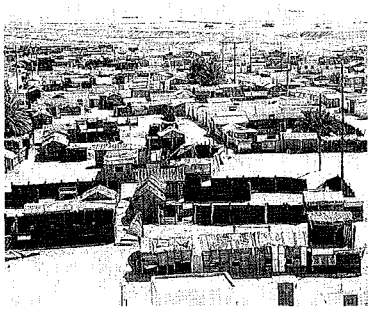
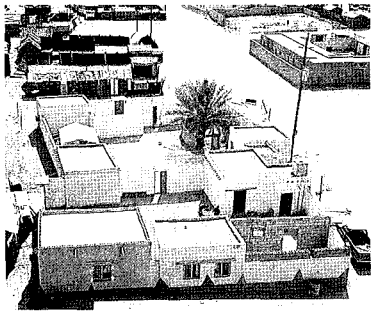


8 96 A demarcated land by wooden sticks to be revivified.
8 97 A fence made from metal sheeting of oil barrels surrounding the revived land





8 98
8 99

8 98 The demarcated properties that were revivified. Note the unutilised spaces within properties that were reserved for further expansion, and the pitched roof in the case of wooden or metal sheet construction. Since the land will have a value, people demarcated properties larger than needed
8.99 A house that shows the traces of growth. The room on the left is the first, the middle is second while a new room is under construction on the right

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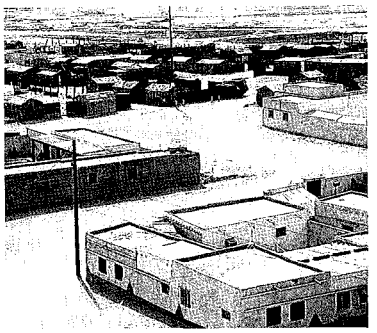
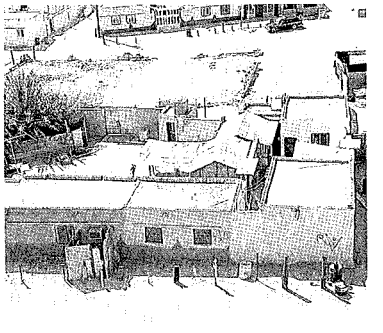
8 101





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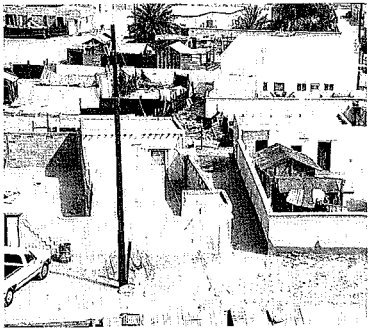

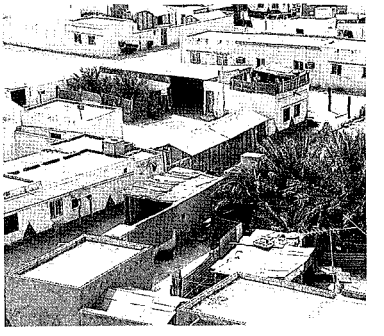

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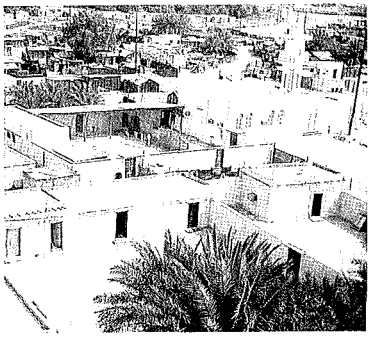
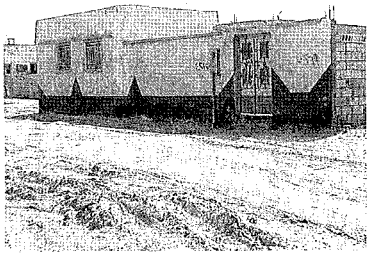




8 100 & 8 101 The orthogonality and width of some streets Note that the continuation of the vertical street in 8 101 was appropriated and built on by the abutting property of the street

