

Control and Cities:
Some Examples from Iran

by

Sanjoy Mazumdar

B. Arch. (Hons). Indian Institute of Technology, Kharagpur
(1971)

SUBMITTED TO THE DEPARTMENT OF
URBAN STUDIES AND PLANNING
IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS OF
THE DEGREES OF

MASTER OF ARCHITECTURE IN ADVANCED STUDIES

and

MASTER OF CITY PLANNING

at the

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
June 1981

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Signature of Author

Department of Urban Studies and Planning
May 26, 1981

Certified by

Tunney F. Lee
Thesis Supervisor

Accepted by

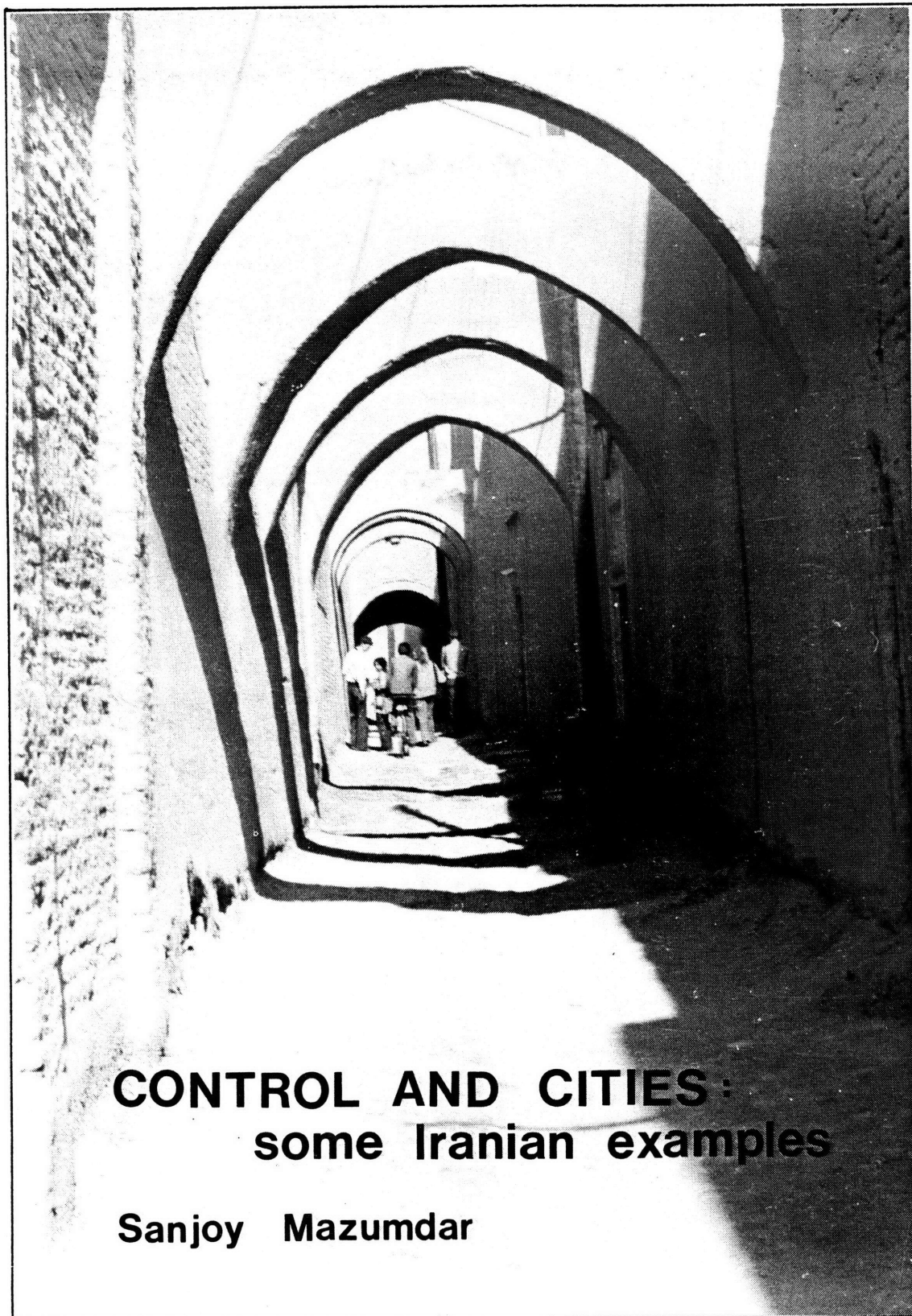
Langley C. Keyes
Chairman, Departmental Committee for Graduate Students

Accepted by

Julian Beinart
Chairman, Departmental Committee for Graduate Students.

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JUL 27 1981



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Abstract

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SANJOY MAZUMDAR

Submitted to the Department of Urban Studies and Planning
on May 26, 1981 in partial fulfillment of the requirements for
the Degrees of Master of Architecture in Advanced Studies
and Master of City Planning

What causes a city to get its form ? and how ?

This exploratory work attempts to address these questions, by formulating a Concept of Control of City Form. The concept claims that humans create, affect, modify and destroy city form. In this process they tend to devise instruments and impose restrictions upon themselves through collectives and institutions which use their power to exert and enforce controls. It holds humans responsible for city form, and claims that institutions have effectively used this process to build power bases for the ensuing controls.

The concept stresses the importance of looking at how controls are manifest, and act, how conformance is achieved, and what the power base of the institutions are. Four institutions are taken as examples to illustrate the use of the concept. Autocratic Control explores the relationship between city form and the concentration of political and military power by studying Tehran historically. Administrative Control explores control of city form by the institutions of professionalism and bureaucracy by examining how administrators and planners use master-planning. Religious Control looks at the effects of religious beliefs and ideas, and the idea of Islamic city. Societal Control looks at the effects of societal values and norms on city form.

The proposed explanatory concept attempts to bring out issues of values, choice, conformance, regulation and influence. The controls have been presented in an independent and static manner as dynamics between them was not within the scope of this work.

It is hoped that this way of looking at cities will highlight some important aspects of how city form is controlled by human collectives.

Thesis Supervisor: Tunney F. Lee.
Title: Associate Professor of
Urban Studies

Julian Beinart
Professor of Architecture

Acknowledgments

There are many people whose help needs to be acknowledged.

Thanks to Professors Leonard G. Buckle and Suzann Thomas Buckle who have read and commented on drafts. The commentary sessions were particularly enlightening. Their assistance was particularly appreciated.

Professors Tunney Lee, Julian Beinart and Kevin Lynch have also gone through drafts and made useful comments. Thanks to their sustained effort this thesis was horizon expanding and pleasurable.

Many thanks to the people of Iran who shared their experiences with me. Many people involved with Iranian and Islamic Studies have also been very helpful. I can only name a few. Fariborz and Meena Mehrafshani, Marzban Mehrafshani, Kambiz, Renata Holod, Oleg Grabar, Richard Frye, Michael Fischer, William Porter and Dastur Firoze Kotwal.

Special thanks to the National Endowment for the Arts, U.S.A. for endowing this work with a grant for financial assistance.

Very special thanks to my wife, Shampa, for editing and typing this work and making me realize that last minute changes are not good for my health, and that errors make the work look more human.

This thesis is dedicated in gratitude to *سازمان، دانش، هنر و کتاب*

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Chapter 1

Introduction

This is an exploratory thesis. In it I plan to propose a concept which would be useful in the study and analysis of the relationships between human collectives and city form. In doing so I hope to be able to answer two essential questions, what causes a city to get its form? and how? This exercise should also lead to an examination of some of my own notions and other prevailing ones regarding the development of city form. The concept, however, is based on a model that I created. To explain the model very briefly, one could say that in it, the city is treated as an interactive field wherein humans in the process of going about satisfying their needs form collectives, like groups, organizations, institutions. From this field certain collectives emerge as powerful which then attempt to control what happens to the city or parts thereof. It will be further argued that humans in collectives develop specific norms, values and behavioral traits which affect or control what happens to the form of the city. In a nutshell then, the thesis proposes that cities are the result of human decisions and actions which are guided by collective and individual values which themselves are generated by interaction within collective organizations. The salient features of the model and its assumptions will be elaborated in chapter 2. This appears to be an initial attempt at formulating and illustrating the use of such a concept. As a result there will be some areas surfaced for further research and these will be pointed out in the conclusion.

This thesis has been organized in the following manner. There are seven chapters. The first, this introduction will introduce the subject, explain the scope, the data, the nature of the approach, the calendar and transliteration. The second chapter on the Concept of Control will further explain the model, the concept and the important elements in the concept. As examples, then, four institutions will be taken to illustrate the use of the concept and these will be dealt with in the next four chapters. The third chapter on Autocratic Con-

trol will demonstrate how political power was used to control city form. Chapter Four, on Administrative Control will deal with the actions of administrators and planners in corporate bodies and the controls used by them. Chapter Five, on Religious Control, will illustrate the effects of religion on city form. Since Islam was one of the major religions in Iran, it will also get into the literature on Islamic city. Chapter Six, on Societal Controls, will demonstrate the power of social value and social norm and will cover both Familial Controls and Socio-Religious Controls. Chapter Seven, the Conclusion, will attempt to highlight the points illustrated about the concept, some areas for further research and debate.

The scope of this thesis has been limited to, in fact made particularistic, to cities in Iran. Four cities, viz. Tehran, Yazd, Isfahan and Kerman are being considered and their development studied. It was important for purposes of demonstration that examples not be limited to a single city as it was felt that then, not all the controls being dealt with, could be given adequate importance. For example, Tehran demonstrates autocratic control and administrative controls very effectively while Yazd and Kerman display good examples of religious, societal and autocratic controls. This point will be elaborated later. Time forms an important factor for most studies, and for this work it is particularly important. Controls change with time and are relative to time. However, for the purpose of demonstrating the various controls, it was felt important to consider a large enough time zone so that effects of active controls and even non-active controls or even withdrawal of controls could be shown. For these reasons, although the scope seems wide we kept the four cities and the time period of 1 A.D. to 1978. It must be pointed out here, that books on Iran, including many by British and American authors, and even doctoral dissertations are not as narrow and specific in scope as studies on U.S. topics tend to be. The reasons for this may lie partly in the fact that Iran has not been as well researched as

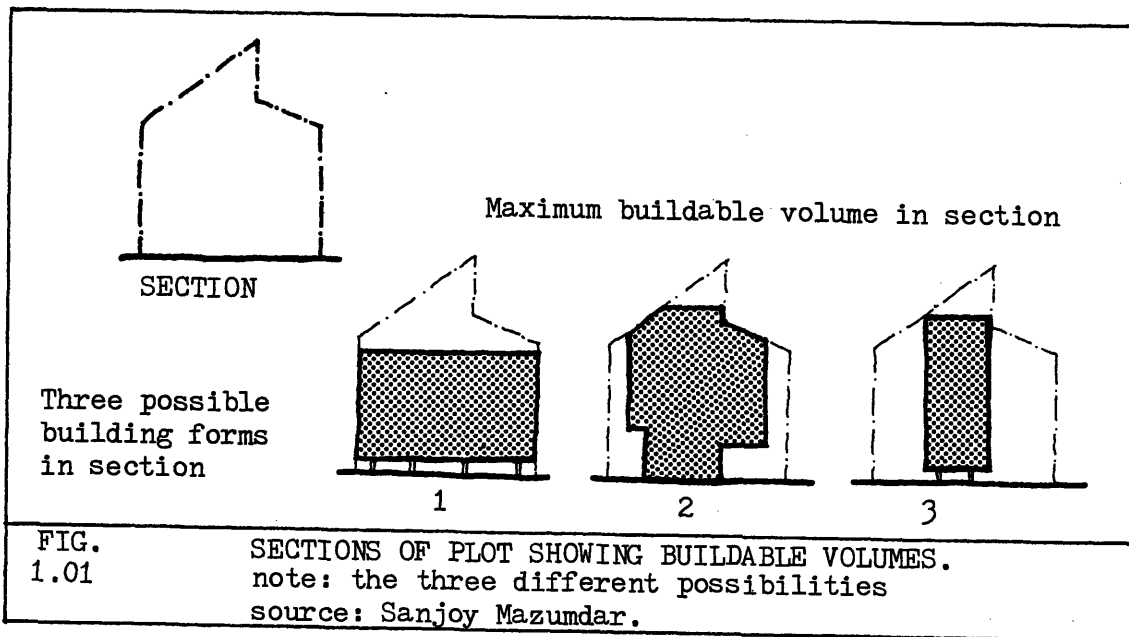
the United States.

Data on Iranian cities, as also on the idea of control are not abundant. Very little written information and documentation are available. Data used in this work were collected from a variety of sources. Large amounts of information were gathered through actual site visits, observation, photographic recording and sketches. Interviews with people helped in achieving a better understanding. Experience from work on actual projects are also included. Most of the historical data and information were obtained from books and journals on a variety of subjects. Histories, political histories, geographic studies, books on religion, culture, society and descriptive accounts by travellers were used. Plans and Masterplans were utilised as primary data. It must be pointed out that plans etc. were obtained with great difficulty. Those reproduced here appear to be generally correct for the purpose of this study. Inaccuracies and discrepancies do exist and will be pointed out. But on the whole they do serve the purpose of illustration.

Essentially this is a multi-disciplinary approach, and the very concept used discourages a strict rationalist discipline approach primarily because the second approach tends to be overly restrictive and fails to consider different aspects. Thus, for instance, the study of administrative controls deals primarily with bureaucracies and sociological studies while religious controls has to do with religious studies, anthropology, and sociology. All the chapters in addition, use the disciplines of Architecture, Environmental Design and Planning. Each of the controls could be taken as a separate piece of work, but it was felt that, that would only detract from the theme. Some may look for more tangible and functional relationships between the factors, using the theories of the discipline in question. But this in effect leads to a discipline oriented thesis again. The main aim is to demonstrate how controls

are created and used, and restricting the scope either by discipline or by controls would miss the point the thesis intends to make. More importantly perhaps, this thesis will illustrate that the process by which humans make decisions sometimes appear to be illogical if all the factors facing the decision makers are not adequately considered.

For example, persons wanting to build houses in the city may be restricted by administrative controls which specify the maximum buildable volume for those kinds of sites as per considerations of light and ventilation. (fig. 1.01) Even within this volume, however,



various kinds of structures are possible, as shown. In the city these various possibilities may be visible which supports the notion that there could not be an universal 'most logical possibility' derivable through disciplinarian analysis. On the contrary, the choice of a possibility, by the humans in that situation, is often constrained by a number of controls facing them.

This thesis grew out of two years stay and work as Architect - Planner in Iran from 1975-1977 when I observed many of the processes

and trade-offs at work. The context and time during which the study was done is important, and so a few words may be in order. Iran was then a constitutional monarchy with Mohammed Reza Pahlavi as the Shah. Iran was undergoing rapid and sometimes drastic changes, although probably not as drastic as when Reza Khan was the Shah. Large and major development projects were underway as the Shah considered that to be a good and fruitful way to spend the billions of dollars of oil revenue. Clearly there was an effort at westernization and what some have termed as 'modernization', a term used to denote essentially a western kind of industrialization, development and life style. Americans, American ideas and products enjoyed good standing not only with the Shah but also with large segments of the population. In many sections, Americans were considered as 'gurus' or as models to be emulated and followed. With the Shah's departure from the country in the face of large scale revolt led by Ayatollah Khomeini, conditions changed. Iran now is an Islamic Republic with Khomeini installed as Life- Term President. Even in the face of such drastic change, it seems from reports that many of the earlier institutions have remained or are being maintained. Some no doubt have changed. The Islamic clergy are firmly entrenched enjoying both religious and political power. In fact Khomeini is not only an Ayatollah but the President as well and his powers seem unlimited. The cabinet is similarly composed of clerical leaders who hold positions of great political power. Religious tolerance which had increased under Muhammad Reza has relapsed to more rigid and perhaps abstruse interpretations of Islamic standards by the clergy.

Most of the material for this work was collected and organized prior to the change in government and should be considered accordingly. In most cases the material presented remains essentially the same as it is not within the scope of this work to study the dynamics between the controls. The changes brought about by this recent change have, in some cases, been included, where they were considered essential.

A bibliography for this type of work can be very extensive. The one presented is a selective one, citing mostly primary or important sources, or to those to which there are specific references in the work. But it also meant that for the sake of brevity many sources be omitted. For ease of organization, the bibliography has been categorized into books and manuscripts, and journals.

Notes on Transliteration

The transliteration of Arabic and Persian words essentially follows that of the second edition of The Encyclopaedia of Islam¹ (Leiden, 1960) with a few modifications and simplifications. Two quite usual ones are q for ḳ and j for dj. The third is a replacement of the ligature used to show when they are to be sounded separately. That is dh, gh, kh, sh, th, ch, zh, are to be sounded together, but ad'ham to be sounded separately. The apostrophe in this case does not represent a sound, but since it occurs only between two consonants it cannot be confused with the glottal stop (hamza) which never occurs between two consonants.

Transliteration of place names result in varied spellings. Some of the variations are listed in a footnote to avoid confusion. For convenience, the forms used, do not only represent the correct and easiest, but also the most convenient on a normal typewriter.

Generally Gregorian dates are used so as to use a single calendar throughout. This does create problems as Arabic and Persian years do not exactly match the Gregorian one, in the number of days per year. In addition, a Persian year stretches over two Gregorian years, and in such cases the majority year is used or simply the first year is used. Additionally, Iran has had at least two calendars, the Islamic calendar, and Shah-en-Shahi or Cyrus calendar. In approximate terms the Hijra calendar date can be obtained by subtracting

622 years from the Gregorian one while Cyrus or Shah-en-Shahi can be obtained by adding 1180 years to the Islamic date.²

Footnotes:

1. Encyclopaedia of Islam:
Leiden, E.J. Brill. Second Edition. 1960.
2. Webster's New Collegiate Dictionary:
Springfield, MA. G&C Merriam Co. 1979.
And
Llewelyn-Davies International: Shahestan Pahlavi.
London: Llewelyn-Davies Internatioanl, 1976. p.18.

Chapter 2 The Concept of Control of City Form

The Important Questions to be Addressed

While in Iran I had spoken to various people to try to get a sense of what Iranians thought about their cities. It was not unusual to hear genuine comments like, " I like Tehran the best " or " Yazd is a very nice city." Nor was it unusual for them to compare and say, " I like Isfahan better than Yazd " or " I prefer Yazd to Tehran." ¹ The above statements indicate that people were comparing different items, aspects or functions of the city, and in the first set measuring or evaluating the performance of the city against their own subjective standards. While it is possible that the question² posed was not specific enough, it also points out that an unspecific question gives people the freedom to use their subjective priorities to compare. Even when the question was more specific, however, and people were compelled to compare against similar standards, uses or functions, the answer was not always the same; in fact people's choices differ and even contradict each other. It also shows that different people have different value systems, priorities and criteria for judging the quality and functions of the city. While for academic and statistical purposes it is possible to frame questions so that answers could be easily categorized as YES or NO, the important question that arises from the above is that if there is in reality such a diversity of opinions, ideas, standards and functions --- how does a city get its form ? and who gets to decide what the city form should be ?

The Model

In an effort to make the questions more workable I decided to

model the city utilizing my notions regarding the important aspects of the city. Very simply the model could be explained as follows. The city is essentially and primarily a habitat for humans ³ who have a variety of uses for the city --- work, live, recreate, rest, produce, distribute, consume services, pursue intellectual and artistic interests etc. The location, nature, building and form of the city are the result of their conscious decision making and enterprise. Humans and human activity, barring a few natural phenomena, thus maintain, affect and destroy city form. From this general picture of the city a few specific features could be derived and described.

The first important feature in the model is that the city is a field of human interaction. During the process of going about their daily activities and fulfilling their needs and desires, humans seldom act alone. Instead they constantly interact, cooperate with, depend on, dominate and even exploit other individuals.

Second, collectivities ⁴ or institutions are formed to control individual behavior. In the interactive field, humans attempt to change their immediate environment and exploit and manipulate others in order to make their own environment more conducive to their desires. In these processes, they form new collectivities and often get organized for specific purposes. But at times existing collectivities are utilized for the purpose of division of labor and more effective production, or for other needs like recreation, camaraderie, companionship, and power.⁵ These collectives could vary in number from only two as in the case of a family, to groups, organizations or institutions. Many of the collective organizations are institutions which have remained for long periods of time, others are more temporary, purpose oriented or job specific. The collectives are also dependent on the nature and longevity of the purpose, and the need. They serve a number of functions among which the most important for our purpose

is that they attempt to ensure for reasons of solidarity, that individual decisions, actions and behavior do not run contrary to, or defeat the purpose of the collective. Thus collectives tend to set up rules to control individual behavior and individual decision making. Actions and behavior are thus constrained by various organizational and institutional factors.

For instance, the choice of a certain technology for building is not entirely an individual decision. Various factors come into play in the decision making process among which one of the most important is the social standing of the technology in the collectives that the individual belongs to. Hence one strong factor may be to prefer a trabeated kind of structure because it has been used by most neighbors and friends instead of the 'indigenous' arched type. Arguments based on economics and the principles of minimization of costs may attempt to show that the choice was dependent on the factor that the trabeated style meant less personal expense. But it should be pointed out that the basic precepts of economics claim that prices are determined by the levels of supply and demand, and it is obvious that both supply and demand, particularly the latter, are conditioned by what society as a collective values.⁶ The example given illustrates the fact that collective values play a very important role in the final outcome.

A third important feature in the model is the power of the collective and its use. In this model, collectives like individuals, interact with each other and some emerge as more powerful. The base from which the collective derives its power forms an interesting question and will be discussed later. Collectives use their power to control not only individual members as mentioned earlier, but also what happens in the city and parts thereof. As a result, efforts at building and shaping the immediate environment by both individuals and less powerful collectives are controlled by the more powerful ones.

In this thesis, I shall take four examples of institutional control and explore the relationship between such collectives and city form. In doing so I shall utilize the three important features of the model outlined above and will essentially look at how institutions derive their power and how they use it to control. Rather than set out to prove the existence of controls, I have chosen the more interesting route of attempting to demonstrate their actions and effects, which in turn will justify their existence.

Individual Behavior and Institutional Control

Before getting into the issue of institutional control, it will be useful to get a brief understanding of how individual actions and behavior could affect the collective. First, there are very few conditions, if any, when an individual can make absolutely independent decisions and carry them out without interfacing or being affected by other humans or some form of collective.⁷ Second, individual behavior generally varies within the controls set by the collective. Third, individuals can affect collective decisions, norms and values either by stretching acceptable limits and yet producing something suitable and acceptable or by offering creative solutions not yet offered or followed by others in the collective. Fourth, individuals can affect city form in two ways: either by their own actions in an attempt to make their own environment more conducive to their necessary functions --- and these are mostly individual actions --- or by their actions as representative of others, that is, when they make decisions on behalf of others. Fifth, new collectives can be formed for various purposes -- like work, play, recreate, rest, produce and other functions. Sixth, interaction between individual and collective are necessary to ensure that individual actions do not disturb the collective action or goal. And seventh, individuals could be in contention, and can join, assist, or create collectives to be able to get the necessary power for action.

Controls

Humans in collectives develop collective and common values and behavioral norms based on these values.⁸ These values and norms often attempt to serve as principles of right action being binding upon the members of the collective. They serve to regulate, control and guide proper and acceptable behavior. Many of these norms affect city form directly while others may affect different functions of the city. Thus these norms in themselves can do the work of controls when they affect city form.⁹

Thus we have a situation where, in an effort to make the environment more conducive, humans singly or in collectives impose restrictions upon themselves, regarding the built environment. The instrument that humans have devised to impose these restrictions shall be termed 'controls'. Controls, then, ensure the preservation and continuation of certain values for that individual or collective. It also follows that controls will change when values change or when the collective becomes ineffective or powerless.

The word 'control' perhaps needs to be defined further. Control is used in this thesis in two forms. The verb form is used to indicate the acts of guiding, managing, regulating, and even restraining, and its use can imply any of the above acts. The noun form is used to indicate elements that do the act of controlling. Regulations, decrees, prescriptions are examples of controls, the words being used in the noun form. For instance, the term religious control implies that religion is the element that either controls or on which the control is based.

Concept of Control of City Form

Let me briefly recapitulate some of the important things I have

discussed. I have said that humans through their endeavours, actions and interactions create, affect, modify and destroy city form. In this process they tend to devise and impose restrictions called controls, upon themselves. Collectives and institutions are formed which use their power to exert and enforce controls. These controls affect individual decisions and actions. These are the basic elements of the concept of control of city form.¹⁰ It is a somewhat stylized concept which attempts to get into the intricacies of the process, if city form is thought of as a process in time, and one that will demonstrate the variety of ways humans have attempted to control city form.

The word control is being chosen particularly because it expresses a full range of possibilities. Although its use in the term land use control is the closest to the way I intend using the word in this work, it would be incorrect to think of controls only as prescriptions. Controls could set allowable limits of permissible action as in : "the building shall be no more than 80 m. high and not less than 5 m. high." They could set boundaries, action ranges, or parameters. They could disallow certain alternatives and prevent or outlaw certain courses of action. Controls could put values or weights in favor of or against certain choices. They could chalk out courses of action or make specific prescriptions. They could be restraints and say, "do not do the following" or be compulsive and say, "you can do only the following."

Usage of the Term 'Control'

The idea of control is not new in city planning. It has been explicitly used by many writers. The use of the term with connotations and meaning closest to the way it has been used in this work, are by Gakenheimer¹¹ and by King¹². Gakenheimer used the term in much the same way as did King and both examined colonial cities.

Gakenheimer studied the founding of towns in Peru by the colonizing Spaniards from a historical perspective, and generally used control to mean military power along with the decision making ability to regulate what happened in the towns. King, from a sociological perspective, examined the historical development of the city of New Delhi in India, by the colonizing British. To him control connoted both power and military superiority. Control meant not only the idea of founding separate townships and cantonments for the colonizers but also regulations and norms governing how either population could live and where each could have access to. There was one subtle difference between the two writers. Gakenheimer referred to the Christian religion as being the foundation of some of the power and differentiated the religious behavior of the colonizers from that of the Indians (Peruvians). King concentrated almost solely on power derived from military might and did not bring in notions of religious differences. Rapoport used the term briefly referring essentially to regulatory and cultural types of control used in present day western cities, particularly in the U.S.A., when he argued that, "tradition as a regulator" had disappeared from American culture because of "a loss of a common shared value system," and this had led "to the introduction of such controls as codes, regulation, and zoning rules concerning alignment and setbacks....."¹³ Lynch used the term control to connote the power of an individual to have ultimate say in what happened in and to his own property.¹⁴ His usage of the term has essentially to do with issues of ownership. Most of the authors above, and a few others who have used the term control, have used it synonymously and interchangeably with power and authority except Rapoport who seems to have used the term to denote authority or delegated power.

Since Lynch in his latest book devoted a good deal of attention to 'control' and how it affected his theory of good city form, it may be useful to look at his usage of the term a little more in detail.

Lynch in his exceptional chapter on control confirmed the idea that the issue of control was an important aspect of city form and stressed why any good normative theory of city form should consider it. Using the term slightly differently, my thesis intends to demonstrate some of the effects of control, and thereby stresses its importance. Lynch has dealt in detail, with various aspects of control like spatial rights, certainty, responsibility, congruence and tolerance. But his use of the term control with varied meanings could be confusing, as shall be seen when we look at some of the differences between his usage of the term and mine.

There are a few marked differences between his usage of the term and the way I use it. First, he looked at control in a very small scale while my use of the term is much more on a city level. More specifically he looked at control as being related to issues of property usage and property ownership, which meant that the scale was at the level of individual plots of land and the property thereon and in very rare cases blocks or such large chunks. Second, Lynch specifically looks for land bases for control. Although his main usage of the term referred to the one detailed above, he did use the term with other connotations in the same chapter. When he talked of individual control he referred to the issues of use and ownership of the same property. But then again he looked at adolescent gangs, and mentioned that they controlled certain areas, but quickly brushed that aside labelling it as 'illegitimate control' as the adolescents did not own the land base. From this, one can derive that Lynch was looking, at least partially, for specific socially-recognized signs that showed ownership and total control. As a result when he did not find ownership, or congruence as he calls it, specifically proven he labelled control as illegitimate. However, he then brought in the issue of user control of things like buses and trains and even suggested that one could look at subsets in society and search for land bases for them. This indicated very strongly then, that a

'land base' meant ownership to Lynch, and ownership led to control. Third, Lynch used ownership to mean control or at least the power to control. Although he talked about various other countries and cultures in his book, in this case he referred to ownership as is used in the U.S.A. The question that emerges is, "Does ownership necessarily mean the right and the power to change, alter, transfer, or prevent something?" Lynch assumed that it did. For him, with ownership of the land base came the power to have the final say in what happened to that property. But it was not necessarily so. One could have ownership without the power to have the final say specifically when it was a question of change or modification, as would happen with ownership of structures marked 'Historic and for Preservation'. I suspect this is true even in the U.S.A. Other examples of ownership without control would be leases of some kinds, zoning regulations, architectural regulations and bye laws having to do with set-backs, maximum buildable volume, and certain laws of the land -- like squatters rights, or the inability to evict tenants when the owner wants to. In addition to ownership these conditions were dependent on administrative controls and in some cases on societal controls. Lynch also said that congruence of control was a desirable element but one has to be reminded that he was talking of a very particular and specific situation and of rights and privileges, and at times power over a physical jurisdiction that could come from ownership. Of course issues of societal ownership, communal or shared ownership, indirect ownership and ghost or corporate ownership come into play and one tends to ask, "Was Lynch ruling out socialist societies because they lack congruence?" What is illegitimate then gets to be a tricky question as does the question regarding the legitimacy of the control exerted by the adolescent gang who lacked a land base. Law and what is legitimate after all is a set of societal norms, albeit formal, written and codified. What appears important to me is the question regarding whether ownership or land bases are necessary for control. I would argue that ownership is certainly not a prerequi-

site particularly in my usage of the term control. I would think that neither is a land base necessary if by land base one means a specifically demarcated area. In fact the same demarcated area like the city, could be shared by various institutions whose controls could be acting concurrently. Also in Iran at certain times, ownership was no guarantee to control. Morier cited the frail nature of land tenure in Iran when he visited the country, and found that the Shah ordered the owner of a certain property to hand his property over to Morier and the British Legion for their occupancy, use and ownership.¹⁵ My notion of control agrees with Lynch's when he suggests at one point, " A second approach to analysis is to look at the crucial groups in society and ask similar questions ... " and " Indeed the inquiry may be turned upside down. Instead of looking at spatial settings to see whether they are regulated by their users, one may look at the typical entities in any society --- individuals, families, work groups, peer groups, religious bodies, self identifying ethnic or class groups, --- to see whether they have a 'land base'that is, a place which they control." ¹⁶ The only qualification here would be that I would not specifically look for a land base.

Existing Theories of City Form

There have been other theories which have attempted to explain how cities get their forms. There is one set among them which I will call deterministic theories.¹⁷ They have explained the form of the city through the use of a single determinant. For example, there are some theorists who have claimed that city form is dependent on climate.¹⁸ They divide the world into various climatic zones and claim that forms of cities are determined by the particular climatic zone the city is located in. Climatic zones rather than other criteria like national or cultural identity would determine the form. Iran having a hot arid climate should display forms which keep the heat

out and the inside cool. Whether one considers the form of the city or that of a house, however, there are still numerous ways in which the objective of protection from climatic elements could be met. Hence the idea of climate as determinant should be rejected, but human effort aimed at protection from severe climate as a controlling factor can be accepted.

There have been a number of studies which have claimed that Middle Eastern cities were Islamic cities because they were under Muslim rule or because they have 'Islamic' buildings and artifacts.¹⁹ Such literature led to the development of strong stereotypes regarding Islamic cities because of their deterministic nature. The literature on the cosmic city also followed the deterministic view as it claimed that a single element, the cosmos, determined what the city should be like.²⁰ Sjoberg's argument claiming that the nature and form of the city was a result of the level of technology of that city was also essentially deterministic in nature.²¹ There are other studies which claim that the form of the city was determined by the layout of the transportation system.²² One problem with this kind of approach is that it gives rise to strong characterization and stereotyping in the minds of the readers. Sjoberg fell into the same trap when he used the level of technology as a determinant. It is true that technological innovation has led to different techniques, methods and materials for doing things. But he assumed that this kind of technological innovation would lead to western kinds of cities which in effect implies a narrowing of choices rather than the widening of options. Besides, he missed stressing the most important point that society still has the final choice and makes it.²³

Another set of literature has taken the rationalist discipline approach.²⁴ Here again, assumptions are not made clear and thus the argument often comes out unilinear and sometimes deterministic.

Economic theories of the city have looked at the city in essentially three ways. First, the city is treated as a space for the production, distribution and consumption of goods. Second, it examined the costs of distribution over space. And third, on a regional scale, it examined siting of production and consumption centers. The arguments were based on sophisticated mathematical models which in turn were based on certain strong assumptions about human decision making and behavior, some aspects of which have been explained earlier.²⁵

Closely associated with economic theory was the Marxian theory²⁶ which while dealing with the production and distribution of goods also incorporated the social element in its analysis. It examined the city as an arena of conflict between different social groups vying for power. Marxists polarized the arena into capitalists and workers, or the rich and the poor. Unfortunately though, these theories, while appearing to add a humanizing aspect to the economic model do the opposite as can be seen in some of the examples of socialist or communist cities.

Rationalist discipline approach was also displayed in historical studies of cities.²⁷ Historians described the development of the city and commented on the quality of the environment. However, they often did not care to analyze the causes. Besides, historical studies until very recently, focussed on major powers and monumental events which essentially gave a one-sided picture.

Physical planning and Architectural theories²⁸ stressed on the physical and visual aspects of the environment, but often failed to deal with social forces and issues. Geographers²⁹ have looked at cities and considered elements of topography, availability of water and its use, etc. while sociologists and anthropologists³⁰ have looked at cities as pockets of different groups --- based on religion,

ethnic, class and caste identities. All these studies have something to contribute. They point towards elements that control and sometimes the value systems behind them. In as much as they do this they are useful and interesting.

A third kind of theory utilized and often depended on models of the city derived from other disciplines.³¹ Theories which described the city as a machine or industrial plant with specific interrelated parts fall into this category. Like the machine then, the city had certain limits and a certain capacity. Its parts could have problems and be repaired or perhaps even replaced to keep the city functioning effectively. There have been other theories which have modelled the city after living biological organisms. The city, then, is formed, grows and develops, decays and dies. It has some vital parts and some subsidiary parts. Finally theories derived from physics treated the city as a field of forces which need to be resolved and maintained in equilibrium. Magnitudes, directions and location of forces became important. The main problem with these theories is inherent in the model that is selected. In the machine model, humans become parts of a machine, or at least their functions. In the biological model the functions of the city have primary importance while in the physics model humans become particles or forces. In all these theories there seems to be an outside fuel, force or energy which keeps the city going, Humans have hardly any independent decision making capacity, neither are collectives used.

The concept of control is an attempt, although an exploratory one, to bring in some of the factors which affect human decisions and choices regarding cities. However, in this thesis I am planning to examine only issues of collective control or how institutions attempt to control. This concept attempts to incorporate features which considers the quality of the environment, the quality of life and the people who inhabit the city.

Power, Authority and Control

Let us now examine some of the more specific issues related to power and control. I have said earlier that some theorists use the words power, authority, and control almost interchangeably. I see a difference in the three. Controls has inherent in it, notions of a certain amount of power. Controls cannot be effective without the ability to impose sanctions and ability to manipulate rewards, incentives, punitive and other arrangements to handle non-conformists or deviants. Whatever be the means of achieving conformance, it has associated with it notions of some power.³² The bases from which the power can be derived will be discussed later.

Similarly there is a distinction between power and authority. I am accepting Crozier's definition of power³³ but would like to stress that power can be derived from various sources. Autocratic power for instance, could be military or coercive power derived from political domination. Authority also has inherent notions of power but has to be distinguished from the former because of the fact that it is delegated power and may even be representative power. In the case of delegated power, the person in authority derives his power from another who willingly grants a portion or all of his power to him. In the case of representative power, the person in authority has the power primarily because he represents a certain collective, group or individual. Delegated power and representative power can be together as in the case of an emissary of a dictator. But they should be kept separate unless mentioned to be the same.

The distribution of power within the collective forms an interesting question. However, it is not within the scope of this work to go into details of the dynamics of power within. We assume that there is a power elite within the collective which consists

of leaders and other associated elite. Hence, in the case of the political organization, the political leaders, the king in the case of Iranian monarchy, had the power. For other institutions, the power elite were the religious leaders, the chief administrators or the chief bureaucrats, the heads of society and family and sometimes the chief of the family or clan.

Derivation of Controls

Controls are derived by the power elite from a variety of sources. In many cases, as will be demonstrated later, controls were derived from models in the minds of the elite about what the city should be like or how it should function, particularly in relation to that institution. Models came into play especially when the notions were derived from other sources, cities, or civilizations. As will be seen later, Iranian monarchs often selected their models from other cities they had either seen or visited or heard about.³⁴ Sometimes however, controls were derived from beliefs and ideas held consensually by both members of the collective and its power elite.

Purpose of Controls

Reasons why controls are imposed also vary with the institution or collective. One of the common reasons for the exerting of controls is to demonstrate the power of domination of the collective. Gakenheimer and King have shown this to be true for colonial cities. It was also true for the autocrats in Iran. Personal ambition, glorification, enhancement or security or the same for the collective, have been the purpose for many controls as can be seen in the chapter on Autocratic Control. Controls can be used by their controllers to demonstrate or set an example for others to follow. They can also be used to create an image of wealth and prosperity and to govern or administer

better, more efficiently or sometimes more easily as will be shown under Administrative Control. The use of controls for more religious living or in keeping with an ideal has been accomplished with Religious Controls. Finally, controls are used for the maintenance of internal values and the establishment of better family and societal relationships.

Effectiveness of Controls

There are a number of reasons why controls are followed or are effective. One of the primary reasons is that people identify with the aim or the purpose of the control. A second reason is that people stand to gain personally from following the control. Third, the collective stands to gain from the imposition of the control. Fourth, it is convenient for the individual and may be the best course of action for him. Fifth, fear of punishment, ostracism, or loss of membership leads to conformity. To argue theoretically, one could say that the first three form part of consensus theory, and that the reasons proposed above essentially contribute to the idea of consensus. The fifth reason is part of conflict theory whereas the fourth could, in fact, be an effort to avoid conflict and perhaps could best be left as a border line case.

Controls and Conformance

The question of what the collective does to ensure conformance is also interesting. Here Black's analysis³⁵ serves an useful purpose. He presents an analysis in which he points to the attitudes for conformance prevalent in the collective. He claims that a penal attitude would lead to the inculcation of feelings of guilt in the event of non-conformance. A compensatory attitude on the other hand would lead to conformance because of a feeling of debt. A therapeutic attitude would stress on the need for the people to conform while

a conciliatory attitude considers conflict to be the reason for deviance. The solutions adopted by the collective to deal with deviance are: punishment in the case of guilt, payment in the event of debt, help in the case of illness or need, and resolution when there is conflict. These theories are useful in that they attempt to explain how conformace is achieved.

Foundations of Controls

Collectives, and in our case institutions, can have a number of different bases or foundations from which they can derive the control. In this work I shall use four bases as examples. The first is that of political power. In the case of Iran, this set of controls was based entirely on the power of political dominance and so I have named it Autocratic Control. The second, is authority based control, or as in this case, job based. This deals with the nature of the job and its bureaucratic set up, and I have labelled this Administrative Control. It deals largely with professionals in their jobs and the power is authoritative, but could be representative. The third, is belief or ideology based. The institution is religion, and the associated controls are classified as Religious Control. The fourth, has its foundation on social values and norms. The institution in this case is society, and so I call it Societal Control. The chapter on Societal Control will also consider family based controls. These are the four institutional controls selected as examples for the demonstration of the concept of controls. The following sections will illustrate some of the workings of the concept.

FOOTNOTES

1. From conversations with people in Iran in 1976.
2. " Which city in Iran do you like best?" was the question posed.
3. Ants and others of the Animal Kingdom may have their own versions of the 'city', but I assume they would be called by a different name. The city, to me, denotes the human city.
4. I have used the term 'collectives' and 'collectivities' interchangeably. Both are used to indicate the grouping of individuals as a whole. There are no connotations of equal distribution of power or responsibilities. In fact, these are assumed to be unequally distributed. Examples of collectives are groups, organizations, institutions and the like.
5. Durkheim proposes a different view. He claims that collectives get precedence over individuals. He did not believe that individuals could collectivise for the purpose of division of labor. For further references see:
 DURKHEIM, Emile The Division of Labor in Society.
 (tr.) SIMPSON, G.
 New York, Macmillan. 1947. p.259

 ARON, Raymond Main Currents in Sociological Thought II.
 New York, Doubleday. 1970. p.17.
6. This is putting it very simply and briefly.
7. One of the few independent cases is when the individual chooses to live in an uninhabited area but in most cases these do not form part of the city.
8. Durkheim would probably disagree and claim that the collectivity would formulate the principal rules which the individuals would then be party to. See:
 DURKHEIM, E op cit.
9. It is the authors bias that city form is controlled by humans alone, notwithstanding the few acts of nature which can only destroy but not create city form.
10. City form is used here to mean the spatial arrangements of human activities and the many living and non-living things connected with the activities, in an urban settlement at a given time. It includes the spatial distribution and the nature of the physical features which modify space, of space itself, of the flow of

goods and information, related to human activities and interactions which affect the physical features like buildings, enclosures, channels, ambiances, objects and non-human living things. The important aspect here is that of human activities and interactions since it is the consideration here that the activities and objects not related to human activities would not constitute a city in the manner one would normally envisage a city. This description of city form is only a very slightly modified version of the one offered by Lynch and suits the purpose of this work very well. See:

- LYNCH, Kevin A Theory of Good City Form.
Cambridge, MA. MIT Press. 1981. p. 47&345.
11. GAKENHEIMER, R. Determinants of Physical Structure in the Peruvian Town of the Sixteenth Century.
Doctoral Dissertation, Univ.of Pennsylvania.
1964. p.65, 67.
 12. KING, A.D. Colonial Urban Development: Culture, Social Power and the Environment.
London, Routledge & Kegan Paul. 1976.
 13. RAPOPORT, A House Form and Culture.
Englewood Cliffs, N.J. Prentice Hall Inc. 1969.p.6
 14. LYNCH, K. op cit.
 15. MORIER, J. A Second Journey Through Persia, Armenia and Asia Minor to Constantinople Between 1810-1816.
London, Longman, Hurst, Rees, Orme & Brown.
1818. p.69-70.
 16. LYNCH, K. op cit. p. 220 & 209.
 17. While the terminology, deterministic, may appear to be a little strong, it does however, convey the sense of determinism which the writers are trying to make.
 18. There have been a number of publications on how climate determines form. See for example:
OLGAY, V.& OLGAY Design with Climate.
RAINER, R. Traditional Building In Iran.
Graz, Austria Stadplanum gsabteilung Der
N.I.S.C.Akademische Druck-U. Verlagsanstalt.
 19. See the literature on the Islamic city. Chapter 5.
 20. WHEATLEY,P. The Pivot of the Four Quarters.
Chiacago, Aldine Press. 1971.

- BOYD, A.C.H. Chinese Architecture and Town Planning.
University of Chicago Press. 1962.
21. SJOBERG, G. The Pre-Industrial City.
Glencoe, ILL. The Free Press. 1960.
22. APPLETON, J.H. "Railways and the Morphology of British towns "
in BECKINSALE, R.P. & HOUSTON, J.M. (ed)
Urbanization and its Problems: Essays Presented
to E.W. Gilbert.
Oxford, Blackwell. 1968. p. 92-118.
- KELLETT, J.R. The Impact of Railways on Victorian Cities.
London: Routledge and Kegan Paul. 1969.
23. SJOBERG, G. op cit.
'Technology' and industrialization need to be defined better.
24. I use the nomenclature Rationalist Discipline to emphasize
that these studies attempt to make contributions to a part-
icular discipline .
25. For theories on the production and distribution of goods see:
ISARD, W. Location and Space Economy.
Cambridge, MA. MIT Press. 1956.
- RATCLIFFE, R.U. "Efficiency and the Location of Urban
Activities in FISHER, R.M. (ed) The Metropolis
and Modern Life.
New York, Russell & Russell. 1955.
- For books on Central Place Theory, see:
CHRISTALLER, W. Central Place in Southern Germany. Trans: BASKIN, C.
Englewood Cliffs, NJ. Prentice Hall. 1966.
Originally published in 1933.
- For theories on location within city, see:
BERRY, B.J.L. & Geographical Perspectives on Urban Systems.
HORTON, F.E. Englewood Cliffs, NJ. Prentice Hall. 1970.
ALONSO, W. Location and Land Use.
Cambridge, MA. Harvard University Press. 1964.
26. CASTELLS, M. The Urban Question: A Marxist Approach.
SHERIDAN, A. (Translator)
Cambridge, MA. MIT Press. 1977.
- BABUROV, A. The Ideal Communist City.
WATKINS, R.N. (Translator)
New York, George Braziller. 1968.
27. DICKINSON, R.E. The West European City.
London, Routledge and Kegan Paul. 1962. Second Ed.
- HOYT, H. One Hundred Years of Land Values in Chicago.
Chicago, University of Chicago Press. 1933.

28. LYNCH, K. Image of the City.
Cambridge, MA. MIT Press. 1960.
29. DICKINSON, R.E. op cit.
30. BURGESS, E.W. "Urban Areas" in SMITH, T.U. & WHITE, L.D. (ed)
Chicago: An Experiment in Social Science Research.
Chicago, University of Chicago Press. 1929.
PARK, R. "Human Ecology" in
in American Journal of Sociology. July 1936.
Volume No: 42.
31. The Machine Model was used by,
CORBUSIER, Le The Radiant City.

The Organic Model was used by,
GEDDES, P. Cities in Evolution.
New York, Howard Fertig. 1968.
The Physics Model was used by,
ZIFF, G.R. Human Behavior and the Principle of Least Effort.
An Introduction to Human Ecology.
New York, Hafner Publishing Co. 1965.
32. The question of how much power is necessary has not been
resolved here.
33. CROZIER, M. The Bureaucratic Phenomenon.
Chicago, University of Chicago Press. 1964. p.145.
He defines power as the ability to make a person do what he would
normally not do.
34. Many of these models were based on the then developed nations.
Earlier, it was Greece, Rome, India. Later it was Europe
particularly Paris, France. See also Chapter 3 on Autocratic
Control.
35. BLACK, D. The Behavior of Law.
New York, Academic Press. 1976. See p. 4-7 and
Chapter 6.

Chapter 3

Autocratic Control

In this chapter, I will formulate a working definition of Autocratic Control, explain how it could affect city form, and show how it operated in the case of Tehran, Iran.

The control exercised by individuals or a very small group, who due to their position in the political institution have virtually unlimited power to execute decisions regarding the citizens, I shall call autocratic control.

The nature of the political institution could vary. It could be anywhere on the continuum from a system of self selection and self appointment, to selection and appointment due to birth, descent or other similar criteria, to selection and appointment by the members of the collective. Examples of the first would be those whose claim to power was through physical or military domination, of the second kind would be a hereditary system of kingship, and of the third kind would be the selection of the leader by the people. In all of the above kinds the essential ideas of concentration of power and authority, of leadership and representation remain. While in most cases there would be a number of individuals working with the autocrat in his or her power maintenance, there would have to be one individual (or a very small few) who would have the final power, whom I shall call the autocrat. The autocrat could or could not be influenced in the decision making process by an advisor or an advisory body, but in the final analysis he makes even this choice independently, and reserves the right to override recommendations. This is not to say that the exerciser of this kind of control would of necessity have to be an autocrat. Rather the term is intended much

more situationally.

In chapter two, it was briefly explained that the foundation for autocratic control would lie in political dominance. Political dominance could be maintained in a number of ways. It could involve a great deal of coercive power derived from military power, particularly if undefeated. This could be extended to include military conquest and coercive subjugation of the people, which has often been the main basis of kingship in Iran. It could also come from strength in organization, some form of governmentally accepted system like constitutional monarchy or Life Term Presidency. It could be a governmental set up which gave unlimited power to the autocrat, as in the monarchical form of government based on hereditary kingship, wherein an individual or a family could claim absolute power by virtue of royal descent. Autocratic power could be in the designate of a ruling autocrat endowed with immense power and support facilities. It could be a military dictatorship. Or it could be other formal or informal systems which gave unlimited power to a very few as was the case with Reza Khan in whose time the constitution proclaimed a parliamentary democracy but in effect Reza Khan was the autocrat. Situations wherein near absolute power lay in a person were present in Iran through a large part of its history, particularly in its tradition of kingship and monarchical form of government.¹ Further augmentation of the power base could come from the concentration of economic power in the hands of the autocrat. Wealth and patronage could be successfully used to strengthen and enhance royal position. Augmentation could also come from the development of a certain dependence of the subjects on the monarch, for protection in times of need. Further legitimization of power base could be through a religious sanctification of the royal position² as was the case in Iran. The Iranians regarded their king as Zil Allah or Shadow of the Almighty whereby he was believed to be the caretaker for God on Earth.³ Accordingly, Iranians had their shoes off in the

presence of the Shah and often prostrated themselves in front of the king to seek favors.⁴ Consequently, they were quite surprised to learn that any limitations could be placed on royal power and authority as was done in England through the Parliament.⁵

Manifestations of autocratic controls could take several forms. Most directly, it could be in the form of decrees, laws, orders and agreements which could be written or oral. With written orders if uncovered, we could have a direct link established between cause and action or result. But unfortunately, such evidence could not be found. For earlier periods there is some doubt as to whether they exist at all, as most were likely to have been oral orders. For the later periods manifestations could be in the form of Terms of Reference, orders, contract agreements, etc. But these were also difficult to come by, particularly if some parts of the agreement were informal. A survey of a number of U.S. consulting firms who worked in Iran from 1960's to as late as 1978, did not produce any, as they were said to be confidential and not one was willing to discuss the question

However, this is not to say that the controls did not exist. It only implies that one ought to look at other indirect forms of evidence. Historical and geographical accounts could be treated as such when they give an idea of past and existing conditions and mention causes. The process implies a reliance largely on the systematic observations of historians, geographers and travellers, particularly when independent sources confirm each other. This would be the best way to get at oral and informal orders.

I have identified four basic kinds of autocratic control: autocratic control of imposition, intervention, non-intervention and oversight. The following section will elucidate the working of these controls.

1. Autocratic Control of Imposition

This involves a situation where an autocrat uses his coercive power to impose severe restrictions on the people with consequent effect on city form. Isfahan and Tehran both provide good examples of this kind of control. In 1604, Shah Abbas I ordered the Armenian Christians of Julfa, Armenia to move to Isfahan. He believed that the Armenians being good traders, would be useful to the commerce and economy of his capital, Isfahan. They were forced to leave their homes and ordered to settle outside the city of Isfahan, in an area re-named later as New Julfa.⁶ Again, in 1699, Shah Sultan Hussain attempted to forcibly convert the Zoroastrians of Hasanabad, Isfahan to Islam and ordered them to vacate the land.⁷ During the early 1930's, Reza Khan riddled the old town of Tehran with a geometric network of broad avenues which often ploughed through dense residential and commercial areas with supreme disregard for pre-existing buildings, and coerced the inhabitants to move. These are perhaps the more extreme examples of autocratic control of imposition.⁸

2. Autocratic Control of Intervention

In this case, the autocrat uses his power, wealth and status to intervene and effect major changes of city form. This can take four forms as shown below:

a) autocratic control of creative intervention.

When the autocrat uses his power, status and wealth (personal or state) to cause new developments, to cause major changes in the city, or to provide services which the community was unable to provide, there would be autocratic control of creative intervention. Examples of this are abundant and will be discussed later in the section on Tehran.

b) autocratic control of demonstrative intervention.

This would happen when the autocrat provided the model for the city to follow, or when he used his patronage to set examples or demonstrate

ideals or philosophy. Modelling was extensively used by both Reza Khan and Mohammed Reza Shah.

c) autocratic control of destructive intervention.

In this case, the autocrat used his power to destroy part or whole development, or to arrest development.⁹ Destruction by razing and burning were used by the Mongol kings when they razed the city of Rey to the ground. At times autocratic control of destructive intervention was followed by creative intervention or self-glorifying intervention as can be seen in Isfahan. Shah Sultan Hussain destroyed the Zoroastrian quarter in Isfahan. Subsequently the area was cleared for royal gardens, and a mosque built in place of the Zoroastrian fire temple.¹⁰

d) autocratic control of self-glorifying intervention.

This would be manifest when the autocrat used his power to build grandiose structures, parks, squares roads etc. in the city and name it after him, primarily for self-glorification, and drawing praise from certain people-- be it residents, foreigners or historians. Building of Achaemenian style structures by Reza Khan both to revive past glory of the Achaemenians and to associate himself with it, was a clear example of this kind of control. Other examples will be dealt with in detail, in the section on Tehran.

3. Autocratic Control of Selective Non-Intervention.

This form of control was used by autocrats when they selectively withheld their patronage and leadership, aware that the residents were dependent on it, and thus allowed the city to change for the worse. Control of selective non-intervention was used by Iranian monarchs on various occasions because they considered that a certain city was not good for them. Shah Abbas I, reportedly took a dislike towards Tehran when he fell ill there, in 1589, as a result of which he decided to make Isfahan his capital. Shah Ismail opted to select Tabriz as his capital and was content to let Tehran stagnate and suffer the loss of his patronage.

4. Autocratic Control of Oversight and Supervision.

Autocrats have often used their powers to oversee, check and ensure that development were of a pattern or quality they approved of. In some cases they knowingly allowed conditions to continue being aware of the circumstances. Control of oversight was also used when autocrats used their power to limit access to the city or parts thereof, or when they determined who got coveted areas of the city. As will be seen in the subsequent section, Reza Khan and Mohammad Reza, liberally used control of oversight to ensure a developmental pattern.

The following section describes Tehran historically, stressing on the kinds of autocratic interventions used through the times. It was considered important to take an historical look because changes in city form would become clearer with the different Shah's use of different kinds of autocratic control. An historical account also would obviate the need for explaining in every instance, the pre-existing status, before the implementation of the particular control. In the history, I have chosen to stress on the kinds of actions used, the ideas behind them and what they achieved. This process provided more information and seemed more interesting. It will be important to keep the kinds of autocratic control in mind to see their effects in Tehran.

Autocratic Control of Tehran

The origins of Tehran¹¹ are still rather obscure, although it is located to the ancient city of Rey¹² which had been written about in the tenth century works of al-Istakhri and Masaudi.¹³ Ibn Isfandiyar writing in 1216¹⁴ mentions Tehran, as did a work dated 1116.¹⁵ But no graphic description was offered. It can be surmised from these that Tehran may have existed in the tenth century but must have remained rather insignificant upto the thirteenth century.

* * * *

The town of the later Seljuq period, prior to the Mongol invasion was described by Abu Abdullah Yakut, the Arab geographer, in 1224,¹⁶ to be a large town with twelve quarters consisting of troglodytes but with thick gardens around the town.¹⁷ Soon after, Tehran reportedly became famous for its rivulets and gardens, but it is not clear whether this was an indication of the size, improvement and ingenuity of Tehran or whether the fame was because gardens and rivulets were unusual in the largely desert climate of Iran.

Rey¹⁸ on the other hand, remained a large and important center overshadowing Tehran¹⁹ until the Mongol invasion in 1220. At the Mongol leader's order the flourishing town of Rey was destroyed completely, an act of destructive intervention, while Tehran was spared. This left the plains without any large centers and this was believed by Minorsky to be the reason for Tehran's subsequent growth. History has provided instances where cities were rebuilt after destruction on the same site and so we cannot definitively say that the destruction of Rey was the main reason for Tehran's growth.

* * * *

By the early fifteenth century, Tehran had grown into a large city but the surprising aspect was that although generally prosperous

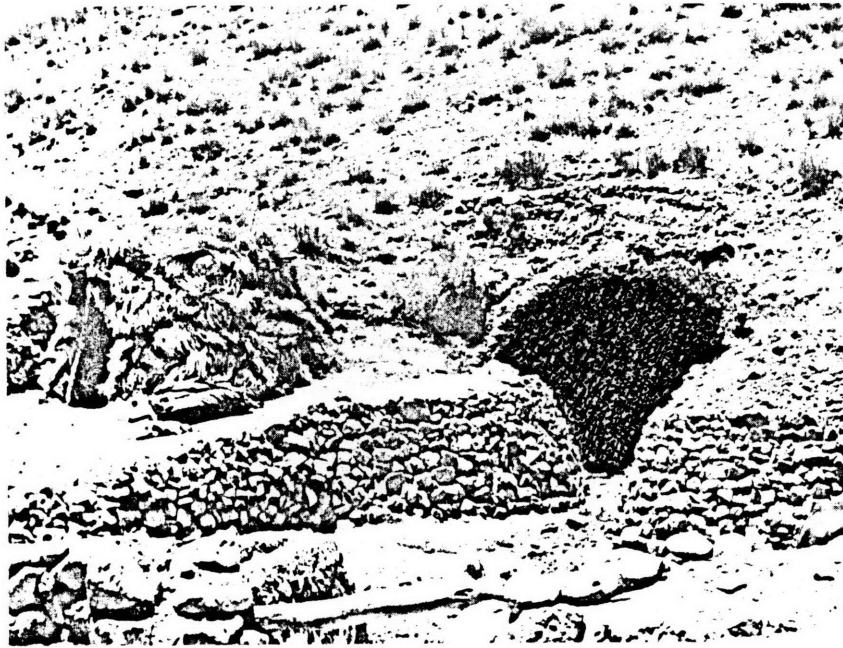


FIG.
3.01

TROGLODYTISM, IN KERMAN.

NOTE: such caves were used in Tehran as well.

source: English, P.W.: City and Village.. 1966, pl. 4B



FIG.
3.02

TEHRAN: OVERVIEW, CHARACTER OF OLD TOWN.

note: the nature of the old city.

source: DAGRADI, P: R.G.I. #70, 1963, p.276.

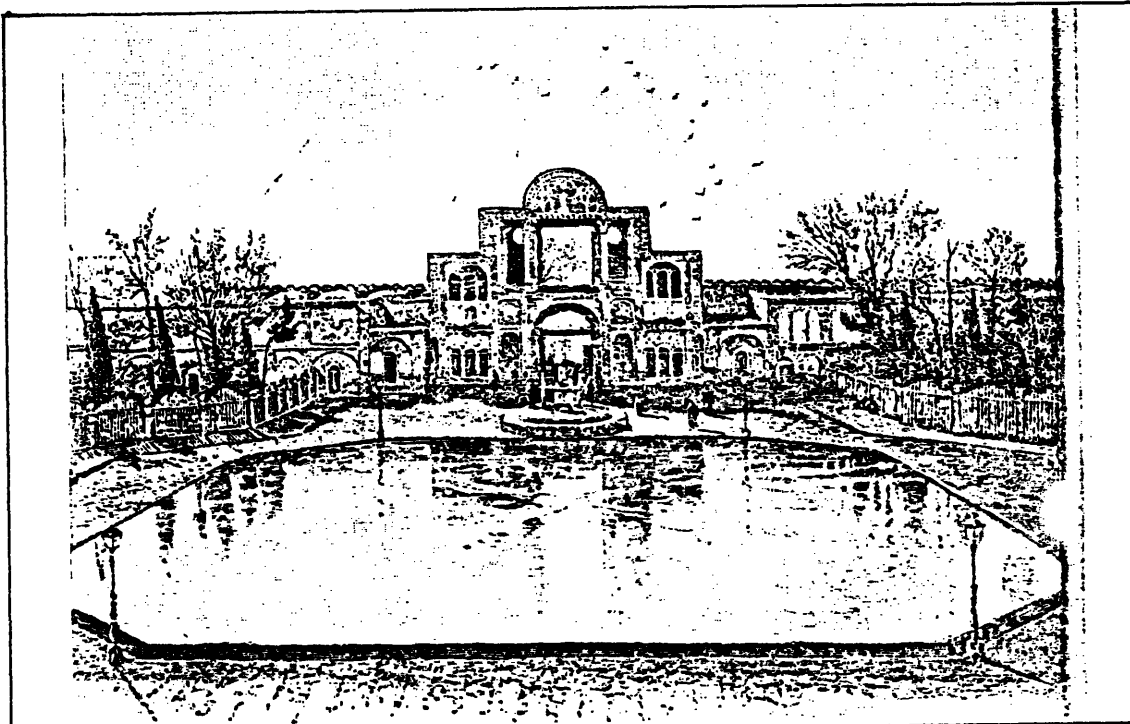


FIG. 3.03 TEHRAN: GATE BETWEEN CITADEL & MAIDAN-E-MASHK.
 note: the features of the gate and wall.
 source: BENJAMIN, S.G.W.: "The City of Tehran" Dec, 1885.

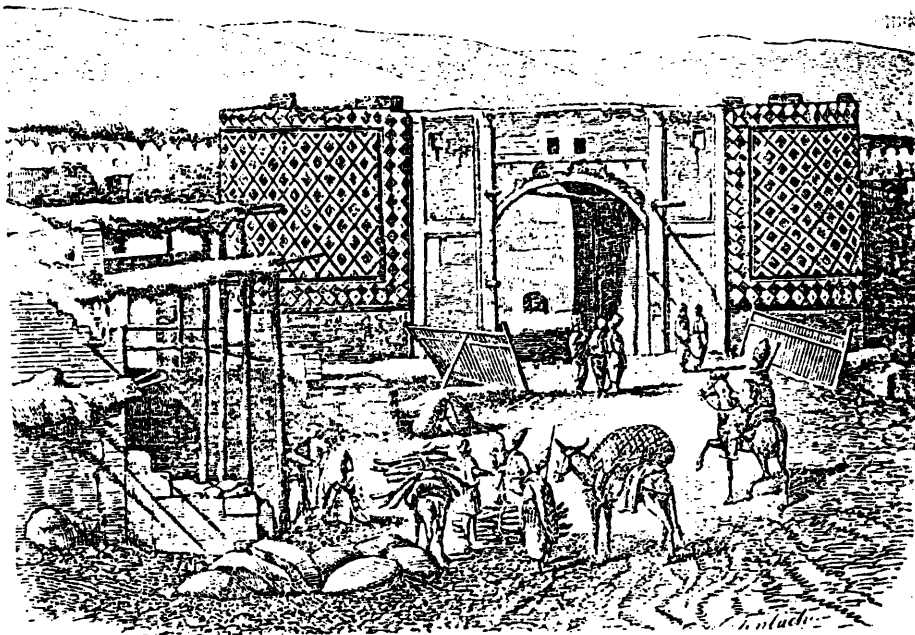


FIG. 3.04 TEHRAN: GATE.
 source: BRUGSCH, H: Der K.Preussischen Gesandtschaft
 Nach Persien 1860-61 Leipzig: Hinrichs'sche. 1862

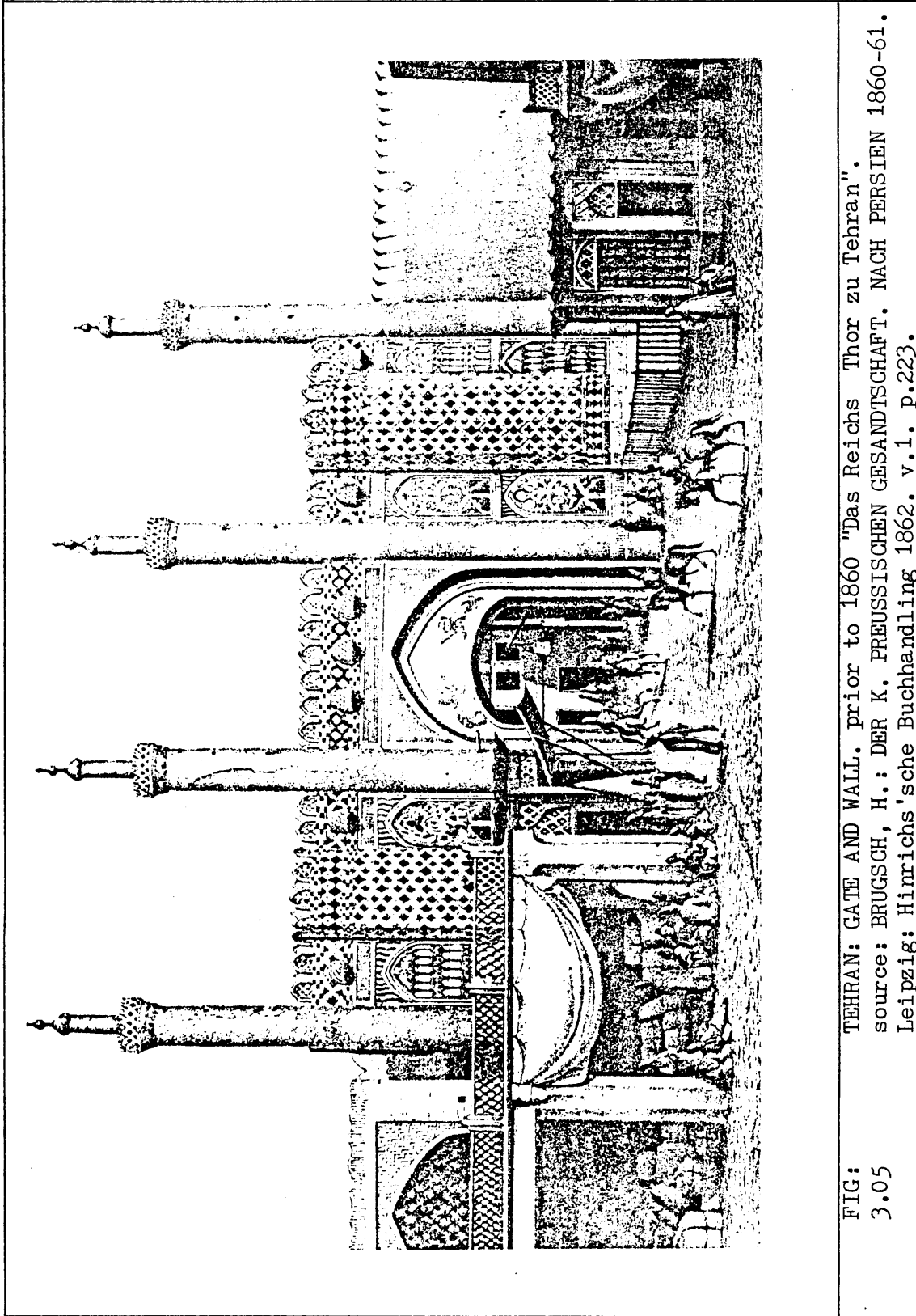


FIG: TEHRAN: GATE AND WALL. prior to 1860 "Das Reichs Thor zu Tehran".
3.05 source: BRUGSCH, H.: DER K. PREUSSISCHEN GESANDTSCHAFT. NACH PERSIEN 1860-61.
Leipzig: Hinrichs'sche Buchhandlung 1862. v.1. p.223.

and well endowed it did not have a protective wall.²⁰ In his brief account, Clavijo, the Spanish Ambassador to the court of Timur, mentioned Tehran's largeness and stressed that the finest building was one of royal patronage: Timur's temporary residence; a sign of autocratic control of creative intervention. He also indicated that Tehran was not even a governor's seat at that time.

The selection of capitals has been a royal and autocratic prerogative and because of the associated court functions, an important element of control. Towns and cities selected as capitals, or recipients of royal court, and temporary royal residences were embellished to standards acceptable to the particular monarch of the time. In similar vein, Shah Ismail (1501-1524), the founder of the Safavid dynasty,²¹ selected Tabriz as his capital and embellished it. Tehran lay dormant during this time mainly as a result of lack of orders from Ismail, who thus chose selective non-intervention for Tehran.

The next king Shah Tahmasp I, (1524-1576), caused major transformations in Tehran's morphology through order and patronage, although he did not make Tehran his capital, but Qazvin. This was an unusual case where a Shah patronized developments from which he could not directly benefit. He ordered that Tehran be surrounded by a wall 20 feet high, polygonal in shape, with a moat outside approximately 8 km. (5 miles)²² long with 4 gates and 114 towers. And so Tehran, only as late as 1553 joined the ranks of walled cities. Tahmasp I further patronized the building of the bazaar and possibly also the citadel. (Fig. 3.06) The city continued to maintain its abundant canals and gardens lauded by Ahmad Radi of Rey.

Tehran again lost its royal patronage with the reign of Shah Abbas I (1587-1629) who chose selective non-intervention and concentrated all his attention to the civic design of Isfahan, his capital.²³ Isfahan flourished during this period because of the autocratic

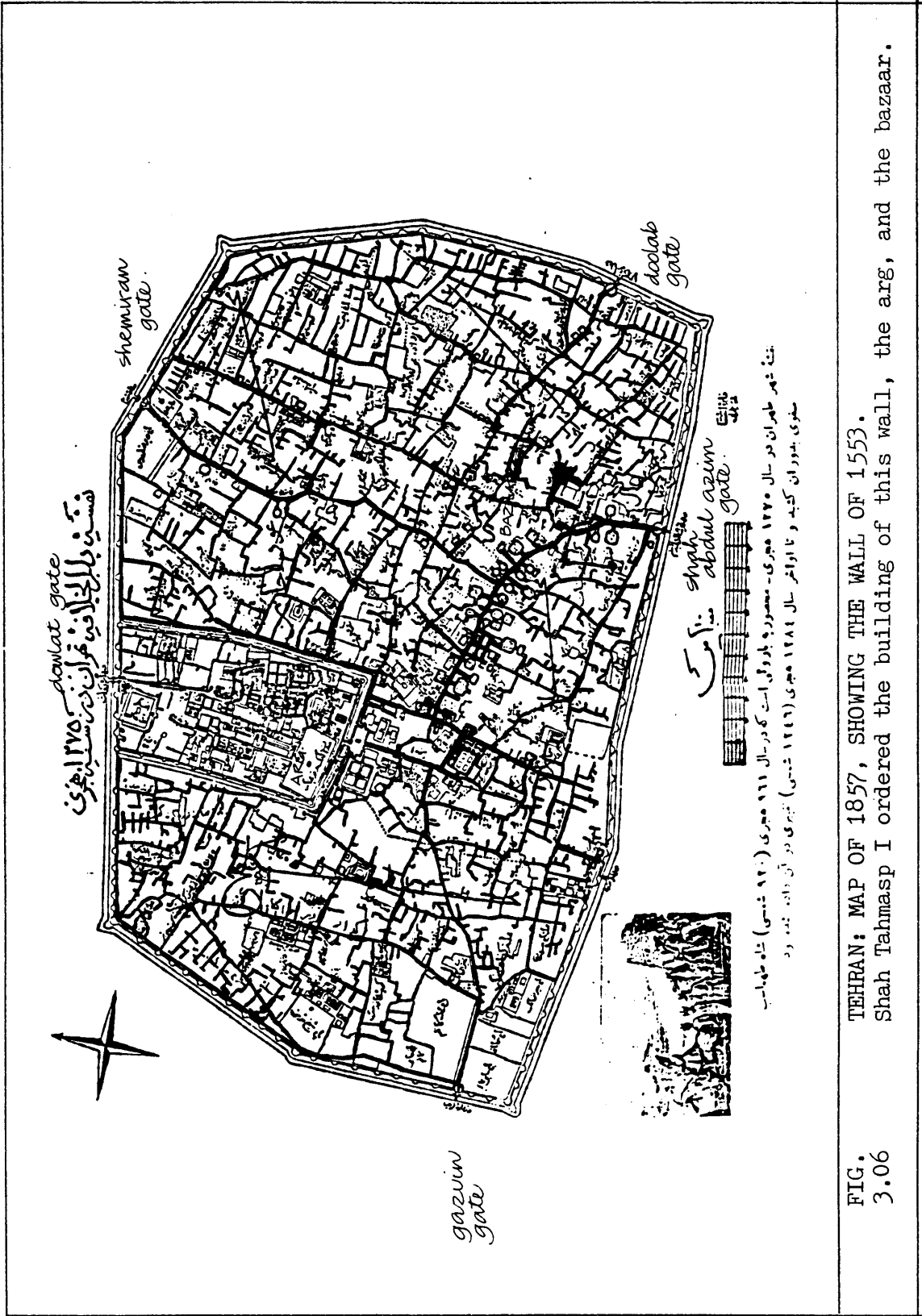


FIG. 3.06 TEHRAN: MAP OF 1857, SHOWING THE WALL OF 1553. Shah Tahmasp I ordered the building of this wall, the arg, and the bazaar.

attention. The effect of this withdrawal of patronage was reflected in the account of Pietro della Valle who, visiting the city in 1618, described it as a "large city but not well peopled, nor containing many houses."²⁴ And that besides beautiful gardens, "Tehran possesses nothing, not even a single building worthy of notice."²⁵ But unlike the past, a khan (a representative of the government) was found to be resident in Tehran,²⁶ which gave Tehran an official recognition. Neither of these accounts mention any significant change to the city form, which was due to withholding of royal patronage: a sign of the control exerted indirectly by the autocrats. While this does not explain the general lack of action on the part of the inhabitants, it probably explains the phenomenon of agglomeration of economies of investment whereby small investors like small builders follow the trend of set by large investors like the royal family and the nobility. Withholding of royal initiative seems to have been the cause for Tehran's fluctuating developmental pattern.

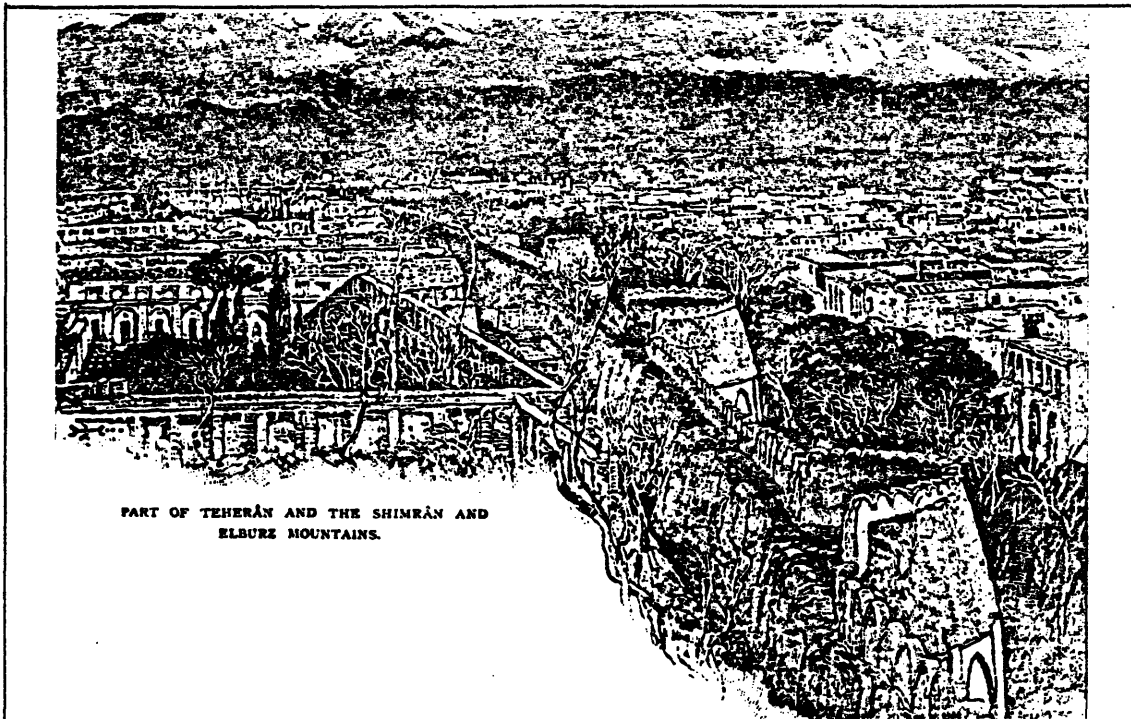
The later Safavids, like Shah Suleiman, (1667-1694) sprinkled royal attention on Tehran by commissioning the building of a palace. Shah Tahmasp II (1722-1732) had a brief stay in Tehran, but fled to Mazanderan on the approach of the Afghans, which showed his lack of concern for Tehran. He also sprinkled royal attention by holding court in 1729 and by receiving the Turkish Ambassador there. This marked the beginning of the city being a recipient of court functions.

Cities have undergone tremendous morphological upheaval in times of war and capture depending on the autocrat's decision to destroy or preserve the city. Earlier we saw how the Mongol invasion destroyed Rey but not Tehran. As a result of Tehran's falling to the Afghans in 1725 after a brief and concerted resistance, Tehran lost much of its nobility and its wall was damaged, which remained in that condition for want of royal action.²⁷

As part of a decision made by Nadir Shah Afshar (1736-1747) Tehran was made a fief for his eldest son as he himself favored Mashad as capital. Tehran received only marginal attention from him. But in 1760 the autocratic order was given by Karim Khan Zand (1758-1779) " to build at Tehran a center of government (imarat) which would rival the palace of Chosroes at Ctesiphon."²⁸ This order was clearly an example of control of demonstrative intervention. A diwankhana (meeting hall), a haram (abode), quarters for the bodyguards, and a djannat (garden) were to be included.²⁹ These elements probably constituted the arg or the citadel described by later travellers. It is worthy of notice that such grandiose new developments were not only the result of fiat and royal patronage but also almost exclusively for royal use. Karim Khan Zand however, later chose to make Shiraz his capital and reorganized that city's entire northwestern part. Besides the above, this was generally a 'no action' period in Tehran.

Agha Muhammad Khan (1779-1797) the Qajar founder,³⁰ decided to make Tehran his capital in 1788 but was not able to embellish it physically as was the custom with the Shahs. This was supported by Olivier's description of Tehran in 1796. He estimated the population at 15,000 of which 3,000 or a full 20% were employed by the Shah mostly as bodyguards and soldiers.³¹ This increase in population and employment was the direct outcome of the elevation of Tehran's status to a capital by the Shah. Olivier clearly said that "the gold scattered around the throne did not fail to attract inhabitants."³² which also indicated that wealth was an important component of the autocrat's power.

Various reasons have been advanced for the choice of Tehran as capital: that it was strategically located in proximity to the Qajar tribe and stronghold and close to the Russians. However, travellers like Olivier have reported on the bad quality of the water of Tehran, and also on the quality of the air, causing diseases.³³ Water



PART OF TEHRÂN AND THE SHIMRÂN AND
ELBURZ MOUNTAINS.

FIG. 3.07 TEHRAN: WALL AND RAMPART.
source: BENJAMIN, S.G.W.: 'The City of Tehran', in
The Century Magazine, v.XXXI, No. 2. Dec, 1885, p.167.

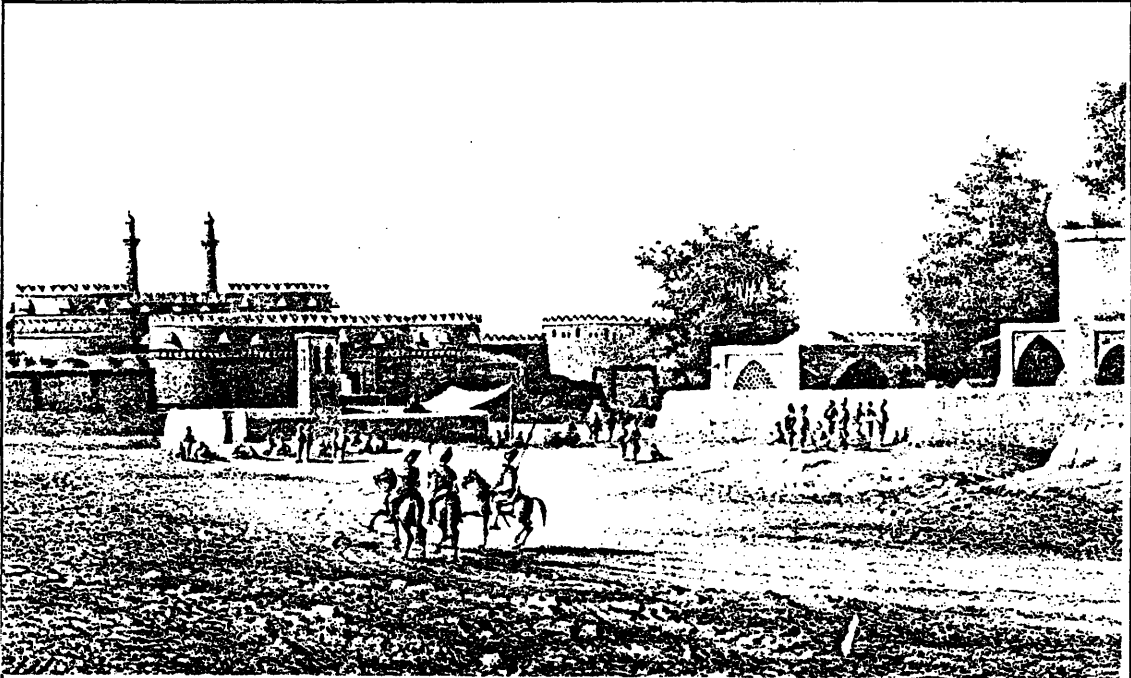


FIG: 3.08 TEHRAN: WALL AND GATE FROM THE OUTSIDE.
source: BRUGSCH, H: Nach Persien 1860-61, op cit.

had to be brought in from Karaj. But inspite of all this the granting of the capital status was an autocratic decision of Muhammad Shah.

Expansion beyond the city wall and north-ward movement was begun for the first time by Fath Ali Shah (1797-1834) who had his country palace Qasr-i-Qajar built to the north, an action which added a monument to the city's morphology and also to the existing arg. The Nigaristan palace and Ishratabad palace and gardens were also built by Fath Ali Shah. Tehran's rapid population increase became noticeable as it reached 50,000 in winter, but in the summer when the court was away, the entire population except the very poor migrated.³⁴ The growth in royal activity and population was matched by a growth in the number of houses to an estimated 12,000.³⁵ Gardane reported seeing, in 1807, the Maidan-e-Shah under construction.³⁶ The number of public buildings increased, as Tehran now had 6 mosques, 3 or 4 madrassas (schools), about 150 hammams (public baths), 2 maidans one of which the Maidan-e-Topkhane was inside the arg while the other, Maidan-e-Sabz was outside. The arg itself, the habitation of the royal family was at an advantageous location on high ground on the north near a gate, was walled with a fosse, had two gates and a court of exhibition roughly 200 feet square.³⁷ Yet, while the royal enclave was so well endowed in the other quarters, "the streets were narrow and filthy with uncovered drains in the middle."³⁸ Ker Porter and Debeux also described the existence of troglodytism and deep and wide excavations inside Qazvin gate.³⁹

That the control of major development was really an autocratic phenomenon is shown by the fact that even the timing was the Shah's prerogative. For instance, in the case of Fath Ali Shah, after an initial period when the town was "considerably improved,"⁴⁰ there was a period of neglect⁴¹ and decay towards the end of his reign, which lasted right through the reign of Muhammad Shah (1834-1848) who only began to build a fort and palace to the north in Tajrish.⁴² Similarly,

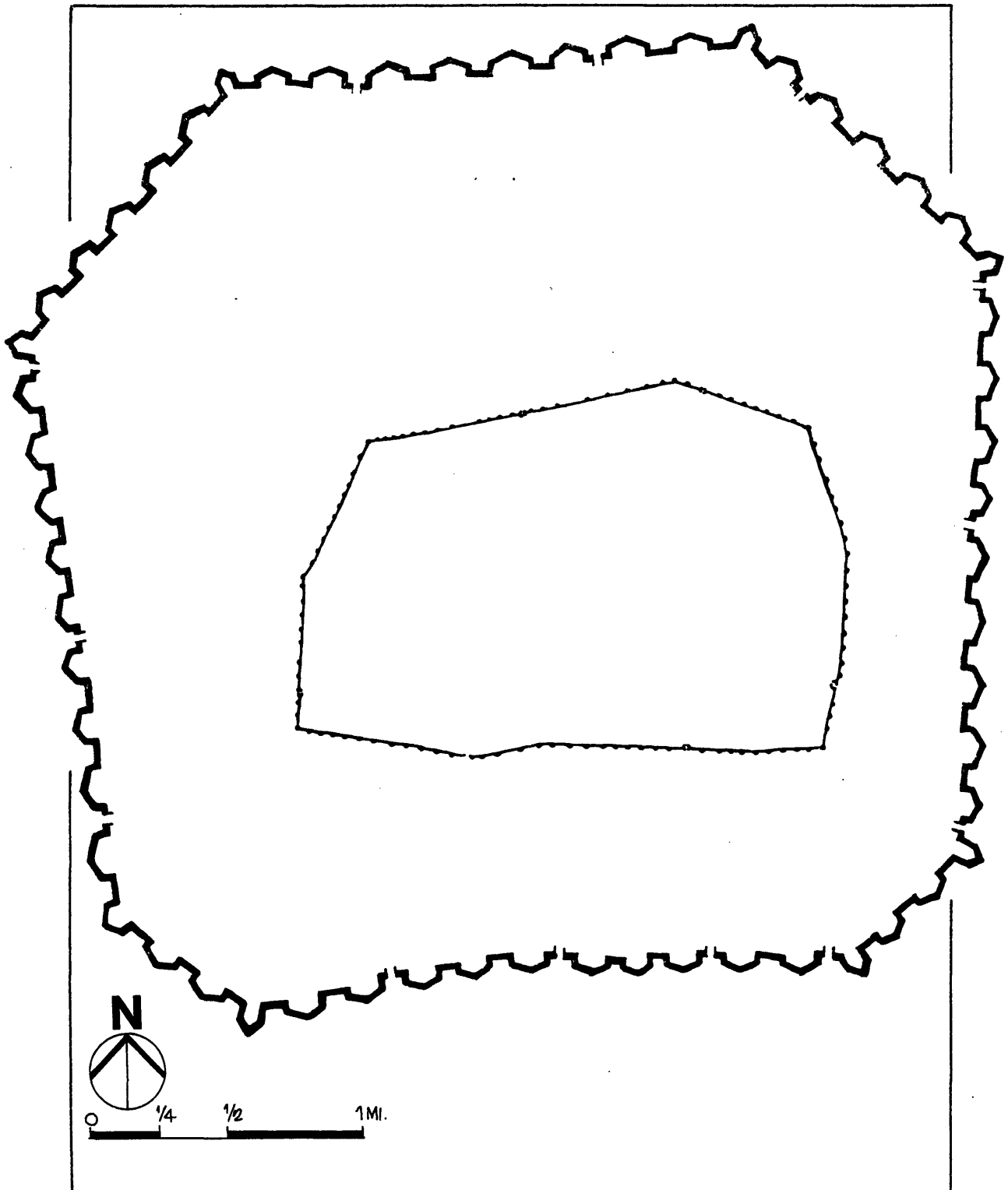


FIG: 3.09 TEHRAN: PLAN SHOWING WALL OF 1553 & THAT OF 1866.
note: the change in the form.
source: compilation from maps, sanjoy mazumdar.



1891

Tehran

FIG.
3.10

TEHRAN - AS IN 1891. (essentially correct in 1910.)
 note: the octagonal form, the wall of 1860.
 source: Harvard University Library.

the first twenty years of Nasr-ud-Din Shah's reign (1848-1896) was a period of stagnation for Tehran. But suddenly, Nasr-ud-Din Shah decided that "the Point of Adoration (kibleh) of the Universe" was framed in a somewhat inadequate setting. Accordingly, Tehran was "bidden to burst its bonds and enlarge its quarters."⁴³ The old walls were demolished, the moat filled and a new rampart and fosse constructed which enclosed approximately a mile or more on all sides. (Fig. 3.09) This was an instance when an act of destructive intervention was followed by an act of demonstrative intervention.

Behind the various actions taken by the monarchs to control the city form, there has often been an ideal of what the city should look like or have, and the controls were attempts to turn the reality into closer resemblance with the imagined form. This was true mostly in cases where there was some concerted action. In the case of Nasr-ud-Din Shah who made several trips to Europe, the model was clearly an European one. In particular, the 1866 wall and fosse was based upon Vauban's system, modelled on the Napoleonic fortifications of Paris before the German War.

That the building of such a wall was an act of autocrat order and use of state patronage was shown by the statement that, " a good deal of the money sent from England in 1871 by the Persian Famine Relief Fund was spent in the hiring of labour for the execution of the new ditch... and for the erection of lofty sloping rampart beyond."⁴⁴ It has been argued that these were not really for defense but possibly to facilitate the collection of octroi.⁴⁵ In any case, this action resulted in the most drastic change in Tehran's morphology since 1553 to octagonal in form with a perimeter of 17.6 km.(11 miles) with 12 gates⁴⁶ enclosing an area of 19.5 sq.km.(7.5 miles). Much of the earlier northward migration was also included by the new enclosure.⁴⁷ The bazaar still remained the centre of trade. Yet this model based action did not seem to have been a part of comprehensive planning, as no

housing was built by the monarch in the newly included area as evidenced by the lack of buildings between the wall and the general spread of the old town.⁴⁸ New wide streets were built to the new gates. Persian street signs were put up although majority of the people were illiterate and generally gave directions using landmarks rather than street names. (Fig. 3.08) The effect of the model of demonstrative intervention regarding what ought to be built also showed up in the manner in which streets were affected. The earlier writers had noted the narrow, crooked streets of Tehran which were not used for wheeled transport as wheeled transport was not commonly used in Iran in those times. But the new streets were wide straight avenues, bordered with footpaths (a phenomenon unknown to Tehran so far)⁴⁹ and planted with trees, clearly reminiscent of the European model.⁵⁰ By 1851 many European and some Persian nobles had acquired carriages. In addition, by 1892 many of the major avenues had tram lines, and railways existed.⁵¹ Wheeled carriage transport became common by 1894.

Nasr-ud-Din Shah rebuilt the Maidan-i-Sabz, surrounded it with fashionable shops selling European goods. Many of these were owned by Europeans and Armenians. The bazaars also began stocking European goods. European writers lauded the performance with remarks like, "Tehran can now boast that it is 11 miles round and that it has European fortifications."⁵² and "Tehran owes its present greatness to Nasr-ud-Din Qajar."⁵³ The intervention thus proved to be self-glorifying too.

Meanwhile the royal quarter, the arg, due to monarchical interventions had gotten oil lamps for its streets which the rest of the city lacked, and had started expanding beyond its walls to the north. Before the new Doulat gate a new Maidan-e-Topkhane was built surrounded by artillery barracks. It measured 246.8 m. (270 yards) on the north and the south and 109.7 m. (120 yards) on east and west. To the northwest of this a Maidan-e-Mashk measuring 502.9 m. (550 yards)

CILAMP DE MARS

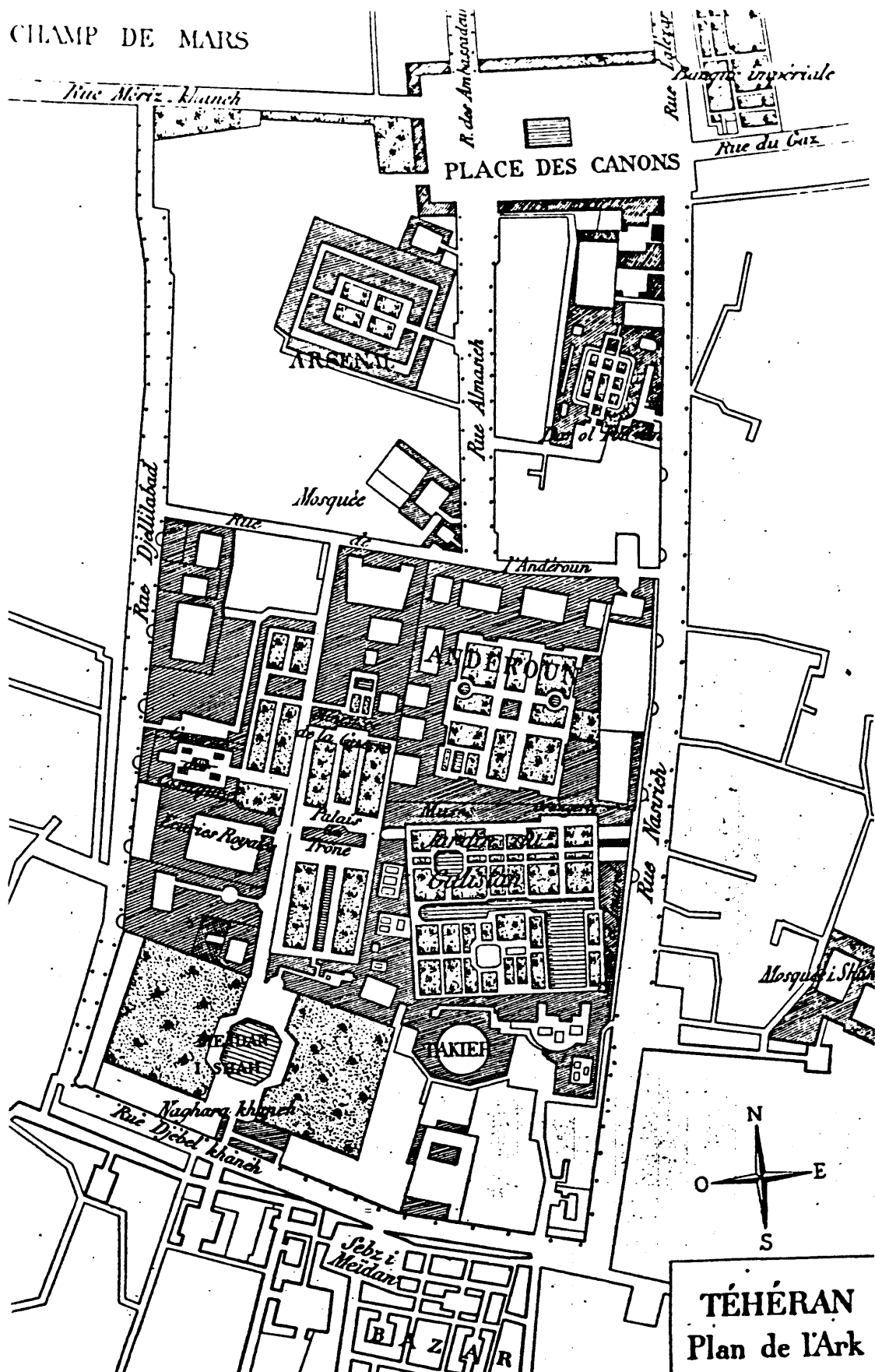


FIG: 3.11

TEHRAN, PLAN OF ARG.

source: DOCTEUR FEUVRIER: TROIS ANS A LA COUR DE PERSE Paris, Imprimerie Nationale, MDCCCVI (1806) pl. 26.

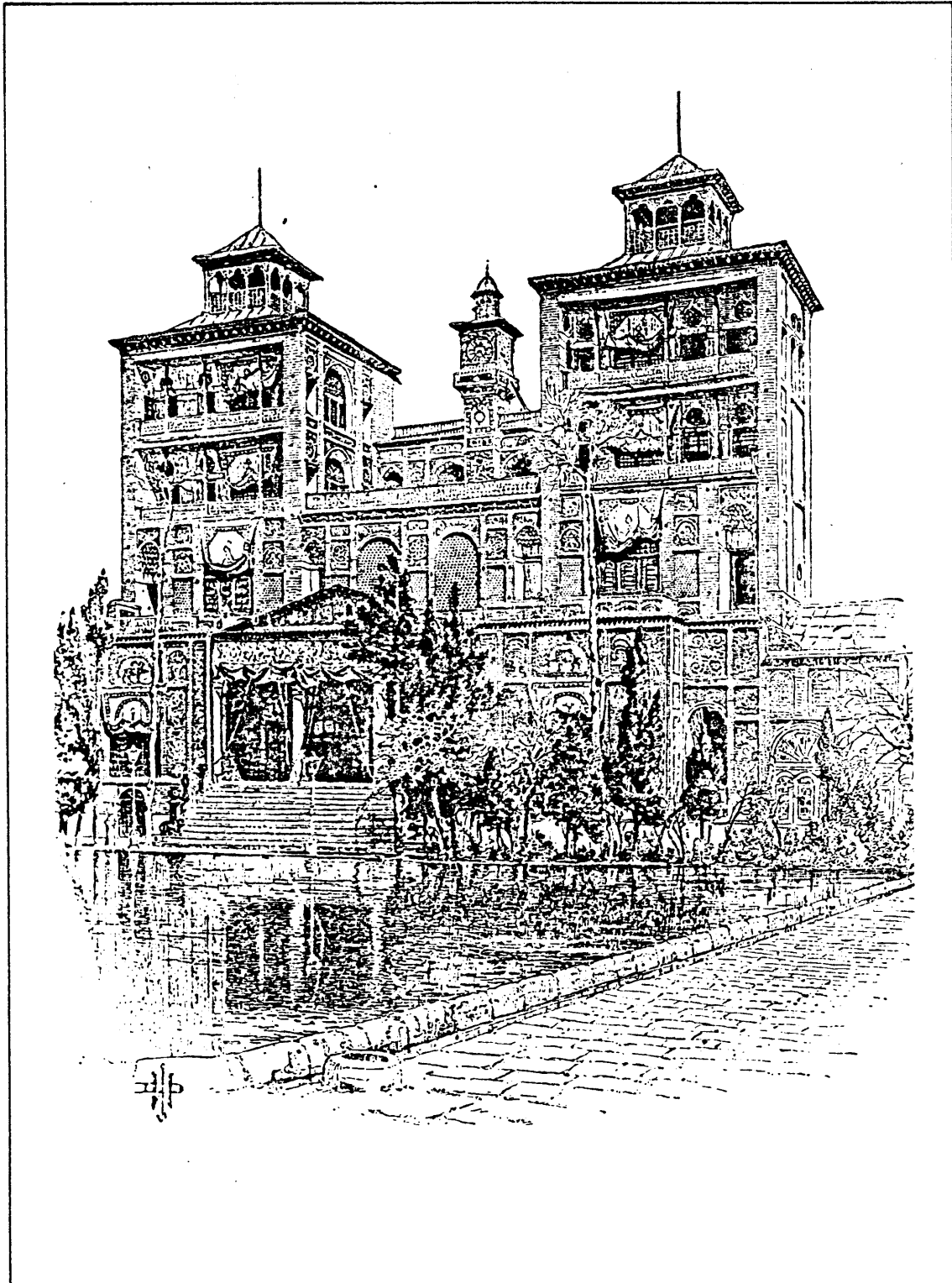


FIG.
3.12

TEHRAN: ANDARUN OF THE ARG.

note: the grandioseness

source: BENJAMIN, S.G.W.: op cit. 1885. p. 173.

by 320 m. (350 yards) was laid out for military drills. The new Takiyeh built in the arg was reportedly inspired by the Albert Hall of London. The arg accommodated the palace which had the andarun which was the habitation of the Shah's many wives.⁵⁴ Besides the palace, the arg also contained a number of court functions. There were beautiful gardens and a nakkar khane or drum tower from where music was played every sunset. Royal splendour was clearly evident.

Besides this splendour, fabulous wealth was concentrated in the hands of the autocrat.⁵⁵ I have commented on wealth as a means of exercising control, and explained the effect of patronage which only the autocrat could afford. It led Browne to remark,

" I think that the jealousy with which the Persian people are prone to regard these railways, tramways, monopolies, concessions and companies of which so much has been written lately is both natural and reasonable. These things so far as they are sources of wealth at all, are so not to the Persian people, but to the Shah and his ministers on the one hand, and to the European promoters of schemes on the other... People who know about them in Europe too often suppose that the interests of the Shah and of his subjects are identical, when they are in fact generally diametrically opposed." ⁵⁶

The advent of wide metalled avenues and trams, railways etc, were obviously due to the autocrat's decision.

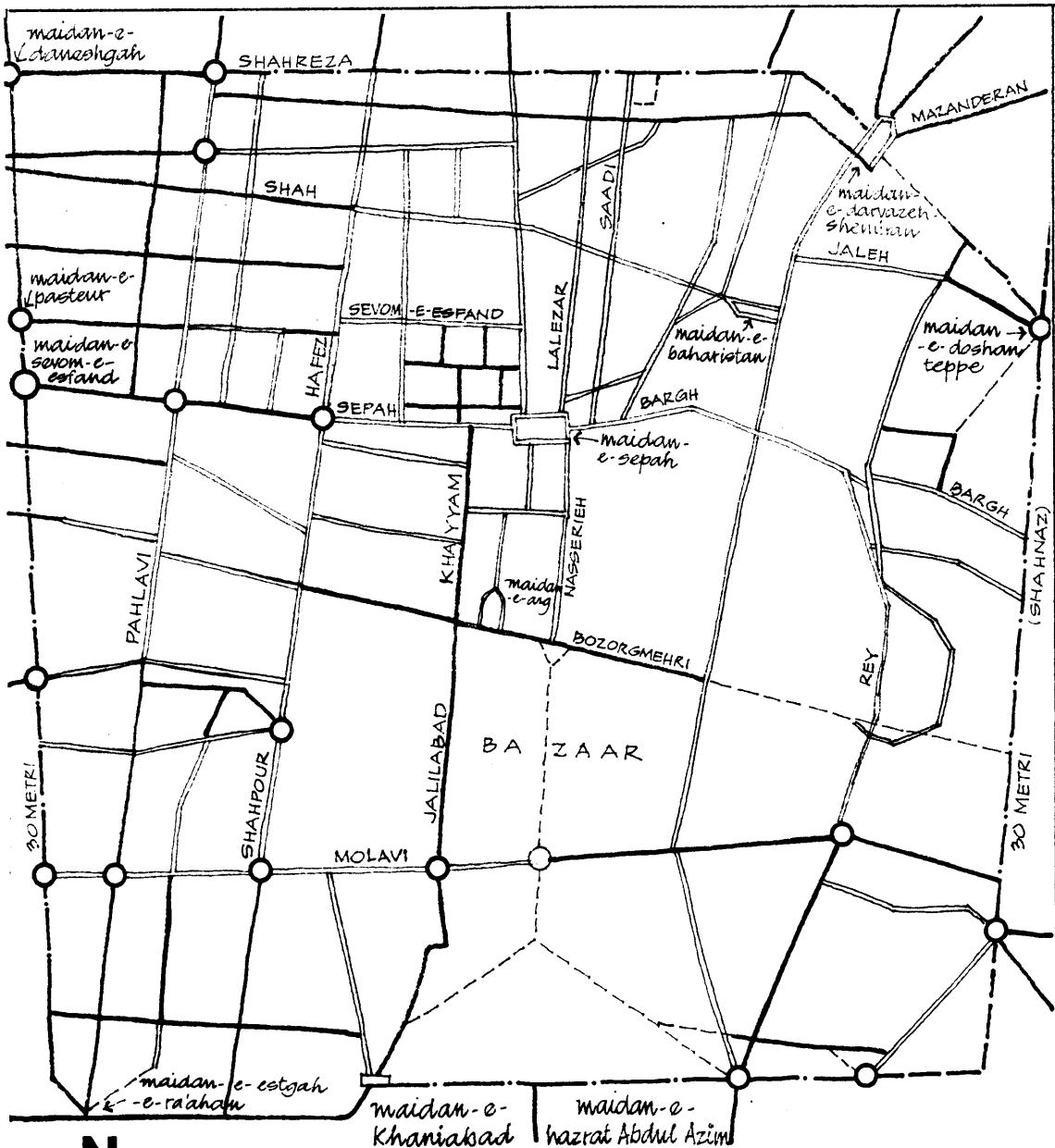
Use of choice locations by the monarch, his favored, and other rich was shown not only by the location of the arg, but also by the placement of beautifully laid out gardens like Behjatabad and Yousefabad, under royal ownership.⁵⁷ European and other foreign legations which found favor with the autocrat located themselves to the north, as also did the rich Iranians who began building large houses there. As a result of the Shah's actions a rich enclave began to be created in the city to the north, somewhat in the nature of suburbs. On the other hand the old town, particularly the Ghar Quarter, the oldest by Yakut's account, had maintained its structure, form and street pattern

but had an increased population of 100,000 by this time. However, Tehran, when compared to Isfahan was noticeably lacking in mosques and associated minarets.⁵⁸

The later Qajars like Muzaffar-e-Din Shah (1896-1907) Muhammad Ali Shah (1907-1909) and Ahmad Shah (1909-1925) slowly continued the process commenced by Nasr-ud-Din Shah. Tehran took on more broad and straight avenues with jubes.⁵⁹ Meanwhile, a constitutional movement precipitated a constitution in 1906, but the unlimited powers of the monarch remained de facto.

Then came Reza Khan Shah (1925-1941)⁶⁰ who first created the political conditions necessary for the continuation of autocratic power. Though the constitution proclaimed a parliamentary democracy Reza Khan virtually turned it into a military dictatorship.⁶¹ He had two different models of the city running concurrently. One was that of a metropolis based on 'modernization' through or synonymous with 'westernization'. His inspiration was derived from a number of sources one of which was that of Baron Haussman's Paris and its avenues. Accordingly Reza Khan had a geometric network of broad, straight avenues, imposed on the city. (Fig. 3.13) The result of such autocratic control of imposition was that streets often drove through dense residential and commercial areas and mosques. A mosque in the way of Hafez Avenue, Tehran, was divided by the latter. Initially these actions were confined to the north; later some ploughed through the close knit organic structure of the old quarters dividing them accordingly and thus heavily affecting the structure of the old town. Intermittent squares at cross roads, with statues became common. The similarity with Haussman's Paris was very clear.