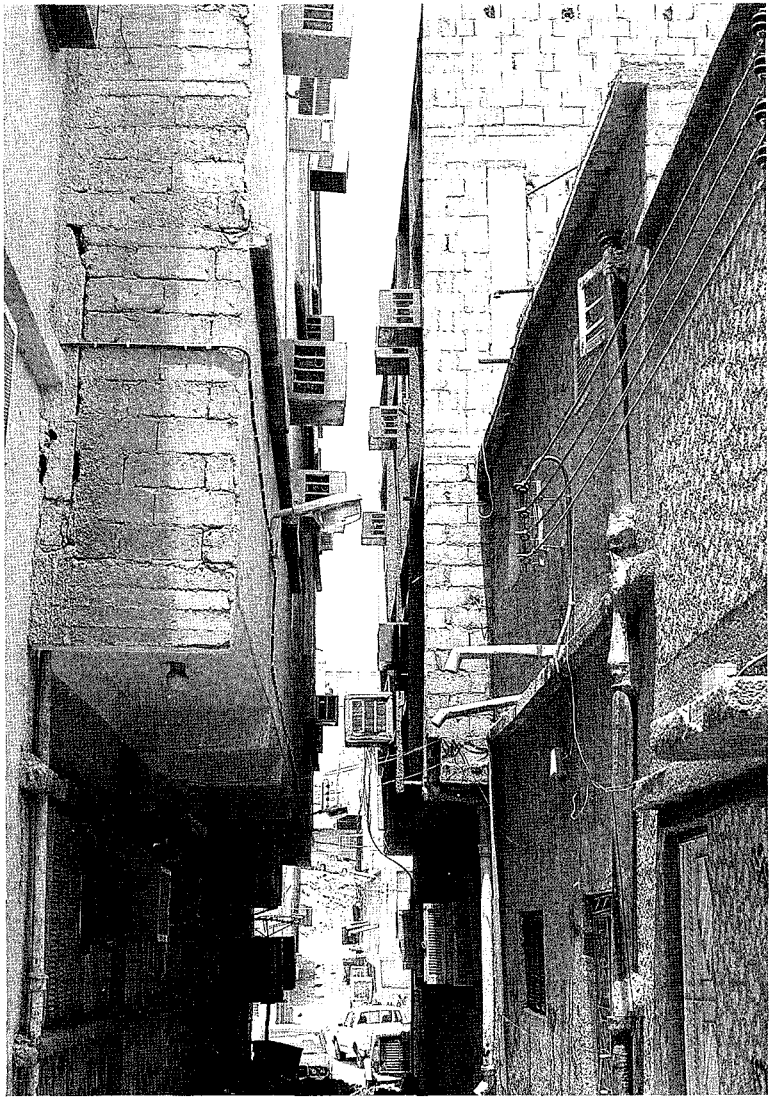
8 102 A narrow street between two properties. Note the change in the street's width Note also the growth of buildings inside the property from the temporary (constructed from wood or metal sheets) to the permanent (concrete).

8 103 The appropriation of a part of the street as a parking space.

8 104 A through street that has been blocked and appropriated by the abutting resident, thus transforming a T-junction into two dead-end streets

8 105 Ad-Dighimiyyah. The convention of having a triangular pattern of plastering the lower part of the facade wall. Note the same pattern is used in most buildings.

and sometimes may not be satisfactory. For example, because land has a value, the people who revived properties demarcated (by walling) lands that were larger than their needs (see for example photo 1.2 from Mecca on page 30). Although, through revivification the problem of car access was somehow solved, the area is not compact. If infrastructure is provided by the authority, it will be overloaded through the filling of presently demarcated open spaces by future additions. In Riyadh (in areas that were not properly planned by the authority), subdividing parcels into smaller ones has led to the creation of narrow streets to provide access to the inner parcels; yet, because the principle of damaging-act is not practised, windows overlooked each other and sometimes the air-conditioner of one property throws its hot air on the opposite window.



8 106 Riyadh. A street that is created by the owners of different parcels. Note the windows overlooking each other.

POSTCRIPTUM

The major part of this book illustrated that most, if not all, principles in the traditional environment unified responsibility in the hands of the nigh residing party. The principles of revivification, leasing, appropriating places, *ikhtiṭāṭ*, damage, collective control of public spaces by users, subdivisions, etc, all resulted in the themes of damaging precedent and right of precedence necessary for an accretion of decisions in an ordered environment where all parties are autonomous. Autonomous parties also related to each other through shared elements in the possessive or permissive form of submission such as party walls, water-spouts and overpasses.