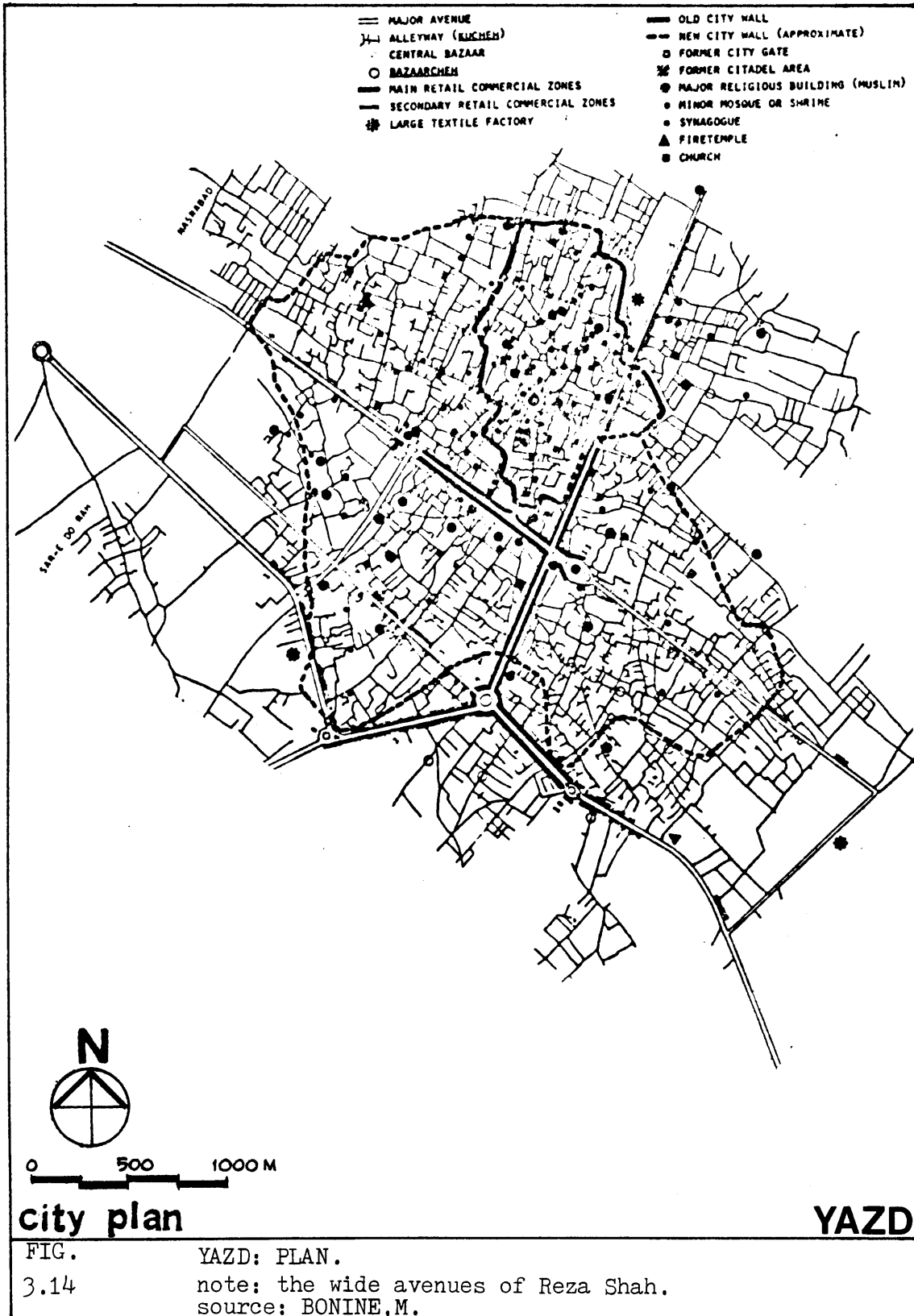
A second inspiration for the modernization program came from Kemal Ataturk's Turkey. Attempts were made by the municipal authority in Tehran to condemn and demolish quarters of old Tehran



- AVENUES FOLLOWING FORMER WALLS.
- == AVENUES FOLLOWING EXISTING STREETS
- - - AVENUES PLANNED BUT NOT BUILT.
- NEW AVENUES - UNPLANNED
- NEW AVENUES - PLANNED.

1937 plan for roads Tehran: Iran

FIG. 3.13 TEHRAN: PLAN SHOWING ROADS & AVENUES PLANNED & BUILT.
 note: the orthogonal layout.
 source: compilation, sanjoy mazumdar, idea, Brown, J.



- | | |
|-------------------------------------|-------------------------------------|
| — MAJOR AVENUE | — OLD CITY WALL |
| — ALLEYWAY (KUCHEN) | — NEW CITY WALL (APPROXIMATE) |
| ○ CENTRAL BAZAAR | □ FORMER CITY GATE |
| ○ BAZAARCHEN | ⊗ FORMER CITADEL AREA |
| — MAIN RETAIL COMMERCIAL ZONES | ● MAJOR RELIGIOUS BUILDING (MUSLIM) |
| — SECONDARY RETAIL COMMERCIAL ZONES | ● MINOR MOSQUE OR SHRINE |
| ⊗ LARGE TEXTILE FACTORY | ● SYNAGOGUE |
| | ▲ FIRETEMPLE |
| | ■ CHURCH |



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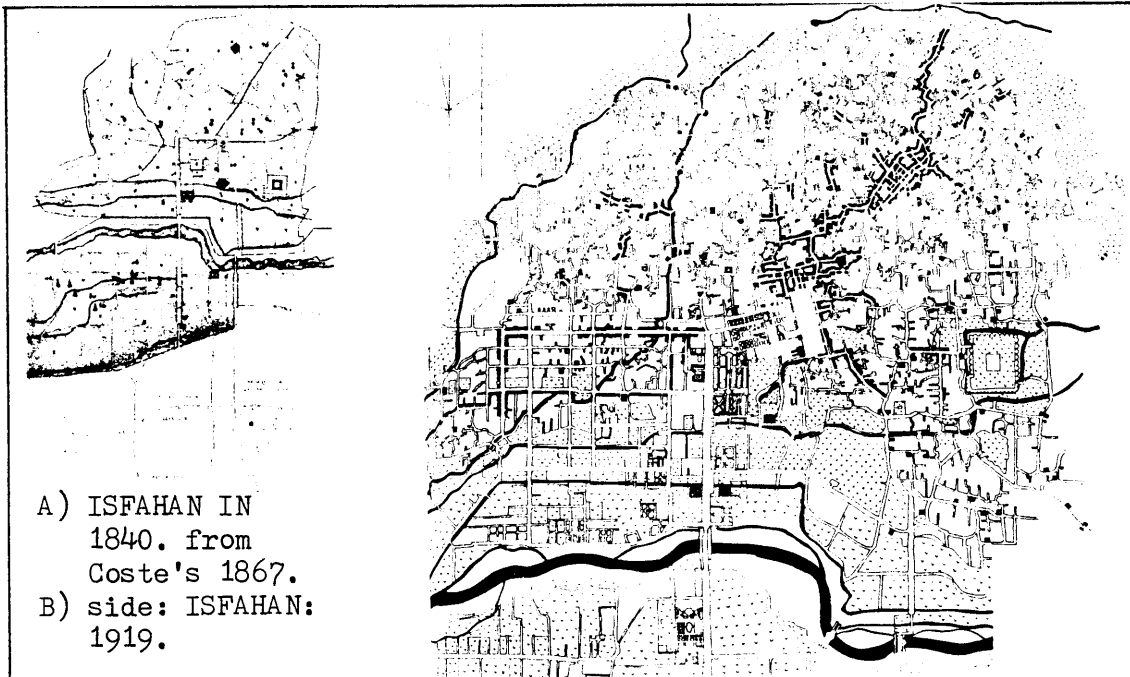


FIG. 3.15

ISFAHAN: OLD TOWN.

note: the character of the streets, general form.
 source: The Architectural Review, May 1976. p. 298.

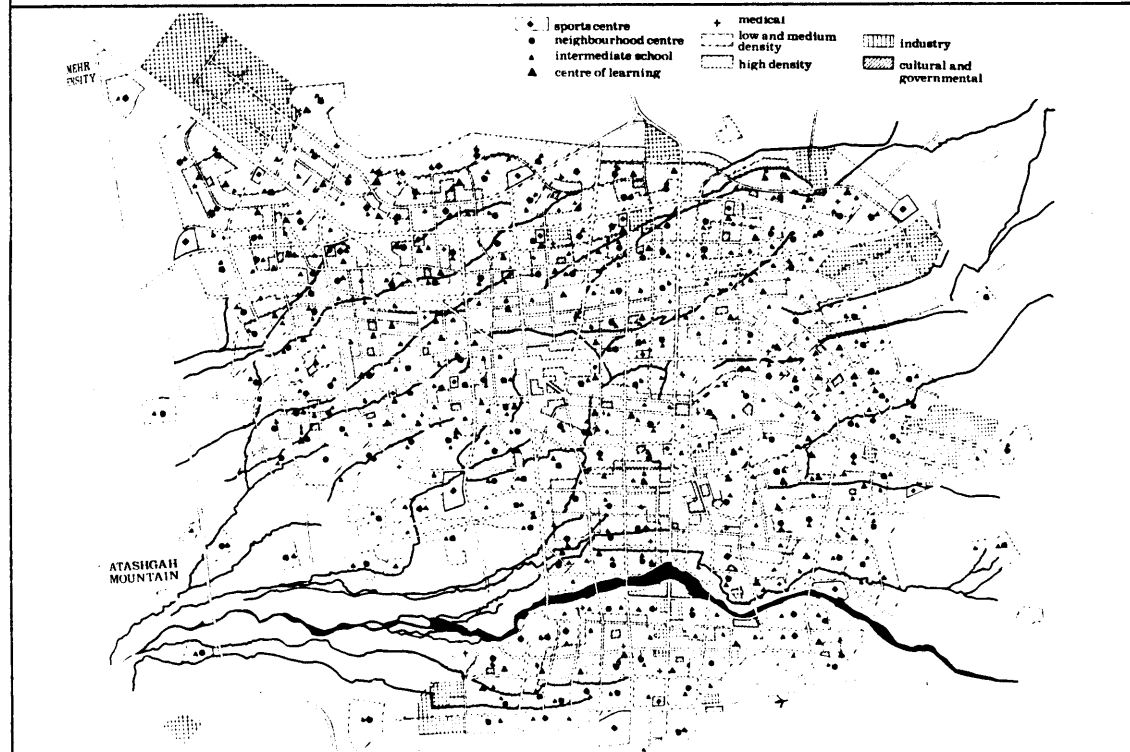


FIG. 3.16

ISFAHAN MASTER PLAN by E.E. BEAUDOUIN & ORGANIC, 1968.

note: the character of the streets
 source: The Architectural Review, May 1976. p. 299.

and renovate them. But opposition from the clergy frustrated these attempts during the early part of his reign.⁶²

Reza Khan was also inspired by the desire to demonstrate to and make an impression on the world, Westerners in particular, that Iran was not a backward country, that it was making progress and its cities had all the amenities available in Western cities. Much external westernization was done to impress foreign observers, who usually visited only Tehran.⁶³ The efforts achieved their goal and were rewarded.⁶⁴ Foreign consultants were also regularly used for these purposes. For instance, in October 1922 Tehran Municipality hired an American Advisor in City Planning and an American City Planning Engineer. In toto, these actions radically transformed the morphology of Tehran⁶⁵ which began to look more and more like an European city.⁶⁶ Some have explained that the purpose of the wide avenues in the southern section was to have easier access to crush opposition. While it is true that Reza Khan's worst opposition came from the bazaaris and the Moslem clergy, all concentrated in the south in the congested bazaar area, this argument can be counter-active. The same wide avenues, supposedly for easy access for troops and tanks were much more suited to large demonstrations than the kuches of the old quarters.⁶⁷

Reza Khan's second model was to create an empire similar to that of the Achaemenians and Sassanians; an empire of greatness and glory. Accordingly many of the public buildings received Achaemenian style exteriors, while the interiors were quite western.⁶⁸ Bank-e-Melli (Central Bank) buildings and the buildings of the various ministries were some of the examples.

Legislation was used as a means of legitimization although not very commonly. The traditional Iranian city did not have either a corporate structure (see chapter on religious control of

illegitimization p.149) or a municipal corporation. The introduction of the Municipal Corporation itself, legalized through the Municipalities Act of 1913, hence was an importation. This Act was passed by the Majlis (parliament) because of the mistaken notion of its members that Municipalities in western countries were concerned about street cleaning and control over the distribution of bread, meat and other necessities at reasonable prices. In reality the act required the establishment of regional and city councils, including mayors and elected members which were required to update city plans.⁶⁹ The plans had to be approved by or passed down by the High Council for Planning based in the Ministry of Development in Tehran.⁷⁰ The High Council comprised eleven members, seven of whom were members of Iran's cabinet most concerned with urban affairs. The control therefore, was concentrated in Tehran, where it could be closely monitored by the Shah. The Law of Municipalities of 1930 and the Charter of Municipal Councils of 1930 reformed the administration of provincial municipalities and their sources of revenues. Reza Khan's power and influence was apparent from the manner in which laws were passed and also the manner in which power was still concentrated in Tehran.⁷¹ What was often not mentioned was that in Tehran the High Council was under the close supervision of the Shah.

A close look at some city plans show that they could not be the product of local initiatives alone as indicated by a remarkably similar pattern of roads, squares, statues. On instances, as in Kerman (Fig.3.17) one finds a short stretch of avenue leading away from the roundabout but going nowhere done primarily to satisfy the autocratic order for each town to have a large roundabout with statues at the intersection of major avenues normally named Shah and Pahlavi. The notion of having a network of wide straight avenues was supported and legitimized by the Street Widening Act of 1933. It is evident that the municipalities were used by Reza Khan not as elements of local planning but as elements of control and for implementation of his ideas.

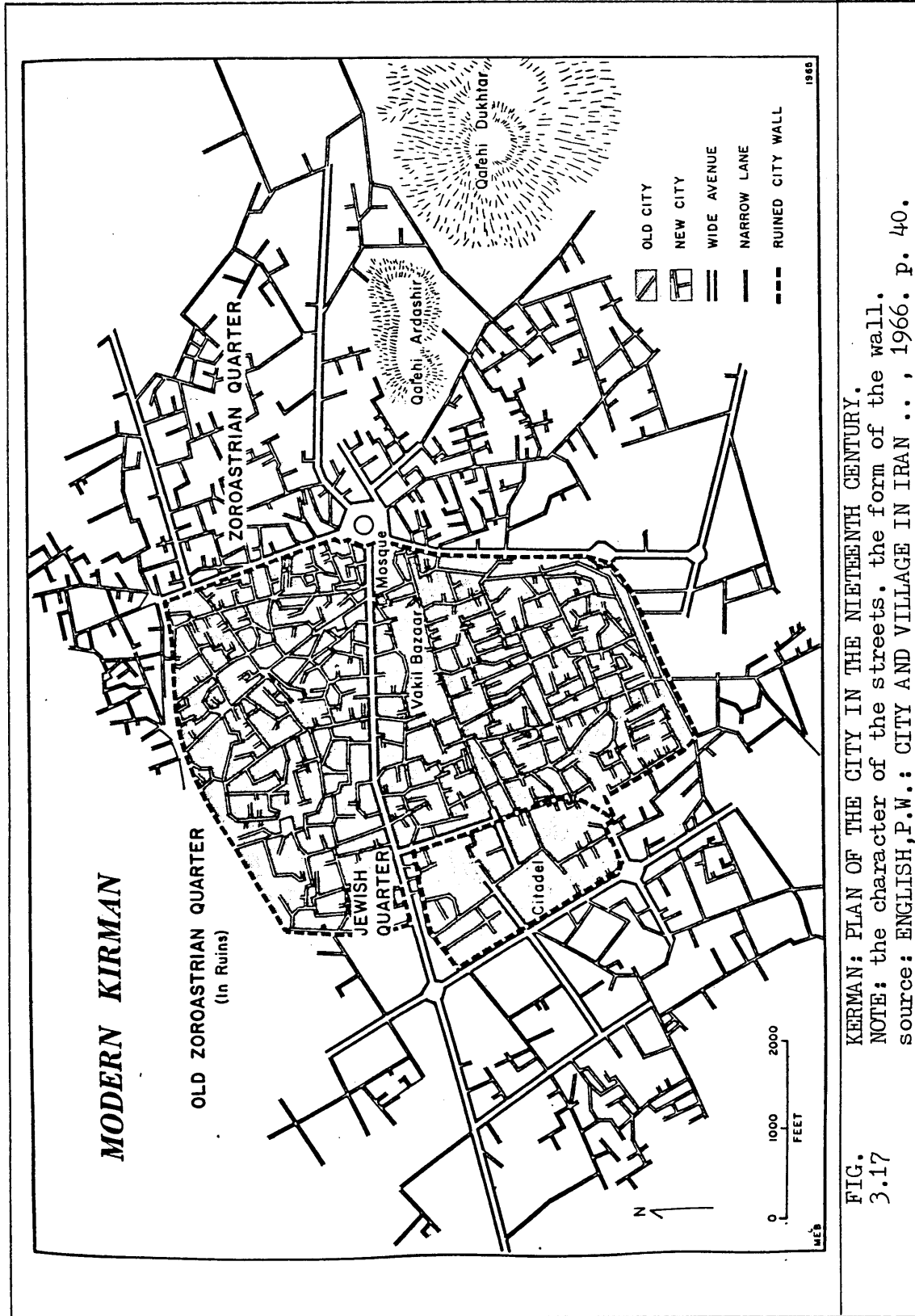


FIG. 3.17 KERMEN; PLAN OF THE CITY IN THE NINETEENTH CENTURY.
 NOTE: the character of the streets, the form of the wall.
 source: ENGLISH, P.W.: CITY AND VILLAGE IN IRAN . . . , 1966. p. 40.

Reza Khan had several new and ornate palaces built, such as the new Saadabad palace, the new palace at Kakh and Pasteur avenues and one of marble built in southeast Tehran. He also ordered the renovation of Gulistan and Niavaran palaces. Modern buildings for the new university were commissioned to Andre Godard, the French architect. The northward migration of the rich was allowed to continue resulting in a clearly bi-polar city. Reza Khan attempted to renovate the old and poor quarters, and also expected the new avenues to cause "gentrification" which they did not, but the process of gentrification and improvement was restricted to properties facing the street.

Reza Khan consolidated his power base first by accumulating tremendous wealth through various land purchases.⁷² He quickly became the biggest landowner. In addition, all waqf property under the administration of the clergy which were within city limits were brought under the jurisdiction of the municipality through a law passed in June 1941.⁷³ This was later abrogated due to vehement opposition by religious leaders who saw the loss of a large power base.

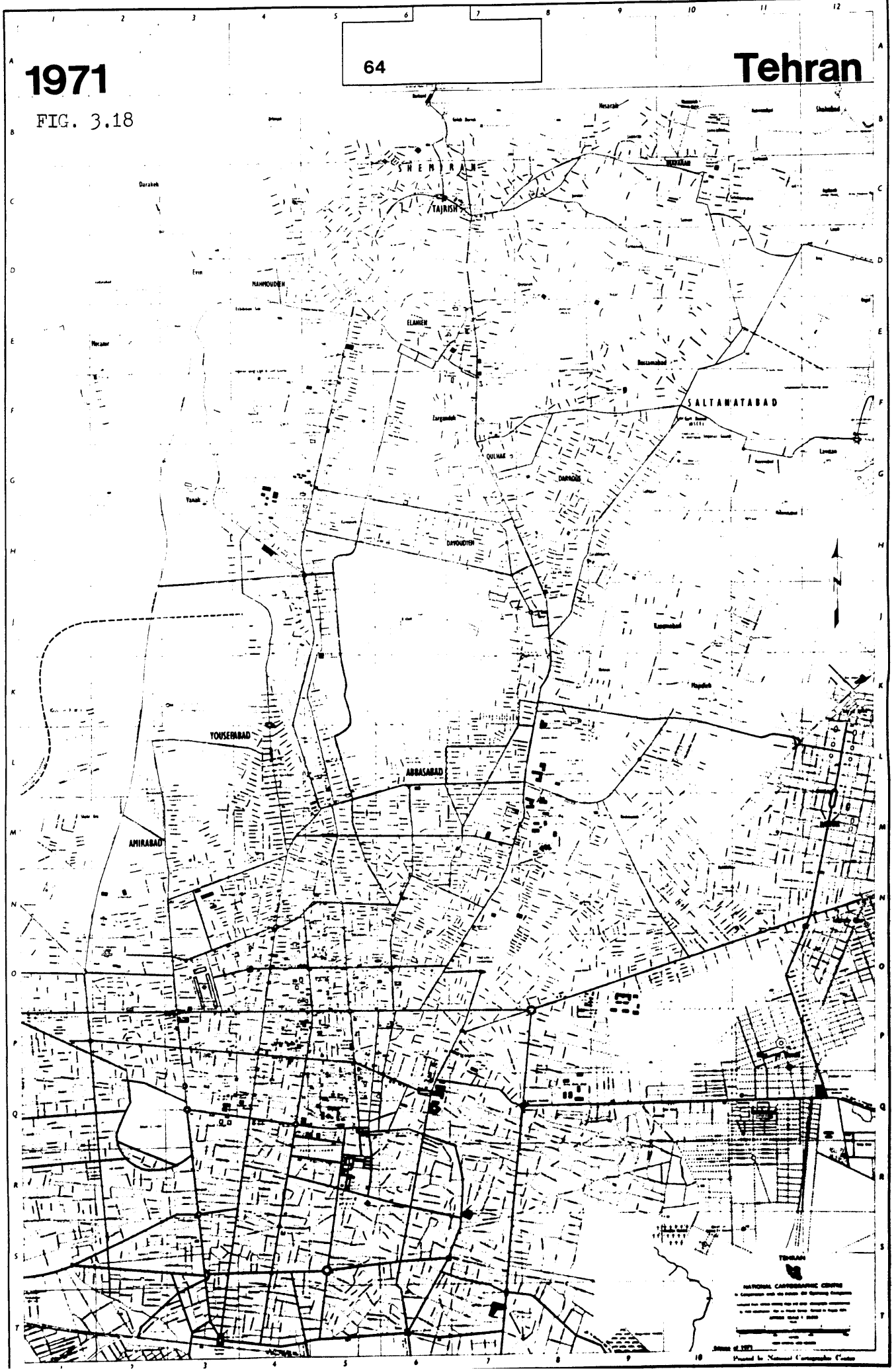
On the abdication of Reza Khan, his son Mohammad Reza (1941-1979) became the monarch. He continued his father's dual ideals of nationalism and revival of ancient glory on the one hand and rapid westernization on the other, but his techniques of control were somewhat different. Cities were expected to be super modern with the most ultra modern facilities. Latest technological methods and designs of the west were sometimes used vaingloriously simply to have the latest. Most projects were high budget; world renowned planners, architects, and designers were commissioned. Buildings of concrete, glass, mirrored glass, completely air-conditioned towers sometimes with helipad etc. became common features of the landscape mostly of northern Tehran, while low, mud and brick buildings characterised the southern part of Tehran. Like Reza Khan, he also wanted a Tehran 'worthy' of of foreign dignitaries' visits, and needless to say, this objective

1971

FIG. 3.18

64

Tehran

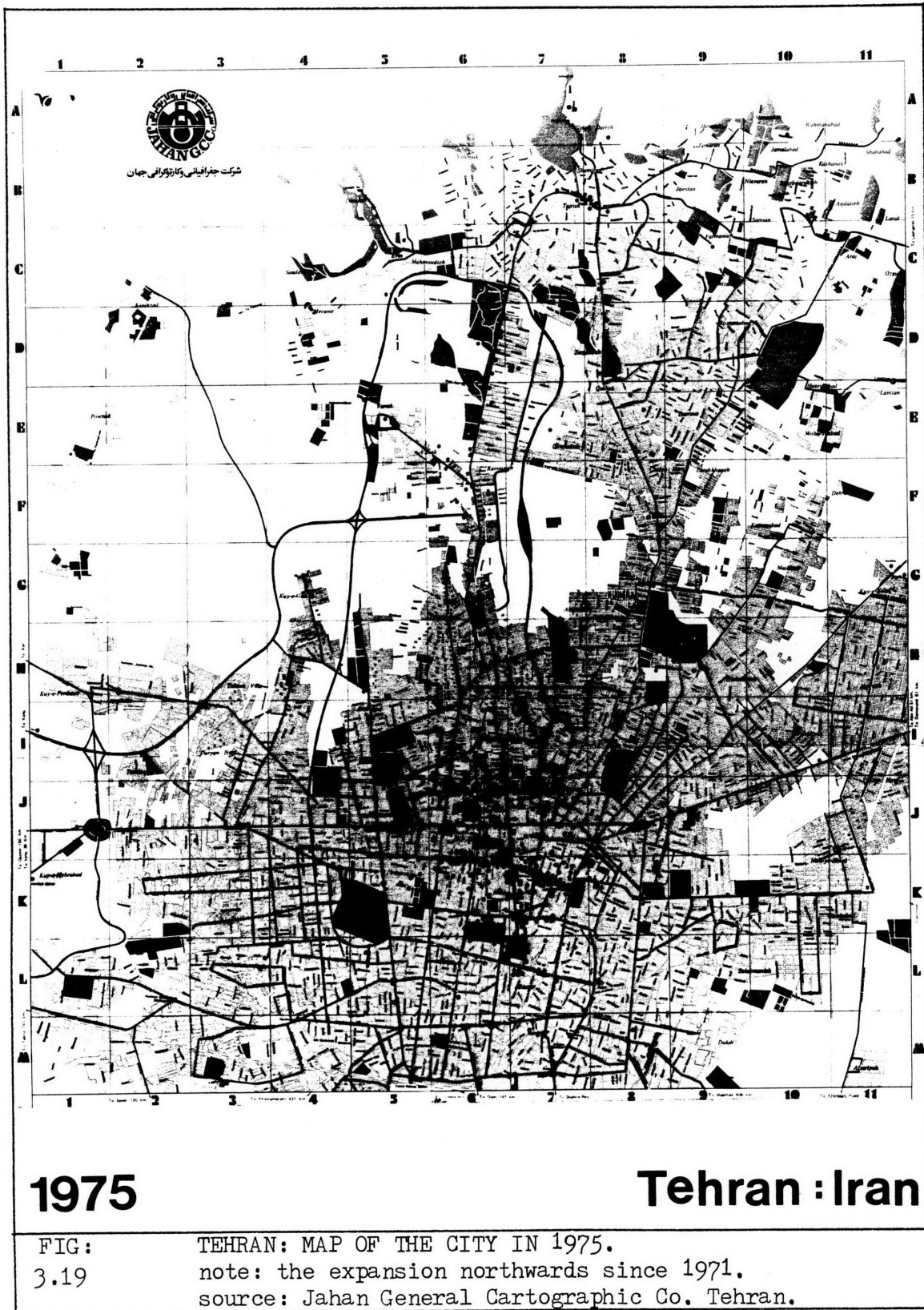


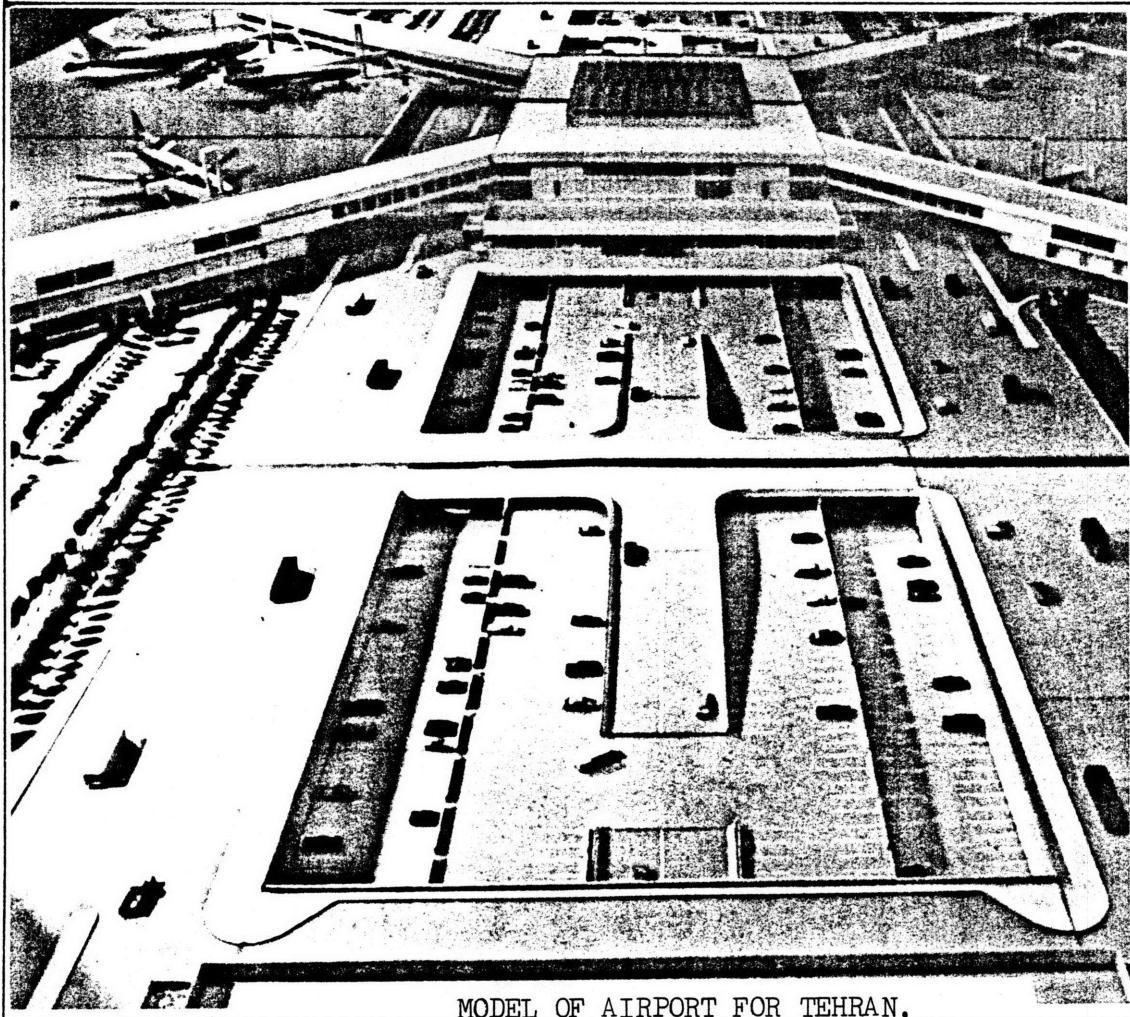
NATIONAL CARTOGRAPHIC CENTER
A Division of the State of Defense Agency
Tehran, Iran
Scale: 1:50,000
June 6, 1971
Printed in National Cartographic Center

was achieved as observers hailed not only Iran but Tehran with good reviews.⁷⁴

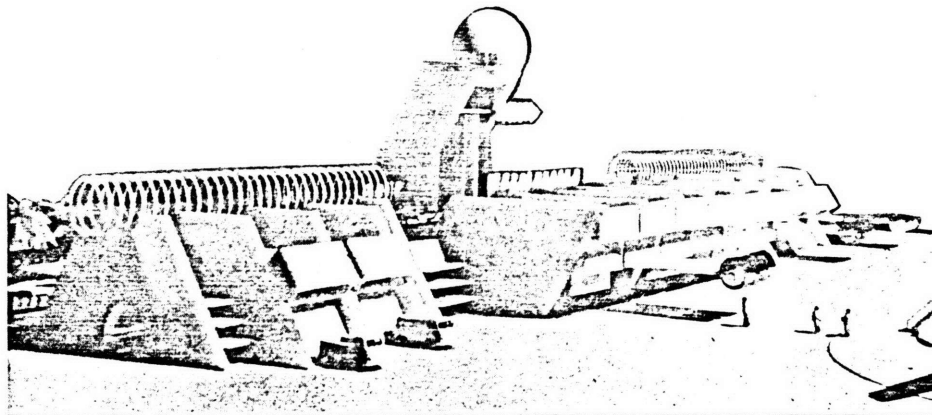
A large number of urban design projects were commissioned. Some of these were news-makers and had the intended dual impact of creating the impression that Iran was not a backward and poor nation, under the leadership of the Shah, on one hand and that of a benevolent ruler who was working wonders for the development of the country on the other. Shahestan Pahlavi a new town center for Tehran, aimed to be one of the most prestigious projects of its time, at a cost of \$ 3 billion, was one of them. This project will be dealt with in detail in a subsequent chapter. The Tehran Metro or subway system was planned by French engineers, to allow Tehran to join the ranks of world cities with modern metros. A new airport for Tehran was planned with United States assistance to accommodate the busiest traffic in the world. The Aryamehr Stadium, the largest in Asia seating 100,000 spectators was built. Pardisan, paradise on earth, an ambitious natural recreation center was planned to have vegetation from the various climates in the world ! Various other ambitious new town or housing projects were commenced. Clearly Mohammad Reza Shah was serious about his ideals and models. It was also clear that wealth whether derived from oil sales or loaned from abroad could be used to drastically alter the face and form of a city in one big step. The result could have been such that Tehran and Iran had a tremendously rich and impressive facade irrespective of whether the middle and lower income residents benefitted or not. For westerners, used to such facilities back home, Tehran made them feel at home and created a good impression.

In keeping with the image of the automobile, a number of super highways and autobahns meant for very high speed traffic were constructed. Many of these were inside the city and can be seen in the map. (Fig. 3.18) Automobile travel was thus facilitated and encouraged. At one point the government encouraged the importation





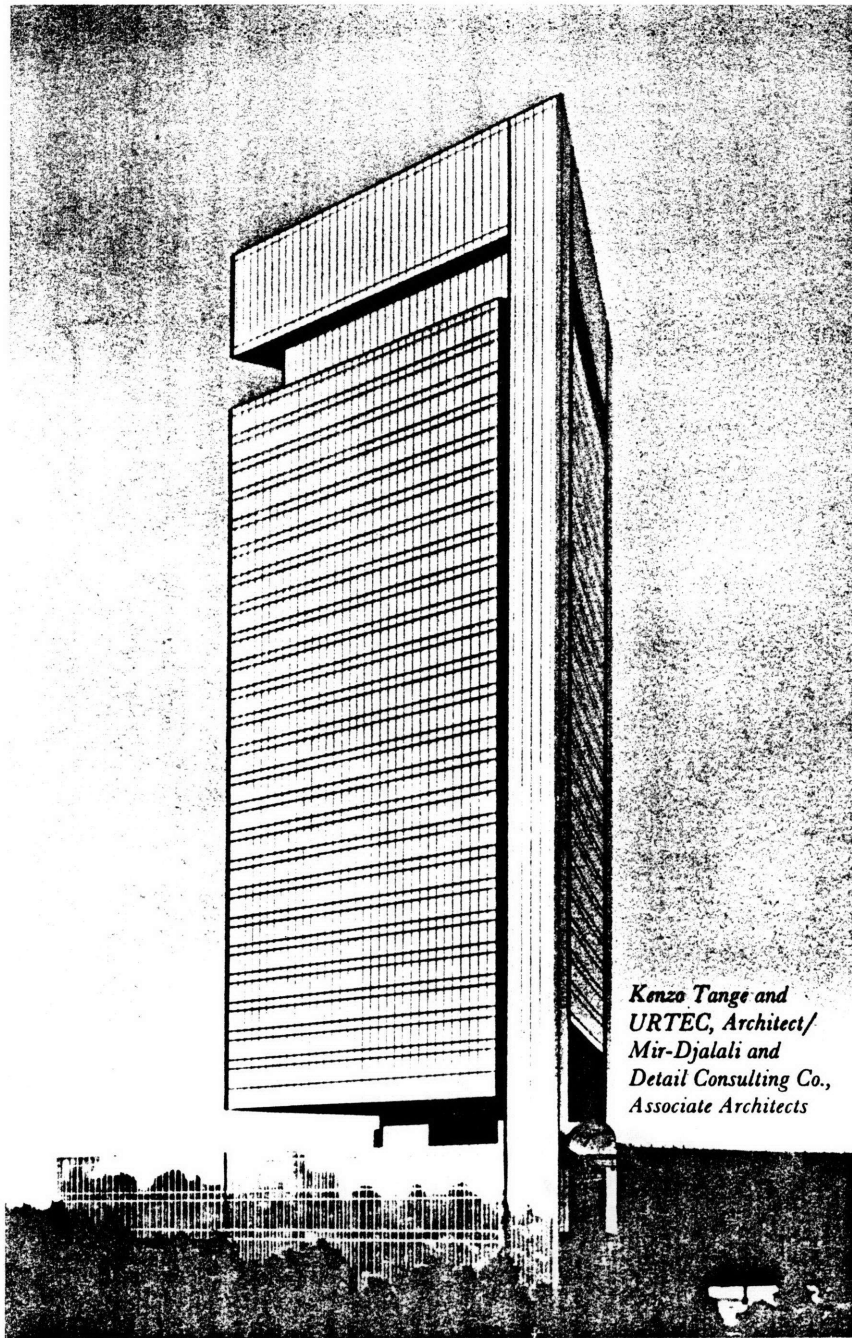
MODEL OF AIRPORT FOR TEHRAN.



AR:11:73:152.

FIG.
3.20

PLANS FOR AIRPORTS: top: for Tehran, Bottom: for Kish.
note; the one for Kish 'was just for fun'
source: BENY,R: op cit,p.345; Architectural Record 11:73



*Kenzo Tange and
URTEC, Architect/
Mir-Djalali and
Detail Consulting Co.,
Associate Architects*

FIG. 3.21 TEHRAN: 30 STOREY, 700 ROOM MODERN HOTEL.
note: the reflective glass facade.
source: BENY, Roloff: IRAN ;... 1978, p.349.

of automobiles through tax incentives. This certainly aided those who could afford to purchase and maintain automobiles. However, ownership of some automobiles, like Rolls Royce, was restricted to the royal family. While all this was happening and the city was taking on a modern look, those who could not afford automobiles were riding on donkeys on the streets. In any case the model for the autocrat was clearly modernization, personal gain, and self glorification.

Mohammad Reza's power base rested on his immense wealth and his royal status. He and the royal family had part or complete ownership of a wide range of corporations. Some such as the Pahlavi Foundation had tremendous endowments and initiated independent projects. In addition, it was quite common for companies to offer part ownership to the Shah which in turn would lessen the bureaucratic red tape which the company would otherwise have had to face. Other companies had members of the royal family among their board of directors. While on paper this did not mean much, informally this gave the company easy access to licenses etc. Besides manouverability there was a certain social prestige in associating with the royal family.

Proximity, access to and contact with the royalty was useful in obtaining good contracts. It also enabled the large companies to use their association with the royal power to flout regulations. Some of the larger consulting firms often designed with the outlook that there were no controlling regulations and guidelines. The clearance of the project at the municipality was not based on the merit of the actual project itself, but who the firm or project was associated with, as corruption was high.

That the Shah took personal interest in many of the physical design projects is shown by the fact that presentation to the Shah of projects by the consultants was quite common. This is also shown by the numerous reports and photographs which depict the Shah

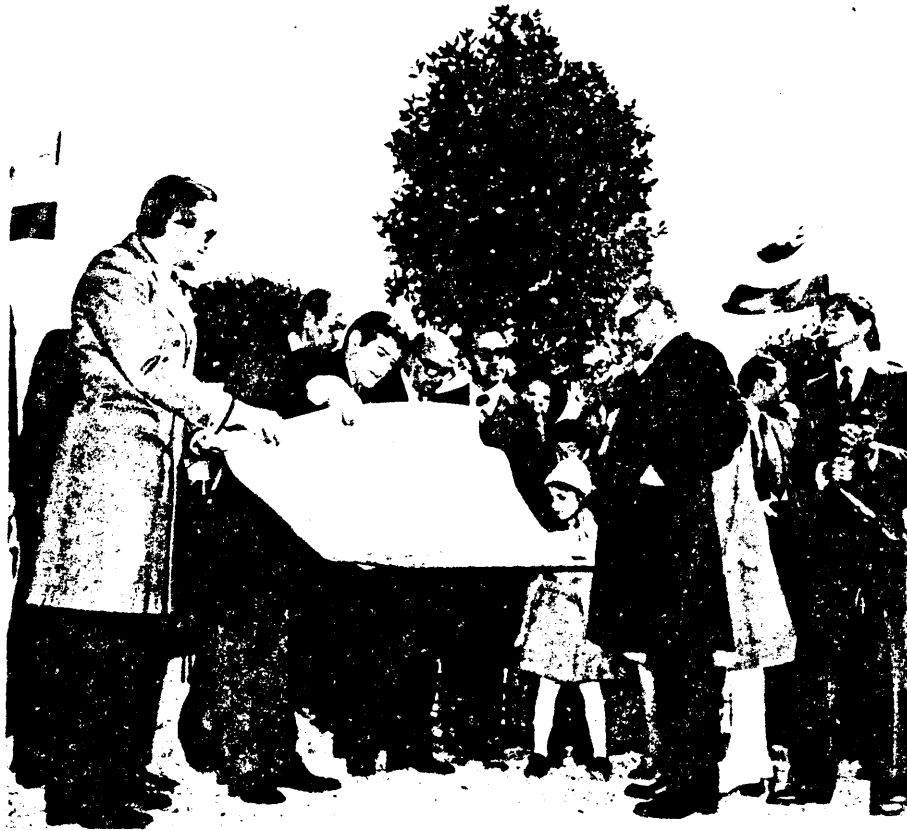


FIG.
3.22

MOHAMMAD REZA SHAH INSPECTING DRAWINGS.
autocratic control of oversight.
source: LDI: SP. MP.

being enlightened regarding the project. Many such photographs adorned the wall of numerous offices in Iran. It was at these presentations that the Shah expressed his desire to have something done or revised; even a whisper could have the design changed but would often go unrecorded. A look at unpublished proposals could reveal the autocratic intervention and control in these cases. The Shah's interest in and autocratic control of projects, was clearly stated by Richard Llewelyn Davies when he said,

" So long as the Shah still ruled tight central control over the final form of the development was expected and feasible. Baron Haussman was luckier than we were. Napoleon III survived just long enough to see his new city built, but the Shah did not."⁷⁵

Close control was also maintained on the activities of the High Council for Planning and while the latter were authorized to approve plans, this was rarely done without the knowledge of the Shah. In one instance, a top member of the High Council had to resign as the design he approved was subsequently rejected.

The Shah's part ownership of banks and credit institutions, either directly or through other organizations like the Pahlavi Foundation, meant a tight control on credit. This is not to say that control could not otherwise be maintained. This does indicate that the granting of credit for specific projects could also be directly controlled by the autocrat.

Although few, legislative means rather than direct autocratic orders were also used. The Law of Independence of Municipalities of 1949 dealt with municipal jurisdiction and cities. The Urban Renewal Law of 1965 which I was able to uncover, does not mention any goals and objectives or what the law was to achieve, or why it was passed. Neither does it define domain and ownership. Most clauses deal with methods of compensation when property is lost to urban renewal. The lack of mention of objectives and legislation

regarding the manner and extent of compensation the state was liable for, shows indirectly that autocratic control guided the actual development.

In sum, I find that Mohammad Reza had aims similar to his father's, but his techniques, although autocratic, were much more subtle and informal. He did not seem to attempt to control individual small projects, but wanted to make an impact with large projects, which could be then associated with his name and fame.

Autocratic actions also directly affected populations of cities. The graph plotting the population of Tehran and Isfahan against time, based on estimates of population by visitors and observers, shows some interesting features, although the estimates were not always wholly reliable. (Fig. 3.23) It is obvious that the first major surge in the growth of population of Tehran was due to, and at the time of the selection of Tehran as capital. The second major period in Tehran's population growth was during the Qajar period, specifically during the time of Fath Ali Shah, and Nasr-ud-Din Shah. During the Pahalavi period, Tehran's population grew at an enormous rate. Periods of sharp rise in population thus seem to be connected with autocrats who took an active role in the growth and modification of the form of the city. Cases when Tehran's population was very strongly dependent on the autocrat have already been pointed out. One such case was at the time of Agha Muhammad Khan, when of the estimated 15,000 population, at least 20 % or 3,000 seemed to have been in the personal services of the Shah. The graph also shows the relationship between Isfahan and Tehran. In Isfahan, the period of major population growth was the Safavid period, when it was a glorious capital. Isfahan's population demonstrates more graphically the change in population caused by autocratic actions like invasion and massacre. The effects of the Afghan invasion and massacre can clearly be seen. Removal of Isfahan from the status as capital caused the population to fall, as

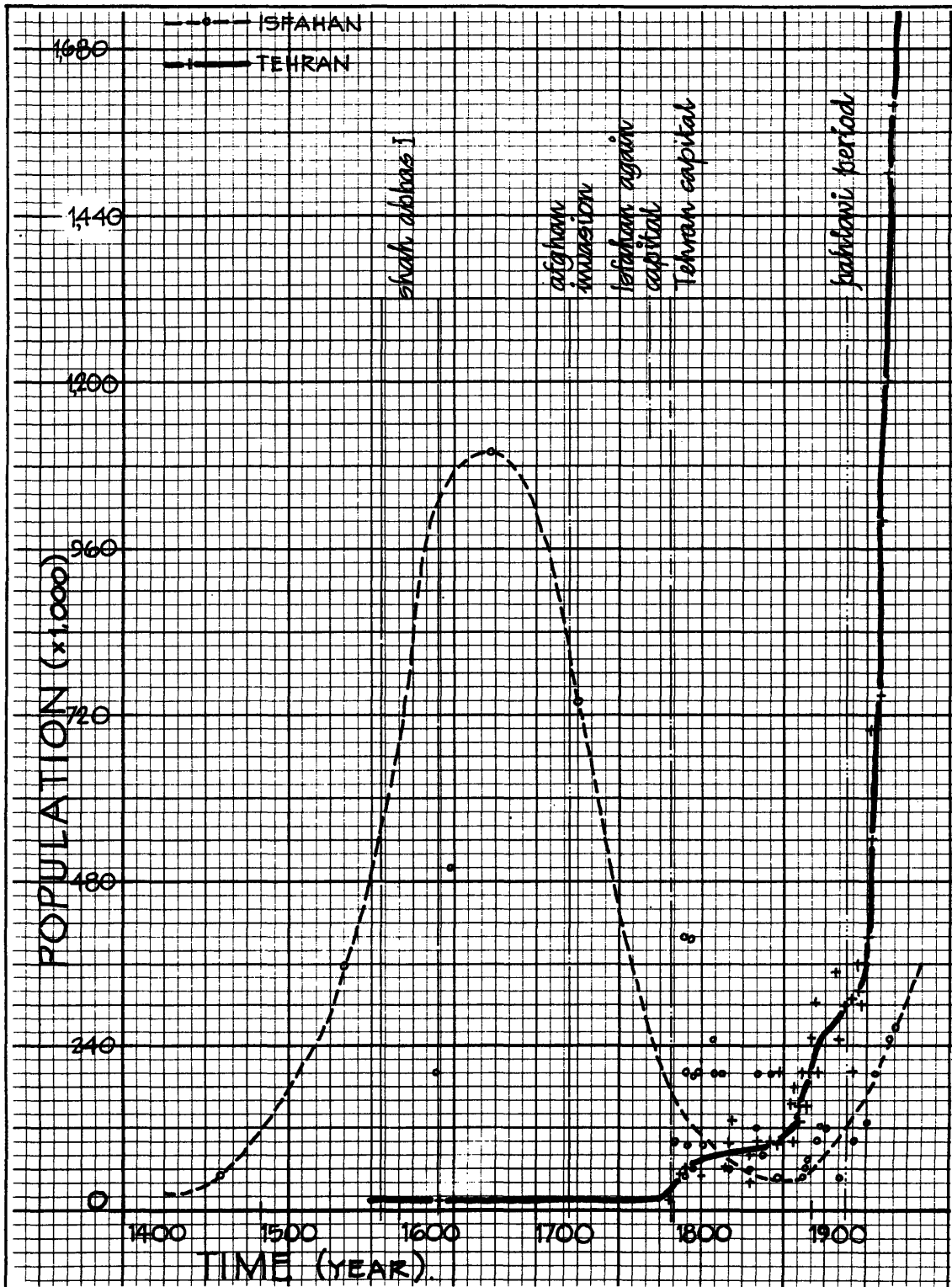


FIG. 3.23

GRAPH SHOWING POPULATIONS OF TEHRAN AND ISFAHAN.
 note: the fluctuations due to autocratic control.
 source: population estimates by various travellers.

state and court functions moved elsewhere. Periods of stability in leadership have also caused growth in population both in Tehran and Isfahan.

Autocratic power has been used to settle or move entire populations or sections of the population. Dramatic examples such as the case of Muhammad-Bin-Tughlaq of India, who moved his capital to Daulatabad and ordered the entire population to move there, are not easy to come by. In Tehran, there was no known case of such forced population move except for Reza Khan's imposed movement when streets were obstructed and slums were forcibly cleared. Isfahan, however, provided good examples. The Armenian Christians of New Julfa, Isfahan, were required to move there by Shah Abbas I, from their homes in Armenia. Abbas I believed that Armenians were good traders and would be useful to his economy in Isfahan. He decreed them to move and provided them with some privileges, and allowed them to build their quarter outside the city to the south of the river. This created a big influx of population. Other Christians also were not permitted to live in the city of Isfahan, as a result of which foreigners had to stay in New Julfa. In another instance, in Isfahan, people of a minority religion, the Zoroastrians, were ousted or massacred so that the land occupied by their quarter, Hasanabad located to the south of Isfahan, could be utilized for royal purposes. As a result of this imposition there was a drop in the Zoroastrian population, as well as in the total population in Isfahan. There was an increase in the population of Zoroastrians in Tehran and in Yazd caused by the above emigration.

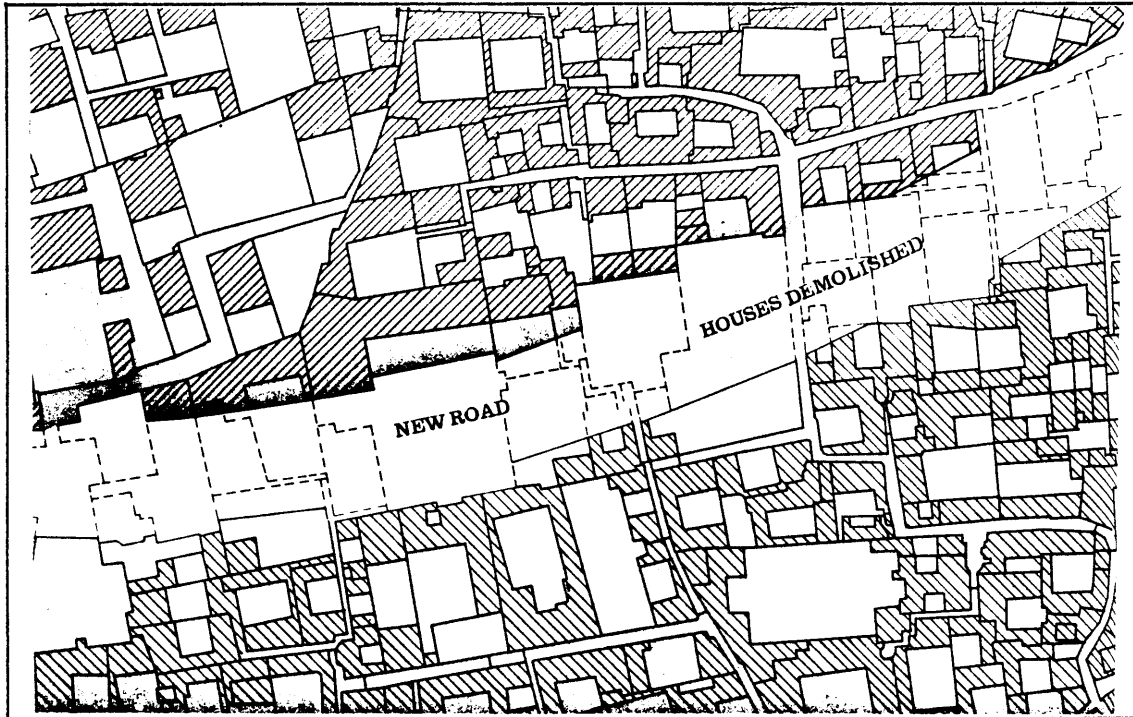


FIG.
3.24

NEW ROADS: ISFAHAN.
note: the existing structure, and the effects of road
source: CONTACUZINO, S: 'Can Isfahan Survive?' Arch. Rev.

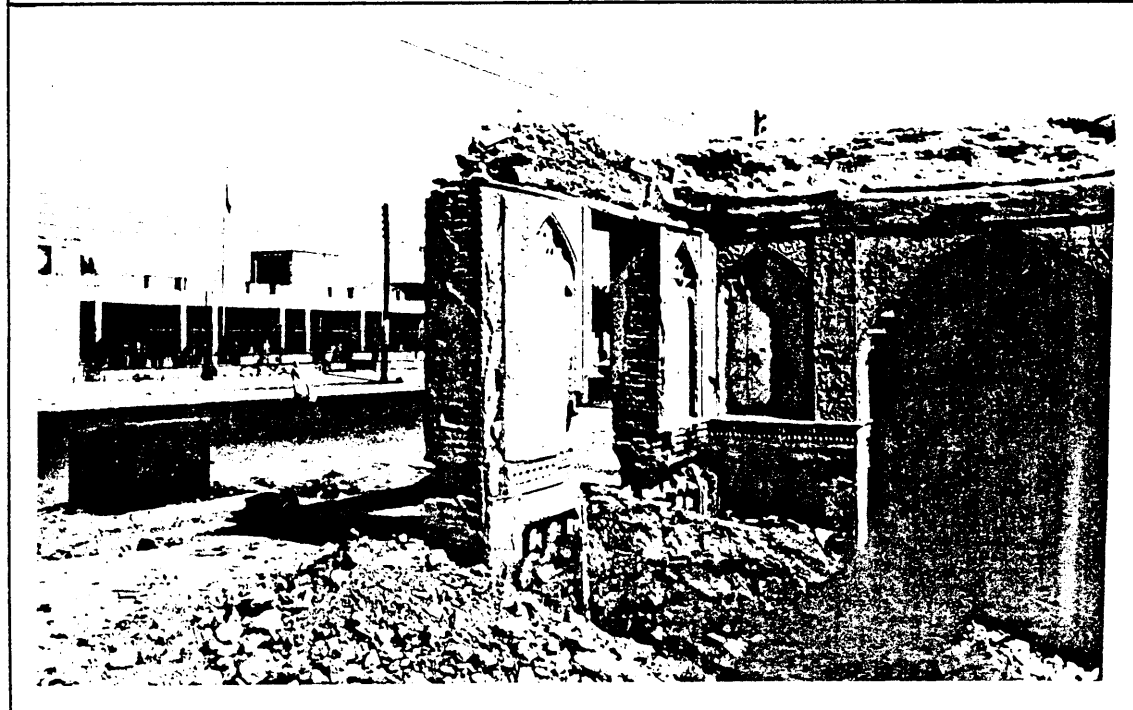


FIG.
3.25

NEW ROADS AND THEIR EFFECTS ON BUILDING
note: the layout of the road
source: the Architectural Review, May 1976, p. 292.

SUMMARY

This brief historical account of Tehran illustrates some important features of autocratic control. It indicates that while military power was necessary for the autocrat's power base, it was rarely used for the enforcement of the controls. Even for some of the most coercive kinds of control like the control of imposition, military strength was seldom used. It was used only for destruction, razing or burning as the Mongol and Afghan kings did. Shah Abbas I required some military strength to move the Armenians, and Shah Sultan Hussain demonstrated his military power by massacring the Zoroastrians in Isfahan. In almost all other cases, direct military power was not used. However, just the presence of the troops themselves affected not only the population but also the morphology of the town. At one point, 20 % of Tehran's population consisted of the Shah's soldiers.

Perhaps the most significant way in which autocratic control affected the form of the city was through constructions ordered by the autocrat. The building of walls, palaces and palace gardens radically changed the form of the city from time to time, and provided examples of control of creative intervention.

Various projects were used by the Shahs to demonstrate their developmental preferences. Shah Ismail's movement to the north, beyond the city wall, was a demonstration that the city need not be constrained by the wall. Reza Khan's Achaemenian styled buildings were to serve an example for the rest of the nation to follow. Mohammad Reza's Shahestan Pahlavi served a similar purpose. In general, however, control of demonstrative intervention was not very widely practised. They were effective, however, in creating and starting fashions which could later have wide appeal.

Cases of destruction of part or whole cities have been carried out by the Mongols and the Afghans. Others such as Ismail II and Reza Khan have destroyed city walls, and covered moats to allow the city to expand. In many cases, orders for destruction have been followed by orders for creation.

Ample number of projects were executed with the prime intention of self-glorification. Most of the extensive and large projects were of this kind. Grandiose projects like Pardisan, Shahestan Pahlavi, Reza Khan's wide avenues and the lavish palaces of some of the others come to mind. These were interventions by the autocrat for receiving glory or credit.

Some monarchs have opted to neglect cities, knowing that such action would affect the growth and functioning of the city. These were cases of the control of selective non-intervention.

The account also demonstrates that oversight functions were extensively used by some monarchs. Both Reza Khan and Mohammad Reza used models and ideals to ensure that the city developed according to their desires. They appointed planners and oversaw their work. Modeling and setting of styles appears as one of the major aspects of the use of controls. Some of the models were derived from Iran while others were western ones.

The history of Tehran further clarifies the notion that more than one kind of autocratic control was used to get a project completed. Combinations such as destroy and rebuild, demonstrate and glorify impose and create were quite common. The account exemplifies the dependence of the citizens on the monarch, perhaps for reasons of lack of wealth, power and initiative. In addition, royal patronage and wealth were important components of the execution of some of the controls discussed above.

Finally, the account demonstrates that Autocratic Control could function effectively even with a high degree of decentralization, and that the various kinds of autocratic control affected and controlled city form in many different ways.



FOOTNOTES

1. Monarchy did not exist from roughly 650-750 A.D. Upto 1037 A.D. Persia was under divided rule. In 1979 monarchy was overthrown and an Islamic Republic was established.
2. Religious sanctification meant a combination of autocratic and religious power and control.
3. MORIER, J. A Journey Through Persia, Armenia and Asia Minor to Constantinople in the years 1808 and 1809. Philadelphia, M. Carey Wills & Lilley. 1816. p.173.
4. Ibid. p.216.
5. Ibid.
6. BLUNT, W. & SWAAN, W. Isfahan: Pearl of Persia. London, Elek Books. 1966.
7. LOCKHART, L. The Revival of Shi'ism and it effects on Religious Minoriites.
8. Perhaps the most extreme example is that of Muhammad-bin-Tughluq in India, who forcibly transferred the entire population from Delhi to Daulatabad.
9. This is an example of the kind of control and its effects and does not carry value connotations in themselves, of good or bad.
10. LOCKHART, L. op cit.
11. Tehran is also referred to as Teheran, Tihran, Tiran and Teohran.
12. Rey dates back to Achaemenid and Parthian times. Archaeological evidence indicates the presence near Rey of Chisneh Ali, dated around 5,000 B.C. suggesting that the Tehran area was one of the earliest inhabited in Iran.
13. MINORSKY, V. "Tehran" in Encyclopaedia of Islam. Leiden, E.J. Brill. Second edition. 1960- p.714

- Al-Istakhri and Masaudi did not mention Tehran in their works.
14. FARSNAMA, G.M.S. as mentioned in Encyclopaedia of Islam. p. 134.
 15. MINORSKY, V. op cit. p.714.
 16. CURZON, G.N. Persian and the Persian Question.
London, Longmans. 1892. p. 300.
Claims that Yakut wrote in 1179-1180, but the above view is supported by others. See also:
LOCKHART, L. Famous Cities of Iran.
Bratford, Middlesex. Walter Pearce & Co. 1939.
 17. KAZVINE in 1275 and other local historians confirm this description and the presence of troglodytism.
BROWN, J. "A Geographical Study of the Evolution of the Cities of Tehran and Isfahan."
University of Durham, PhD. (unpublished) 1965. p.17.
BROWN argues that the dense foliage around Tehran obviated the need for walls for defense. However, it is difficult to accept that mere visual barrier could have served the need for physical boundary and barrier.
 18. Rey is also referred to as Ray, Rhey, Rayy or Rhages.
 19. It is only in the 14 th. century that Hamdallah describes Tehran as having a climate preferable to Rey.
 20. CLAVIJO, Don Ruy di Embassy to Tamerlane. Translator, LeSTRANGE, G.
London, Routledge and Sons. 1928. p.167.
"The town of Tehran is a very large place: it is surrounded by no town wall: and it is a delightful abode furnished with every convenience. The climate however is not healthy, and the heat here is very great in summer." He mentions that he was put in the "hostelry" where Timur stayed and that it "was the finest house in town." It was under the governship of Sulayman Mirza, Timur's son-in-law.
 21. The Safavid Dynasty (1501-1736) followed the Timurid dynasty.
 22. These towers were evident in Berezin's plan of 1842
 23. Shah Abbas reportedly fell severely ill at Tehran in 1589 as a result of which he lost Mashad to the Uzbeqs. This reportedly gave him an intense dislike for Tehran which led him to concentrate his building activity elsewhere. See:
CURZON, G.N. op cit. p. 301.

24. VALLE, Pietro della translated in Pinkerton's Travels as quoted in CURZON, G.N. op cit. p. 301. A more precise estimate of the population was offered by Thomas Herbért who visiting the city in 1627 estimated 3,000 houses.
25. Ibid.
26. Ibid.
27. HANAWAY in Historical Account & c, 1744, v.1. p. 357-359 mentions that the wall was in decay even in 1744.
28. MINORSKY, V. op cit. p. 715.
29. See Sadiq Manu Tarikhi Giti Gusha. Bibliotheque Nationale Supplement Perse. No: 1374.
30. The Qajar dynasty ruled from 1786-1925.
31. Estimated by OLIVIER in MINORSKY's "Tehran" in Encyclopaedia of Islam. p. 115.
32. OLIVIER, G.A. Voyage dans l'Empire Ottoman, l'Egypt, et la Perse.
Paris. 1807. vol 5. p. 91-92.
33. OLIVIER and others also reported on the extreme summer heat of Tehran causing migrations of water borne epidemics, and the 'noxious nuisances' bred in the salt marshes. MORIER reported that the soil was not fit for building.
34. These were General Gardanne's estimates of 1807 as quoted in MINORSKY, V. op cit.
35. The population is confirmed by Ousley who in 1811 estimated it to be 40,000-60,000. See CURZON, G.N. op cit. p 304.
36. GARDANE, G Journal d'un Voyage dans la Turquie d'Asia et la Perse.
Paris 1809. p. 58.
37. MORIER, J. op cit. 1816. p.214.
He describes the arg in greater detail. Also see CURZON, G.N. op cit. p. 304. OLIVIER (1796) had reported a town spread of 2 miles in circuit, while MORIER (1808) reported a wall circumference of $4\frac{1}{2}$ -5 miles. OUSLEY (1811) counted 6 gates, 30 mosques, and colleges and 300 hammams. PORTER, K.R. (1817) counted 8 gates.

38. CURZON, G.N. op cit. p. 304.
39. KER PORTER, R. Travels in Georgia, Armenia, Persia, Ancient Babylon.
London. 1821. p. 310-311.
40. MINORSKY, V. op cit. p. 718.
41. Described by FRAZER in 1838. See MINORSKY, V. p. 718.
42. MINORSKY, V. claims that there was some improvements under Muhammad Shah but does not offer any examples.
43. CURZON, G.N. op cit. p. 305.
44. Ibid.
45. Ibid. CURZON, G.N. argues that since the walls were not of masonry and did not have any guns they were useless for defense but excellent for the collection of Octroi Tax. p.305.
46. BROWNE, E.G. A Year Among the Persians.
London, Cambridge Univeristy Press. 1926.
He mentions 12 gates but the enclosed plan figure shows 13.
47. As a result of the expansion of the Maidan-i-Mashk the promenades with foreign legations on Rue de Ambassadeurs, the Rue de Lalezar were incorporated within the city walls. Foreigners took up new residences and built new legations.
48. Various visitors have commented on the actual spread of the city being smaller than the walled enclosure.
49. SURATGAR, O. I Sing in the Wilderness.
London, Edward Stanford Limited. 1951. p.29.
50. CURZON, G.N. op cit.
Describes the broad straight metalled roads.
51. Ibid.
52. CURZON, G.N. op cit. p. 305.
53. ROSS, E.D. The Persians.
Oxford University Press. 1931. p. 79.
54. Many writers have described the palace or the anderun. See:
SYKES, E.C. Through Persia on a Side Saddle.
Philadelphia, J.B. Lippincott Co. 1898. p. 15

55. MORIER, J. and authors have described some of the jewels with the Shah.
56. BROWNE, E.G. op cit. p. 94.
57. Ibid.
58. Ibid.
59. Jubes or ditches by the side of the road supplied water to the houses.
60. Reza Khan founded the Pahlavi dynasty 1925-1979.
61. BANANI, A. The Modernization of Iran 1921-1941.
Stanford, Stanford University Press. 1961. p. 59.
He claims that Reza Khan became increasingly autocratic as time progressed.
62. Ibid. p. 144.
63. Ibid. p. 145.
64. LOCKHART, L. Famous Cities of Iran.
Bratford, Middlesex. Walter Pearce and Co.p.11
He says "These new thoroughfares which remains as permanent records of an enlightened administration, are well designed and well planned.
BANANI, A. op cit. p. 144. says, "well planned and wide street intersections."
65. BANANI, A. op cit. p. 144.
He says, "The Tehran of 1941 bore no resemblance to the Tehran of 1921."
66. Modelling, especially the use of western models, was also used by the Administrators. For details, see chapter on Administrative Controls. Also see,
SURATGAR, O. op cit.
67. This was what happened at the time of Mohammad Reza Shah Pahlavi when the wide roads allowed huge congregations and processions.
68. LOCKHART, L. op cit. 1939. p. 11.
69. MOZAYENI, M. "City Planning in Iran: Evolution and Problems."
Ekistics, 227, October 1974. Vol.38. pp. 264-267.
70. Ibid.

Chapter 4

Administrative Control

In chapter two I argued that there was a set of controls called Administrative Controls which had its foundation in professionalism and jobs. In this chapter I shall explain further what is involved in administrative control and illustrate some of its effects on Tehran.

The control exercised by humans to control city form due to their functions in the collective activity of job or profession, such as administrators involved with city administration and planning will be termed administrative control. The term administrator is used to include the officials involved in administration, management and those involved in planning and implementation of projects, and so should not be interpreted narrowly to include only an official of the administration or the government.¹ Whether an appointed or an elected official, the administrator could be authorized to make decisions which would affect city form and to control what happened to it.

It is perhaps important to restate at this juncture the differences between autocratic and administrative control. The primary difference is in the foundation of the power. Autocratic control is based on state power or military power, being concentrated in the hands of a very select few, and uses coercive power. Administrative control is related to job, professionalism and bureaucratic power. Administrators are empowered to decide and act, and in that delegated authority or representative power, they have a form of control which influences city form in ways that an autocrat does not. This kind of control is based on the manner in which society has been organized, either by itself or at times by others as in the case of colonial

cities, to ensure its functioning. In that sense administrative control is a job-based control.

In Iran, administrators used their professional and bureaucratic power to control city form. Even when the top administrators were personally selected by the Shah² and were adequately empowered, and while many decisions about city form were made by or were required to have the approval of the Shah, typically a number of major and minor decisions were delegated to the administrators. These decisions were subtly moulded by the administrators. It is in doing so that they exercised administrative control. Administrative control then, is exercised through organizations which are entrusted with the work.

Generally, these are organizations which are empowered to look after city or town affairs. Municipalities or municipal organizations are obvious examples. Development Authorities or Planning Authorities are newer forms, as tasks are getting more specialized. In socialist societies, or more centralised societies it is not unusual to have Planning Authorities or Development Authorities co-existing with Municipalities. In addition, in nations with strong central governments, there may be higher Regional or State Planning Boards and National Planning Boards. Iran had a system with a National Council.³

Very often, the organization was formed primarily to ensure that cities and towns (and at times regions) developed in a 'proper' way and that public and collective interests of city dwellers were well looked after. This meant that the organization had to ensure that the supply and level of services and infrastructure was in keeping with the rate of growth of the city and that major problems regarding the city were well looked after. In fulfilling these mandates they necessarily greatly influenced city morphology.

Administrative control does not, as we shall see, require even

the existence of formal organization with charters or other such documents. Informal systems could take their place. For example, a single person could be chosen, elected, appointed or promoted and given paid assistance and even police to ensure that the city or even a quarter was well cared for. His duties could include the supply of water, removal of garbage, cleaning of streets, prevention of encroachments, settlement of minor disputes and provision of protection for the quarter or the city.⁴ This form of organization for municipal affairs existed in Iran for long periods, and the controls imposed by this system were also forms of administrative control.⁵

Forms of Administrative Control.

Administrative controls could take two forms. There could be direct detailed regulation of the development process and there could be masterplanning. Direct regulation could involve elements like building regulations and related laws which controlled building heights, areas, setbacks, materials, projections, openings and the like. Often these controls applied not only to citizens building on property owned by the government but also on privately owned plots. Zoning regulations controlled what citizens could build on any property within the municipal jurisdiction. In addition, as in Tehran, building designs were required to have the approval of the Municipality and at times that of other councils, not only for services required to be provided by the Municipal authorities and safety considerations but also for design quality, kind of use and general outlook.

The other manifestation of administrative control was masterplanning. As the name implies, master plans were documents, prepared with or without the help of consultants, to decide on present and future course of action regarding the city or its parts. As such it became a very strong control document. Based mainly on existing conditions and future projections, it tried to ensure a specific level

of services and quality of life for the inhabitants. But exclusionary controls were also used such as attempts at limiting population influx or who gets access.

In addition, administrative control through the use of master-plans could serve any of the following purposes.

- 1) It could attempt to alleviate problems currently being faced by citizens of the city. These were generally short term plans and often quite sectorial.⁶
- 2) It could attempt to alleviate problems of the future based on mounting current ones and projections. These master plans attempted to deliver a certain 'product' either in stages or only at the end of the specified period. The 1969 Tehran Master Plan was a good example of this kind of master plan.
- 3) It could plan projects for the future without considering current problems. The master plan for the second airport for Tehran was of this type.⁷
- 4) It could be entirely futuristic and attempt to create an utopian community without current problems at all. Shahestan Pahlavi falls into this category.

The Process of Administrative Control.

A major aspect of administrative control was the conduct of the master-planning process. Though normally thought to be the work of professional planners somewhat removed from general public administration, this process in Iran, at least in four ways, resulted in administrative procedure and administrative control.

First, at a basic level, administrative control could be seen in the initial establishment of need for the project and the very decision to prepare a master plan for it. Suggestions for projects could be initiated above or below, but the final decision rested with

and was thus controlled by an administrator. Thus the idea to involve planners and their notions of city form was that of an administrator.

Second, administrators control city form by resolving policy issues to which the ensuing plan was to be addressed. In effect they restrict planners to a narrow range of physical options. For example, when the Government of Iran Plan and Budget Organization deemed it necessary to have a master plan for Tehran drawn up, it set the agenda for that planning process, to which the planners were to adhere.

Third, administrative control could be exercised in the decision to implement the master plan and to adopt a particular approach to implementation.

Fourth, the working of direct controls into the master plan could be seen as administrative control as well, because the administrator decides whether to implement the plan or not.

Kinds of Administrative Controls.

Administrators could control city form for a number of different purposes, some directly related to their jobs, and responsibilities, some related to the services they provide, some political, some personal. Administrative controls could be categorized based on the purpose of the control. I have identified at least six kinds of purposes:

1) Administrative Control of Administrative Convenience.

These are controls which are applied simply for ease of administration. For example, the administrators may have been faced with problems of water supply, traffic congestion, housing shortage etc. There could be contradictory problems such as shortage of labor and shortage of housing etc. For

such cases direct controls are clearly needed when resolving of individual issues becomes difficult. One could attempt to organize either the problematic issues by classifying and regulating them or by structuring the administrative set up so as to be able to deal with the issues. Master plans provide a very useful vehicle by which to organize both problems and solutions.

2) Administrative Control of Environmental Servicing.

These are controls which are applied to maintain certain environmental standards in the city, such as air quality, traffic flow, cleanliness, etc. Controls such as those which allowed traffic only in one direction, those not allowing parking on certain sides of the street for snow cleaning, those giving the right-of-way to cars on Shah Reza Avenue including the permission to drivers to hit pedestrians not crossing at specific spots in order to improve the flow of traffic, those disallowing apartments to remain vacant to alleviate the housing situation and more.

3) Administrative Control of Modelling.

These were attempts by administrators to transform the city to one more closely resembling an image or a model. A story is told of a certain administrator who when on a trip abroad, saw no trees lining the streets, cabled the order to have all the trees lining the streets in Tehran to be cut. This order was never carried out.

4) Administrative Control of Demonstrative Success.

These controls are exercised primarily to create feelings of success, progress, achievement or prestige. Administrators may choose to plan, demolish, build or control future growth to favorably impress the citizens of their capability. The building of fly-overs on various roads in Tehran, the building of various gates, parks and

exhibitions were essentially to demonstrate success. The commissioning of some master plans followed this process.

5) Administrative Control of Shielding.

This kind of control uses the master-planning approach as a shield to implement projects unpleasant to citizens and residents. It uses master plans and master-planning consultants and serves to divert the dissatisfaction of the citizens from the administrators to the plan or to the consultants. In addition, by citing the logic of the plan it is possible to divert attention from administrative sections of an unpopular project. For example, in the case of Shahestan Pahlavi, the planners recurrently stressed that the project itself was conceived and therefore legitimized by the earlier Master plan of 1969 and had the endorsement of responsible administrators which is clearly brought out by the following quote:

" Within the city's solidly built up area, only a few vacant areas remain: by far the largest of these is Abbasabad --- 554 hectares of arid ridges, slopes and valleys, lying between existing downtown area and the city's new burgeoning residential areas. It is here that a new city centre was first proposed by the Tehran Comprehensive Plan of 1969 and then approved as government policy in 1970. In 1975, His Excellency the Mayor of Tehran, Dr. G.R.Nikpay, selected consultants to prepare a detailed Master plan, and on 19th. of August of that year--- the anniversary of Iran's great revolution --- His Imperial Majesty, the Shah-en-Shah Aryamehr laid the cornerstone of a great new Square, heralding the start of the new centre. It would be known hereafter as Shahestan Pahlavi and its role would be to serve as the ceremonial and civic heart of the nation."⁸

It further stresses that " unlike (other projects like) Airport and Truck Terminal, Shahestan Pahlavi was foreseen by the 1969 Master plan and implements one of the centers called for by the Master plan."⁹

6) Administrative Control of Political Gain.

Administrators exercise control on city form for the sake of political gain. With the idea of discouraging, undermining or dislocating opposition, they could attempt to control city form by ordering the demolition of the opponents power bases, isolating them, or constructing new ones which could out compete the opposition's.¹⁰ Shahestan Pahlavi appears to serve this motive. Several writers have mentioned that the strongest opposition to the administration of Muhammad Reza Shah came from the Muslim clergy and the bazaaris. Physically these groups were located in the bazaar area and in the mosques in the south.¹¹ The sharp bi-polar nature of Tehran in the northern area for the rich, and the southern area for the poor, has already been described.¹² Shahestan Pahlavi, which was declared to be the new centre not only for Tehran but for the whole nation, was to be located in the elitist northern part of Tehran.¹³ As such, with \$ 5 billion, or large part thereof, investment from the government the new center could easily out-compete the earlier city centre of the bazaar-mosque area, and in that undermine at least the physical, symbolic and economic power base of the opposition.¹⁴

The following sections will take two case studies that of the master-planning for Tehran and master-planning for Shahestan Pahlavi and treating them as examples will demonstrate the use of administrative controls of various kinds.

Master-Planning For Tehran.

An administrator in his line of duties has had to convey a feeling to the citizens that correct action was being taken. To do this, he could use consultants and 'experts'. In this he could exercise control in the very use and selection of consultants, and of course, the choice not to use a consultant at all was also his. For instance, the Tehran Master plan was commissioned by the Plan and Budget Organization of the Iranian Government in 1966, and prepared by the Planning firms of Victor Gruen and Associates (Los Angeles) and Abdol Aziz Farman Farmaian (Tehran, Iran). It was ready in 1969 and adopted by the Iranian Government in 1970. In the above, the use of a foreign 'expert' and a local one was a significant move. The authoritative nature of recommendation made by an 'expert from afar' was an element often used by administrators in developing nations,¹⁵ as it was generally believed that experts and consultants from developed nations were able to advise better. When the recommendations were a result of a collaboration between foreign and local consultants or when they were endorsed by local ones, their credibility increased, so that decisions unpleasant to certain sections of the population could be implemented with less friction and greater ease. Hence, the use of such consultants was an act of administrative convenience which made the task of controlling easier. Work involving dislocation, relocation, demolition, etc. would clearly become enormously complex without a supporting document from 'experts' and more so in the absence of any document at all.¹⁶ The use of consultants and a master plan, in this way served to mitigate the administrator's responsibility, and the very use of plans for this purpose therefore, was an act of administrative control.

Very often master-planning was resorted to for convenience in day-to-day administration. The very function of a master plan was

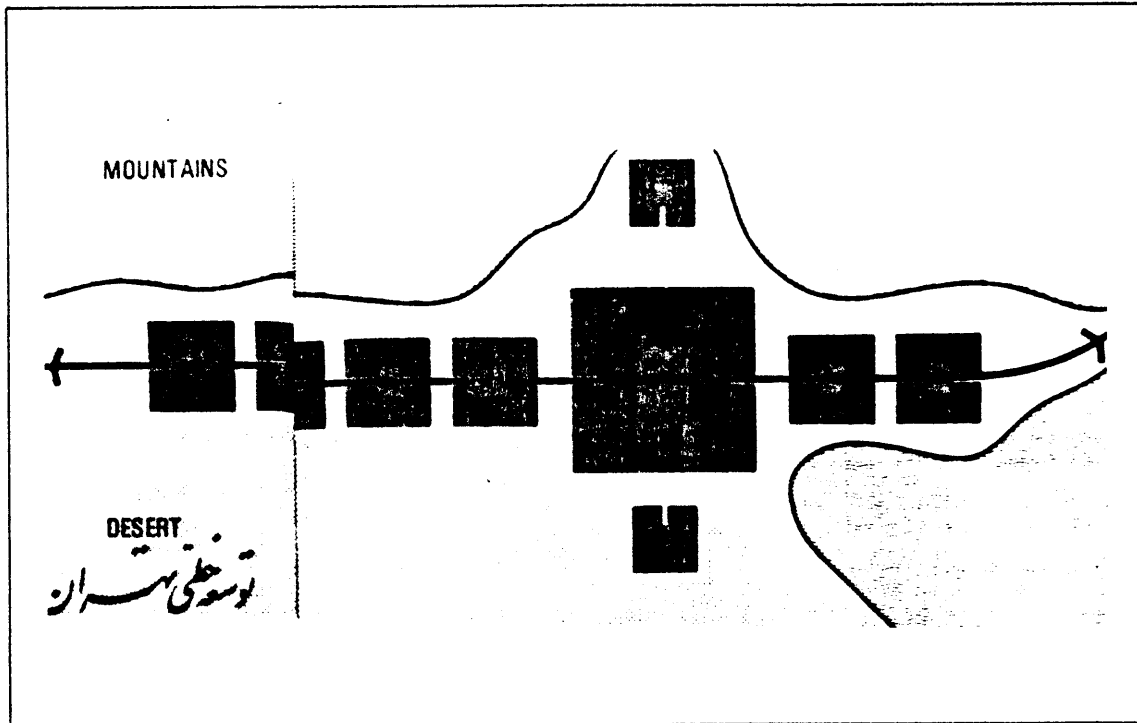


FIG. 4.01

TEHRAN MASTER PLAN (1969): SCHEMATIC LAYOUT.

source: WARBURTON, R: 'Urban Development in Iran'.

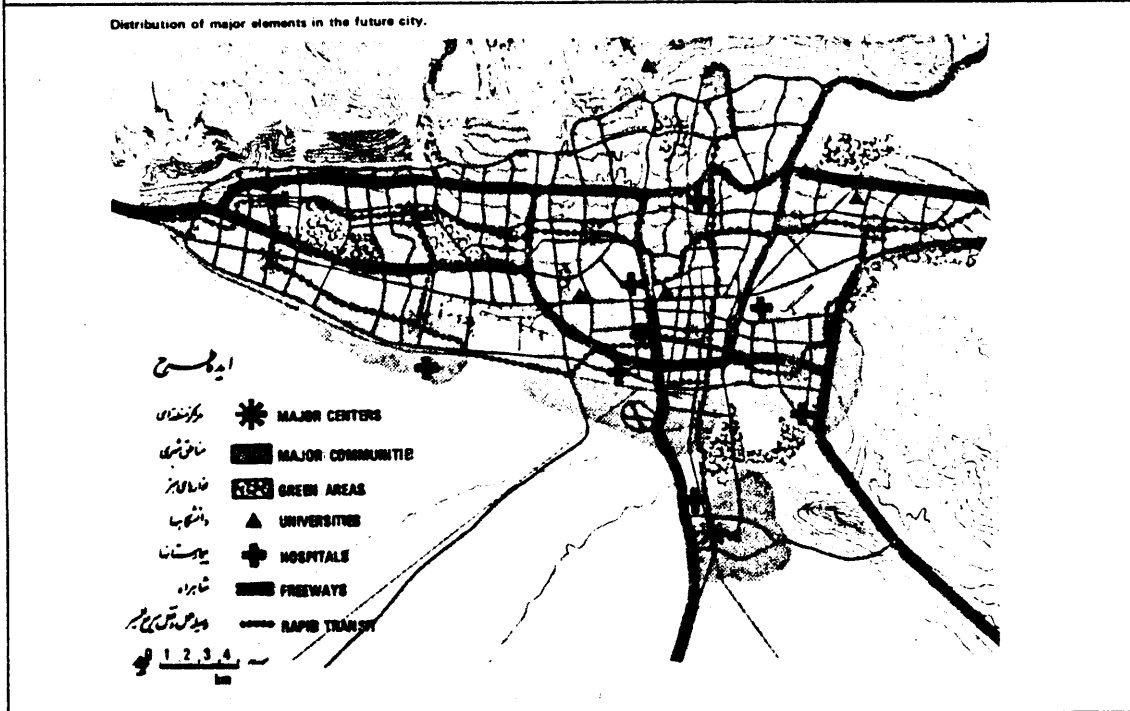


FIG. 4.02

TEHRAN MASTER PLAN (1969): LAYOUT PLAN.

source: WARBURTON, R: op cit.

in administrative controls. The following section will look at the planning process with this in mind and describe the administrative controls formulated by planners in the process. These are demonstrated in the way planners controlled residential location, economic segregation and distribution of public goods.

The planners attempted to control where and how people could live. They designed or allocated space for specially designed communities like Farahzad, Latmar, etc. They also called for " the total renewal of 2,000 hectares (about 8 sq. miles) of the most deteriorated residential areas and for extensive rehabilitation in almost the whole of the southern part of the existing city; over 25 years period, these policies would lead to the relocation of almost 600,000 people into other parts of the city." ²¹ It should be noted that the southern part was the poorer section of Tehran. This proposal had the approval of the administrators, or it would not have been in the plan.

In addition to the above, the planners often adopted measures for operational convenience, which eventually worked as controls in themselves and perpetrated economic segregation. They designed physical communities for three different income groups. In the process somehow the grouping in itself became important, and resulted in the income groups becoming ends in themselves, as shown by the designs. A person to be a part of a community had to be of a certain income group, and in that his freedom was thus curtailed by something which was begun for operational convenience.

In similar note, the planners conceived of three level communities with associated facilities and distribution of goods and services. But in the process again, as in the above case, once the assumption was made regarding the distribution of services the levels of community as judged by the facilities became the control and they were used as

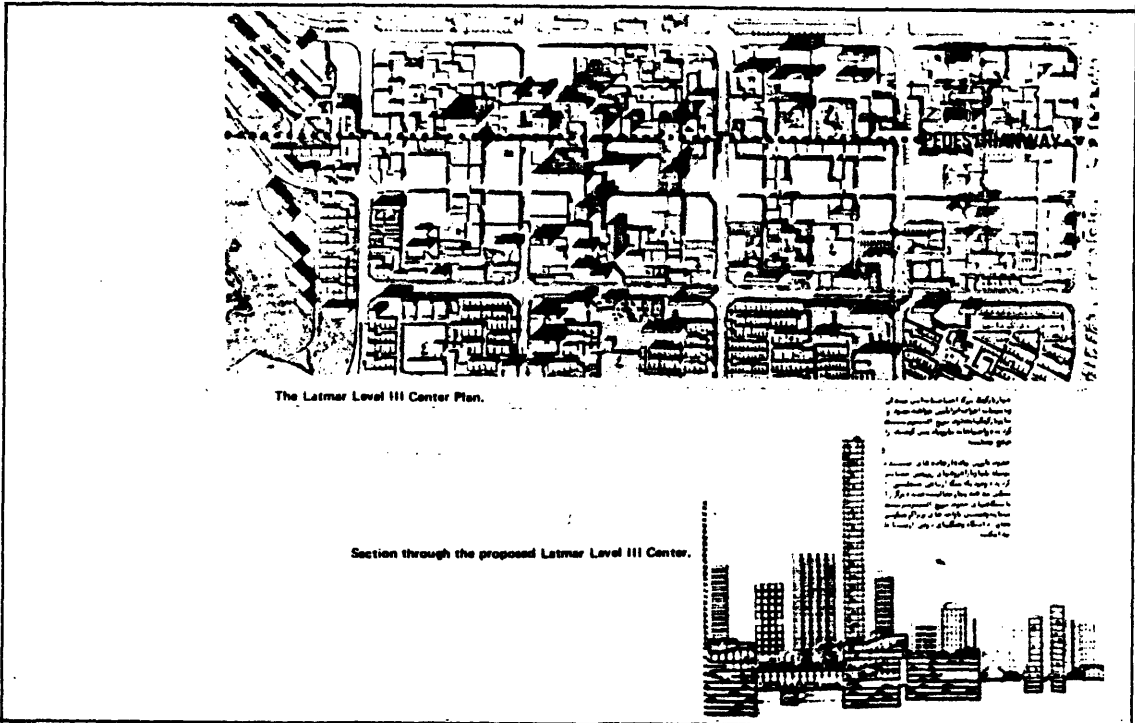


FIG. 4.03 TEHRAN MASTER PLAN (1969): DESIGNS FOR DIFFERENT LEVELS OF COMMUNITY.
source: WARBURTON, R: op cit.

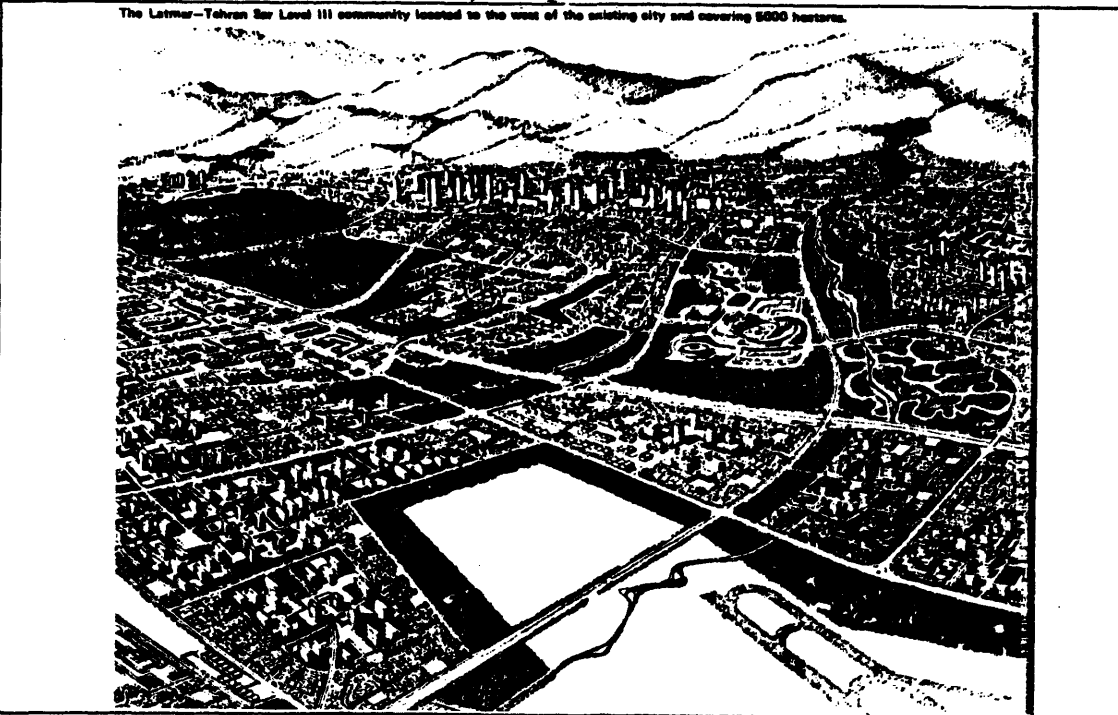


FIG. 4.04 TEHRAN MASTER PLAN (1969): DESIGN FOR LEVEL III
source: WARBURTON, R: op cit.

to chart courses of action and control physical development, and thus control city form. This was explicitly stated as a reason for the decision to have a master plan, as shown by the following:

- " The Planning task was viewed in terms of long range effectiveness for the :
- o explorations of objectives, trends, and resources,
 - o development and evaluation of alternate strategies,
 - o formalization of optimized programs and policies,
 - o detailed definitive instrument to serve as a day-to-day guide in dealing with such matters as traffic, subdivision of land, construction standards." 17

All these, and especially the last one, clearly show the administrative convenience a master plan offered. The task of the planners was therefore, to provide the Government of Iran with a set of tools with which the problems of Tehran could be more easily dealt with.

The Master plan itself, attempted to project current and future problems and trends, and attempted to resolve them in stages over a long period of time. The 1969 Master plan was meant to "serve as a guide to the growth of the city over the next 25 years."¹⁸ This Master plan therefore not only promised a product but also chalked out a process for the administrators to follow, and controlled activities in the city. This could be further demonstrated by the following objectives of the Plan:

- o " Relieve and if possible resolve the current and predictable problems of the city.
- o Provide a framework for orderly and efficient growth of new elements of the city, reflecting social characteristics, economic potentials, traditional preferences and needs.
- o Achieve adequate and economical mobility for residents of the city."¹⁹

The Approach used by the Planners.

Based largely on their own surveys the Planners made a number of projections, some of which led to decisions by the consultants and the administrators, and to the adoption of specific controls.

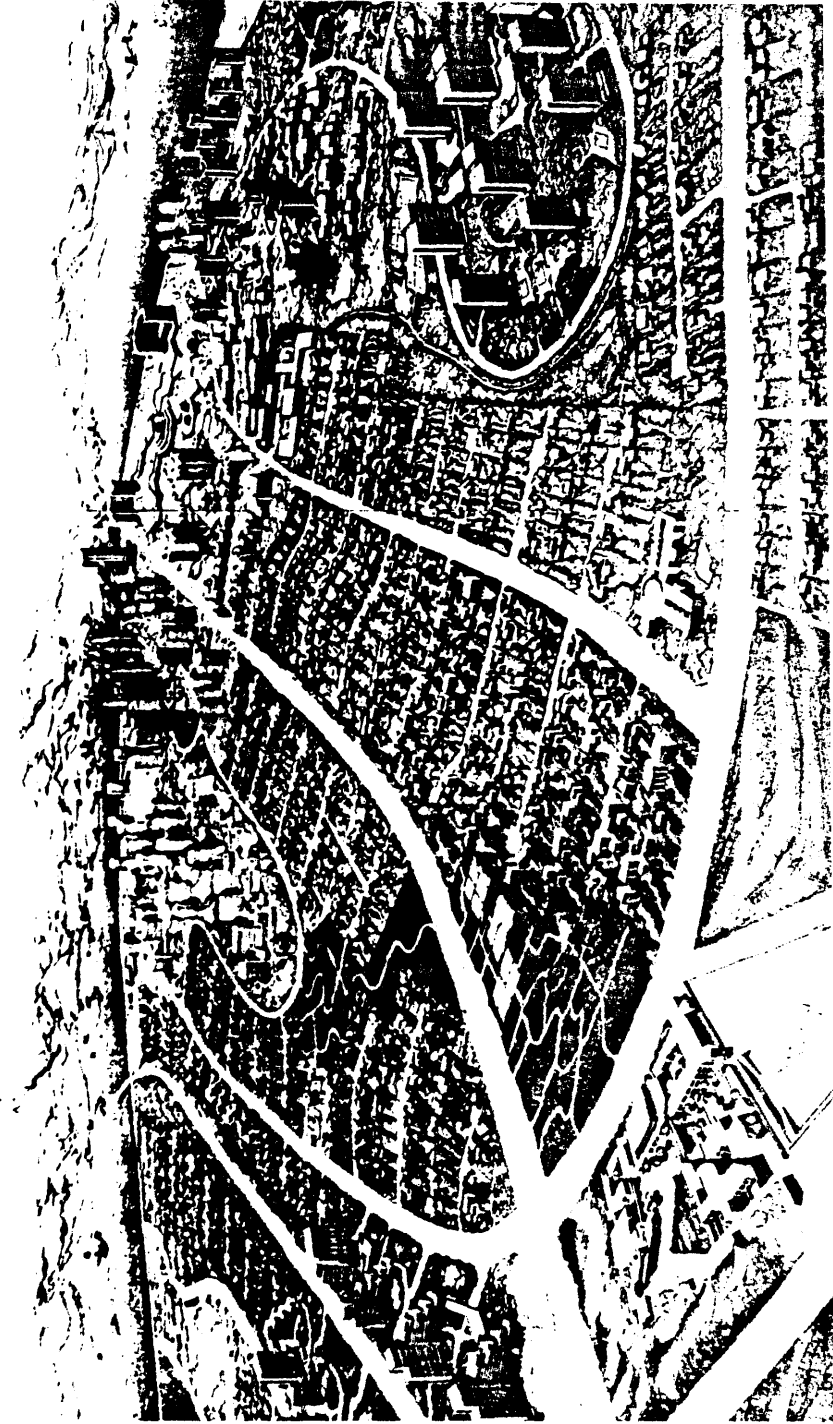


FIG. PLAN FOR FARAHAZAD COMMUNITY.

note: the master planning.

source: BENY, Roloff, Iran: Elements of Destiny, 1978. p. 354.

4.06

designed to regulate city population, transportation, housing, location of economic groups in the city, and the allocation of public resources to them.

Administrators attempted to directly control how many people could get to live in the city. Since the planner's initial projections claimed that Tehran's population would reach 12-16 million inhabitants in the year 1991,²⁰ administrators were alarmed and declared that Tehran's population should be limited to 5.5 million in 1991. This decision had two effects in the plan; first it led to direct controls which would limit population in the city, and second, it affected all other aspects of the plan, since the whole plan was based on the assumption of 5.5 million inhabitants in 1991. Thus, both directly (for economic reasons) and indirectly (for administrative convenience in the planning process) administrators exercised extensive control over city form.

A second projection led to administrative control of the roadways in the city and thus of city form. This projection indicated the rise in income and car ownership. The car ownership per family increased from 0.06 in 1962 to 0.14 in 1968. This led the Plan to call for 150 kms, (93 miles) of freeway for only the city of Tehran, in addition to the major avenues, parkways, major and minor roads forming a modified grid as part of the Transportation System of the plan. Added to this was also proposed a Rapid Transit network amounting to 100 km. (62 miles). In a country where people still ride donkeys, by necessity, these public expenditures, therefore, were primarily for those families who could afford to maintain cars.

When working together with the administrators on plans or when contracted for a master plan and working independently, planners took over the work and the role of the administrators. What emerged was a combination of administrative and planning functions which resulted

basic planning units. This is demonstrated in the design for the basic planning units.

Models for the city were used by administrators, policy makers, and planners, with the city made to conform to such models. One objective of the Plan was:

" Encourage the emergence of an 'Urban Image' representative of the role of Tehran as a major capital city." ²²

The image itself, was the decision of the administrators and planners.

In terms of controls, the planners and administrators agreed that future urban expansion should,

- o " recognize the physical and climatic potentials and limitations of the area surrounding Tehran,
- o be capable of change and continued growth after the planning period,
- o enable the orderly allocation of major urban functions without associated congestion,
- o encourage a reduction in centrality by diminishing the current dominance of the downtown area." ²³

The first three points could be used as control criteria for evaluation of alternatives proposed by the planners, but the fourth seems to be an administrative objective or policy which possibly led to the formulation of Shahestan Pahlavi, as an alternative center, as has been pointed out.

Another major control simply for administrative convenience was the establishment of " a boundary beyond which no development would take place for five years," ²⁴ so that planning and service-laying activities could be carried out without hindrance. This was to be implemented by the Municipality, which controlled the issuance of building permits in the area while services were being installed. This action led to a tremendous rise in the price of land within the city, putting it out of reach of many low income people. But as far as administrators were concerned, they could thus maintain choice land

within the city not only for servicing but also for such select projects as Shahestan Pahlavi, a clear case of control exerted for administrative and planning convenience.

SHAHESTAN PAHLAVI

The first instance of administrative control of city form, as has been pointed out earlier, was in the decision to have the project. Shahestan Pahlavi was the name given to the new city center for Tehran, envisioned on 554 hectares (1368 acres) plot of land located in the northern part of the city. A master plan was prepared for the project. While the 1969 Master plan called for the project, the actual decision at a later point in time to go ahead with it was an administrator's who was conscious that a project of this size would affect city form.

The administrators also controlled the manner in which the project was awarded. An international competition was held which was won by 'Llewelyn-Davies va Shoraka', as part of a financial consortium.²⁵ If the terms of the competition had been framed differently by the administrators, (for instance if a national one was held) the winner may have been different. Hence the idea of a competition and award of the project were part of conscious policy of the administrators to control the quality and nature of the ensuing design.

Administrative control for operational ease could be seen in the steps taken to alleviate operational problems. For instance, the original contract was a financial development contract, but when such huge development proved unwieldy and it appeared that the consortium may not be successful, the contract was terminated. Instead a new contract was signed which made the Municipality of Tehran the developer and Llewelyn Davies the master-planning consultants. This

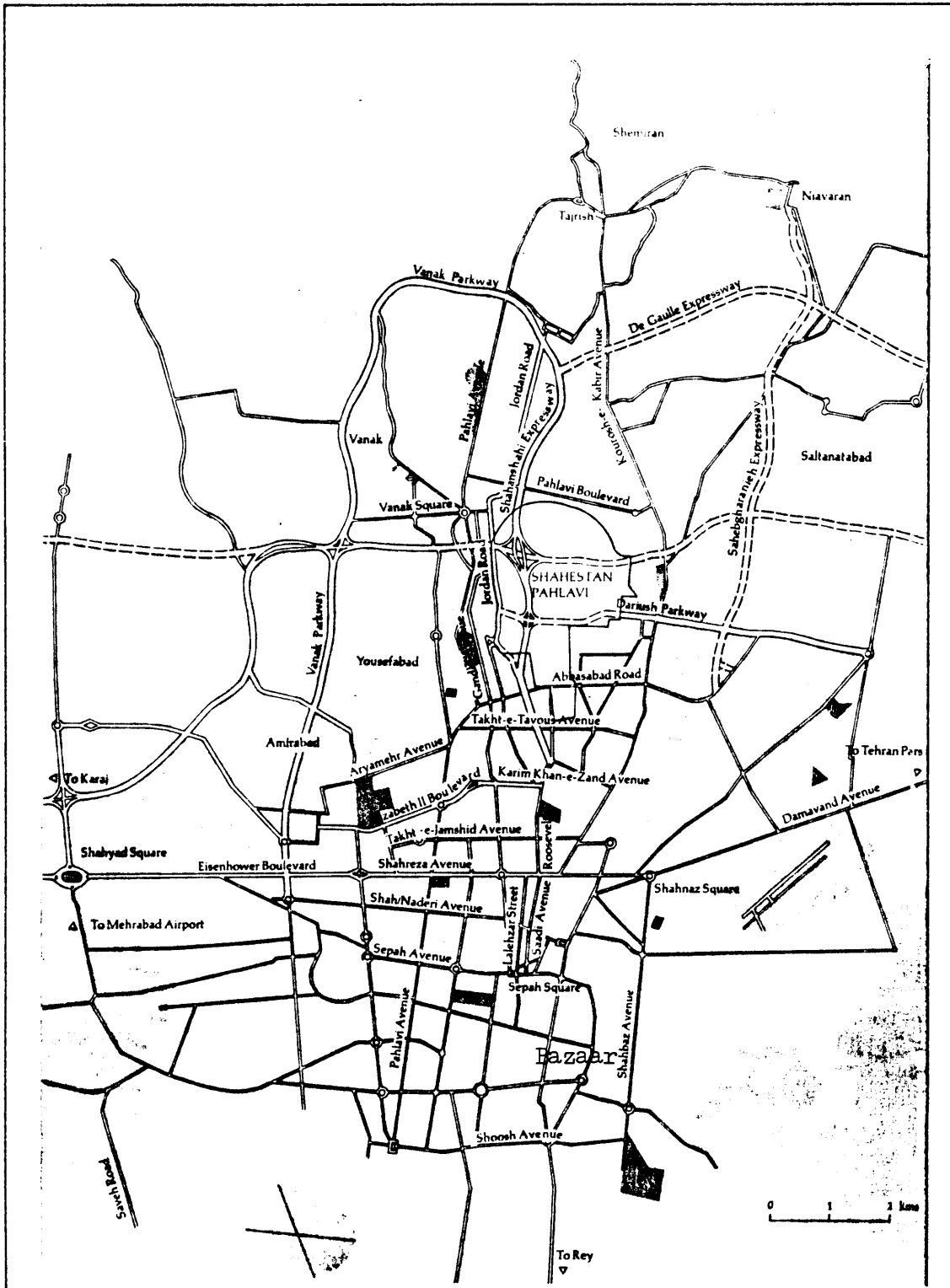


FIG.
4.07

SHAHESTAN PAHLAVI: LOCATION OF SITE IN TEHRAN.
 note: the location to the north
 source: LDI: S.P. Master plan.

was done supposedly to ensure the quality and success of the project.

The project was to prepare a master plan for a new city center for Tehran for government offices, private commercial, housing, parks and cultural facilities. The writing of the program was another element where administrative control could be observed in what was to be included and excluded from the program. However, this point cannot be made with certainty as the program was not available to me. The planners, however, pointed to the 1969 Master plan for major elements in the project. It was used to justify, office space, densities, 'urban image' etc. For example, " The Gruen Master plan calls for Abbasabad to be a Level III Community. Gruen envisioned garden apartments as well as high rise densities which are supportive of an urban centre. Present municipal policy also sees Abbasabad as a true downtown centre." ²⁶ That is to say that recommendations and information were unquestioningly assumed by the planners in this case.

Administrative controls were used in Shahestan Pahlavi to ensure the quality of the product. The Master plan proclaims:

" We were committed to creating a beautiful city center which would give twentieth century Iran a national center of high quality that Isfahan contributed in the sixteenth century." ²⁷

The justification offered for this was, " We believe this to be a proper goal of town planning." ²⁸ To achieve this envisioned image, the planners proposed a number of controls which were to be followed by builders and owners. These could be seen in the organizing principles used for the formulation of the Shahestan Pahlavi Plan. There were eight such organizing principles.

- 1) "The highways to provide access to the new center will be located within the site's natural valleys." This was done so that they could be easily landscaped and shielded.