The major difference between the traditional and contemporary environment is in the percentage of owning parties who control. This percentage is much higher in the traditional built environment than in today's centralised cities, with the inevitable consequence of a large number of people who neither own nor control. People who neither own nor control are irresponsible and dissipate the resources of the society.

Traditional societies' conventions have been replaced by regulations ending dialogues that developed and transmitted shared experiences. Modern regulations, both between parties sharing the same property, as in leasing, and between parties of adjacent properties, eliminated agreements. The shift of responsibility from the nigh residing party to a remote authority had endless disastrous consequences.

Does it make sense for modern architects and planners to draw inspiration from traditional forms generated by users with different norms and technical capabilities than those of today's world? I do not suggest that we reject the experience of the past. But if we are convinced that the traditional physical forms were the best solution for their users, then attention to the process that generated those forms will bring us one step closer to a better environment.

This book has raised issues relating to one central question: contemporary environments are organised, while traditional ones were ordered; is it possible to have an ordered environment that is organised in modern circumstances?

My aim has not been to suggest the wholesale application of the traditional process, although at times it may have sounded so. I have used the traditional environment as a reference and have taken the extreme position of rejecting centralisation for the sake of clarifying the arguments. More studies of the process of evolution of the built environment should be conducted. Responsibility suggests itself as a way of looking at the environment as a process and not merely a product. Referring to tradition, Popper states that "(j)ust as the invention of myths or theories in the field of natural science has a function — that of helping us to bring order into the events of nature — so has the creation of tradition in the field of society."[80] This book has argued, "so has a theory of responsibility in understanding the ontology of the physical environment and its creators."

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Glossary of English Terms

Accretion of decision: The accumulation of decisions in the built environment in which each decision is made freely, without following prestated rules or damaging others, by dealing with previous decisions made by others or accepting the existing physical sitting as constraints.

Autonomous Synthesis. The coexistence of properties mostly in the unified form of submission in which properties are not regulated by outside parties. It is internally controlled.

Control: The ability to decide about the element of the physical environment without necessarily using or owning it, such as the decision to erect a wall, divide a room or close a street

Damaging Act. The action made by a party which may, or can potentially, damage other properties or parties in the future, but not inevitably so, such as the creation of a window that may overlook future properties.

Damaging Precedent: The action made by a party which will inevitably damage others' properties or parties in the future, such as a tannery.

Dispersed Form of Submission: The condition of a property in which it is shared by three parties. One party owns, the second controls and the third party uses it, such as *waqfs*.

Dominant Party: If a change is introduced by a party that will force another party to adjust his domain, then the former party is dominant. For example, the party that controls the walls will dominate the party that controls the furniture.

Form of Submission: The physical state of a property which results from the actions and relationships between the parties that own, control and use it. It is the main indicaion of the parties' responsibility and the property's condition.

Heteronomous Synthesis· The coexistence of properties in which the users have no control and do not own the property they are using The majority of properties in such an environment are in the permissive or dispersed form of submission. The environment is externally controlled

The Largest Residing Party: The party that is composed of the largest number of property users or owners. If the owners are not well defined, such as the owners of a through street, then the largest residing party means the party affected by a change made by others. If the owners are well defined, as are, for example, the residents of a dead-end street, then all the residents collectively are the largest residing party

Nigh Party: The members of the party which reside, abut, and/or are affected by a change initiated by another party Such change is to be approved by this party (nigh party) whether it is affected by the change or not.

Ordered Environment: The environment in which responsibility is in the hands of the largest residing party. The relationship between parties

of different properties are ordered by the physical environment as a series of constraints, yet the physical environment is shaped by the responsible parties. Such environment is not necessarily organised.

Ownership: Owning a property apart from its control or use

A Party. Any group of individuals acting as one regarding a property. A party can have one, two or three claims — ownership, control and use. Two parties will not share the same claim.

Permissive Form of Submission: The state of a property in which it is shared by two parties; one owns and controls it, while the second uses it, such as a leased house.

Possessive Form of Submission: The state of a property in which it is shared by two parties, one owns while the second uses and controls; such as the place in the market that is appropriated by individuals who use and control the space that is owned by the state.

Possessive Party: The party that uses and controls but does not own the property.

Remote Party. The party that does not occupy the property, such as the authority that controls a housing project.

Right of Precedence: The right enjoyed by a property to damage other properties. If a party precedes other parties in making a change, such as opening a window, then this property will have the right of precedence over other properties This window has the right to remain even if it damages adjacent properties.

Size of Party: The number of individuals composing that party.

Unified Form of Submission: The state of a property in which all the claims — ownership, control and use — are enjoyed by one party. This is the extreme opposite of the dispersed form of submission.

Use: The enjoyment of a property without controlling or owning; such as the tenant who lives in a rented house.

Glossary of Non-English Terms

'ādāt: local customs.

'ālim (pl *'ulamā'*): scholar

'āmir: urbanised or built zone

'āriyya: loan for use — giving a property to others temporarily and gratuitously to be used by them while ownership is retained

'aqd: contract

bay': sale transaction
bayt al-māl: *lit.* the house of wealth; public treasury.

beglerbeg: the person who controls a *beglerbeglik* during the Ottoman Empire.

beglerbeglik: the region, during the Ottoman Empire, under the command of *beglerbeg*, and composed of *sanjaks.*

bid'ah: innovation

ḍarar: what an individual benefits from at the expense of damaging others

dhummi: a non-Muslim living under Muslim rule (Christians and Jews).

ḍirār: actions which damage others without benefiting the acting party.

faqih (pl *fuqahā'*): jurist

farḍ (pl *frūḍ*): duty, the performance of which is obligatory

farḍ kifāyah: collective duty, the performance of which is obligatory for the community as a whole: if a sufficient number fulfil the duty, the rest are relieved of it; if the duty is not performed all the community is liable for punishment

fatwā: legal opinion

finā': the space abutting a property and used by the residents of that property.

fiqh: jurisprudence.

ghanīma: spoil of war; booty

ghayr nāfīth: lit. not penetrable; a term used with *zanqah, zā'ighah, zuqāq, rā'ighah, darb, sikkah* or *ṭarīq* to refer to a dead-end street

habs: another term for *waqf*

hadīth: tradition or reported speech of the Prophet

harīm: the protected area which may not be revived by others. It is what the revived land cannot function without as its road and pathway

haq al-'irtifāq: right of servitude

haq al-murūr: the right of passage

ḥawz: a property that is taken from the owner who could not pay the *kharāj* tax and given to another, while ownership is still held by the original owner

hiba: gift or donation.

ḥimā: a property protected from being revived or alloted and designated for the use of a specific group of people or all Muslims collectively

hijr: lit prohibition or prevention, preventing a person from manipulating his own property for some reason.

hiyāzah: possession as a means of acquiring ownership

hiyāzat aḍ-ḍarar: lit. possessing damage; the right enjoyed by a property to damage other's property; right of precedence

'ibāhah: lit. allowing or sufferance; the permission given to individuals by the authority to use public places like a bridge or a mosque as long as they are there

'ihtijār: demarcating a piece of land with stones or the like to revive it with out necessarily having the ruler's permission

'iḥyā': lit. life-giving; utilisation of dead land by building or planting it (revivification) and not necessarily through the ruler's permission

'ijārah: hire and lease; see *tamlīk al-manfa'ah*.

'ijmā': consensus or agreement among jurists

'ijtihād: lit. to struggle; to exercise personal reasoning.

'ikhtaṭṭa: territorialised (see *khaṭṭa*).

'ikhtiṣaṣ: privatation right. The right of an individual to benefit from the property without leasing it such as sitting in a mosque; it is not compensatable or salable.

'ikhtiṭāṭ: territorialise (see *khaṭṭa*).

'imām: leader of a school of law; prayer leader; caliph.

'iqṭā': the act of the ruler bestowing or allotting a piece of land to individuals to be utilised.

'iqṭā' 'istighlāl: concession of right to exploit a property.

'iqṭā' tamlīk: concession of full ownership.