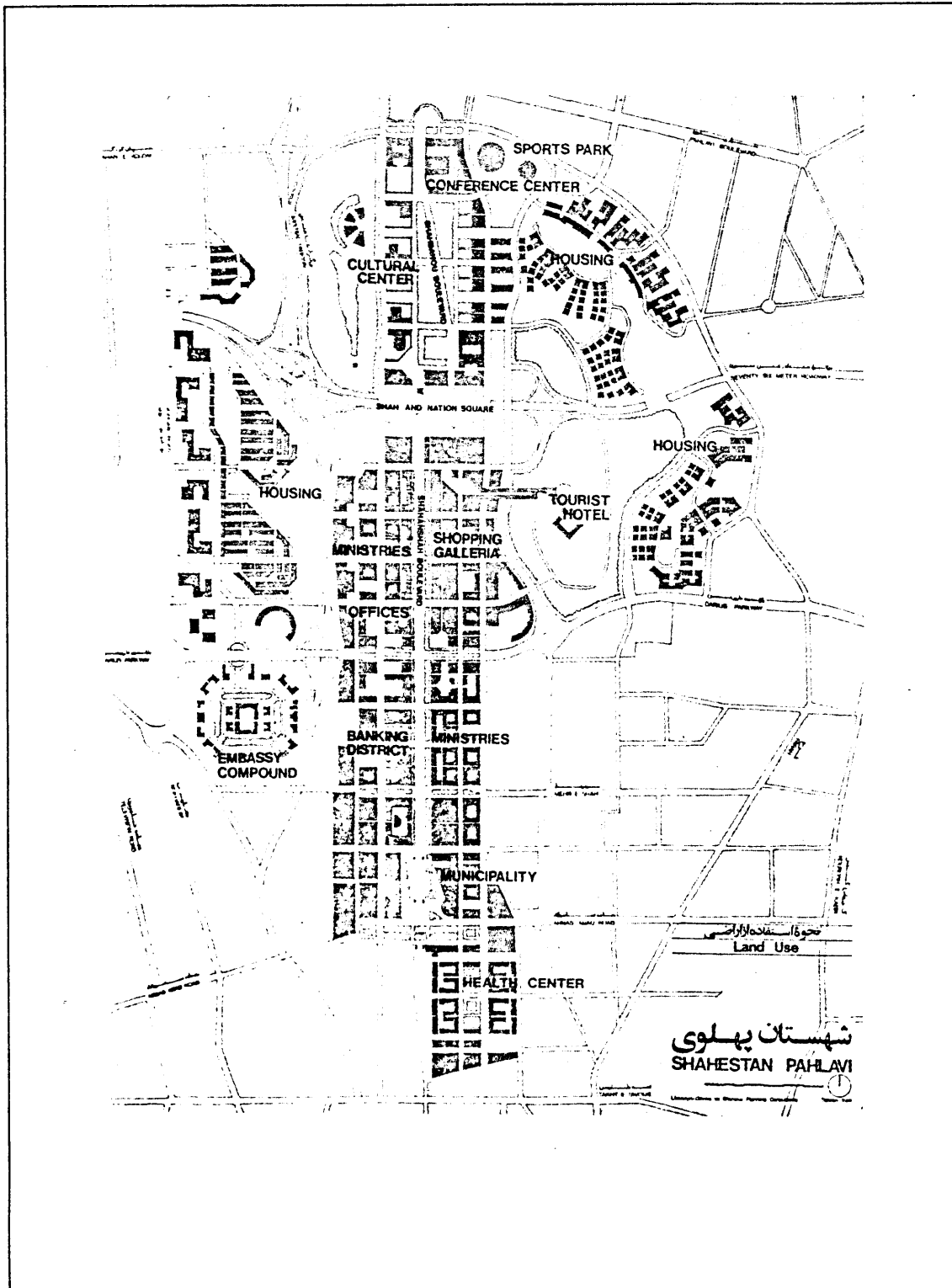


FIG. 4.08 SHAHESTAN PAHLAVI: MASTER PLAN. (1976).

source: LDI; Masterplan.

- 2) "The central area will be built as a linear spine above the route of the first metro line." This was done because the metro line would maximize the ability of the central spine to serve as an employment center, and would expectedly ultimately phase out the private car. To ensure greatest operating efficiency, buildings such as ministries would be clustered; but in each case these clusters would be kept relatively small so that they would interweave readily with other uses (like retailing or entertainment). The ministries would be divided into three clusters in order to create the variety needed for a vital new city center. This was another clear attempt to control form through clustering for operational convenience of the planners.
- 3) "The Central Spine's traffic requirements will be best served by a boulevard system within a grid layout. The axis of the central spine will be formed by two boulevards that meet at Shah and Nation Square: The Shah-en-Shah Boulevard and the Shahbanou Boulevard." Thus the decision to have the central spine, and to control what happened around it was one made by the planners.
- 4) "The Central Spine will be kept compact enough to allow for large amounts of landscaped open space." The densities selected by the planners for commercial was six and for residential four.
- 5) "The heart of the new center will be Shah and Nation Square. In marked contrast to the generally small open spaces elsewhere in the Central Spine, the Shah and Nation Square will be a vast and varied Plaza, larger in size than the King's Square (Maidan-e-Shah) in Isfahan, and Moscow's Red Square."
- 6) "Most housing will be built adjacent to surrounding neighborhoods. Much as a city reserves its peripheral areas for quiet family living, Shahestan Pahlavi's residential areas will lie at the edge of the site, adjacent to surr-

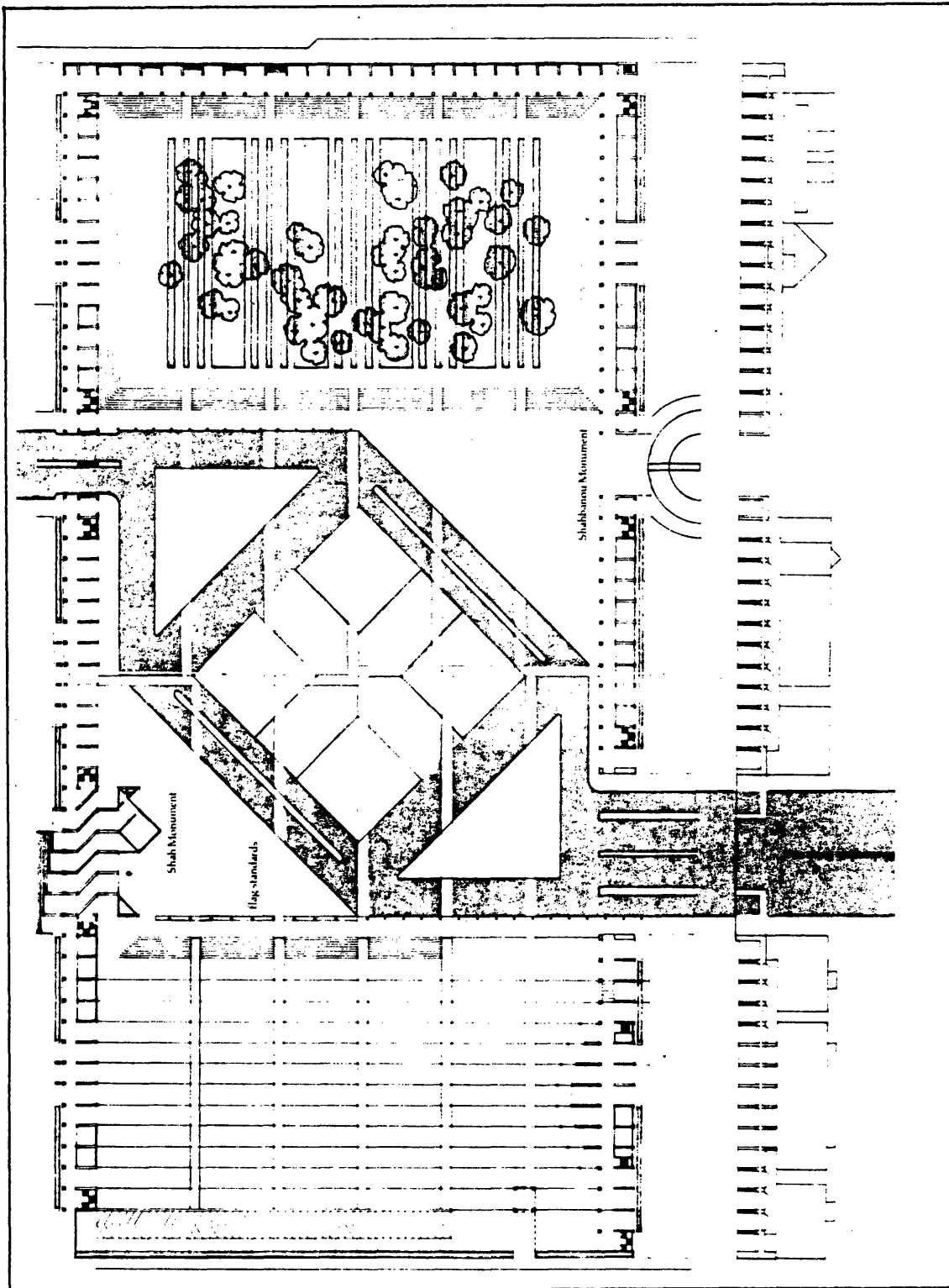


FIG.
4.09

SHAHESTAN PAHLAVI: 'SHAH-and-NATION SQUARE'.
note: grand scale, larger than Moscow's Red Square!
source: L.D.I.: M.P. for S.P. 1976.

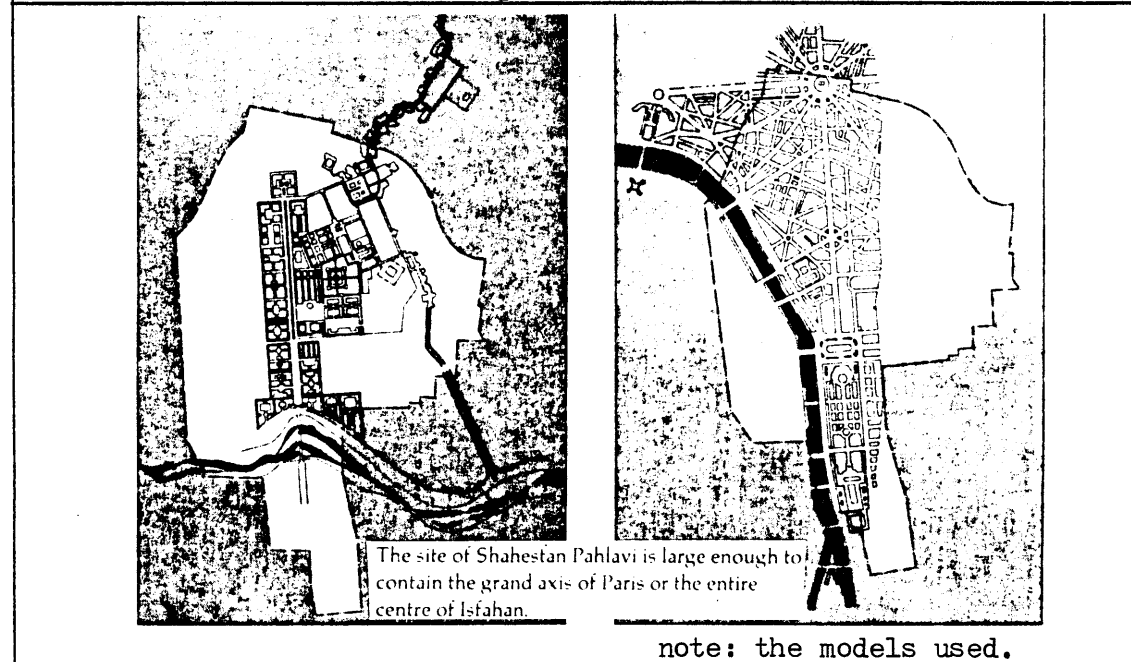
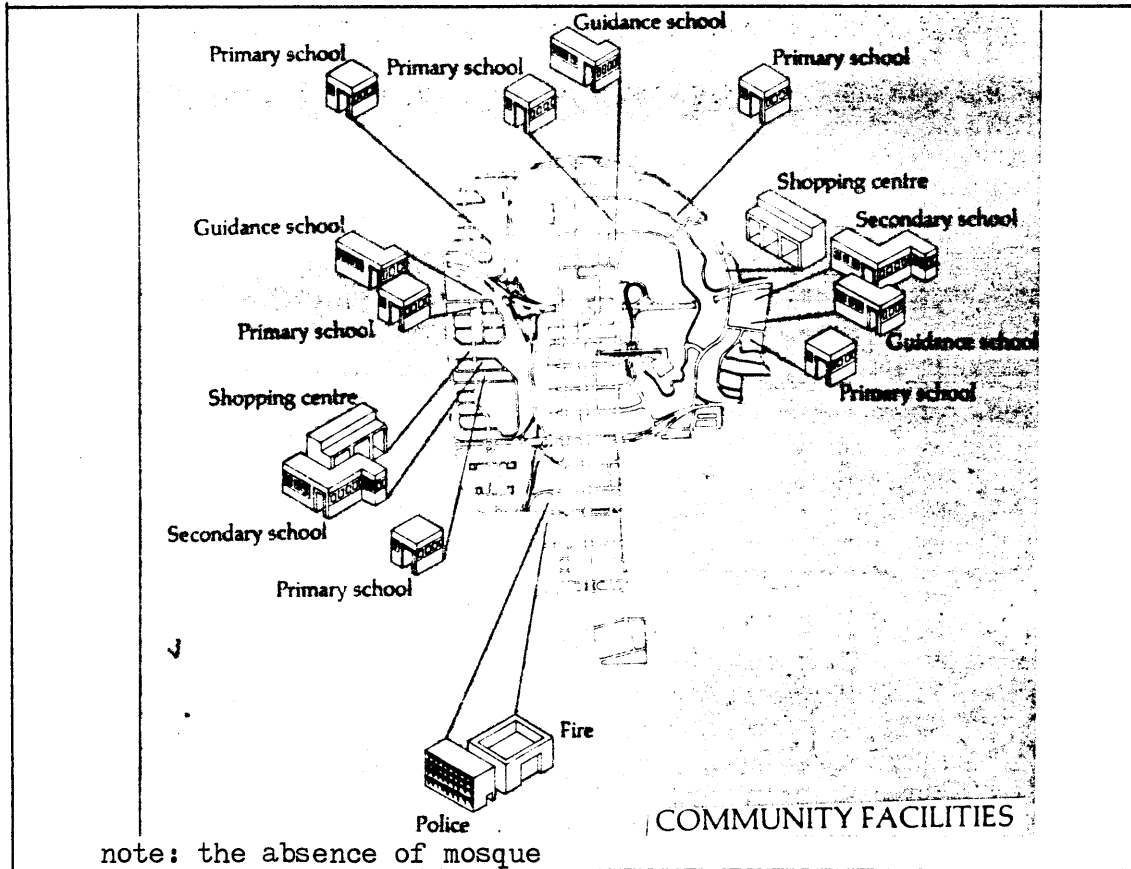


FIG. 4.10 SHAHESTAN PAHLAVI: COMMUNITY FACILITIES.
 source: for both: LDI: S.P. master plan.
 FIG. 4.11 SHAHESTAN PAHLAVI: the use of models.

surrounding residential neighborhoods."

- 7) "Building heights will be controlled to protect views, and streets will be defined by uniform frontage."
The Plan therefore recommended that ministries and other buildings on the central spine be low and spacious with interior courtyards. The purpose to be served by the above would be:
- a) Shah and Nation Square would be protected against shadows from tall buildings,
 - b) lower buildings would involve less expensive design solutions,
 - c) lower buildings would require less energy, besides affording continuous shop frontage at street level.
- 8) "The buildings of the new center should be phased so as to minimize infrastructure investment." ²⁹

All the above organizing principles of the Plan show concern for the quality of the final product and essentially attempt to control in that respect.

Associated with 'image building', another aspect of administrative control was the use of models for the project, some of which were, Shah Abbas's Isfahan, John Nash's London, Pope Sixtus' Rome and Baron Haussman's Paris. The Plan lavishly praised the greatness of these cities and stressed:

" In these instances an artistic response to a city's needs was combined with a genius for city building --- the ability to carry out plans on a large enough scale to influence the character of the city. These examples of great city building transcended the basic requirements of their cities and devised a strong symbolic and cultural setting for their citizens." ³⁰

That this model was essentially a western one could be seen from the fact that this proclaimed new, national, cultural center in Tehran did not have any provision for a mosque, even though it was designed for a nation with 98 % Muslim population, and a city which was noticeably lacking in mosques. The Plan also gave several

comparisons with western counterparts. The model was well described by Davis:

" These great senior architectural firms of the high rise international style have been drawn to the Middle East not merely by new oil millions but by an unprecedented challenge: to leap almost instantly to the twenty first century." ³¹

The administrator-planner combination also decided to plan a project which by its sheer size would awe, inspire and attract international attention. This was done to demonstrate that Iran was a fast developing country, and to increase thereby, its international prestige and standing. The Shah and Nation Square was to be the largest in the world. The objective to inspire and awe the world was achieved as can be seen from some of the reviews:

" Shahestan Pahlavi (is) an urban center that some think will match the new cities of Brasilia and Chandigarh for ambitious scale and planning to say nothing of the expense --- estimated at more than \$5 billion. Projects like these add up to one of the biggest feats of architectural construction in history." ³²

The project had a few other surprising elements. In those arid slopes, the plan devoted 40 % of its area to open spaces, parks and landscaped areas. ³³ (Fig: 4.12) This was not an easy task considering that water availability was a major problem for Tehran, and was cited as a reason for limiting the population to 5.5 million. ³⁴ However, and this was another aspect wherein administrative control acted to give this project clearance, the planners claimed that they had been assured that adequate quantities of water for the project, would be supplied to Shahestan Pahlavi on a priority basis, by the Tehran Regional Water Board. ³⁵

The center was also planned to impress visiting dignitaries and tourists. " Pride of place is something desirable from all

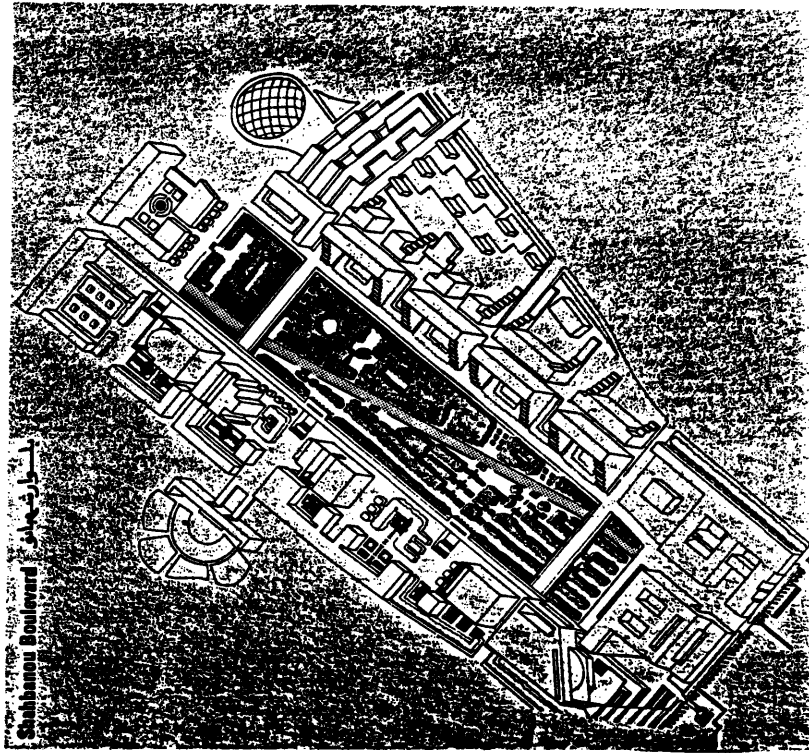


FIG. SHAHESTAN PAHLAVI: LANDSCAPED AREAS.
4.13 NOTE: the amount of greenery.
source: LDI: Shahestan Pahlavi, m.p.

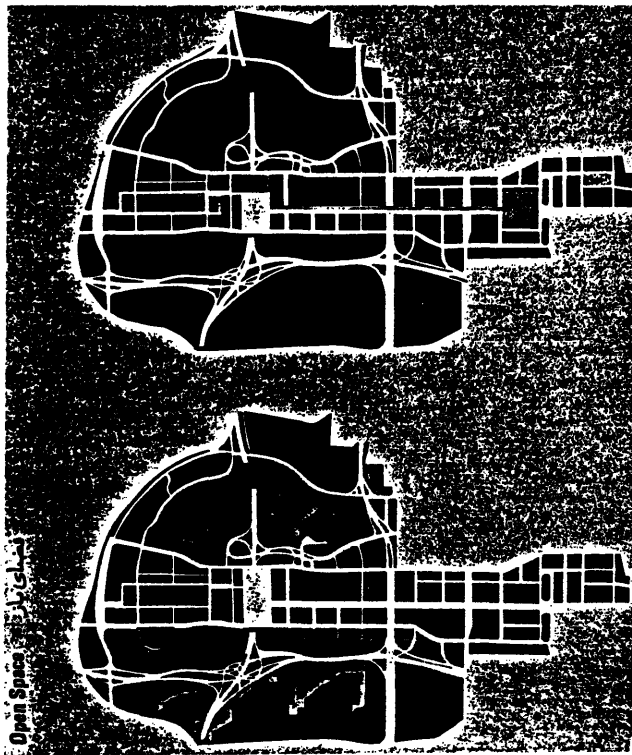


FIG. SHAHESTAN PAHLAVI: OPEN SPACE &
4.12 GREENERY, note: the extent of above.
source: LDI: Shahestan Pahlavi, m.p.

view points and every effort should be made to see that the city of Tehran adequately fulfills this role ... A world wide image must be created whereby Tehran is known as the finest city of the Middle East. Improved tourist and convention facilities, stronger recreational impact and emphasis on Tehran as a world capital are important aspects of this goal." ³⁶ Various elements were provided in a symbolic manner. Bazaars, madrassas, a caravanserai hotel, a bridge with shops modeled on that of Venice, were expected to be symbols of Iran's heritage.

Administrative control for ease in implementation was worked out by phasing the project into three stages, as shown by the plan. This meant that the cityscape would be transformed in stages as indicated. In addition, the plan also called for careful management and financial planning, warning that market forces must be controlled to ensure success of the plan.

Administrative controls in the form of actual building controls were also evident. Besides those depicted, (Fig. 4.14) there were some general ones;

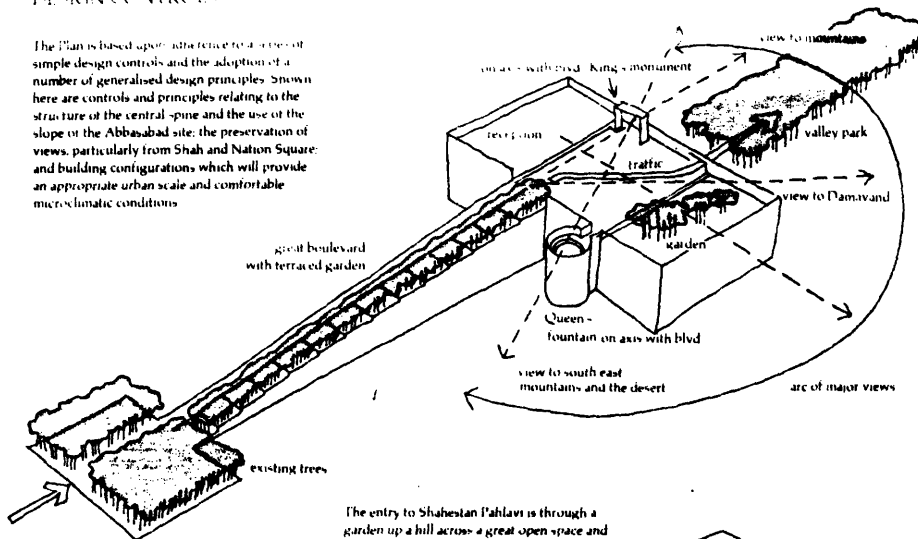
Height and Massing: Ministry buildings were required to be low and spacious with internal courtyards. They were to be constructed right upto the pavements. Heights of 20-30 storeys were allowed at selected points.

External Materials: To ensure consistent quality of finish, cut, natural stone or brick was recommended for the paving, as well as for construction and facing of the buildings on Shahestan Boulevard. Expensive marbles and granites were reserved for prestigious buildings. Much of the central spine would be constructed in reinforced load-bearing blockwork, possibly a specially produced 'Abbasabad' block.

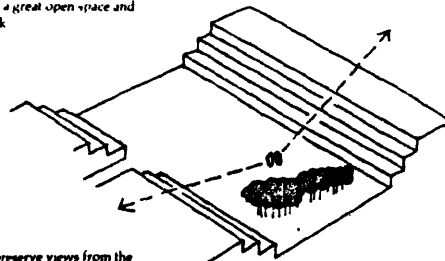
Color: A color code system would be used. The arcading of Shah and Nation Square would be in blue as would be the color of

DESIGN CONTROLS

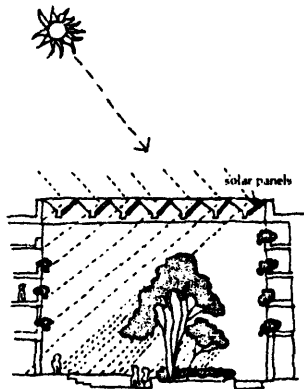
The Plan is based upon adherence to a series of simple design controls and the adoption of a number of generalised design principles. Shown here are controls and principles relating to the structure of the central spine and the use of the slope of the Abbasabad site, the preservation of views, particularly from Shah and Nation Square, and building configurations which will provide an appropriate urban scale and comfortable microclimatic conditions.



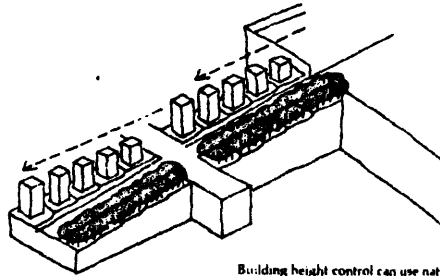
The entry to Shahrestan Pahlavi is through a garden up a hill across a great open space and into a dense valley park



Building profiles can preserve views from the major open spaces



Atrium
Interior air conditioned courts with plants, trees, and water. Skylights are made up of southfacing solar panels and northfacing reflective glass.



Building height control can use natural slope to pre-serve major views

FIG. 4.14

SHAHESTAN PAHLAVI (1976): URBAN DESIGN CONTROLS. note: the controls on heights, materials, designs, etc. source: LDI: Shahrestan Pahlavi, Bk. 2, Urban Design.

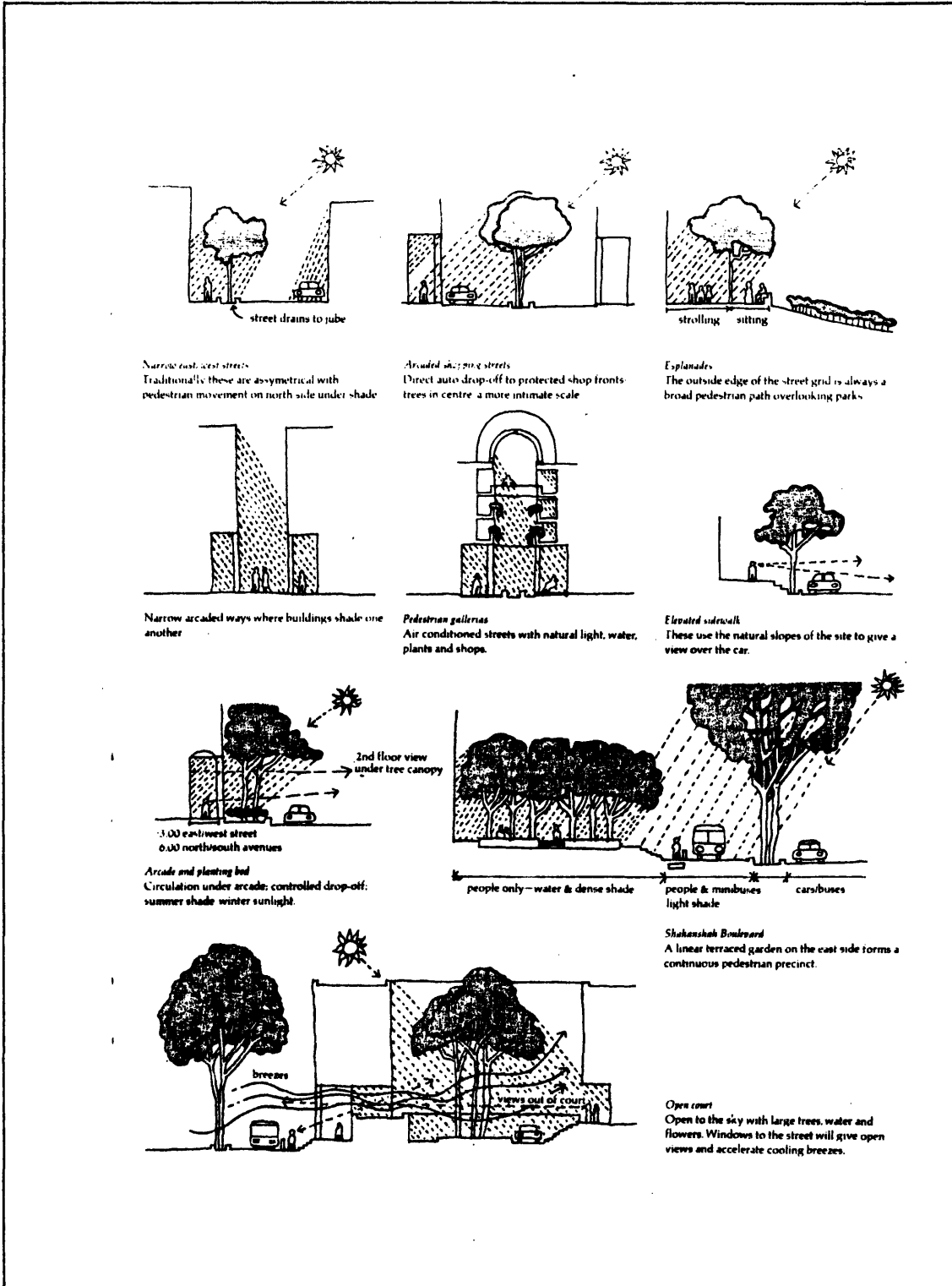


FIG. 4.15

SHAHESTAN PAHLAVI: URBAN DESIGN CONTROLS. note: the various controls.

source: L.D.I.: Shahestan Pahlavi Master Plan, v.2 1976

Wherever possible, the designers of individual buildings in Shahestan Pahlavi should be dissuaded from inventing new and different solutions to essentially similar problems. Instead, prototypical designs and details should be adopted. The examples here show a family of facade designs and entrance forms, which might appropriately be applied to the Ministry buildings along Shahanshah Boulevard. Local variety will thus be possible within the general consistency of the street design.

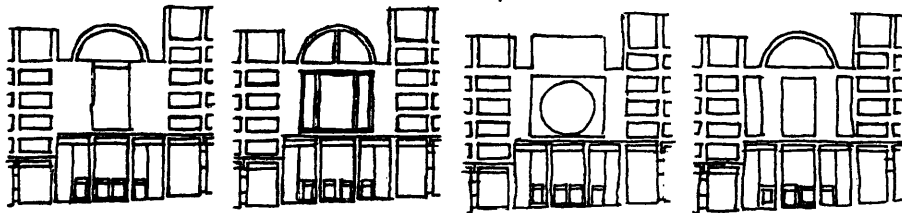
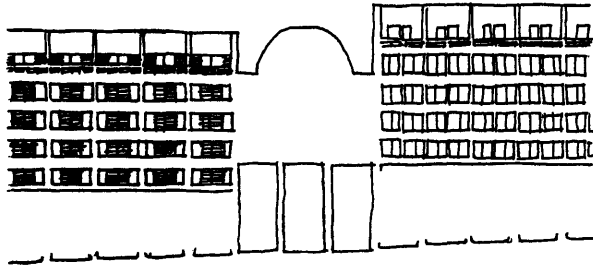


FIG.
4.16

SHAHESTAN PAHLAVI: VIEW OF MODEL LOOKING NORTH.
note: the shahenshah avenue and the trees, buildings.
source:Llewellyn Davies Intl: Master plan: S.P.

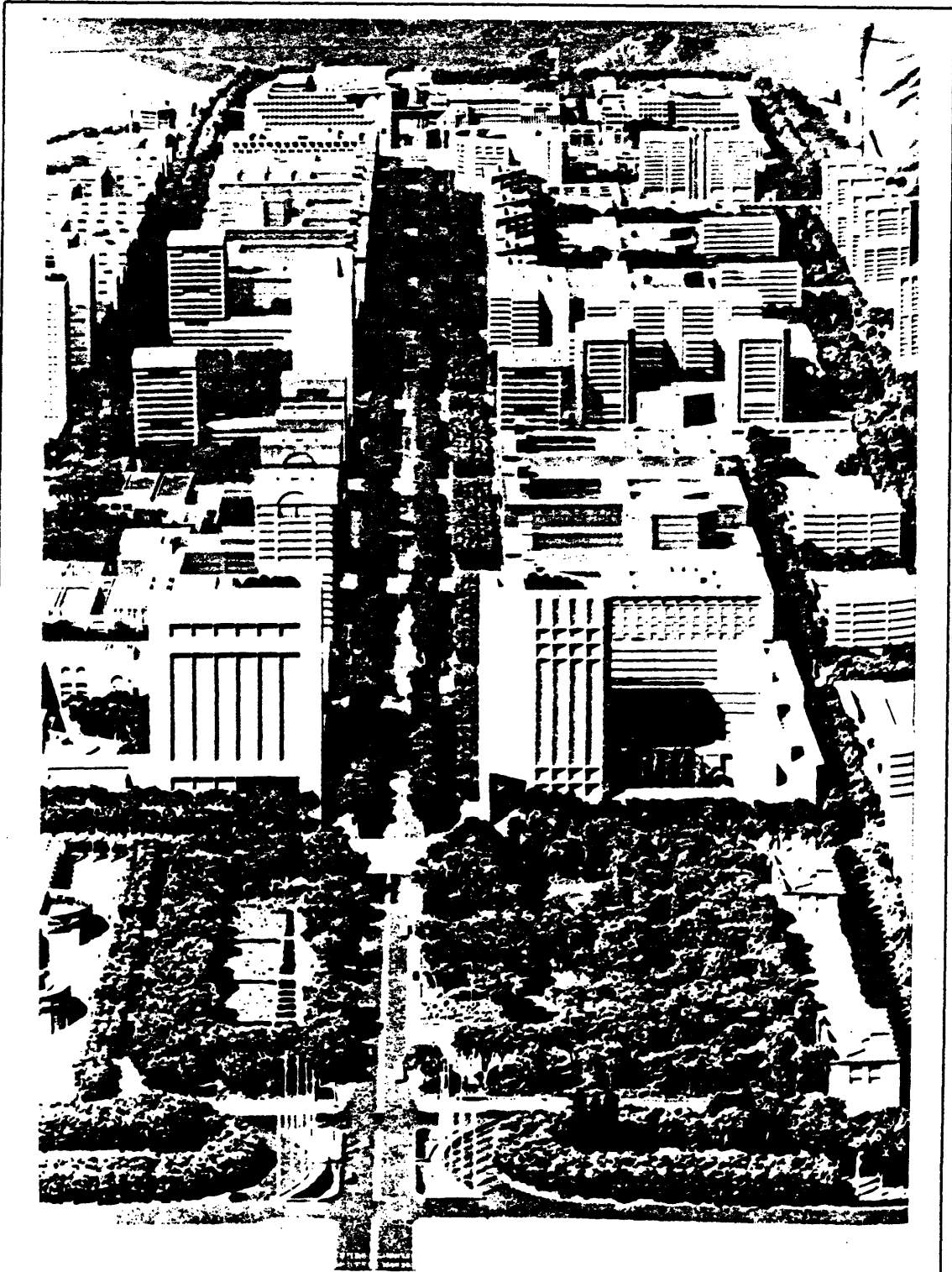


FIG.
4.17

SHAHESTAN PAHALVI: URBAN DESIGN.

note: it attempts to dissuade invention of solutions.
source: LDI: Shahestan Pahlavi: Urban Design, p. 34.

tiles in the jubes. The predominant color of the project would be matt buff, symbolizing earth and man. Some buildings would be allowed to use small areas of accent colors.³⁷ Some proto-typical designs were suggested.

To sum up, it can be said that administrators, planners and policy makers have attempted to control city form in a variety of ways and for a variety of reasons. Controls have been used to initiate projects, achieve models, undermine opposition, create international sensation, to decide on scale and size, landscapes, streets and buildings. Through the use of administrative control, administrators also controlled where and how people lived and who got access to what, as has been explained. In this way, it has been a very important control of city form.



FOOTNOTES

1. In this chapter, the terms administrator and planner will be used interchangeably with the only distinction being that administrators are assumed to be involved largely with policy issues while planners are assumed to be involved largely with physical planning and design issues.
 2. BANANI, Amin The Modernization of Iran, 1941-1961.
Stanford, Stanford University Press, 1962.
 3. Iran has a system with a High Council for Planning at the National level. This system has been described in greater detail earlier. See p.
 4. LAMBTON, A.K.S. Islamic Society in Persia.
An Inaugural Lecture Delivered on March 1954.
London, University of London. 1954. p. 19.
 5. See chapter on Religious Control for how this form was affected by religion.
 6. See for instance, the transportation plan by VOLVO for Isfahan.
 7. RYDER, S.L. "A Place in Process."
Progressive Architecture, October 1976, no. 10.
 8. LLEWELYN-DAVIES Shahestan Pahlavi.
INTERNATIONAL Volume I Master Plan.
(L.D.I.) London, Llewelyn Davies International Planning
Consultants. 1976. p.18
(Underlining and parenthesis mine.)
 9. FISH, F. Comments on Harvard's Summary Policy.
of L.D.I. Document Book I p. 18.
Work Memorandum, March 31, 1976.
 10. The idea of creating physical centers for undermining opposition internal or external is not a new one. In India, Muhammad-bin-Tughluq had an entirely new city, Daulatabad built, to get away from invaders. The building of New Delhi against Old Delhi was also to undermine opposition.
 11. TIME "The Shah v's the Shi'ites."
 Time, June 5, 1978. p. 39.
- BOSTON SUNDAY "Iranian Clergy Call for General Strike After
GLOBE Shrine Defiled"
Boston Sunday Globe, November 26, 1978.

BILL, J.A. The Politics of Iran: Groups Classes and Modernization.
Columbus, Ohio. Charles E. Merrill Publishing Co. 1972.

12. WARBURTON, R. "Urban Development in Iran."
U.S. Dept. of HUD. Report No: 8. 1971. p.15.
Washington, D.C.
WARBURTON describes the city more finely as tri-zonal-- North Central, Southern, inhabited by rich, middle class and poor.

13. Land prices range from 20,000 - 30,000 rials per sq.m., clearly out of the reach of a large proportion of urban families.

Annual Incomes	Percent of Families
5,000 and less	25.0
5,000 - 100,000	31.5
100,000 - 200,000	30.0
200,000 - 400,000	11.0
400,000 and more	2.5

figures are in Rials.

TABLE: 4.01. DISTRIBUTION OF INCOMES IN URBAN FAMILIES IN IRAN
note: the modal income
source: CENTRAL BANK OF IRAN, & ADIBI, Hossein.

The above table makes this obvious as 25 % earn less than 5,000 Rials, and 56.5 % less than 100,000 Rials. Besides the exclusive clubs and cultural centers envisaged, were clearly not for the poor of the south. The 1969 Master plan even called for extensive relocation of the southerners and the Municipality was planning on renovating the bazaar.

14. Examples of the same concept at other places can also be found. See: WHITTICK, A. Encyclpaedia of Urban Planning. New York, McGraw Hill, 1974. p.564-567.
It should also be noted that the Plan for Shahestan Pahlavi did not recommend a mosque.

15. This can be seen in the numerous cases where foreign experts and consultants have been used in developing countries.

16. For instance, the 1969 Master plan proposed the relocation of 600,000 people (almost an entire city) in 25 years as will be seen later.

17. WARBURTON, R. op cit. 1971. p.16.

18. Ibid.

19. Ibid. 1971. p.18.

20. RYDER, S.L. op cit 1976. p.52-65.
Says that Tehran's population in 1976 was only 2.6 million.
Yet while the projection was absurd the population in 1976 actually
was 4.7 million, with a high growth rate of 5 %.
21. WARBURTON, R. op cit. 1971. p. 21.
22. Ibid. 1971. p. 18.
23. Ibid.
24. RYDER, S.L. op cit 1976.
25. Ibid.
26. FISH, Frank op cit 1976.
27. LLEWELYN-DAVIES op cit Volume I. 1976. p.9.
INTERNATIONAL
28. Ibid.
29. Ibid. Volume I. 1976. p. 56-65.
30. Ibid. 1976. p. 9
31. DAVIS, D. "Brave New World!"
Newsweek, June 5. 1978.
32. Ibid.
33. LLEWELYN-DAVIES op cit Volume I. 1976. p. 75.
INTERNATIONAL
34. RYDER, S.L. op cit.
35. LLEWELYN-DAVIES op cit. Volume I 1976. p. 115.
INTERNATIONAL
36. Ibid. p. 35-36 & 88.
37. Ibid. Volume II p. 23-25.

Chapter 5

Religious Control

In the Concept of Control of City Form I argued, earlier, that a strong sense of belief in or devotion to religion could constitute the necessary foundation for human organization, collectivization and resulting controls. The instruments developed for conformance with religion, its values, norms and acceptable behavioral standards shall be termed religious controls. Taking belief in religion, religious teaching, philosophy and ideology as the foundation, I shall attempt to demonstrate the derivation, workings and effects of religious control in this chapter.

In Iran, religion has strongly affected organizational and interactional systems from very early times. Iran's two major religions, Zoroastrianism and Islam, have each in its time achieved national recognition. Here, in this chapter, the two are being treated as different forms of religious organization of the people, wherein the main goal is assumed to be the carrying out of a fully religious life.

The assumptions being made in the above layout of the concept are as follows. First, when religion does form the foundation for organization it will at least attempt to control human interaction and behavior not only between people in that organization but also those between members and non-members. Second, the organization's main reason for existence will be for carrying out a life style and maintaining a code of values consistent with the ideals of religion. If religion does not control and affect the behavior of its members, then according to the assumptions I shall have reason to doubt the very foundation of the organization. A third assumption deals with homo-

geneity and heterogeneity and factions within the religious organization. While each religion will be treated as if it were largely homogeneous, it is understood that there would be heterogeneity and factions within each. While the analysis was not based on homogeneity, the broader focus is accepted and assumed, for simplification and ease of presentation.

LINKAGES

Religious controls could act in a number of ways. There could be edicts in religious dogma which directly controlled the physical form, or it could affect some agent which in turn could affect the physical environment. This relationship between control and city form can be called a linkage. In the above instance, two types of linkages have been identified --- a direct linkage and an indirect linkage. Since the means of action employed by the two are different, they could best be taken up separately.

DIRECT LINKAGES

According to the definition above, direct linkages could exist between religious control and city form when there were specific religious edicts regarding the city. Direct linkages could be established if any of the criteria for the following direct linkages were met.

1. Direct Religious Control of Particularization.

If religion described a religious city with its special, particular and unique characteristics, direct religious control of particularization would be established.

2. Direct Religious Control of Idealization.

If religion instead described an ideal city and its characteristics, then direct religious control of idealization could be met.

3. Direct Religious Control of Specification

If religion described the minimum conditions to be met by the environment in which its adherents were to live and work, but did not give any of the above two criteria, then direct religious control of specification could be met. Thus characteristics for, say a neighborhood, meeting these criteria would be acceptable.

4. Direct Religious Control of Standardization

If no direct prescriptions were available, yet most cities used by a religious group had exclusive, common, characteristic elements, then this could be acceptable as a religious control of standardization. This criterion allows a search for commonalities and derivation in the event that the first three were unavailable.

If these prescriptions for a religion were available, then any city satisfying one or more of these criteria would have a direct linkage with that religion. With the criteria set up one can now examine the data for direct linkages.

The Hindu City

Direct linkages of city building tradition with religion do exist. There is evidence in the literature on the cosmic city that ancient Indian and Chinese cities were laid out according to specific directives in the texts. The Hindu canonical works such as Mansara Shilpa Shastra, Vastu Shastra¹ and others had specific recommendations on how to build a city. By reading the directives one could get a fair idea of what was to be done and what not to be done. The directives recommended special locations, near a river, the shape and sometimes the size of the city.

" It should be observed that neither village nor town was usually square in plan but a rectangle

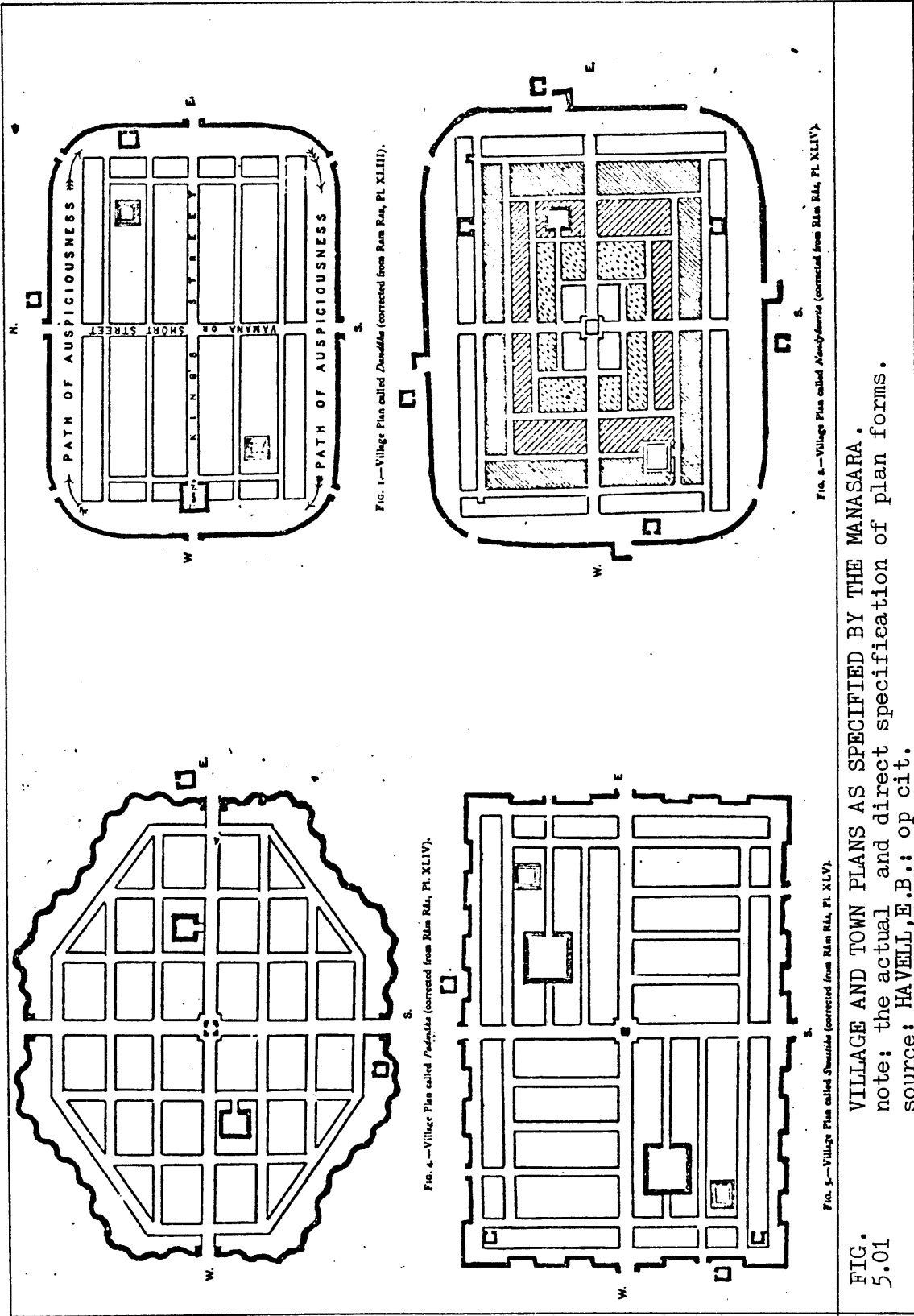


FIG. 1.—Village Plan called *Dandila* (corrected from *Ram Raja*, Pl. XLIII).

FIG. 2.—Village Plan called *Manasara* (corrected from *Ram Raja*, Pl. XLIV).

FIG. 3.—Village Plan called *Shambhala* (corrected from *Ram Raja*, Pl. XLIV).

FIG. 4.—Village Plan called *Anaplyarata* (corrected from *Ram Raja*, Pl. XLV).

FIG. 5.01 VILLAGE AND TOWN PLANS AS SPECIFIED BY THE MANASARA.
 note: the actual and direct specification of plan forms.
 source: HAVELL, E.B.: op cit.

with the long sides running east-west. One of the long sides generally faced the river, an arrangement which provided bathing facilities and obviated also the necessity of defensive works all round." ²

There were various plan forms which the towns could take. The orientation was specified according to the cardinal axes to ensure an adequate supply of breeze and sunlight on all the streets. There were to be two major roads in the town, intersecting in the center forming the cosmic cross.

" The cosmic cross is also the place where the Manasara recommends that the main temple be located." ³

There were some plan forms however, which showed the location of the temple at the west end of the main east-west road. The Manasara further located the position of schools and buildings for religious study and the dharmashalas for travellers and pilgrims, in the town. ⁴

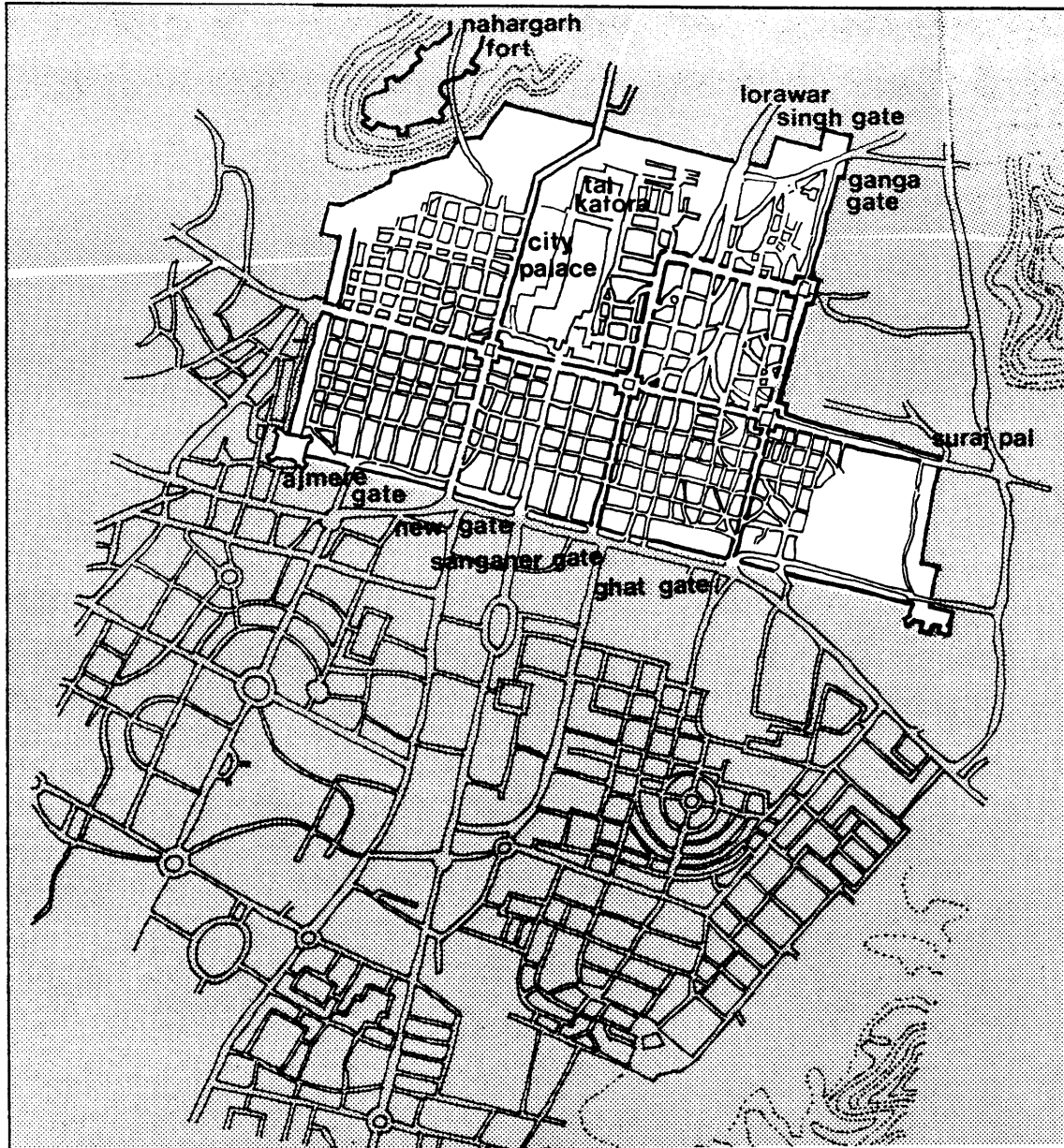
Treatises have been written on many of the texts and so it is not necessary to go into details of the controlling prescriptions. Many towns and villages were built following these prescriptions. The most well known among these were Madurai⁵ and Jaipur (Fig 5.02) which had quarters and was laid out by a Bengali architect

" on a scientific plan according to the traditions of Hindu city builders and the directions of their canonical works called Shilpa Shastras. The village plan was the unit used to form the mahalla in Jaipur." ⁶

These were obviously direct religious controls of particularization and specification. Thus these cities could be called Hindu cities, because of the direct linkages established, but one rarely comes across this usage in the literature.