'irtifāq: easement right

'isrāf: unreasonable lavishness on what is necessary, such as over-decorating a mosque

janāh (pl. *'ajnihah*): cantilevers.

jizyah: pool tax.

kharāj, kharāji (adj): tax levied on land owned by the state but left in the possession of individuals; tribute imposed upon the land whose inhabitants have been left free to exercise their own religions

khaṭṭa: the act of claiming a property by establishing the boundary of the property through the ruler's permission

khiṭṭah: (noun) property established through the action of *'ikhtiṭāṭ*.

khums: one-fifth state share of booty.

madh-hab: a school of law or rite.

mājil: cistern

al-manār: the boundary between two adjacent properties

māl: lit. money; a right that has a material worth or value such as accepting compensation from neighbours to project a cantilever into one's own property.

mamlūkah: lit. owned; private ownership or state land during the Ottoman Empire

marāfiq al-'aswāq: the ample servitutive spaces in the market in which the preceding person has the right to benefit from the place

matrūkah: lit. left over; land reserved for public use

matrūkah mahmiyyah: lit. left-over-protected; public land reserved for public use.

matrūkah murfaqah: public land reserved for the use of a specific group

mawāt: lit. dead; unowned and unutilised land.

maytā': lit the already dead; the left-over space in the street which can not be revived in cases of dispute and is seven cubits wide.

miri: state land that is held by individuals who have the right of usufruct.

mu'adhin: the man who calls for prayer. Summoner to prayer

mufti: jurisconsult.

muhassil: tax-farmer during the Ottoman Empire.

muhāya'ah: subdividing the usufructs of a property, such as a house owned by two persons in which each of them will reside alternately for a specific period of time without subdividing the property.

muhtajir: demarcator

muhtasib: market inspector.

mughārasah: contract to plant trees on land belonging to others for a share of land.

mulk or *milk*: full ownership

mulk al-manfa'ah: the ownership of usufruct, like the peasants who own the right to use the land

mulk al-'intifā': the ownership of benefiting; the permission to a person to benefit by himself only from the property, such as residing in schools and *rubāṭs* in which the benefiting person is not allowed to compensate or sell the place to others

mulkiyyat aṭ-ṭabaqāt: lit. layers ownership, owning properties on top of each other as in condominiums.

multazim: tax-farmer during the Ottoman Empire

musāqāt: contract to tend trees or crops for another for a share of crops.

mushā': jointly-owned undivided property in which no co-owner can declare that his interest is attached to any specific portion of the property.

mutaṣarrif: possessor of *miri* land

mutawalli: guardian of *waqf*.

muzāra'ah: amodiation or share-cropping.

nāẓir: guardian of *waqf*

qāḍi: judge.

qiyās: legal reasoning by analogy

raqabah: title of full ownership

ra'y: opinion

ribā: usury

rūshān (pl. *rawāshīn*): projecting cantilevers, often having openings with wooden screens.

ṣadaqah: a charity that is owned by the donee.

safīh: a prodigal person who spends his wealth lavishly on what is needed or extravagantly on what is not needed (see *tabthīr* and *'isrāf*).

sanjak: basic territorial administrative unit during the Ottoman Empire. It is composed of one or more villages resided in by *timariots*

sanjakbeg: administrator and chief military officer of a *sanjak* during the Ottoman Empire.

shahīd: martyr.

sharī'ah (pl. *sharā'i'*): lit a road. It is the societal modality of Muslims based on the Qur'ān and the tradition of the Prophet; or the Islamic legal system.

shuf'ah: pre-emption

shūrā: mutual consultation; consulting others

shurakā': partners

shuyū': joint ownership

tabthīr: extravagance on what is not needed.

tahrirs: cadastral survey in the Ottoman Empire.

tamlīk al-manfa'ah: the action of allowing others to own a usufruct for a certain period of time

tapu: title of possession of *miri* lands

taqlīd: the following of previous authorities and avoidance of *'ijtihad* (personal reasoning).

taṣarrūf: possession of the usufruct of a land; the right to use and control a *miri* land

timar: grant for income derived from agricultural taxation for the support generally of members of the provincial cavalry. (Feudal estate in the Ottoman Empire)

timariot: holder of a timar, a provincial cavalryman during the Ottoman Empire

'ulamā': the learned religious elite.

'ushr, 'ushri (adj): tithe, tax levied on lands held in absolute ownership.

waqf (pl. *'awqāf*): a pious foundation in which the property is held in perpetuity with the income devoted to charitable purposes or specific group of people.

zeamet: a timar granted to a *zaim*, or feudal estate in the Ottoman Empire