The Zoroastrian City

One could also look at Zoroastrianism, the ancient religion of Iran, in search of direct religious controls. Here also one



250 0 250 750

city plan

JAIPUR:India

FIG.
5.02

JAIPUR: INDIA. CITY PLAN.
note: the quarters, the Swastika plan.
source: adapted from plan of Jaipur, Engg. Dept.

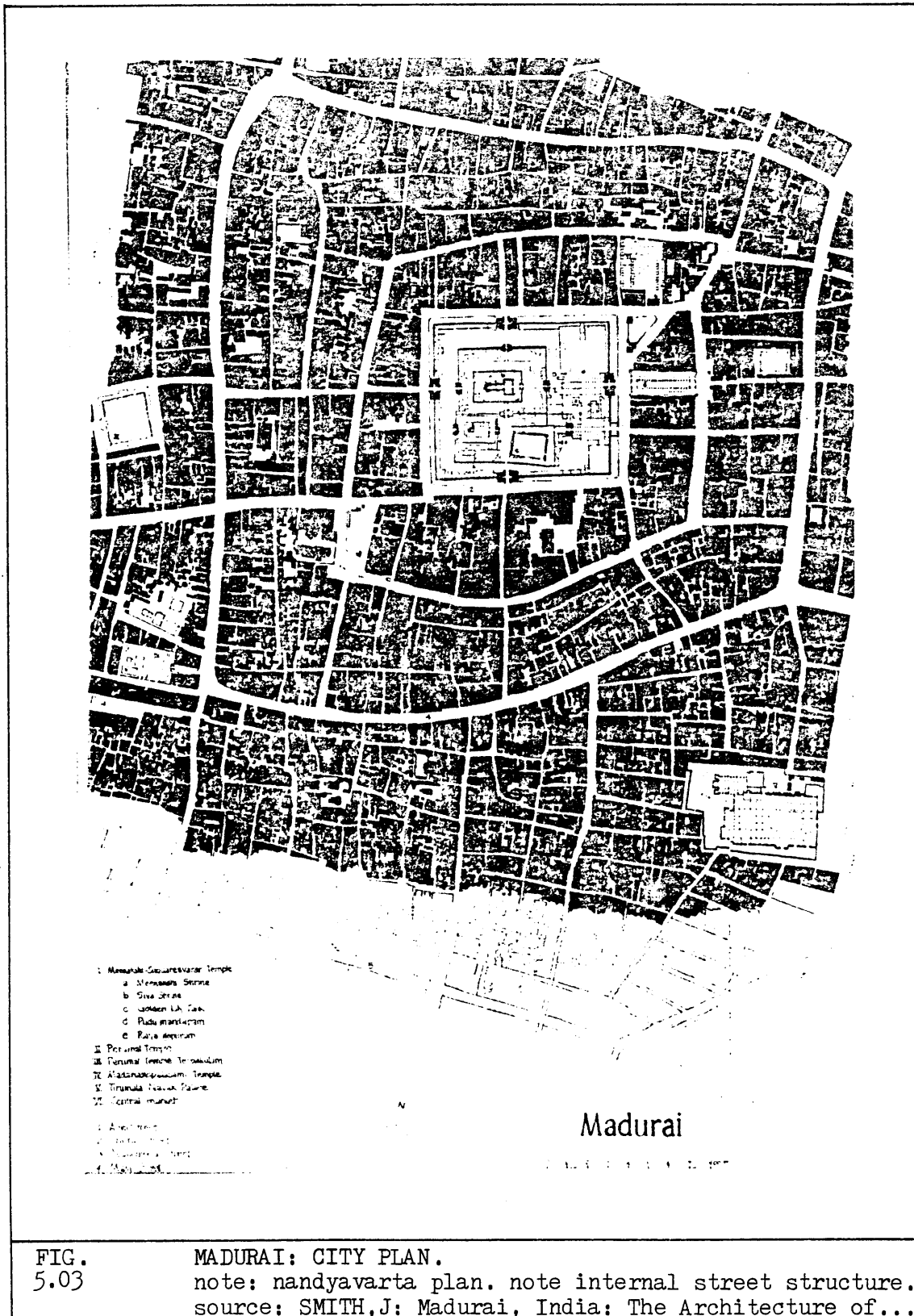


FIG.
5.03

MADURAI: CITY PLAN.

note: nandyavarta plan. note internal street structure.

source: SMITH, J: Madurai, India: The Architecture of...

does not find references to cities in Zoroastrian times as Zoroastrian cities. Dearth of available material regarding this period makes it difficult to make definitive statements about Zoroastrian cities. Much of the canonical works of the Zoroastrians have been lost, destroyed or burnt by the Muslims and other invaders. As a result it is difficult to tell whether works on city building ever existed, as no references to any such prescriptive or descriptive works are made by scholars. Through archaeological studies some scholars have tried to create impressions regarding the forms and functioning of cities in Zoroastrian times. But it is not very clear if the forms were due to religious controls or due to autocratic, administrative or societal controls. Most scholars agree, however, that cities built during Zoroastrian times had strong geometric forms, and so appear to be pre-thought and pre-planned.

Little trace remains of Achaemenid cities and even those built during the reign of Darius are largely in ruins. The royal portion of Persepolis was geometric, being based on squares.⁷ All the buildings on the podium had north-east-south-west orientation.⁸ Lampl suggested that the settlements around Persepolis, Pasargadae and Masjid-i-Suleiman were more like tent cities. The Selucids⁹ and Greeks built new cities whose administration followed the Greek model with the assembly of the people, its council and its responsible officials appointed annually.¹⁰

Cities built during Parthian times¹¹ such as Ctesiphon, Hatra, Darabgerd and Gor-Firuzabad had circular plans. The origin of the circular plan in Iran has been variously attributed to Assyrian army camps,¹² and to ancient and pre-historic times when the focus of the circular city was a fortress or an open square.¹³

Ardashir, the founder of the Sassanian Dynasty has often been credited with the building of Firuzabad which was on a circular plan.

Bishapur, built by Shapur I, was more on orthogonal lines, perhaps following traditions established by Hippodamus. Bishapur was rectangular in plan and was intersected by two arterial roads that met at right angles in the center of town.

Zoroastrian fire temples were simple structures with flat roofs during the time of Cyrus (550-530 B.C.) but later often with domed roofs. Most prayers and functions were performed in the open. The iwan structure, later used extensively during Islamic times, had been used in the Masjid-i-Suleiman during Median times. Temples on the traditional plan of Iranian sanctuaries were found at the base of the terrace of Persepolis, at Nurabad and at Nashq-i-Rustam all built by the Achaemenians.

Hence in the case of Zoroastrian religion lack of evidence does not permit any definitive conclusions regarding the existence of direct religious controls. What is clear however, is that in Zoroastrian times Iran had a very strong administrative system and that the Zoroastrian priests held high ranks in this system, particularly when Zoroastrianism was the state religion. It also appears that cities of the Zoroastrians had a major planning force behind them as shown by the very definite geometric layouts of circles or rectangles. There is a strong possibility that the force was religious dicta primarily because the priestly class who held the highest position in society, could easily have implemented religious dicta. It may also have been the force of the autocrats. But the preponderance of circular and rectangular cities are more indicative of religious controls rather than autocratic whims. But in essence, these ideas are speculative and one cannot make definite statements about direct religious control.

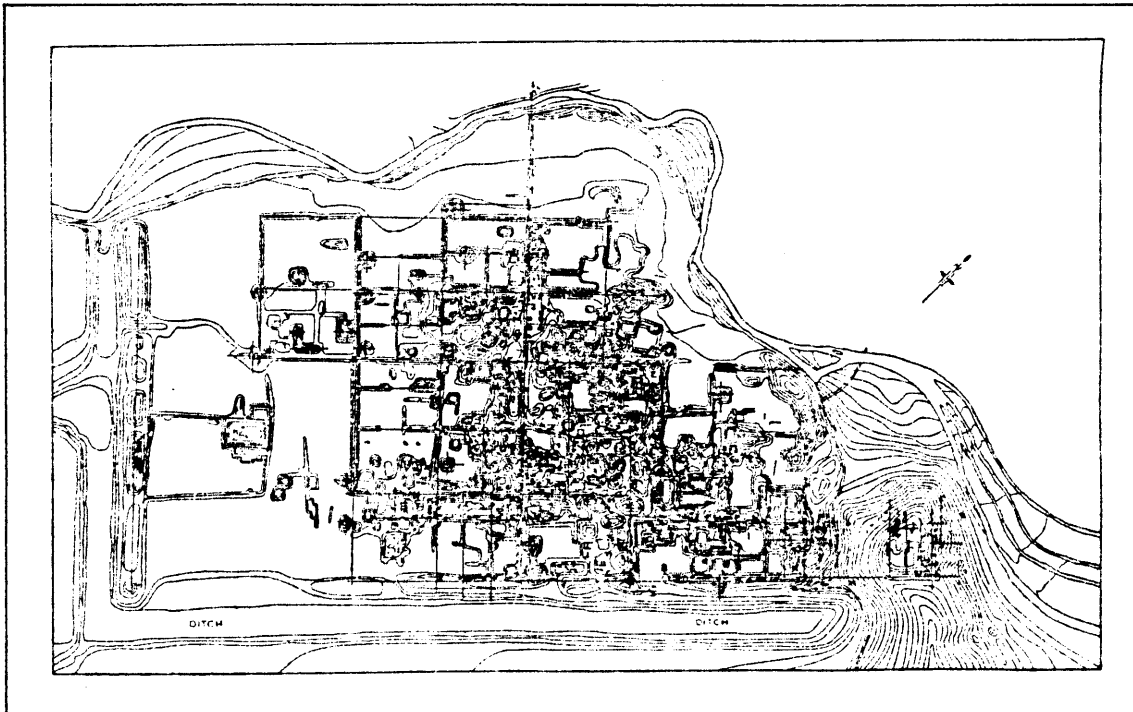


FIG.
5.04

PLAN OF CITY OF BISHAPUR, A ZOROASTRIAN CITY (ZOROASTRIAN)
note: orthogonal layout. source: Ghirshman, R: Iran.

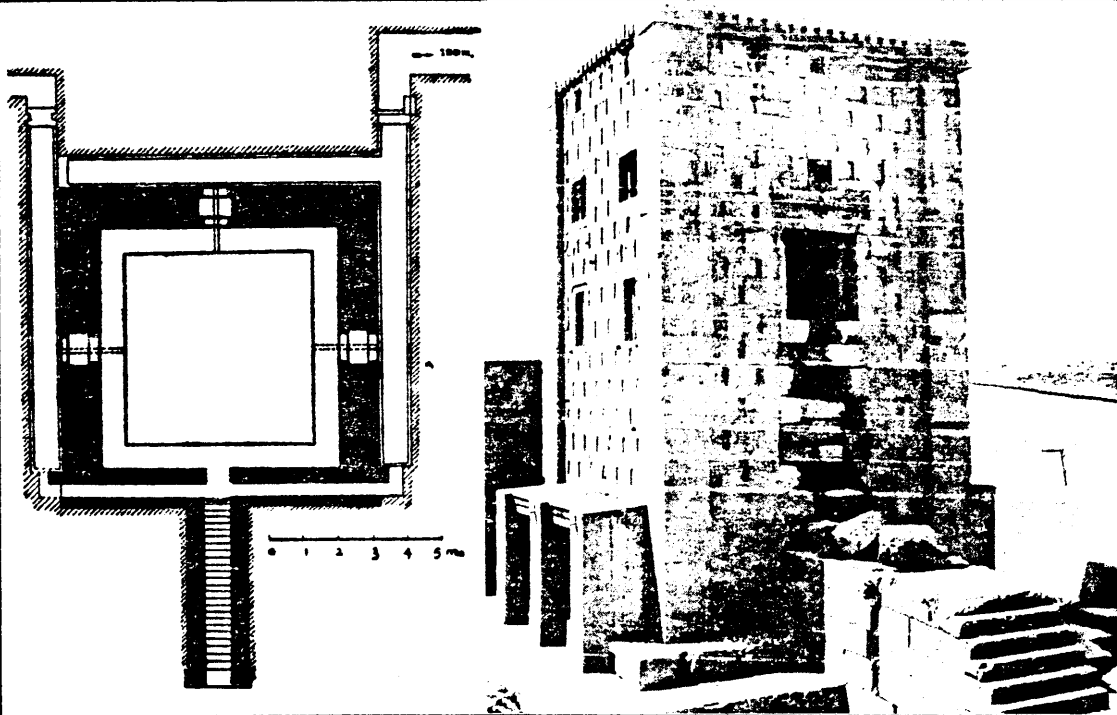


FIG.
5.05

PLAN OF A FIRE TEMPLE OF ZOROASTRIANS, BISHAPUR.
PHOTOGRAPH OF A FIRE TEMPLE, NASHQ-E-RUSTAM.
source: GHIRSHMAN, R: IRAN.

The Islamic City

The criteria for the different kinds of religious controls are important as one would expect, that particularly in the case of a revealed religion and a " religion of the book " such direct linkages would be manifest in some form whether in the book, in the laws or in the spoken words. Unfortunately, in the case of Islam, no documents, treatises, or canons have been uncovered thus far and in the writings of the Islamic city no mention is made of any of the above. Both, absence of direct references to such documents, and lack of references in the Quran and Shari'a leads to the conclusion that direct linkages through direct religious control of particularization, specification and idealization cannot be established and perhaps such direct linkages do not exist.

But since there is a good deal of literature on the Islamic city it will be worthwhile examining in detail if direct linkages through direct religious control of standardization can be established. To do this one would have to look through the literature for common characteristic elements, test for acceptance by most scholars, agreements and disagreements, then test for exclusivity. The following section does this.

Iranian cities have been called Islamic cities by many writers,¹⁴ and nothing but Islamic cities by some.¹⁵ Through these efforts numerous authors have attempted to show how the religious institution of Islam imparted a certain character to these cities. These attempts in themselves are indicative of the prevalent feeling that religious organization played an important role in the shaping of the city, or to put it in another way -- that religious controls existed particularly when Islam was the religion.

These claims about 'Islamic cities' can be interpreted in two

ways: one, these cities owe their form to Islam's religious controls, and two, the cities simply exist in the territory of Islam. In the case of the latter, however, to thus label everything 'Islamic' claims Brown, " is to assume a poverty of culture which does an injustice to these people and their rich heritage," ¹⁶ and is pejorative. Also such nomenclature based on territorial congruity makes the assumption that certain commonalities exist or else the nomenclature could not have been used at all. Scholars of Islamic cities have tended to do both. They have named cities Islamic because of their existence in dar al-Islam, and have attempted to extract common recurrent elements. The possibilities of fallacious arguments emerging from this kind of work are obvious. As a result exclusivity of deduced elements is not claimed. Furthermore, dar al-Islam¹⁷ have generally meant the Middle East and North Africa to most scholars. As a result, while there is abundant literature on the Islamic city in the Middle East one rarely encounters cities and towns of Bangladesh or Malaysia being characterised and dramatized in the same way. And one is hardpressed to find literature which deals with or extracts the common elements of the cities in the Islamic regions of China or Indonesia. Thus one has to be cautious about extrapolating from a list compiled in this manner to see if a city having all the characteristics could be called an Islamic city.

We could subject the argument regarding common and repetitive elements to one more test to see if the scholars agree on the commonality of the elements. Figure (5.06) shows a matrix with a long list of elements deduced from a large amount of literature. It is clear that there are hardly any elements which most of the authors agree on. But a detailed examination provides some interesting insights not only into the research but also into 'Islamic' city as well.

elements present

Von Grunebaum has claimed that the two indispensable qualifications located at the focal points of an Islamic township¹⁸ were the Jami or Friday (service) mosque and a permanent market.

" The Jami as the spiritual center, is in general appropriately placed along the main thoroughfare, or where the plan of the town permits, at the rectangular crossing of the two main thoroughfares which is marked by a spread out square. Next to the Jami we find the principal government, be it the palace of the ruler or the official residence of the deputy." ¹⁹

He found the hammam or public bath to be an essential element too.²⁰

Regarding markets, he said,

" The markets or aswaq (plural for sug) do exhibit everywhere in Islamic lands the same general structure." ²¹

The markets will have sugs for special trades, with covered and lockable portions or qaisariyyas. He further adds,

" In their newly founded cities, the Arabs would settle by tribes, each tribal quarter to be complete with its own mosque, and as rule its own market." ²²

Thus we find that Von Grunebaum was very sensitive in his observations, that he not only stressed the presence of the elements but actually specified their location as well. But his use of the term Islamic city was loosely defined as dar al-Islam by which he meant only regions in Middle East and North Africa.

Some early writers like Georges and William Marcais, based on their work in North Africa, suggested that the form of the Islamic city was partly affected by their being Islamic and that the location of the " congregational mosque in the center of the city, the religious schools beneath its shadow, the hierarchy of the sugs whose position in relation to mosque and schools was determined by the religious role of the goods they sold, or the attitude of the Shari'a towards them." ²³

<u>CHARACTERISTIC ELEMENTS</u>	<u>SCHOLARS</u>									
	VON GRUNEBAUM, G.E.	MARCAIS, W.	MARCAIS, G.	PLANHOL, X.	STERN, S.M.	GAUBE, H.	ENGLISH, P.W.	MASSIGNON	HOURANI, A.H.	SAUVAGET, J.
Walled			●		●	●	●			●
Rectangular in Plan							●			●
Cemetaries Outside Wall										●
Gates			●			●	●			●
Thoroughfares Linking gates						●	●			●
Divided into Quarters.				●						●
Narrow Winding Roads				●			●			●
Blind Alleys and Tunnel Roads										●
Citadel	●					●			●	●
Royal Quarter, Palace			●	●		●	●		●	●
Mosque, Friday Mosque	●	●	●	●		●	●		●	●
Market place		●				●			●	●
Segregation of Residential Areas	●		○	○			●		●	●
Mosques in Commercial Areas	●									●
Madrassa, Religious Schools			●			●			●	●
Bazaar, Suqs, Qaysariyyas	●		●				●		●	●
Houses one or two storeys										●
Inward Turned Houses							●			●
Houses with Courtyards							●			●
Large Amounts of Open Space										●
Atmosphere of Harmony									●	●
Hammam	●	●								
Division of Houses into Andarun and Birun							●			
Guilds								●		
Outer Quarters or Suburbs									●	
No Constitution					●					
Transformation									●	
<p>● - elements mentioned. ○ - segregation both religious and tribal. ● - mosque - Herat E-W orientation.</p>										
<p>FIG. 5.06 TABULATION SHOWING THE CHARACTERISTICS OF 'ISLAMIC' CITY: ELEMENTS OFFERED BY VARIOUS SCHOLARS. source: sanjoy mazumdar</p>										

The exigencies of power (similar to my autocratic control in this work) determined the locations of the citadel, walls and gates. The residential quarters with their ethnic solidarity, the cemeteries and shrines of saints outside the walls, were so because it was a Muslim city,

" as it was only there that a virtuous life as Islam conceives it can be fully lived." ²⁴

The Marcais brothers thus tried to establish some specific linkages to Islam.

Massignon's major claim was that the life of the Islamic city was dominated by one type of socio-religious institution the guild, and that therefore, was the most important feature of the Islamic city.²⁵ Hourani, basing his comments on recent research claimed that not all the assumptions made by the authors about the Islamic city were correct. Like Brown, he believed that there would be cultural differences between a North African city and an Iranian city. He, nevertheless, proposed five elements which a 'typical' Islamic city should have.

1. A citadel often located on some natural defensework. (The location of the city itself may have been determined by the defensive characteristics of the site.)
2. A royal city or quarter which could either be located in an existing city, or could have been situated in an open space around which the city developed.
3. A central urban complex including the great mosques, religious schools, central markets with their khans (rest houses) and qaysariyyas.
4. A core of residential quarters marked by ethnic and religious differentiation and relative separateness or autonomy of each quarter.
5. Suburbs or outer quarters mainly including recent and unstable migrants, and lacking whatever planning the city center showed.²⁶

If one accepts these criteria one has to accept, that all typical Islamic cities had to be well defended, have a citadel, and a royal quarter in addition to suburbs.²⁷ All of Hourani's criteria clearly surface problems of sampling and also inherent biases. His fifth criterion in particular, points out most vividly, that planning to Hourani meant pre-thought and controlled developments of the monumental and orthogonal kind.

Noting the essential features of the Muslim town Planhol also offers five criteria which are

1. strict hierarchical division into separate quarters, the princely quarter with its palace, and citadel.
2. the bazaar
3. residential districts
4. segregation of religious minorities
5. the inorganic structure and maze of streets.²⁸

These criteria offer essentially the same problems as those of Hourani.

Through a comparative study of the essential characteristics derived and listed by different scholars two significant points emerge. First, is the problem regarding the nature, bias and presumptions for the search. Earlier it was pointed out that search for common characteristics among things having a common background like same geographical region, and Islam and its associated institutions follows a circular reasoning and may lead to fallacies. Scholars researching major cities in the Middle East for common and repetitive elements, or simply for unusual elements, easily concluded that all typical Islamic cities had to have royal seats. Others looking for orthogonally or organically planned cities found the Islamic city or parts of it unplanned or inorganic. In other cases they claimed that all Islamic cities had to be defended with walls and citadels.

The second point which emerges is that there is disagreement

among scholars regarding the common characteristics. Note that Von Grunebaum has left out the street structure, but is in general conformity with those listed by the Marcais brothers. While Von Grunebaum considered the mosque and the market 'indispensable', Planhol quite significantly leaves out the mosque. Von Grunebaum considers the hammam an essential characteristic while Planhol, Georges and William Marcais, and Hourani all omit it. Again, Hourani, Von Grunebaum and the Marcais brothers stress locational characteristics generally ignored by others. Hourani includes the citadel, royal quarter and suburbs. Planhol agrees with the princely quarter but not with the citadel and suburbs but makes strong points for the bazaar, residential quarters, segregation of religious and ethnic minorities and the character of streets. But the last two elements were not mentioned by the others. Beaumont, Blake and Wagstaff offer a more comprehensive list which appears to be a compilation. They claim that with a few exceptions, Islamic towns

1. were surrounded by high protective walls, mostly crenellated with watch towers,
2. were often rectangular in plan ,
3. had cemeteries, Jewish or Muslim, outside the town wall,
4. had a gate in each wall,
5. had thoroughfares linking the gates converging at a focal point, dividing the town into a number of quarters,
6. had other minor, narrow, winding roads, suitable for pack animals, which offered shade and some defense against invaders. Blind alleys were numerous and sometimes roads passed through 'tunnels' beneath houses,
7. had varying focal points, sometimes kasba or citadel with its own walls, containing the royal quarter,
8. sometimes mosque or market place as focus,
9. had segregation of residential areas,
10. had the mosque generally in the commercial center,
11. had madrassa or religious school associated with the mosque,

MADRASEH MADAR.E. SHAH

[THEOLOGICAL COLLEGE OF MOTHER OF THE SHAH] (1714 A.C. [1126 B.C.])

MADRASEH MADAR.E. SHAH IS CONSIDERED A MASTERPIECE OF LATE SAFAVID ARCHITECTURE. THIS IS ESPECIALLY UNDERSTANDABLE WHEN ONE SEES HOW SUCCESSFULLY ITS DESIGN HAS EMBRACED THE THREE MAIN CONCEPTS, LIVING, STUDY, AND MEDITATION IN A VERY BEAUTIFUL YET HIGHLY FUNCTIONAL ARCHITECTURAL SPACE.

THE MADRASEH IS A THEOLOGICAL SCHOOL WITH HALLS FOR TEACHING AND ROOMS FOR LIVING ENCLISING A COURTYARD WITH A TRANQUIL GARDEN AND MINIMUM WATER, THE WHOLE DOMINATED BY A DOMED SANCTUARY.

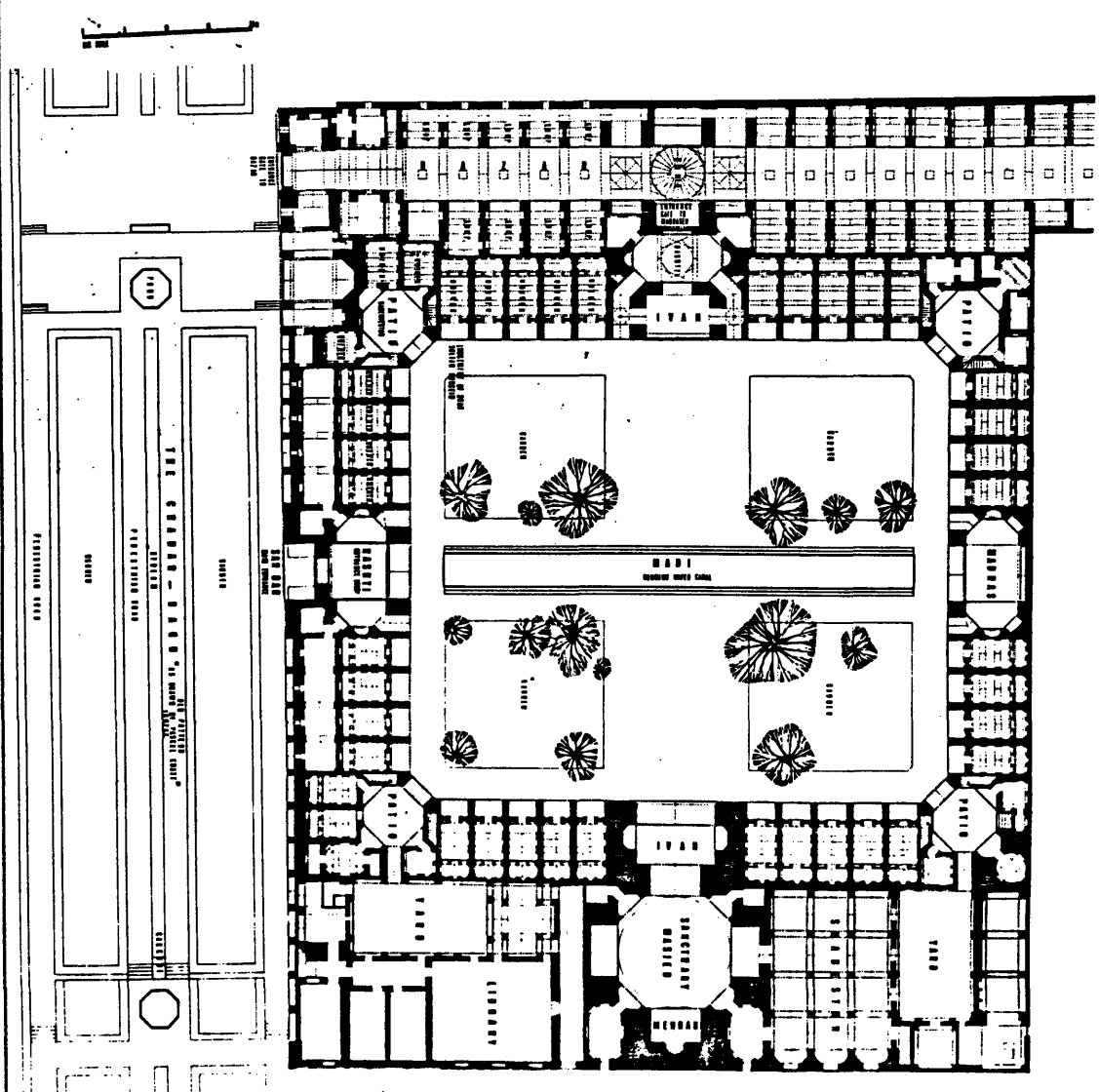
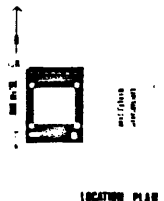


FIG: 5.07

PLAN OF A MADRASSAH.

SOURCE: 'Isfahan; City of Light', 1976, p.74.

12. had concentration of similar economic activities in a single bazaar or suq,
13. had the traditional dwelling house of one or two storeys with the central courtyard as the basic unit for the residential quarter,
14. had houses turned inwards towards the courtyard,
15. in the residential area a fair portion of the built up space was devoted to private open space,
16. had residential areas divided fairly strictly into quarters (mahalla or hara) for ethnic and religious groups,
17. had atmosphere, harmony and functional unity.²⁹

This list is very interesting and seems comprehensive because the authors seem to be attempting to build a physical model of an Islamic town where various aspects of form like location, height, depth perimeter are being considered. Some of the fallacies pointed out before remain, and so one cannot be sure that an Islamic town will have all these characteristics. But then we note that they care to omit the hammam. They further state:

" The centrality of the great mosque, the high status accorded to craftsmen and merchants, tolerance of minorities and the importance of family and kinship group all arose out of the precepts of Islam and more or less directly affected the morphology of the town." ³⁰

In this manner they attempt to establish a link between religion and city form.

Are these then all the necessary characteristics of the city in the sphere of Islam ? We cannot say so with certainty. Further criteria could be added about the residential quarters: the inward facing nature of the houses offering blank facades to the street, the entrance doors generally not facing each other, the use of courtyards in the houses, and the division of the houses into birun (outside part, generally for men) and anderun (inside part for women).

Anyhow, the elements discussed above can be characterized by the fact that they need be present in the 'Islamic' city.

elements absent

The other set of elements can be distinguished by their absence from cities in Islamic areas. The absence of institutions and corporations in the Islamic city is attested to by Stern who says that " the Islamic city has no constitution." ³¹ He considers the most essential characteristic of an Islamic city to be "the looseness of corporate municipal institutions." ³² This can be considered a negative definition based on the assumption of the western model, which treats the city as a corporate entity. Nevertheless, Stern does stress on an important element of organization of cities in Islamic areas. It is interesting to note here, that in the western world Max Weber's definition of a full urban community of city comprised five elements namely: " 1. fortification; 2. a market; 3. a court of its own and at least partially autonomous law; 4. a related form of association; and 5. at least partial autonomy and autocephaly, thus also an administration by authorities in the election of whom the burghers participated." ³³ It is obvious then that cities of Islamic areas lacked at least two of these required elements. Weber then concluded:

" The cities of the Occidental (European) Middle Ages only qualify in part as true cities: even the cities of the eighteenth century were genuine urban communities only in minor degree. Finally, measured by this rule, with possible isolated exceptions, the cities in Asia were not urban communities at all, even though they all had markets and fortresses." ³⁴

He further goes on to say, " an urban 'community' in the full meaning of the word, appears as a general phenomenon only in the Occident." ³⁵ The inherent values in this definition makes it obvious that only European cities could qualify as 'true' cities; it nevertheless provides a base for comparison.

exclusivity

With all the inherent differences between scholars regarding the essential elements of Islamic cities, if we are to accept these characteristic elements as noted above, we must also ask whether these criteria are exclusive to cities in the sphere of Islam.

Von Grunebaum has stressed on the location of the main mosque at the focal point in Islamic cities, at the crossing of the main streets or Chahar Taq. The Friday mosque or Masjid-e-Jami of Isfahan Kerman and Yazd were located at or close to the focal points of these cities. The 1857 map of Tehran shows that Tehran did not really have a Chahar Taq, but the main mosque was located at the then focal point of Maidan-e-Sabz, at the entrance to the bazaar. Looked at this way the presence of the mosque in the Islamic city cannot be debated, and the location of the mosque is often predictable too. But consider the mosque as a place for congregational prayer, reflection and devotion and a place for carrying out certain religious duties, and it will be found that it was not exclusive to Islamic cities at all. Various other communities have had similar elements whether called temple, church, or synagogue. It is perhaps for this reason that Planhol omitted the mosque from the list of essential elements. Going further, it will be interesting to see if other religions had any direct linkages or edicts in this regard which will also be a test of exclusivity. The cosmic cross was also the place where the Manasara, a Hindu canonical book of the art of city building recommended that the main temple be located, which was certainly true of many cities in India such as Madurai. Besides, cities in Christian areas often had the church or cathedral located at the visual focus of the city as in Rome. The presence and location of the mosque then, does not stand the test of exclusivity.

The existence and location close to the Jami mosque (the church) of the government or official residence of the ruler or his deputy

or the citadel was also not exclusive to the Islamic city. This kind of arrangement could commonly be found in the Spanish towns of South America. The Manasara also located the position of schools and buildings for religious study and the dharmashalas for travellers and pilgrims in the town.³⁶ These schools and buildings for religious study were complementary to Islamic religious schools or madrassas, makhtabs, and the latter to caravanserais or resting place for caravans of the Islamic city.

The market has often appeared as an essential element of an Islamic city. "The bazaar (market) as an element existing as an autonomous quarter" said Planhol, "must go back to very ancient times; the word bazaar itself derives from the Pahlavi 'vajar' (market)."³⁷ Markets were not only common in the cities and towns of the East and in Christian towns of the west but some like Max Weber, considered the market as an essential component of an European urban community. Appearing as elements of both European and Islamic towns the market could not be considered a component exclusive to cities in dar al-Islam. Von Grunebaum and Gaube have explained that markets have sugs, qaisariyyas, lockable areas for special trades.³⁸ Massignon considered the socio-religious institution of the guild to be the single, most dominant element in the Islamic city. Neither the guilds nor the division of markets by trades or guilds was exclusive to Islamic cities, appearing as both did, frequently, in European medieval towns.

Considerations about the shape of the Islamic city were brought out by Beaumont, Blake and Wagstaff who claimed that it was often rectangular, but they did not bring out any orientation however. Certainly Tehran was not at all a rectangle, nor were Isfahan, Yazd and Kerman. While these cities break the exclusivity, if any of this rule, interestingly enough the Manasara liquidates it as observed earlier.



FIG.
5.08

VIEW OF THE BAZAAR, YAZD.

NOTE: the spots of light from holes in the roof.
source: sanjoy mazumdar.

The use of defensive works like heavy and high walls was specified by the Manasara, but was nevertheless an element considered an essential component of an Islamic city by many, like Beaumont, Blake and Wagstaff. Others have claimed that Muslim cities had to be walled and defended from the unbelievers. Tehran had a defensive wall with a moat around it. Defensive walls encircled Isfahan, and Kerman as well. As such it was an element commonly encountered in cities in Iran. But the circumvallation of cities was a phenomenon not exclusive to the Islamic city. Medieval European cities were often walled as were cities in India like Madurai. Cities of the Indus valley civilization, Mohenjo Daro and Harappa were known to have had defensive walls as well as citadels. Even so, the latter was considered an element of an Islamic city by Hourani.

Public baths or hammams were common in Tehran, Isfahan, Yazd and Kerman. They were thus considered by Von Grunebaum and Gaube to be truly Islamic artifacts. But public baths were not exclusive to Islamic cities. Mohenjo Daro and Harappa were equipped with beautiful baths and also with very elaborate drainage systems. The latter element was lacking in most cities in Islamic areas such as Herat.

The division of the city into quarters inhabited by different ethnic and religious groups, and the segregation of residential areas from commercial and administrative ones, have been repeatedly pointed out by most authors as being a phenomena of Islamic cities. The map of Tehran of 1857 shows different quarters or mahallas with their own narrow, winding lanes or kouches, often ending in cul-de-sacs. In Tehran, the quarters do not seem to have been individually walled, except the royal quarter or citadel; in Herat they were walled. Although not distinct in Tehran, in Isfahan, Yazd and Kerman religious minorities like Jews, Armenians and Zoroastrians had their own quarters: in Isfahan, the Armenian quarter was located outside the walls across

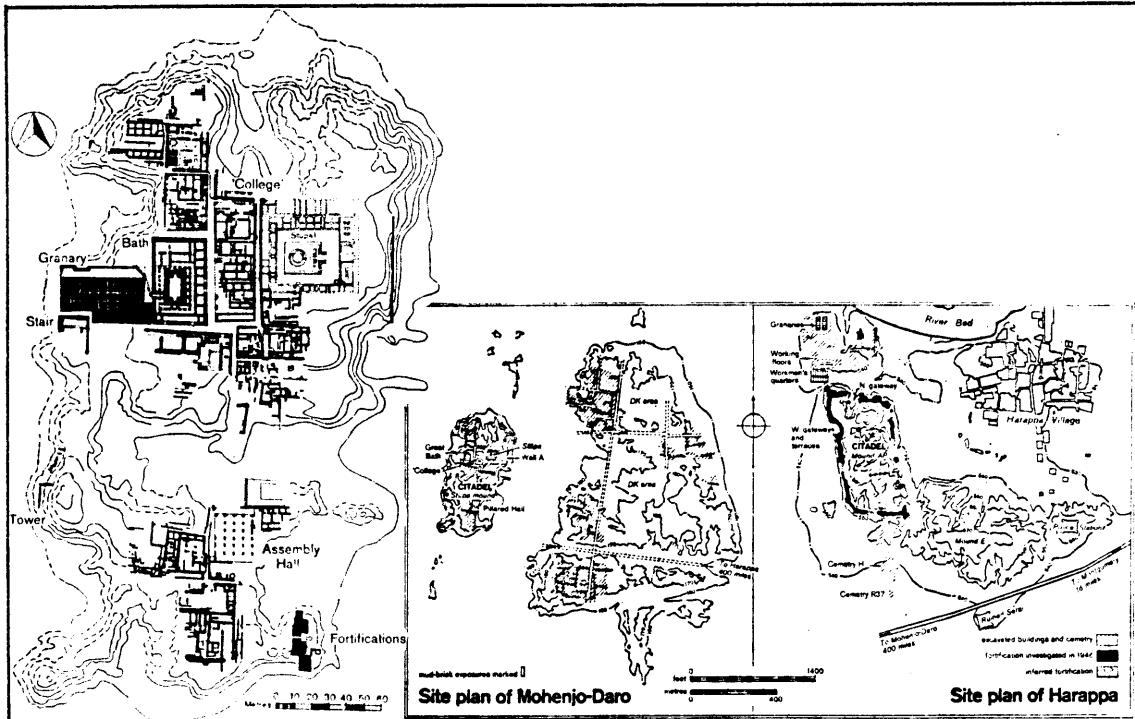


FIG. 5.09 PLANS OF MOHENJO DARO & HARAPPA, AND CITADEL, MOHENJO DARO. note: the citadel, bath, granary, college. source: ALLISON, P.

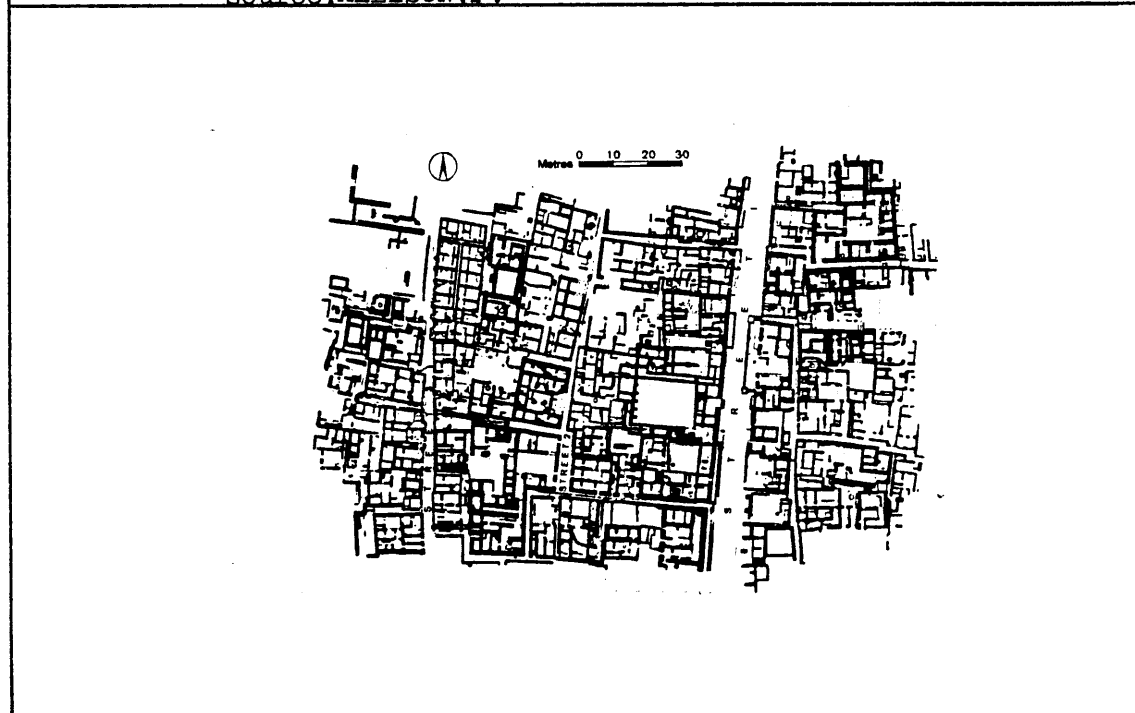


FIG. 5.10 PLAN OF MOHENJO DARO, LOWER QUARTER. note: the streets, the projections on to the street, blind alleys. source: ALLISON, P.

the river Zayandeh Rud, to the south. In Kerman, the Zoroastrian quarter was located outside the city wall. Such divisions of the city into mahallas or quarters for religious and ethnic groups was a significant point of departure from European towns. Here again, the phenomenon was not exclusive to Islamic cities, but could be found in Eastern towns. Herat, now in Afghanistan, had distinct quarters, prior to the city turning Islamic. Jaipur, in India, also had quarters.

Thus it can be concluded that most elements, named by many scholars, as essential or characteristic elements of Islamic towns and cities, could be found not only outside the realm of Islam, but often in canonical books of other religions. Certainly, this goes to show that they are by no means characteristics exclusive to Islamic cities. And so it does seem tenuous to consider applying an argument that a city having the elements listed above can be termed an Islamic city. It has been pointed out earlier, that even as to a list of such elements there seems to be a lot of disagreement and that no direct canonical works describe the Islamic city. This confirms the conclusion that there are no direct linkages to Islam of control of city form. Consequently, it does seem tenuous to refer to cities in Islamic regions as 'Islamic cities' simply for reasons of territorial congruity.³⁹

And yet, we have not negated the hypothesis that Islamic religious controls could be present, nor have we negated the very existence of certain common elements which may even be "indispensable qualifications." Again, Hourani talks of the 'spirit' and the 'personality' of Islamic cities. But most scholars have restricted their search to manifest physical forms of Islamic culture and for direct linkages. Only Sauvaget⁴⁰ and Violich⁴¹ have stressed on the process of gradual transformation of pre-existing orthogonal Greco-Roman city to that of a 'typical' Islamic city. In doing so both have relied

heavily on the structure of the streets and the consequent character of Islamic city. However, their efforts indicate the presence of religious controls of the indirect kind.

INDIRECT LINKAGES

Indirect linkages can be established if cause and effect of religion and city form can be linked only through indirect or secondary means or utilising intermediate agents. The controls used by religious institutions having indirect linkages to religion will be termed indirect religious controls. The following section will describe the various kinds of indirect religious controls and will then demonstrate the effects of each.

Three kinds of indirect controls have been identified. They are as follows:

1. Indirect Religious Control of Illegitimization.

These are controls which essentially through non-recognition, affect certain forms of collectivities with consequential effects on city form. An example of this was Islam's non-recognition of corporate bodies.

2. Indirect Religious Control of Legitimization.

These can be of two types

- a) Legitimization through recognition of specific forms of collectives by religious beliefs with consequential effects on city form, constitutes the first type of indirect religious control of legitimization. A primary example of this was Islam's recognition of the umma Muhammadiya.⁴²
- b) Religious laws and edicts which specifically legitimized and prescribed certain building activity which then affected city form, will constitute the second type of indirect religious control of legitimization. Examples

of these will be specific edicts regarding building activity.

3. Indirect Religious Controls of Behavior Modification.

Indirect religious controls of behavior modification will be those which require specific kinds of behavior from the members, which in turn affects built form to cater to the modified behavior.

1. Indirect Religious Controls of Illegitimization

Islamic Law did not recognize corporate institutions. It was skeptical of corporate entities within the community.⁴³ The absence of corporations in general, and of municipal corporations in particular has been attested to by Stern.⁴⁴ A few scholars believed, however, that craftsmen's guilds were allowed to form into corporate bodies.⁴⁵ Goitein believed that the existence of guilds in the eleventh and twelfth centuries have not yet been confirmed, but their existence in the fourteenth century has been confirmed. The fourteenth century was the heyday for Muslim corporations.⁴⁶ He believed that there was topographical grouping of professions in the guilds and streets and neighborhoods were named after them.⁴⁷ This difference of opinion and of definition, while expressing that the guild was the closest thing to the corporation in the Islamic city, also illustrates that there was some debate between scholars about the status of the guilds. Some quarters, mostly those of minority religions, were autocephalous enough to be considered as corporate units. However, neither guilds nor quarters were corporate in the real sense and Stern was generally correct in his conclusion.

The most important repercussion of the law's non-recognition of corporate institutions for cities, was that internally involved municipal corporations did not exist.⁴⁸ As a result the city was not considered as a corporate entity with rights and privileges. Hence compared with Greek and Roman towns, towns in Islamic areas lacked

large, grandiose public buildings like government houses, theatres, parks etc.⁴⁹ This could be hastily interpreted to mean that the Muslim town had no body politic at all.

To me this indicates that inherent assumptions are being brought into the analysis: that of expecting to find corporations and autonomous institutions. The analysts, then are in parallel with Weber who believed that his definition of the city was 'value free'. If the assumptions are reversed and no expectations are made to find institutions similar to those in Europe, informal elements of control can be noticed which would perhaps not negate urban existence in towns of dar al-Islam totally. When looked at this way, Middle Eastern, Islamic, Asian, and even Chinese towns are found to be similar in their lack of European type corporations. The functions carried out by municipal corporations in Western towns, were carried out differently in the Eastern ones.

Lambton believed that the city was administered locally. The village in Islamic Iran had often been independent with a kadkhoda or village headman. This, however, was progressively reduced from the ninth century on. The large city was divided into wards -- almost like villages, which had heads called kadkhoda who received their appointment from the kalantar.⁵⁰ She believed that city administration was local in early times because the rais or the official who was a link between the people and the government, was in many cases a local man. However, he received his appointment from the external government and his very job description implied that the city was administered externally. This perhaps explains why many Islamic cities had a royal seat.

Later, in the nineteenth century the power of the kalantar were transferred to the darugha.⁵¹ However, in matters relating to the Shari'a and its enforcement, the muhtasib⁵² was the primary person

in the city.⁵³ Hence, not only were there externally appointed civil officials, there were also other officials whose job was to enforce the Islamic way of life and Islamic Law. Needless to say, there often were clashes between the two jurisdictions. A number of municipal functions were carried out by the muhtasib as will be seen later.

The absence of municipal corporations had further repercussions. Public interests were inadequately protected as there were no municipal bodies to take care of them. Additionally, Islamic Law did not grant exemptive privileges for the town. However, there existed other forms of organization which looked after the public interest.⁵⁴ As explained earlier, the muhtasib was responsible for most public duties. One can imagine that the total task of the public authorities could not be handled by a single person. In addition he was restricted to the administration of Islamic Law alone.

It can be summarized from the above that the most important effect of controls of illegitimization, in the case of Islam, led to the non-recognition of corporations which in turn led to the evolution of other forms of organization, with external and internal officials such as the muhtasib, the darugha, the rais and the kalantar being primarily responsible for most town and public functions. But while the evolution of the job of the muhtasib can be credited to control of illegitimization, in his duties and actions the muhtasib was guided largely by Islamic Law and what it legitimized. These will be considered in the following section.

2. Indirect Religious Controls of Legitimization.

a) The primary example of legitimization and recognition of specific forms of collectives by religious beliefs and edicts, was Islamic Laws selective recognition of the umma Mohammadiya or the community of Muslims and the individual believer. Islam saw the

primary purpose of man to be " the correct service of God, serving him (in) eternal felicity."⁵⁵ Governments were to facilitate and make such service possible and the executive branch of the government was justified by the hisba or the duty of the believer " to command the good and prohibit the bad."⁵⁶ A world was conjured up wherein man was to carry out his purpose and be aware that he would stand judgment by Allah and that punishment could be painful and therefore he had to institute the good tradition. In this picture the Muslim lived primarily as a "citizen of the umma Mohammadiya but a mere resident of the town." ⁵⁷ The town, then, was merely a settlement where a Muslim could carry out his religious duties and his social ideals. This perhaps helps us understand why citizenship, autonomy, and local authority were not important characteristics of Muslim settlements. Additionally, as has been pointed out, the kings were 'shadows of God on Earth'. Hence, local authority at the town level was quite irrelevant for Muslim residents. This has led scholars to comment on "the lack of any fructifying sense of citizenship"⁵⁸ and that "the religious focus in urban organizations tended to decrease political and civil interest in the city."⁵⁹ Yet, Richard Frye claimed that a Muslim could be perfectly happy with his town and that pride in the town could be actually be attested to by the fact that the name of the town was often added to a persons name.⁶⁰ One however, has to be cautious with the use of such logic, as the addition of the name of the place to the person's name, although not common in the west, was often used in the East to indicate a person's home town or place of origin. This was common in Iran and also in India, particularly in South India.

Some have claimed that Islam's stress on the unity and brotherhood of the umma led to the disregard of issues of wealth, class or caste and also that houses of the rich could quite commonly be found side by side with those of the poor in towns of medieval Islam. However, it is known that Islamic society allowed the town to be divided

into quarters along religious and ethnic lines. Evidence presented earlier (p.146) indicated that quarters of some of the minority religions were peripherally located, sometimes outside the city wall. Herat has provided evidence which indicated that the quarter system was not only on the basis of religious, ethnic and clan lines but also based on wealth. The rich had the privileged location of being upstream where the water was clean and having the mosque, bazaar and citadel in close proximity.

Islam's preference for a sedentary life, perhaps as a reaction against the warring tribes of Arabia, have caused towns to have special functions in the growth of Islamic society. Friday services were required to have a minimum number of permanent residents attend, an obvious stress on permanency in large settlements. "Sedentary culture is the goal of civilization," claimed Ibn Khaldun⁶¹ who felt that its importance in the life and growth of towns have been great.⁶² This provided the base, ie a settled population, to which the town as a congregation of people and wealth, could provide some basic services such as masjids (mosques), makhtabs, and madrassas or schools.

The muhtasib was empowered to settle disputes, give punishment in some cases and stop construction and encroachments when they seriously affected the public realm.⁶³ But his job was somewhat complicated due to the nature of Islamic laws. For example Mawardi states that in

" matters of a purely world nature, such as encroaching on a neighbors boundary or on the privacy of his abode (harim) or extending beams beyond his outside wall, give no occasion for interference until complaint by the neighbor, who alone is entitled to condone the act, or to impeach it, in which case the muhtasib may act provided the two neighbors be not acutally at law, and may compel the person at fault to desist and may punish him as the case may require; if they be at law, the judge must act." ⁶⁴

In addition, the muhtasib was not only not empowered to act until

the neighbor had complained, but also could not arbitrate until the offender had been produced. It is obvious that the muhtasib's actions were quite limited in comparison to those of the municipal corporation. Islamic law clearly placed the discretion in the hands of the person who had been harmed.

Negligence caused faults were not known to Islamic law which related to other matters of building. For instance:

" if a wall threatens to collapse, the owner becomes liable only after the owner of the adjoining property has asked him to demolish it." ⁶⁵

Islamic Law stressed on the rights of the individual and reduced the power of the muhtasib to act. This and the absence of corporations led to system of organization quite apart from the western method of institutionalization. This led to conclusions such as, " the Islamic city had no constitution " ⁶⁶ by scholars like Stern, primarily because they were expecting to find institutions. One can thus sense the reason for the streets (public ways) taking on a secondary position, while the primary position belonged to individuals, their families, and their property. One also begins to understand the reason for the much discussed character of the streets in Islamic towns. Absence of municipal corporations made representation and objection or complaint from the public domain quite difficult. Sauvaget demonstrated by his studies on Aleppo that the orthogonal layout of the streets of the Greco-Roman town were gradually encroached on by Muslim residents which eventually resulted in the tortuous and crooked streets. ⁶⁷

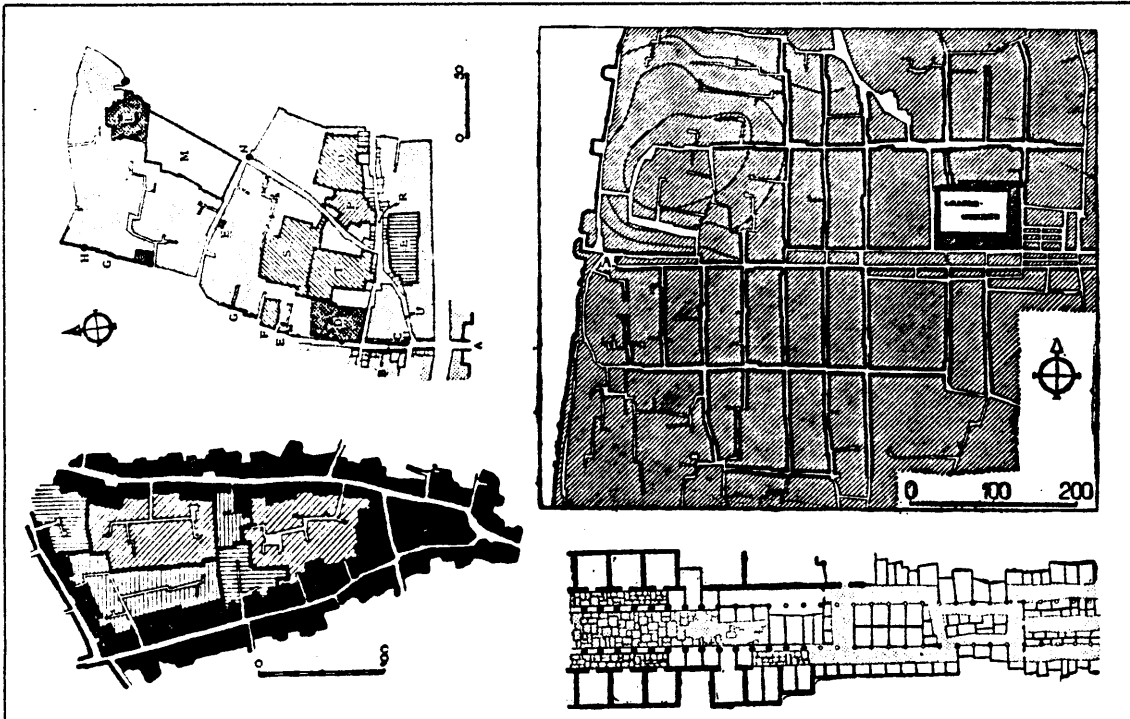
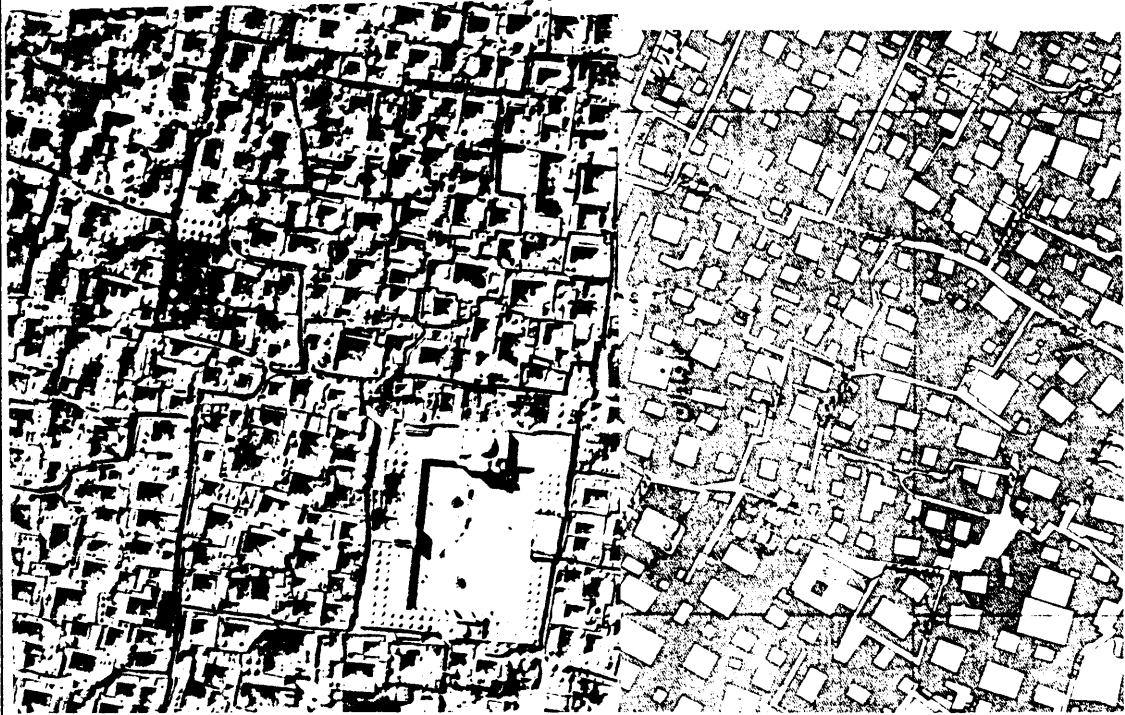


Fig. 25. — TRANSFORMATION EN SOUK D'UNE AVENUE ANTIQUE : schéma montrant le processus de dégradation de l'ordonnance antique et la localisation topographique des souks médiévaux correspondants.



'Islamic' structure showing the streets and houses and shadows

FIG. 5.11 PLANS AND DRAWINGS SHOWING SAUVAGET'S DEMONSTRATION change of orthogonal layout to 'Islamic'.

source: SAUVAGET, J: Alep.

Looked at this way one begins to see that some of the characteristic elements of the Islamic city were rather a result of a slow process of evolution which was particularly affected by indirect religious controls of legitimization, the nature of Islamic law and its stand on various issues.

b) A second kind of religious control of legitimization could be found in the examples of laws and edicts which specifically legitimized and prescribed certain locations or building activities. For example, Islamic law laid down certain specific restrictions with regard to non-Muslims. There were three basic principles of Islam, towards non-Muslims. The first was the expansion and extension of the sphere of Islam.⁶⁸ The second was the attitude of war towards non-Muslims. Non believers had to be converted, subjugated or killed.⁶⁹ The third, was the acceptance of the superiority of Islam.⁷⁰ These three principles essentially meant that non-Muslim minorities living in Islamic areas had to be subjugated, and that non-Muslims had to accept the superiority of Islam. In the context of the city, this meant that non-Muslims could not hold positions of leadership. Non-Muslims also had to be accepted as dhimmies or protected minorities which meant a 'no-war' status and also the granting of the privilege to continue practising their own religions so long as it did not disturb the Muslims. The minority religions therefore, not only had to accept the superiority of Islam, they also had to accept that the leadership was to be at all times in the hands of the Muslims. In addition, to a large extent, they had to accept Islamic Law, as that became the law of the land.

The above criteria affected the allocation of privileged locations in the city. One such location was judged by the proximity to the bazaar, the mosque, and center of town. Locations

such as these were taken by the Muslims. Another privileged location was that which was in close proximity to the water source. In cities like Herat Muslims were close to the water source. People of minority religions were often clustered in quarters which in many cases were located outside the city wall. In Kerman, the Zoroastrian quarter was outside while in Isfahan, the Zoroastrian and the Christian quarter were located outside the city wall. The Jewish quarters were mostly within the city wall as in Kerman, Isfahan and Tehran. One reason for this distinction between minority religions was that Islam recognized a clear distinction between ahl-al kitab or religions of the book, and the others. In that hierarchy, prophetic and scriptural religions enjoyed the highest standing, followed by the monotheistic but non-scriptural Zoroastrians, and finally the pagans, polytheists and idol worshippers.⁷¹

Islamic laws also required non-Muslims to pay certain taxes. Zoroastrians were required to pay jizya or poll tax, which was not really meant for revenue collection but simply used to impose limitations on non-Muslims. They were required to pay the tax in humiliating conditions. Non-muslims were also required to pay the kharaaj or land tax. This affected their disposable income which indirectly affected their access to areas of high rent.

Laws of property inheritance were skewed in favor of Muslims and to encourage converts. By law any non-Muslim who converted and became a Muslim could claim the properties of all his relatives, no matter how distant. This was one factor which fostered a closed knit community among the non-Muslims who were constantly threatened with the loss of ownership of their property.

In addition, Islamic law authorized certain restrictions on dress, houses and religious buildings of the minority some of which are given below.⁷²



- o Non-Muslim houses must not be higher than those of the Muslims. This rule was clearly followed. In Kerman and Yazd, non-Muslim houses had to be low enough such that a passing Muslim could touch the roof. Zoroastrian and Jewish houses often had zir-zamin or basement, which accounted for their low height.
- o Non-Muslims must mark their houses with distinctive signs. It is not clear if this rule was strictly followed. With non-Muslims clustered in quarters it may have become redundant.
- o Non Muslims must not build any new churches, synagogues, hermitages. This was true to a great extent, as prior to the twentieth century very few such structures were built. As a result of this control, cities were noticeably lacking in such structures.
- o Non-Muslims must not scandalize the Muslims by openly performing their distinctive customs. Because of this control, non-Muslims had to perform many of their religious ceremonies indoors and often in their houses.
- o Non-Muslims were exempt from specifically Muslim duties and privileges. They were not required to contribute directly to the protection of the country or the city, as they were not allowed to join the army or bear arms. But they had to protect their quarters particularly when the quarters were located outside the city wall. Location outside the city wall also meant that privilege of access to city amenities were restricted whenever the city gates were closed, such as at night and during times of attack.
- o Non-Muslims were required to wear distinctive clothing.

This was true particularly for Zoroastrians and Jews who were required to wear distinctive clothing or badges. Armenian Christians may have been excused from this rule.

- o Non-Muslims must not ride horses, and must dismount on encountering a Muslim. It has been reported that Zoroastrians, in particular, were required to follow this rule. They had to ride donkeys and were required to dismount and bow on encountering a Muslim. They were thus restricted in the kinds of transport available to them.

It is obvious from the above, that Islamic regulations affected choice of location in the city, the character of the houses, modes of worship, and means of transport.

3. Indirect Religious Control of Behavior Modification.

Guiding of individual behavior by religious principles was quite common. Islamic principles guided individual behavior to a great extent. Prayer was required to be said in the open. This led mosques to have open courtyards where the members could pray. Later, they were enclosed on the sides and sometimes even roofed. But most mosques had open-to-sky courtyards. Elaborate purification rituals were required. This need translated into the presence of a water body or water source in the mosque, where the rituals could be performed. Islam also stressed congregational prayer. The courtyards in the mosques were required to be large enough to accommodate the members. Friday services, as specified by the Shari'a required a mandatory forty adherents who had to be permanent residents of the town. Because of this, Friday mosques were located mostly in urban centers. Another factor stressed by Islamic doctrine was the Qibla. Adherents were required to face towards Mecca in the course of their prayers. Mosques had, therefore, to be oriented in the direction of

Mecca. This was the reason for the Masjid-e-Jami of Isfahan to have an oblique orientation to the great square. Various physical postures were necessary including sitting on the knees, touching the ground with the forehead and standing up. No special furnishings were necessary and so courtyards and iwans (arched galleries) of the mosques were not equipped with any. No idols, images, sculptures or photographs were allowed and mosques were noticeably lacking in these items. A high point was required from where the muezzin could call the faithful to prayer. Minarets were used for this purpose.

The Zoroastrian City: Indirect Religious Controls

Lack of adequate evidence does not allow a comparable study of Zoroastrian cities. However, a few points can be made which illustrate the workings of indirect religious controls.

Indirect Religious Controls of Illegitimization.

Zoroastrianism clearly illegitimized the ritual pollution of the four revered natural elements: water, fire, air and earth. Dead bodies were considered evil and impure. Defiling of the elements through burial, discarding of the dead in water or burning were disallowed. The urban-scape of cities with substantial Zoroastrian populations, due to this illegitimization, had dakhmas or 'tower of silence' generally built atop a hill, removed from the settlement. These generally had a high wall enclosure with a platform in the center where the dead were arranged in concentric circles for vultures to consume the flesh. Often there were in the complex other buildings for funerary purification rites for the family.

Indirect Religious Controls of Legitimization.

Zoroastrianism, in its dualism, encouraged the nurturing of the

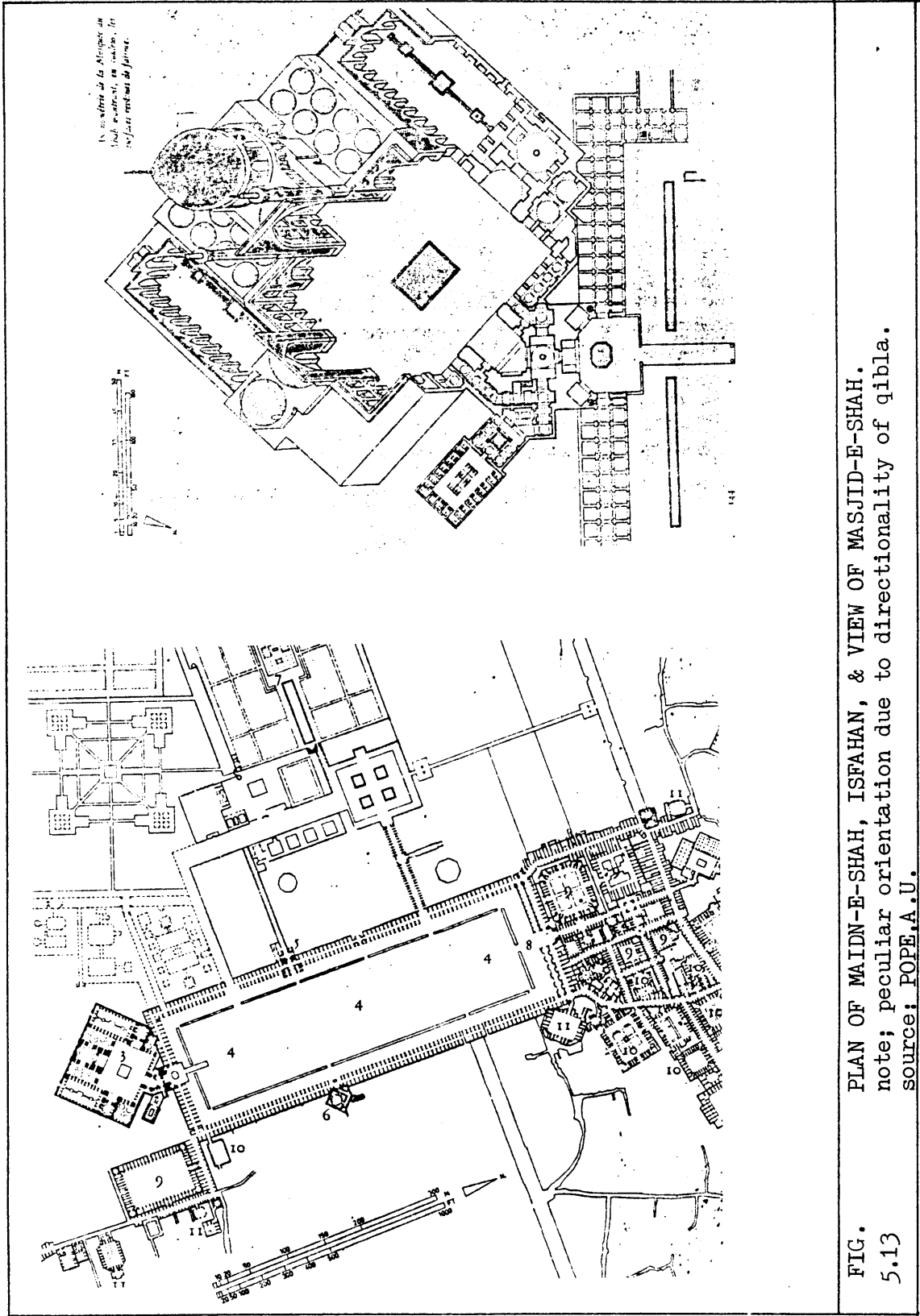


FIG. 5.13 PLAN OF MAIDN-E-SHAH, ISFAHAN, & VIEW OF MASJID-E-SHAH.
note: peculiar orientation due to directionality of qibla.
source: POPE, A. U.

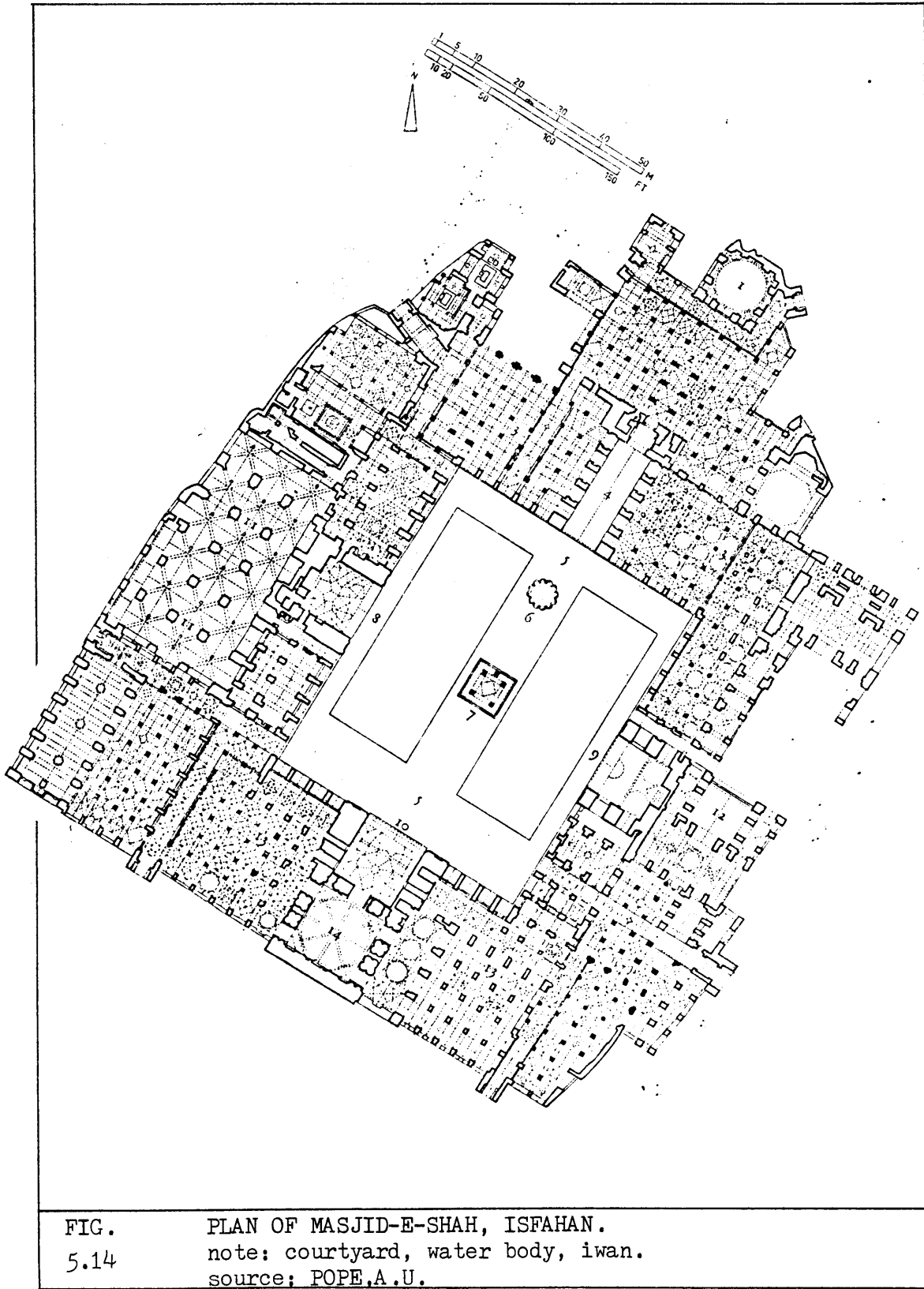


FIG. 5.14 PLAN OF MASJID-E-SHAH, ISFAHAN.
note: courtyard, water body, iwan.
source: POPE, A.U.

elements, and farming as an occupation was fostered as opposed to the commercialism and mercantilism fostered by Islam. As a result of this trees and greenery were carefully planned and grown. Much has been written about their famous gardens. Zoroastrians had stricter control over the public domain and their cities, in general, followed a pattern of straight roads unlike the crooked streets of Islamic times. Their cities were also more geometric in form. Use of high walls for protection was widespread in frontier Sassanian cities and less in the interior ones.

Indirect Religious Control of Behavior Modification.

Zoroastrian temples were not permitted to have statues. Zoroastrians revered fire, and their temples were required to have a pure fire burning at all times. Some of these fires were more than a thousand years old. The structure of the ateshgah or fire temple had to be able to accommodate a fire in its center, without being put out or vilified. In recent temples there was a glass enclosed area for this purpose. Their temples were simple in design. Earlier temples were simple cuboid in form. At later times, in most cases the temple had a dome atop four pillars, often located on hill tops.

In Zoroastrian cities also, indirect religious controls have had strong impact.

* * * *

As a commentary in conclusion, some definite statements can be made about belief-based controls. From the above analysis one can say that faith and belief in religion has translated into certain specific religious controls. Religious controls could affect city form in two ways -- either through direct linkages or through indirect linkages. No direct linkages could be established for either Zoroastrian or Islamic cities. The existing literature on the Islamic

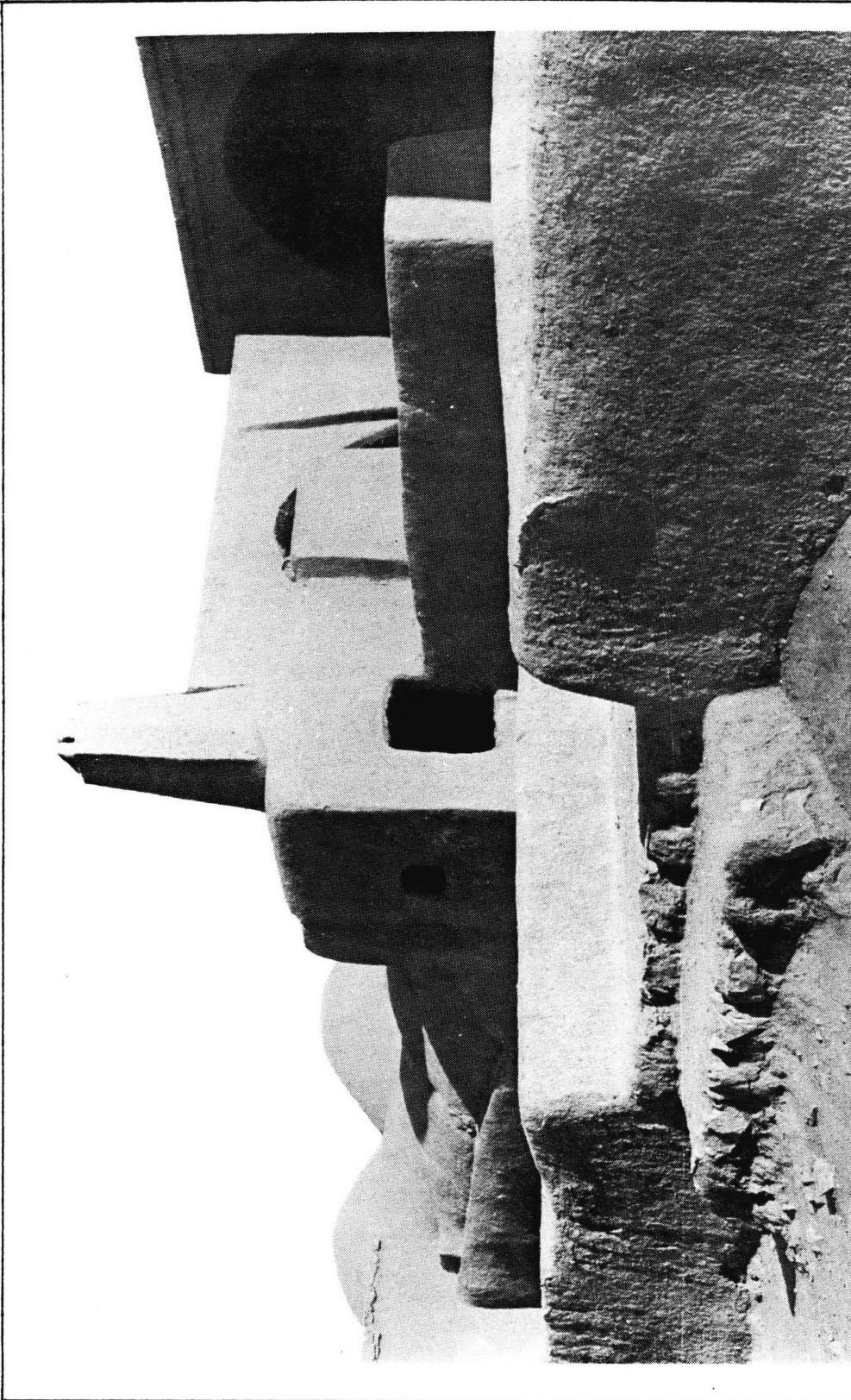


FIG. 5.15 VIEW OF BUILDINGS FOR ZOROASTRIAN FUNERARY RITES, YAZD.
Note: the use of mud and 'gatch' plaster, and the forms.
source: sanjoy mazumdar.

city does not assist at all in the establishment of the existence and action of direct religious controls. Most studies so far have been done in the Middle East and North Africa region and so dar al-Islam had come to mean only that region. But the term dar al-Islam needs to be defined more acutely, as some allowance has to be made for cities in Islamic regions elsewhere in the world such as the Far East. A more appropriate name for the above mentioned studies would have been 'Middle Eastern Cities.' Most scholars disagreed even on the basic characteristic elements. Further, the characteristics named, and the arguments behind them were fallacious because they were not exclusive to Islamic cities, which meant that the test of exclusivity had never been applied. While English described the Iranian city of Herat (in erstwhile Afghanistan) as a true Islamic city having most of the major components⁷³, Gaube argued that Herat appeared to be an Indian city conforming more to the characteristics required by the Hindu Canonical works.⁷⁴ Of course this is explained away by the claim that it originally was a Hindu city. But this raises the important question, "When does a city become Hindu or Zoroastrian or Islamic to be so labelled?" It can be concluded from the above that the use of the hypothesis of essential characteristics does not provide clear answers.

Thus it would probably be more fruitful to look for indirect linkages. Indirect linkages could be of three essential types as explained. All three --- indirect religious controls of illegitimization, of legitimization and of behavior modification affect city form strongly but indirectly. In fact it demonstrated convincingly that the most important effects of religious controls were the indirect ones. Hence, the authors mentioned in the earlier section were mistaken when in their search for the effects of religion on city form, they attempted to look for physical characteristics alone as determininants, which could be derived from a quick study of common characteristic elements. The concept of control was

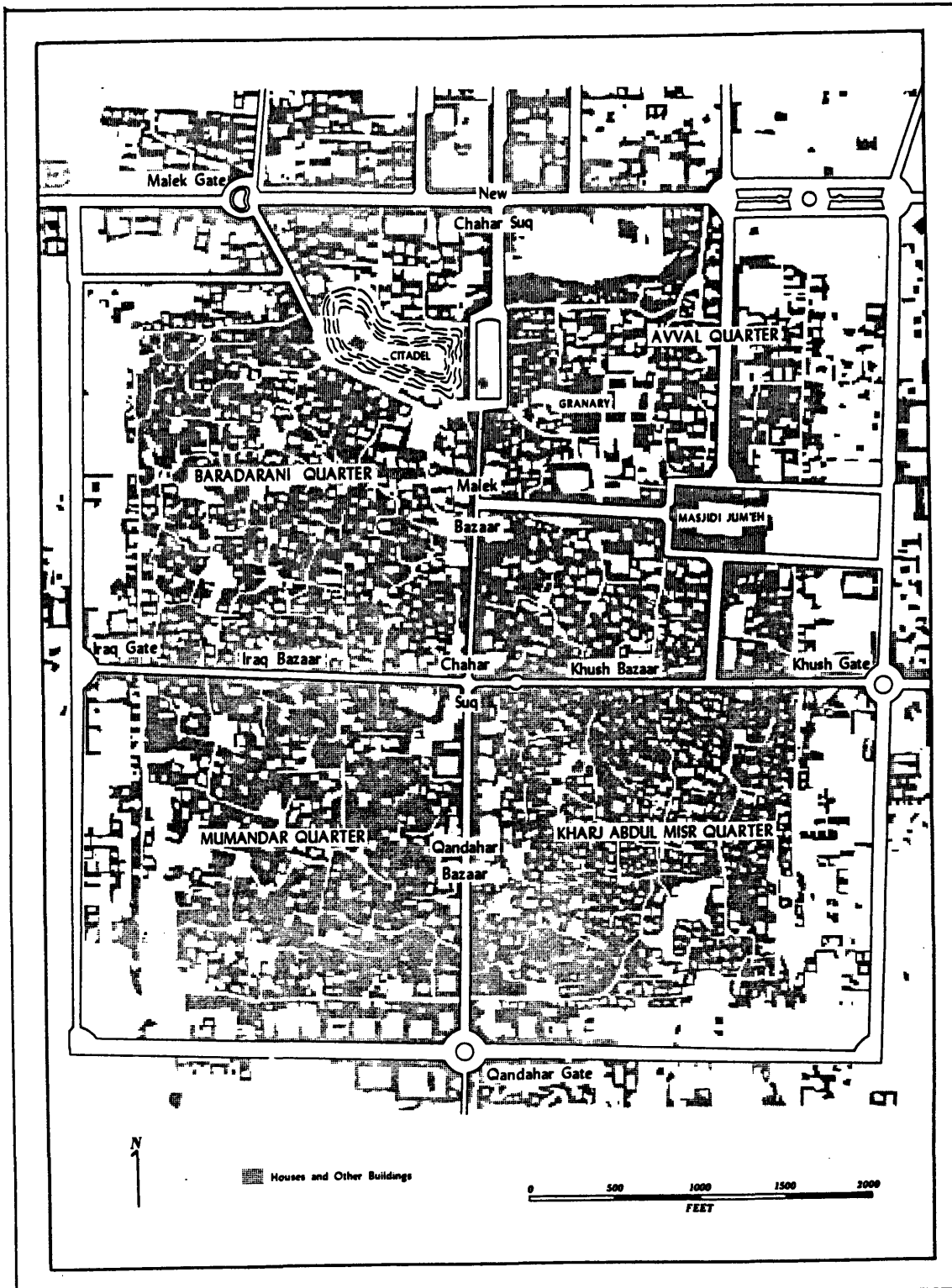


FIG. 5.16

PLAN OF HERAT, AFGHANISTAN.

note: the quarters, the chahar taq, gates, citadel.

source: ENGLISH, P.W. in BROWN, L.C: From... 1973, p.76.

extremely useful in this regard, as it pointed to the search for controls -- both direct and indirect, and for the various kinds of each, rather than physical forms or laws alone. The above analysis also stressed that perhaps the most important aspect which made the city Islamic or Zoroastrian and gave it its character, were the indirect religious controls.



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27. It was perhaps the circular logic used by these authors which led to the belief that every Islamic city had to have a royal quarter. However, since the city was governed externally by royal seat, the authors may have been referring to the area for representative of the administration.

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32. Ibid.
33. WEBER, M. The City.
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34. Ibid. Underlining and parenthesis inserted by me.
35. Ibid.
36. See note No: 3.
37. PLANHOL, X. De 1968. p. 436.
38. VON GRUNEBaum, G.E. op cit. 1961.
GAUBE, H. op cit. 1979.
39. Although not easy to follow, it would be better to refer to
these cities as Islamate as proposed by Brown, L.C.op
cit 1973, p. 24-25, or Islamican would be more appropriate.
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49. GRUNEBAUM, G.E. op cit. pp. 141-142.
50. LAMBTON, A.K.S. Islamic Society in Persia.
An Inaugural Lecture Delivered on March 1954.
London University of London. 1954. p. 32.
51. Darugha was a care-taking official.
52. Muhtasib was a city official in charge of administering Islamic Law.
53. LAMBTON, A.K.S. op cit. 1954. p. 4.
54. MAWARDI as quoted by VON GRUNEBAUM, G.E. op cit. 1961 p. 153.
" In matters of worldly concerns the jurisdiction may have to do with the general public or with individuals. Examples of the former are: failure of water supply, ruinous city walls, or the arrival of needy way-farers whom the people of the place fail to provide for; in such cases, if there be money in the treasury no constraint is needed and the muhtasib may order the water supply to be put right, and the walls repaired and may relieve the wayfarers on their passage, all this being changeable on the treasury and not on the inhabitants, as are also dilapidations in mosques. But if the treasury be without funds, then these liabilities fall on all inhabitants of substance. but not on any one of them specifically, and if such persons act, the muhtasib's right of compulsion is at an end."
55. VON GRUNEBAUM op cit p. 143.

56. VON GRUNEBAUM, G.E. op cit. 1961. p. 143.
57. Ibid. p. 143. Underlining mine.
58. SCANLON, G.T. op cit. 1970. p. 179.
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Chapter 6

Societal Control

Society as an institution has developed its own controls which have affected city form. Norms and values developed by society which affect choice regarding the physical environment, choice of location, choice of form, style or design shall be termed societal control. Norms could favor one form or location over another or could recommend a range of possibilities which in turn could lead to preference of particular modes over others or rejection of some. Values similarly affect choice of location, building and design. In this chapter I shall illustrate the actions of three kinds of societal control.

1. Societal Control of Continuity.

Controls which have remained with Iranian society through periods of great social change, and have significantly affected city form, or have maintained the values associated with certain forms shall be called societal control of continuity.

2. Societal Control of Familial Value Translation.

Controls which were imposed on built form in order to accommodate familial values, needs and functions will be classified as societal control of familial value translation.

3. Societal Control of Environmental Adaptation.

Controls which have developed out of values and norms in dealing with the environment for personal protection and comfort will be called societal control of environmental adaptation.

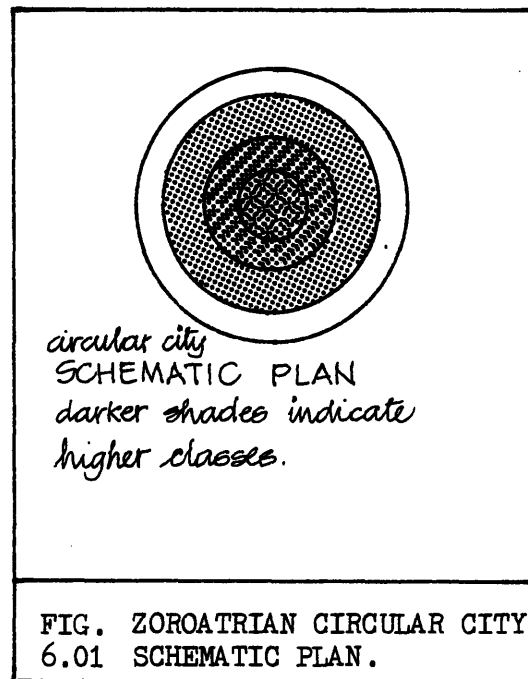
The sub-divisions within these three major groups will be brought out when each is taken up individually.

1. SOCIETAL CONTROL OF VALUE CONTINUATION

Many societal values which have affected built form have continued through the ages and through periods of great social change. These have imbibed a remarkable consistency regarding choice of built form because of the continuation of elements and values. Some values have continued without alteration, others have been assimilated or altered slightly to suit new purposes, still others have been adjusted by the addition of new values. The following section will describe the various kinds of societal control of value continuation.

One set of values have been those which have continued relatively unchanged through major changes in religion. One among these was the system of division of society into classes. The similarities and continuities will become obvious as I describe the systems. The society of the proto-Indo-Iranians, the believed ancestors of the Indians and Iranians, was divided into three classes: the priests, the warriors, (who could also have been hunters) and the herdsmen. Their practices continued through centuries and were later later adopted by the Hindus of India and the later Zoroastrians of Iran.¹ Some have claimed that society in Achaemenian times was divided into the nobility, the servants and the slaves. However, there is no evidence that this was true as very little archaeological evidence of this period has been found.² Division of society during Sassanian times, when Zoroastrianism was the state religion, was similar to the system prevalent among the Proto-Indo-Iranians. Society was divided into four classes namely those of the priests, the warriors, the artisans and the peasants. Later another class that of the scribes and bureaucrats was added in third place.³ Frye has conjectured that the above division of society was part of Zoroastrianism.⁴ However, the striking similarities between the class structure of the Proto-Indo-Iranians and that of the Sassanians coupled with the notion

that the division was based more on occupational rather than religious lines gives credence to the belief that the class structure was more of a social phenomenon rather than that of a religious one. Later however, the class system became very rigid and ideas of 'pollution' came to be associated with the occupations.⁵ Planhol has claimed that in their circular cities the Sassanians distributed privileged place according to the hierarchy of the classes, with the priests being on the privileged inner most circle and the peasant on the outermost.⁶ It is also believed that each class, except that of the scribes, had their own sacred fires and ateshgah or place of fire commonly called the fire temple. This indicates, that because of the association with the idea of pollution, the class system got institutionalized and cities thus came to have a number of ateshgahs



It has been claimed that Islam completely reorganized Iranian society along egalitarian ideas, abolishing classes. But evidence indicated that the reorganization was not as radical as claimed, and that a number of pre-existing structures were transformed and maintained. Division of society was more on religious and ethnic lines. Contrary to its egalitarian principles, even within Islamic society there was stratification. New Iranian converts could not achieve the same status as the Arab Muslims and had to associate themselves with particular Arab tribes. Although disallowed by religion, the Arab conquerors quickly acquired land and became the landed aristocracy. In terms of distribution of privileged locations in the city,

the Arab Muslims got the most privileged location, followed by other Muslims and non-Muslims respectively. Also, in Islamic society, the priests were located close to the mosques, which were generally located at the chahar-taq at the center of the city or at the center of the neighborhood, a system not unlike that of Zoroastrian times. Other sections of the population were located in the city sometimes according to wealth and status as in the case of Herat. The least privileged in Islamic society were the non-Muslims, who correspondingly occupied the most peripheral locations.

Despite the tumultuous religious upheaval with the coming of Islam, continuity of occupations was maintained. Zoroastrian priests who converted became priests or Islamic clergy primarily because of their literacy, while scribes (dihgans) continued collecting revenue even after conversion. Most of the Sassanian bureaucracy and government was continued by the Arabs. The ordering of the Islamic clergy as qadi, mojameed, mollah, and ayatollah was not very different from that of the Zoroastrian priests such as mobad, mobadan-mobad and dastur.

Certain values were continued by society despite changes in religion. The Zoroastrians borrowed the idea of reverence for the elements from the Proto-Indo-Iranians. Certain rituals of the Zoroastrians were incorporated by the Muslims when they conquered Iran. Muslims continued the idea of 'pollution'. Non-Muslims such as Zoroastrians, Armenian Christians and foreigners were considered to be ritually impure.⁷ They were not allowed into mosques because of fear of defilement. Their uncleanness prevented non-Muslims from entering trades involving the use of water, since water was a vehicle through which the uncleanness could be transferred. Most religious minority groups were barred from entry into baking, delicatessens, dairy products and restaurants (except for their own members).

They were not permitted to use water upstream which meant that locationally they were restricted to downstream areas.⁸

The Sassanians did not permit the use of models, images and statues in temples. Consequently Zoroastrian temples were lacking in these features; they had only a fire in the centre. Pictures of the saints however, came to be allowed in later times. Islam strictly forbade the use of idols, models, images or pictures including those of the prophet. However, in Iran one could commonly find pictures of the Prophet or those of Ali on walls in stores, houses and jewellery. Buildings constructed by the early Muslims in Iran do not display the use of human and animal forms in decoration or the use of statues of human figures in parks and squares. Later however, the depiction of human and animal figures, of wine drinking scenes and the use of statues became a common feature. This acceptance against the rules of Islam was probably due to the general acceptance of such features by society.⁹

Pious foundations were used by the Zoroastrians to support the priests and their activities.¹⁰ The use of waqf (endowments) became widespread in Iran under the Muslims. Contributions, subscriptions, and donations were given to the waqf which became a very powerful financial institution because of its wealth. The waqf was managed by the Muslim clergy who were also empowered to manage properties handed over to waqf. With the waqf endowments the clergy could build mosques, makhtabs and madrassas, as they saw fit. When endowments were high, many new structures were built. In leaner times construction declined. The waqf also helped in bringing schools and education under the power of the clergy.

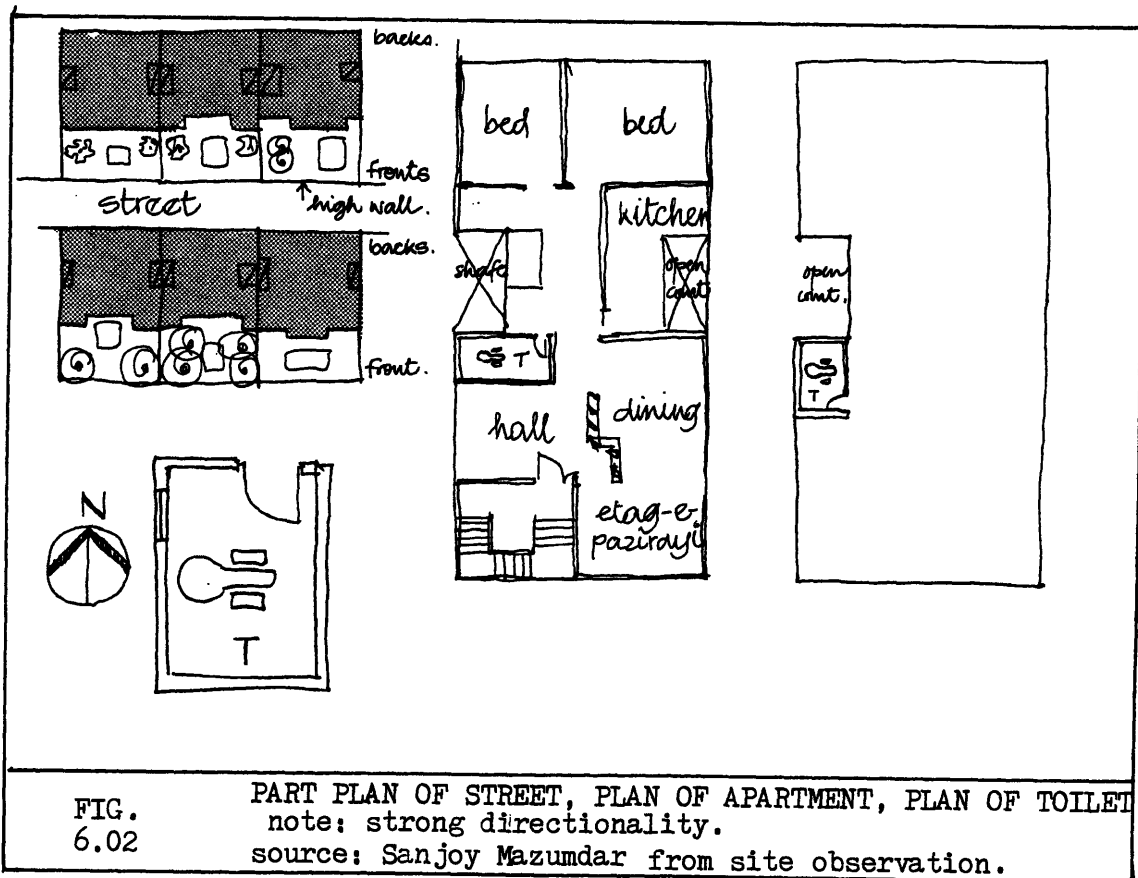
There were some features of the past which were adapted by society of later times to suite new purposes. One primary example was the conversion and re-use of existing structures by the Muslims.

Many fire temples were converted into mosques, without major changes. As a result, in the city the number of fire temples reduced while the number of mosques grew proportionally. Along with fire temples a vast number of small shrines of the Zoroastrians were converted into imamzadehs.

There was a continuity in the use of various architectural and structural elements. The use of domes, arches and vaults in mosques was an adaptation and refinement of the same elements used in the fire temples. It was the delicate and masterful use of the arch and the dome by the Muslims in most of their monuments, that led to the notion that these were 'Islamic' elements.¹¹ The characteristic courtyard flanked by four iwans of later Iranian mosques was also pre-Islamic in origin. The use of the elements discussed above was due to societal control of preference for these elements.

Societal control adapted ideas expressed by religion for other purposes. Orientation in prayer, which led to the qibla in the mosque was legitimized by Islam, as mentioned earlier. However, the idea itself was borrowed from heathen Arabs and from pre-existing Zoroastrian notions of good and bad directions. It was believed by society in Zoroastrian times that all evil forces were located in the north and came from there. As a result, Zoroastrians would avoid facing north in prayer. Society in later times adapted this idea of directionality and applied it quite strictly to houses. Most apartment buildings and houses in Tehran and other cities were south facing. The north face was treated as the rear, even when that face fronted the street. The idea of directionality also controlled the layout of the streets. Streets in residential areas were mostly east-west, so that the plots and houses could be north-south. Use of north-south streets for plot layout was strictly avoided. This was another strong factor which gave rise to the strict orthogonal street layout along cardinal axes in modern times. The courtyard

of the atrium houses became a garden appended to the south side. As a result, the streets themselves, had the 'front' of houses on one side with a high wall and garden behind, and the 'back' of houses, with doors leading into houses or stairways, on the other side. It thus did not have two sets of 'fronts'. The 'fronts' and gardens were rarely, if ever, on the east or west sides of houses. Within the buildings themselves, the toilets could not be oriented in the good direction of south. The long direction of toilets were required to be east-west. If of necessity, the long direction of the toilet had to be oriented north-south, great care was taken to orient the water closet or the pan in the east-west direction. (Fig. 6.02)



Another societal phenomena related to the distribution of space was the quarter system. It was shown in the section on religious controls, that the use of the quarter system was not required by

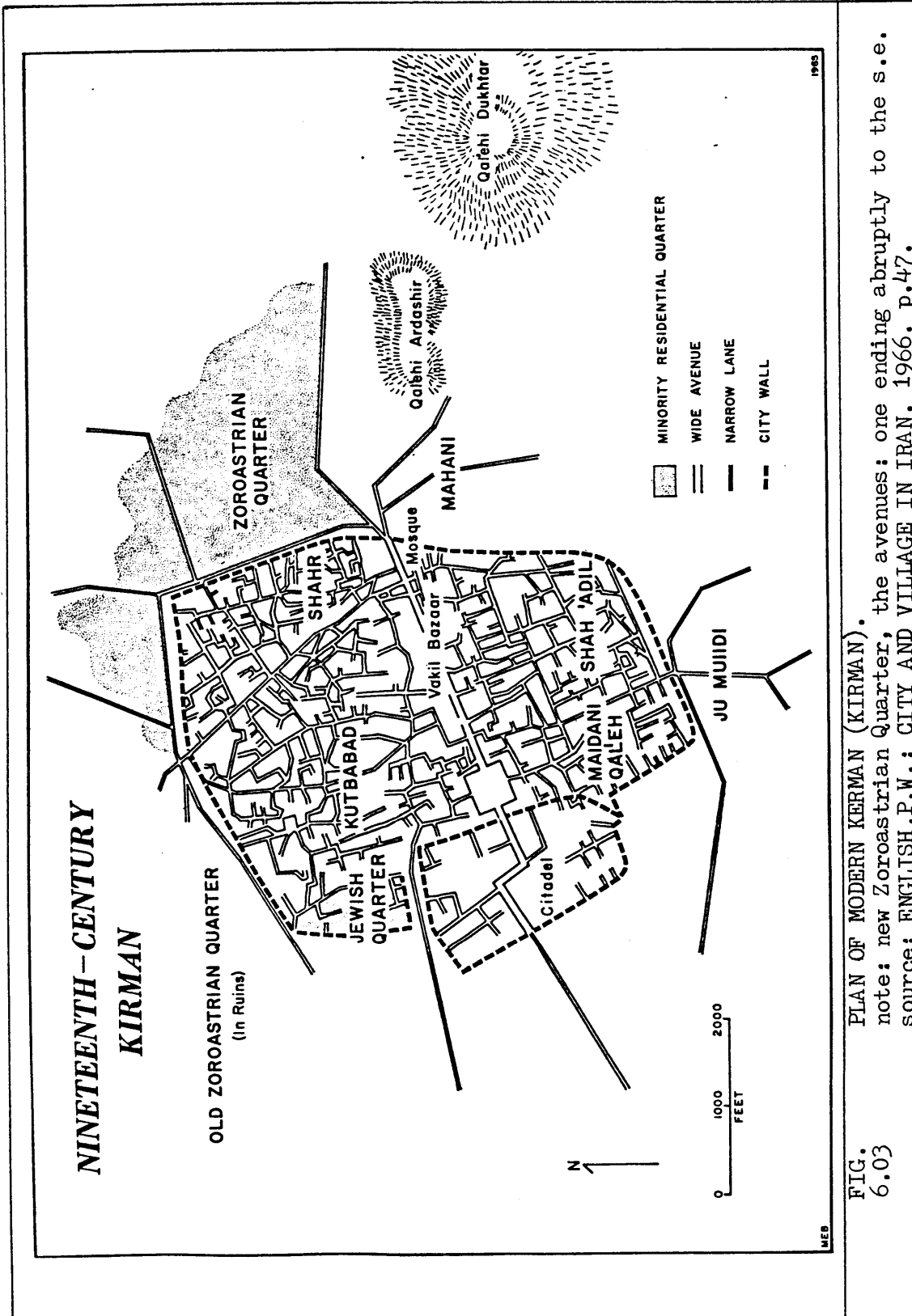


FIG. 6.03 PLAN OF MODERN KIRMAN (KIRMAN).
 note: new Zoroastrian Quarter, the avenues: one ending abruptly to the s.e.
 source: ENGLISH, P.W.: CITY AND VILLAGE IN IRAN, 1966. p.47.

INTEGRATION OF THE ZOROASTRIAN QUARTER

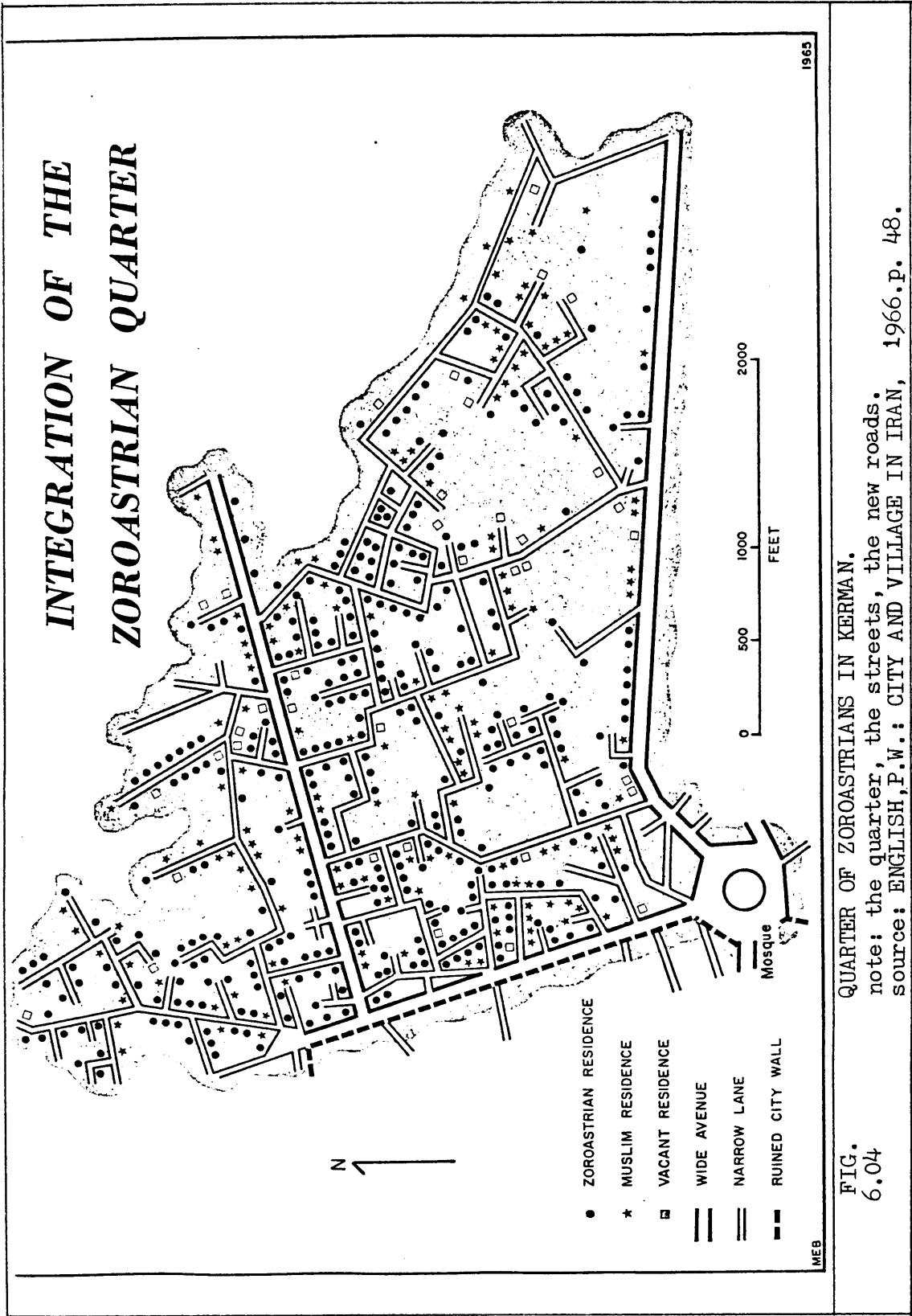


FIG. 6.04
QUARTER OF ZOROASTRIANS IN KERMAN.

note: the quarter, the streets, the new roads.
source: ENGLISH, P.W.: CITY AND VILLAGE IN IRAN, 1966, p. 48.

Islamic edicts or by Islamic Law. Yet the quarter system was very commonly used in Islamic times. There appears to be a number of reasons for the use of the quarter, most of which were societal in nature. In the homogenous quarters, the social groups could follow their own systems, and to some extent their own laws, especially when these conflicted or were not covered by the laws of the land. This was especially true for the minority religions, such as the Zoroastrians, who could follow their own religions more easily. Policing and enforcement of the laws of the land were less stringent in the quarters. In that sense, besides strength in numbers, the quarters were advantageous to the minority religions, and preferred by them because it helped them preserve their social values.

Many of the features pointed out regarding built form have been continued by society through major changes in religion, and have entered the realm of tradition. The important point here is that these elements and values were societal in nature. They were strong controls as they affected built form and maintained the continuity of both, the forms and more importantly, the values. At times, the forms used have been against religious dicta, but have prevailed because of the strength of the societal control.

2. SOCIETAL CONTROL OF FAMILIAL VALUE TRANSLATION

These were controls exercised primarily at the family level and most radically affected the house and the neighborhood. Family structure, nature and behavior affected choice both positively and negatively. In the latter case, some choices were negatively evaluated, while others were made taboo, which in effect narrowed the range available and prevented certain choices. Choices could also be positively weighted, and when very specific could be like dictates. The reasons behind the choice become important because they form

the basis and substance of the controls.

The family as a unit in Iran had developed several value systems and norms, many of which were independent and related to the family as an institution, while others were a reaction by that institution to specific ideas associated with religion.

One of the major aspects that continued through the ages was the nature of the family. Strong kinship and family ties had led to extended and joint family systems. Extended families were quite common, with parents and unmarried siblings and at times married children living under the same roof. Extended families normally required more room, and where space and wealth permitted this led to attached or semi-detached sections to the house. When the family expanded, such as when sons got married, the preference was for the newly marrieds to stay close to the main family. When space permitted, additions to the existing house were made horizontally. When space did not permit, the attempt was to acquire a house in close proximity, possibly on the same street. Often a resident would look out for vacancies in close proximity and attempt to acquire adjacent property for their sons, sons-in-law, and other relatives, next of kin, or member of tribe, clan or village. As a result, it was common to find parts of a street or a neighborhood being inhabited by one consanguinal group. This factor could have been a major contributor to the character of the streets in Islamic times. As mentioned earlier, the muhtasib could not act until a complaint had been received. But in a society with strong social controls, it was highly unlikely that neighbors, particularly when next of kin, would take a dispute to a third person.¹² As a result complaints were not easily forthcoming and hence encroachments could continue.

In modern times the nature of the family has changed particularly in the cities. Nuclear families have become more predominant.

Some of the ideas have remained however. In many cases related families would take up different apartments in the same building. But the kinship group of the past is steadily being eroded. Spreading out of nuclear families has meant an erosion of consanguinal neighborhoods and the demise of the extended family. Some partial variations of the joint family are still being maintained. The elderly, especially if widowed, are cared for by the children.

To understand the concept of privacy, it will be necessary to understand the position of women in the family and the household. The family unit was affected by Islamic ideas. Islam permitted its adherents to practise polygamy and men were allowed to have four wives. In addition, Shi-ite Islam in Iran allowed a man to have any number of mut'a or temporary marriages. This was done primarily to prevent concubinage of slaves, prostitution and to legitimize children born out of wedlock. Many of these ideas were imported into Iran, and were a reaction against systems prevalent in Arabia. In addition to the above, Islam considered adultery to be a major sin. From this developed the concept of privacy of the family and its members, which in turn affected built form significantly.

The family in Iran has always been patriarchal, with the man as the head of the household. Islam only reinforced this and by treating man as the equivalent of two women gave him immense powers over her. The man was responsible for his family and had also to provide nafaka or maintenance for his wives. Talak or divorce was very easy for the man as he had merely to announce talak thrice to have the divorce. In addition, there were other forms of temporary and permanent repudiations from which he could choose.¹³ Girls getting married had the right to mahr or nuptial gift, which was often included in the marriage contract. In the event of a divorce the man's responsibility was to give the complete mahr. The man also had the limited right to correction, whereby he could forbid his wife to leave the house. The

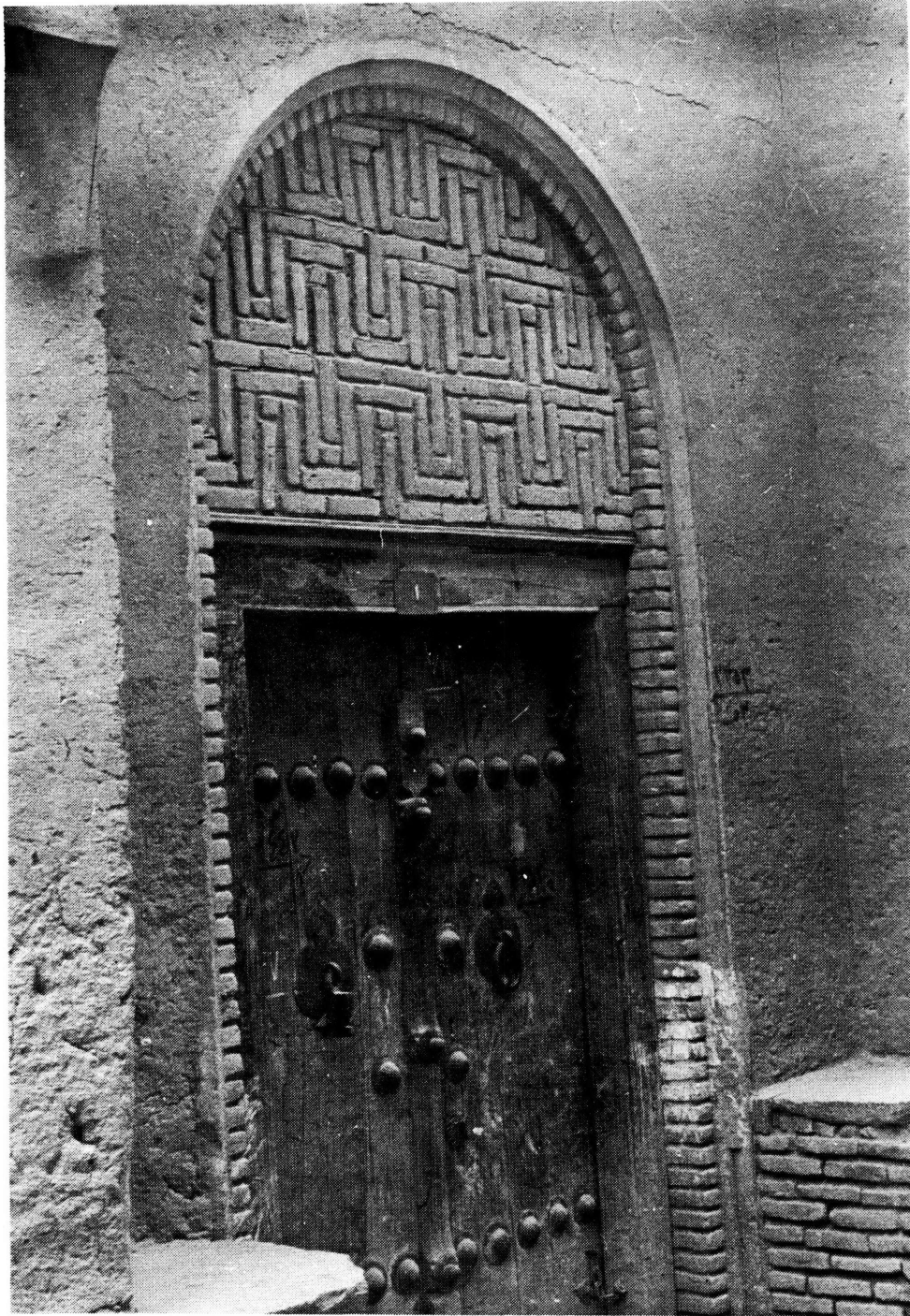


FIG.
6.05

YAZD: DOOR OF HOUSE.

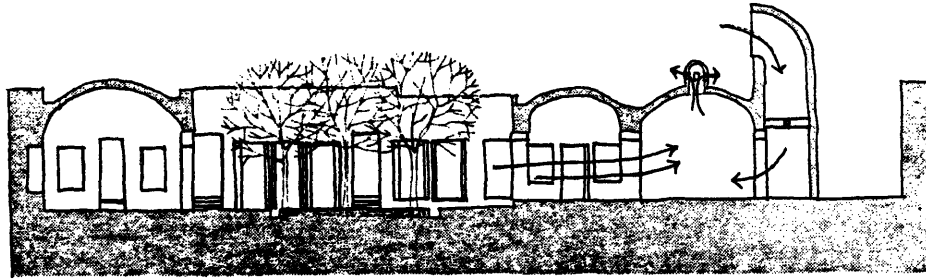
note: the low door, the seat, the different knockers.
source: Sanjoy Mazumdar.

man-woman relationship in the family was not characterized by the subordination of the woman but also by the fact that she was not to be easily visible and accessible to other men. This led to ideas of privacy of the abode (harim) and that of women.

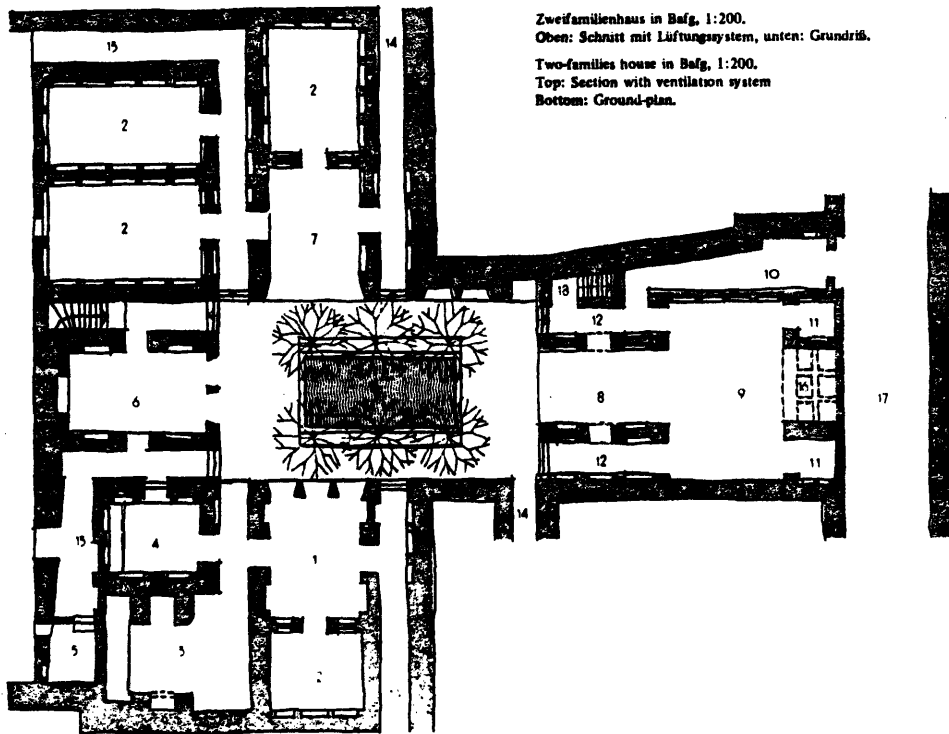
A woman was not allowed to be at a place where the men were entertaining. It was quite usual for the women and the men to have their own quarters in the house. The women's quarter or the andarun (literally 'of the inside') was more protected and located further to the interior of the house. Then men's quarters were birun (or of the outside) and were located towards the outside of the house. In most cases in Iran, male visitors were not expected to go any farther in the house than the birun. The master of the house was not to be disturbed when he was in the andarun. In some houses the arrangement was very elaborate with each section having a courtyard with rooms around it.¹⁴ The birun-andarun phenomena varied with the wealth of the family. In the houses of the poor, the distinctions between birun and andarun were less pronounced and less elaborate. In some of the smaller houses, visual screens of wood or other materials separated the two sections.

In recent times, with women going out to work, the nature of the relationship within the family has changed. Accordingly the design of the house has changed and the separation between birun and andarun has become more symbolic and less physical as in the past. The separation is achieved more on the basis of programmed timing.¹⁵

Another feature, noticeable in Yazd, was the use of two differently shaped knockers on the doors of the houses. The explanation given for this was that one was meant for female visitors and the other for male. Each would create a different sound by which the residents could discern the sex of the visitor. One could



مدرسه باغچه‌بانان
 مدرسۀ دخترانه
 مدرسۀ ابتدایی



Zweifamilienhaus in Bagf, 1:200.
 Oben: Schnitt mit Lüftungssystem, unten: Grundriss.
 Two-families house in Bagf, 1:200.
 Top: Section with ventilation system
 Bottom: Ground-plan.

- 1 Living room
- 2 Sleeping room
- 3 Kitchen
- 4 Pantry
- 5 Toilet
- 6 Winter-living room
- 7 Guest room
- 8 Dining space
- 9 Living room
- 10 Entrance
- 11 Storage
- 12 Corridor
- 13 Door to the garden
- 14 Connecting passage between the families
- 15 Water pond
- 16 Ventilation vent
- 17 Street
- 18 Stairs to the roof terrace

FIG. 6.06

PLAN AND SECTION THROUGH A HOUSE.

note: wind catcher in section.

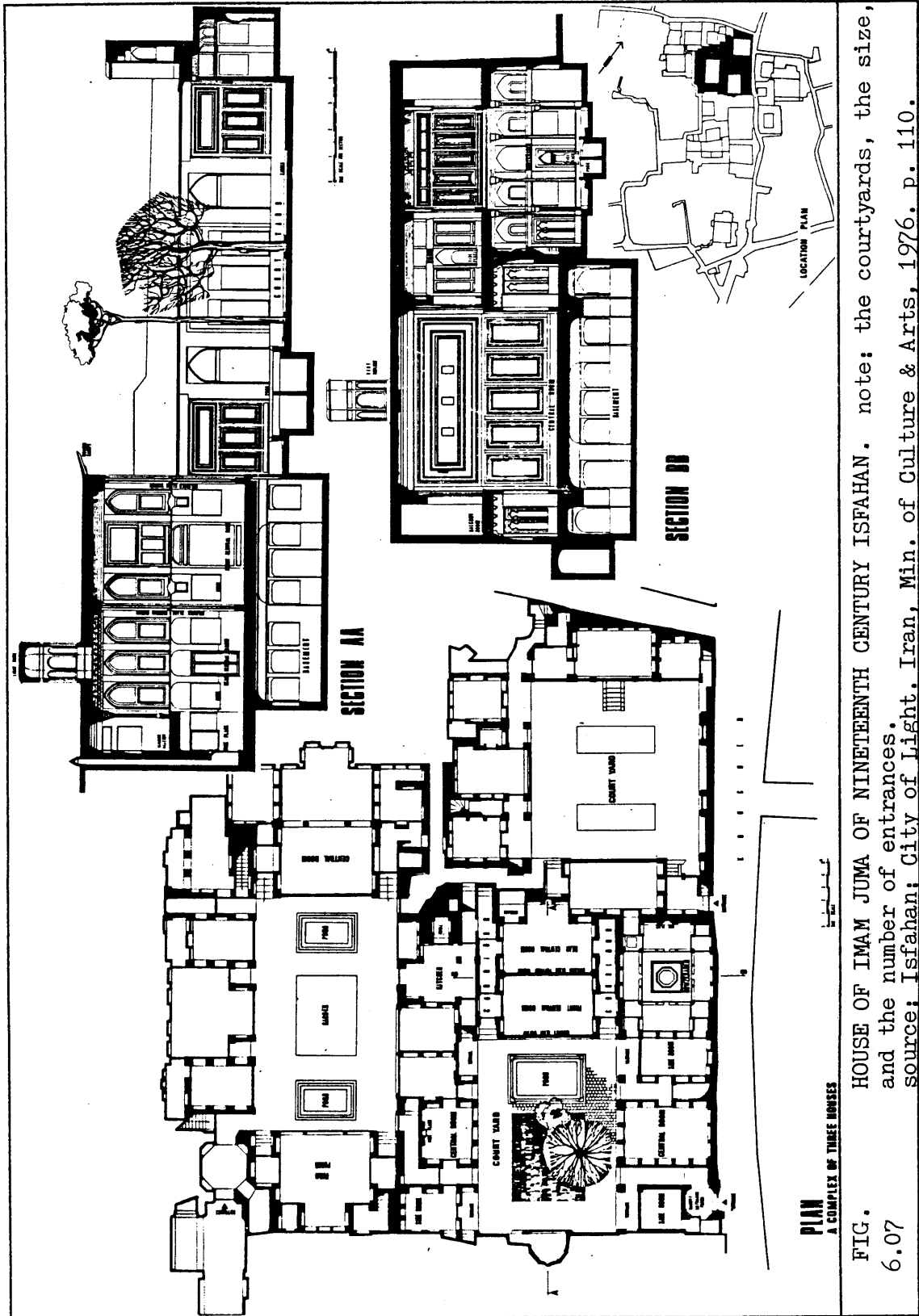
source: RAINER, R: TRADITIONAL BUILDING IN IRAN.

not be sure how effective this system really was, as there could be misuse and deviance by people who knew the system and also by visitors who were not aware of it.

What emerges as important from the above is not only the idea of manifest physical forms of birun and andarun and the different knockers, but the nature of the segregation within the family itself, and the values associated with it.

Entertainment of guests or taarof was an important aspect of family life. Guests had to be treated in the best possible manner and dined well. Much has been written by visitors to Iran, of the lavish parties given and the manner of treatment of the guests. In most cases, until recently, parties were given separately for men and women, or if at all invited together, they were entertained in different areas. This custom of treatment of guests had its effects on physical form. In Tehran, even modern apartments were to have an etage-pazirayi or entertaining room, which would normally be one of the largest rooms in the house and be expensively furnished. Often the furniture would be kept covered until the arrival of the guests. When there were guests of lesser rank, they were not to be entertained in the etage-pazirayi but generally in the hall. The hall would be located close to the entrance and be a reasonable big space with some amount of furniture for entertaining. The hall was also used as a family room. In addition to the above, there would be a dining space whose size depended on the wealth of the owner. In many families the dining room would sometimes be used for entertaining guests. Every day dining would take place either in the hall or in the kitchen which would be large enough for this purpose. The house in addition, would have the requisite number of bedrooms and toilets. The use of a corridor to link the various rooms was commonly used.

The use of courtyards was quite common in the houses of the past.



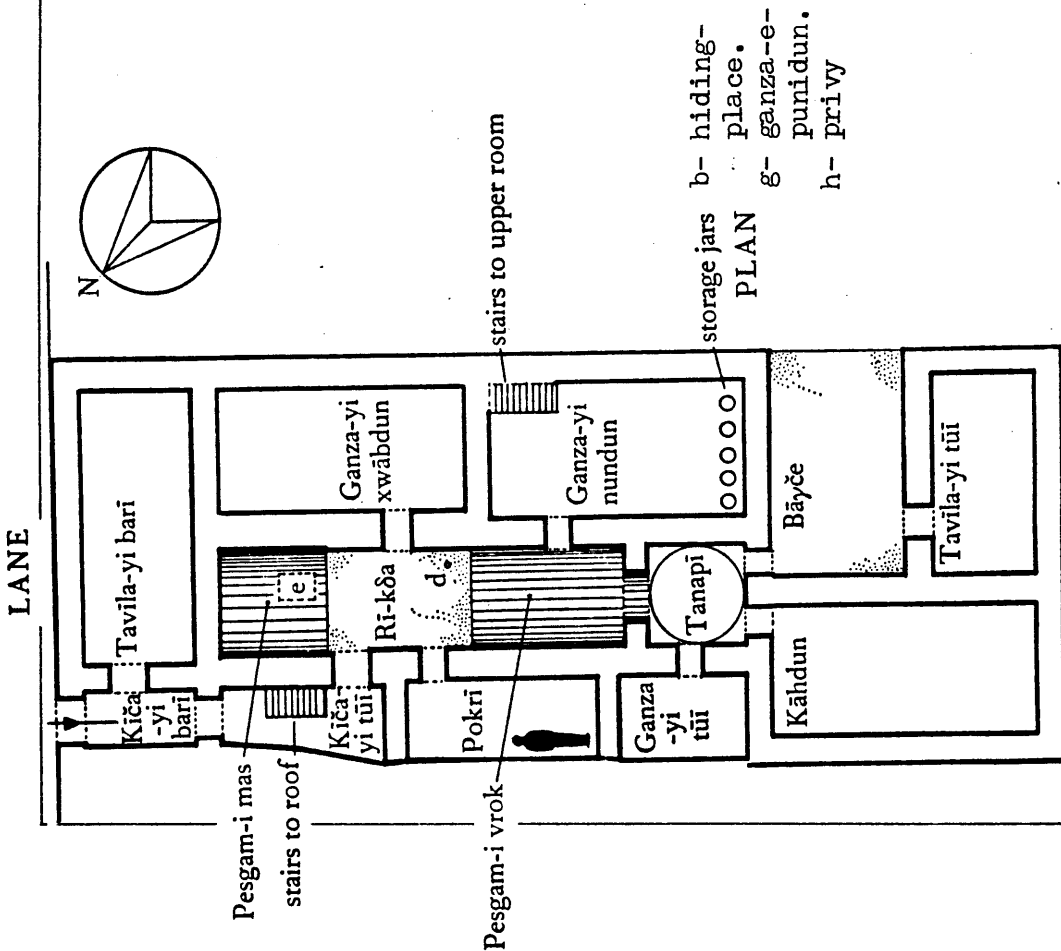
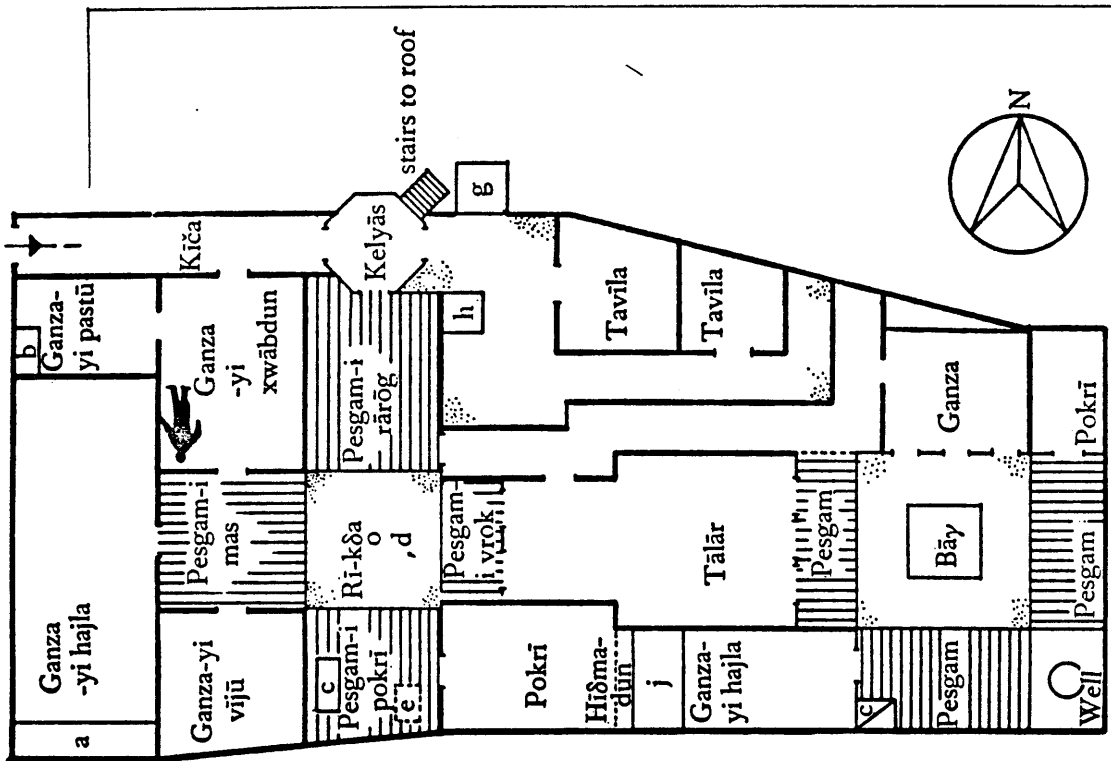


FIG. 6.08 ZOROASTRIAN HOUSES: YAZD, A) DO PEGSAMI, SHARIFABAD, B) DASTUR SHAHRIYAR NAMDAR, YAZD. note: the designs of the houses. source: BOYCE, M: 'Zoroastrian Houses of Yazd' in BOSWORTH, C.E. (ed) 1971, p.127

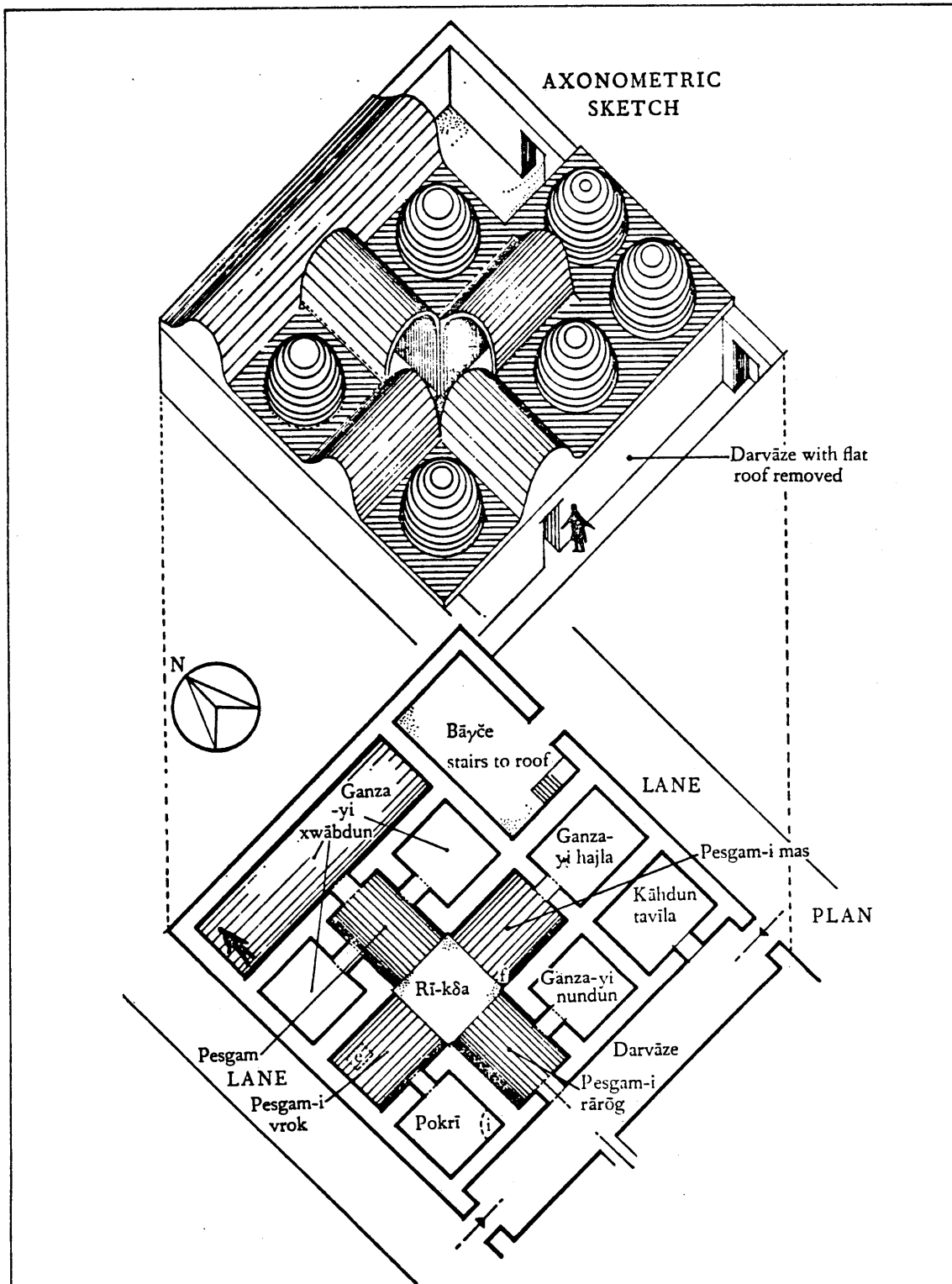


FIG. 6.09

A ZOROASTRIAN HOUSE IN YAZD: CHAHAR PESGAMI TYPE.
 note: the chahar (four) pesgams (vaulted areas)
 source: BOYCE, M: 'Zoroastrian Houses of Yazd' 1971:127.

The courtyard would generally be centrally located and was used mostly by women and children. In the larger houses there were a number of courtyards, one in the birun, one in the andarun, and one in the servants quarters. Courtyards, especially in the larger houses were often sheltered from direct view of people on the street and so was part of the harim.

The houses were designed in a way that direct view of the inside was not possible from the door or the street. The door was often inset in a curve in the wall, and there was another wall on the inside, in front of the door. It was common to have a high wall surrounding the property. This wall was used also in the more recent houses in Tehran.

A second aspect of translation of familial values into controls on built form related to the values of the Zoroastrian family and their response to pressures on them. Zoroastrians considered women during their menstrual cycle to be ritually impure, and so she was to be segregated from the rest of the family members. In the houses of Zoroastrians, there was a small room outside the house, accessed by a corridor called ganza-e-punidun, where she was to be confined during those days.

Zoroastrian houses were furnished with a prayer room with a sacred fire burning at all times. Adjacent to the courtyard, they had another room, mostly open which was used for ceremonies and for religious functions. This room was separate from the room with the fire, but had a small hearth in the floor where a fire could be lit if necessary.

At times, one social group controlled the quality of the building of another, through societal controls. Zoroastrian families in Islamic times were subjected to various kinds of social pressures and

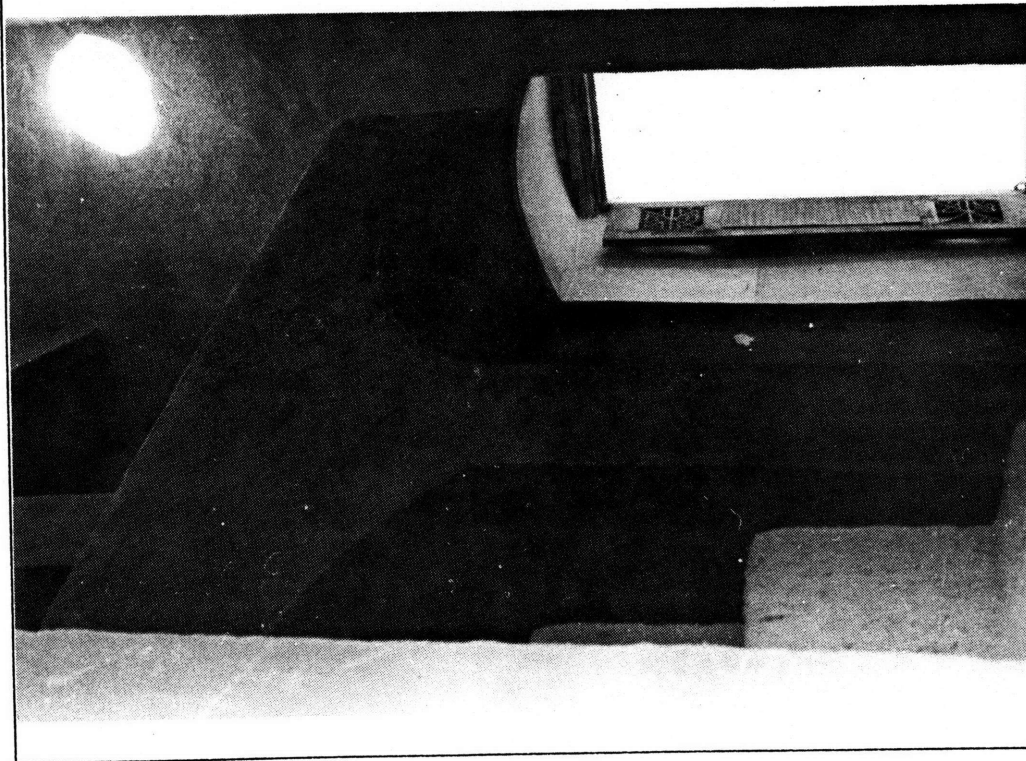


FIG. ZOROASTRIAN HOUSE: YAZD.
6.10 note: hide-away space, and storage,
source: Sanjoy Mazumdar.

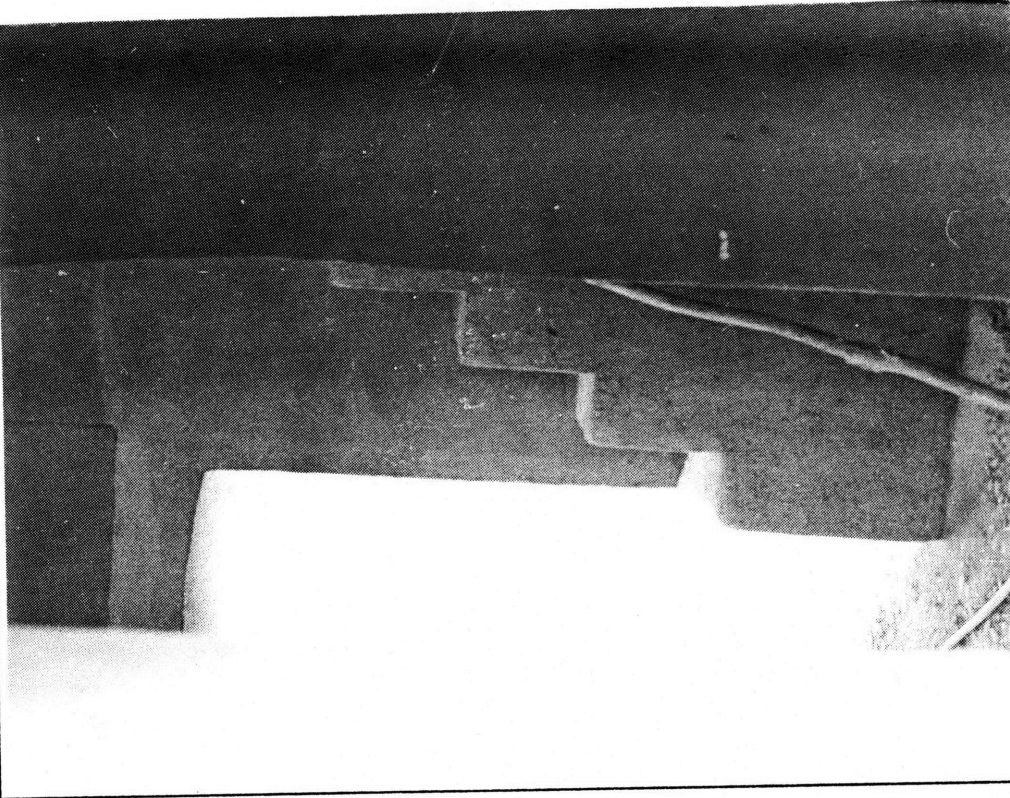


FIG. ZOROASTRIAN HOUSE: YAZD.
6.11 note: stairway up to storage, very
dark. source: Sanjoy Mazumdar.

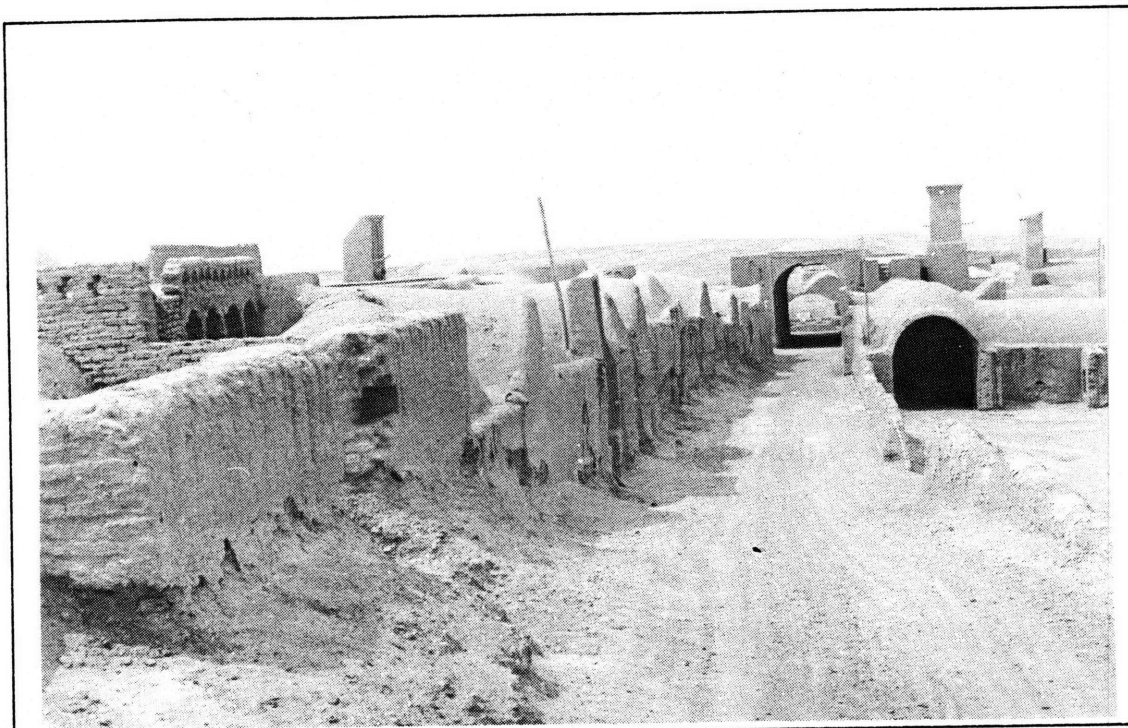


FIG. 6.12 PHOTOGRAPH OF MAZRA-E-KALANTAR. (ZOROASTRIAN TOWN)
 note: low heights.
 source: Sanjoy Mazumdar.



FIG. 6.13 PHOTOGRAPH OF YAZD. (ZOROASTRIAN QUARTER).
 note: low profile
 source: Sanjoy Mazumdar.

persecution by the Muslims. Some of these directly, and some indirectly controlled the ways in which the built form of the Zoroastrians could respond to these pressures. Many of these pressures went beyond the requirements and realm of Islamic Law, and were used by the Muslims to harass the non-believers. For example, while Islamic Law required only that the houses of the non-Muslims be lower than those of the Muslims, in Kerman and other places, the houses of the Zoroastrians were required by social pressures to be low enough such that a passing Muslim could touch the roof. This was clearly a case of over zealous imposition on the part of the Muslims and went beyond the requirements of the law. As a result, houses of Zoroastrians in Mazra-e-Kalantar averaged only 3.3 meters (10 feet) in height, in Yazd they were only 4 meters (12 feet) in height, and in Kerman they were similarly low in profile. (Fig.6.12)

By another social restriction, Zoroastrians were not allowed to have badgirs (wind catchers) in their houses. (The use of the badgir and its cooling effects will be discussed in a subsequent section.) In response to this restriction, Zoroastrian houses had a hoz khune or a pool room, which was a room with a pool of water in it. It was generally dark and had a double domed roof. It was generally the coolest room in the house.

Since Zoroastrian families had to undergo long periods of social persecution, their houses were designed such that they could withstand this oppression. To prevent vilification of their sacred fire, they had two fires. The consecrated fire was hidden away in the basement or in a well-concealed cavity in the wall. An unconsecrated fire was usually left burning in the open court or in other accessible locations. Attacking Muslims would generally desecrate the unconsecrated fire, being easier to locate, and the sacred fire would thus remain protected.

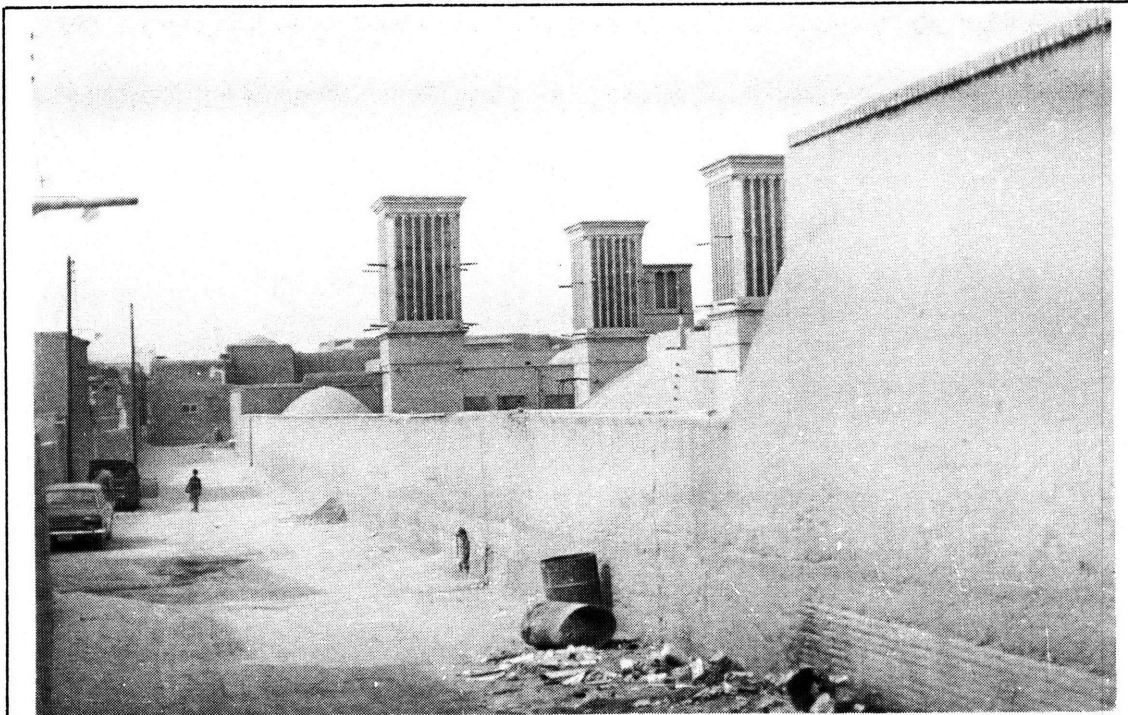


FIG. 6.14 BADGIRS IN YAZD.
note: the different forms. this one above abambar.
source: Sanjoy Mazumdar.

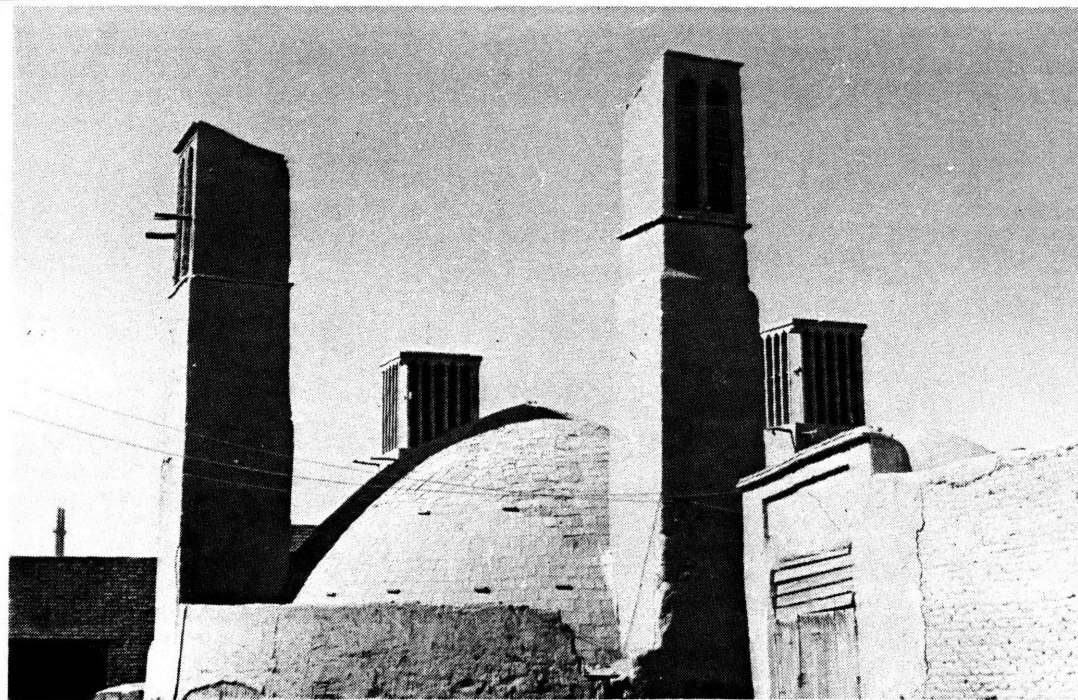


FIG. 6.15 BADGIRS OF YAZD.
note: the different shapes and the similarities in form .
source: Sanjoy Mazumdar.

Again, Zoroastrian houses in Yazd and Kerman were equipped with their own wells powered by blind folded cows or donkeys. Others had secret passageways leading to ganats to ensure water supply in times when access to regular sources was disallowed. Houses in Yazd also had secret compartments within the thickness of the wall, or a false roof, where flour, sugar and wine could be stored away. Secret compartments in dark rooms could conceal the family members in times of need. One house had space between the structural arch and false roof for hiding necessities.

In Iran, adaptation to familial structure, nature, needs and values were obviously quite instrumental in controlling the design and construction of the house. Familial values led to choice of specific designs which suited the needs and fulfilled the necessary constraints. The kinds of space required, the purpose of the space, and their design were strongly interrelated. Social pressures also formed strong societal controls, to which minority families had to respond.

3. SOCIETAL CONTROL OF ENVIRONMENTAL ADAPTATION

Societal control has also affected the choice of the ways in which humans have chosen to control the natural environment for their protection and comfort. Several elements have been particularly effective in this regard. Discussion on each of them follow.

Topographical Adaptation

Radical altering of pre-existing topographical features such as flattening of sharply undulating land was a technique not commonly used by Iranians. Instead, they chose to adapt their city and city form to existing topography. The forms of towns and cities built along hills were quite different from those on flat lands. While

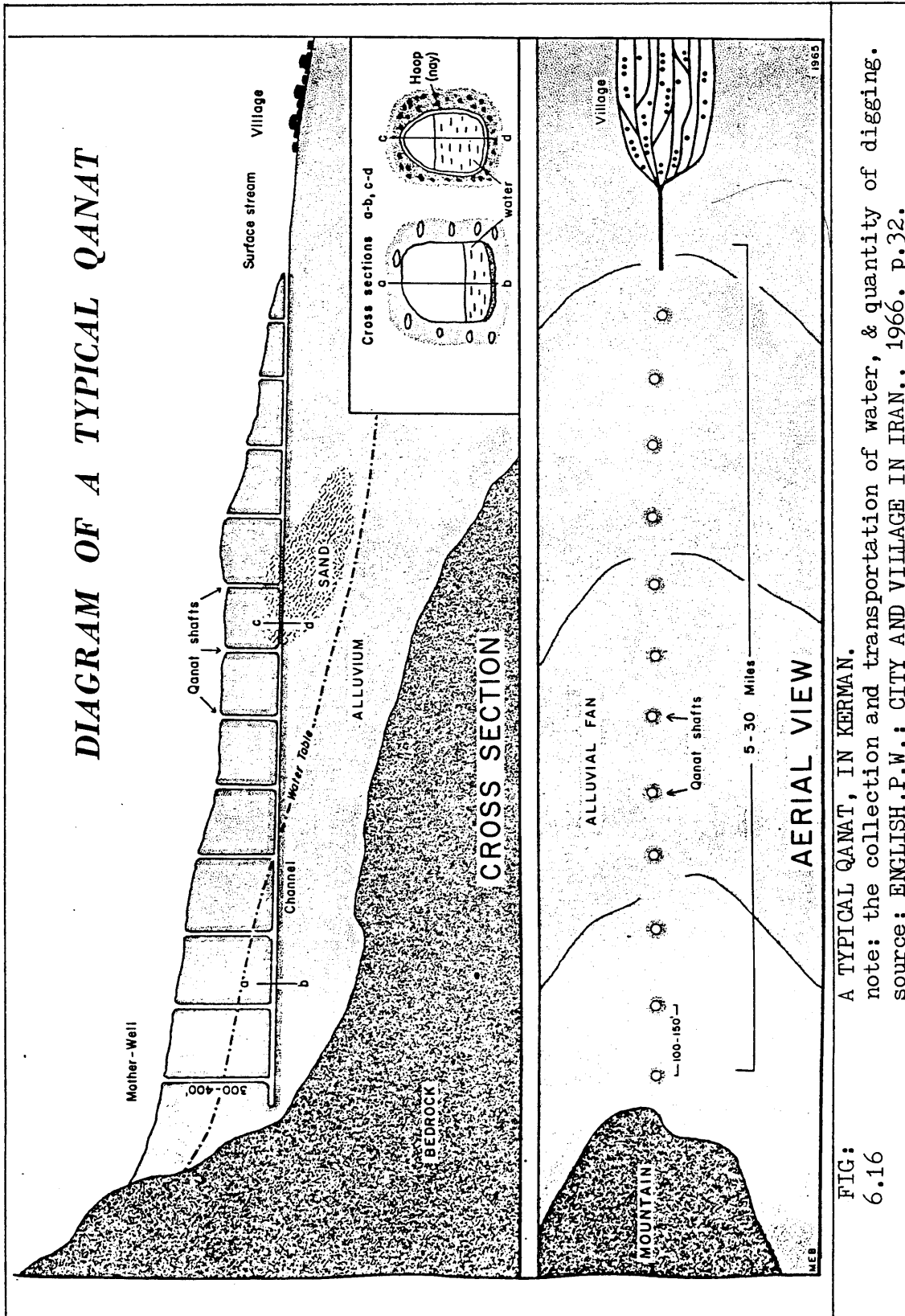


FIG: A TYPICAL QANAT, IN KERMAN.
 note: the collection and transportation of water, & quantity of digging.
 source: ENGLISH, P.W.: CITY AND VILLAGE IN IRAN.. 1966. p.32.

those on flat land were closely knit, compact and at times of geometric forms, those along hills did not have specific geometric forms. In most cases, the form was a response to the natural barrier.

Geographical Adaptation

Geographical features and their use have formed important controls. The necessity of water is universal. But the manner in which cities were located and supplied with water have been a matter of societal choice. Many ways have been found by societies for supplying cities with water one of which was the location of the city itself in proximity to the water source. Scholars have argued that this was the major locational criteria. However, in Iran, except for the Salt Desert area, cities were quite spread out and often located at places not close to any easily visible water source. Even considering available technology, cities could be supplied with water by means of canals, water channels, clay or terra cotta pipes, as in Mohenjo-Daro, aqueducts as in Rome, reservoirs, wells and the like. The methods chosen by Iranians for these cities were not necessarily restricted to the above technologies.

There were three methods preferred by Iranian society to deal with the problem of water. The first was of location close to a water source, as in the case of Isfahan. The second was the use of ganats, an ingenious system designed by the Iranians. It collected water from the mountain sources such as mountain streams or melting snows and transported it upto 40 to 50 kms. away, through underground channels.¹⁶ Yazd, Kerman and Tehran were served by an elaborate system of ganats. The ganats were probably the reason for the congregation of settlements close to foothills.

The ganats were credited to the time of Darius and are in use

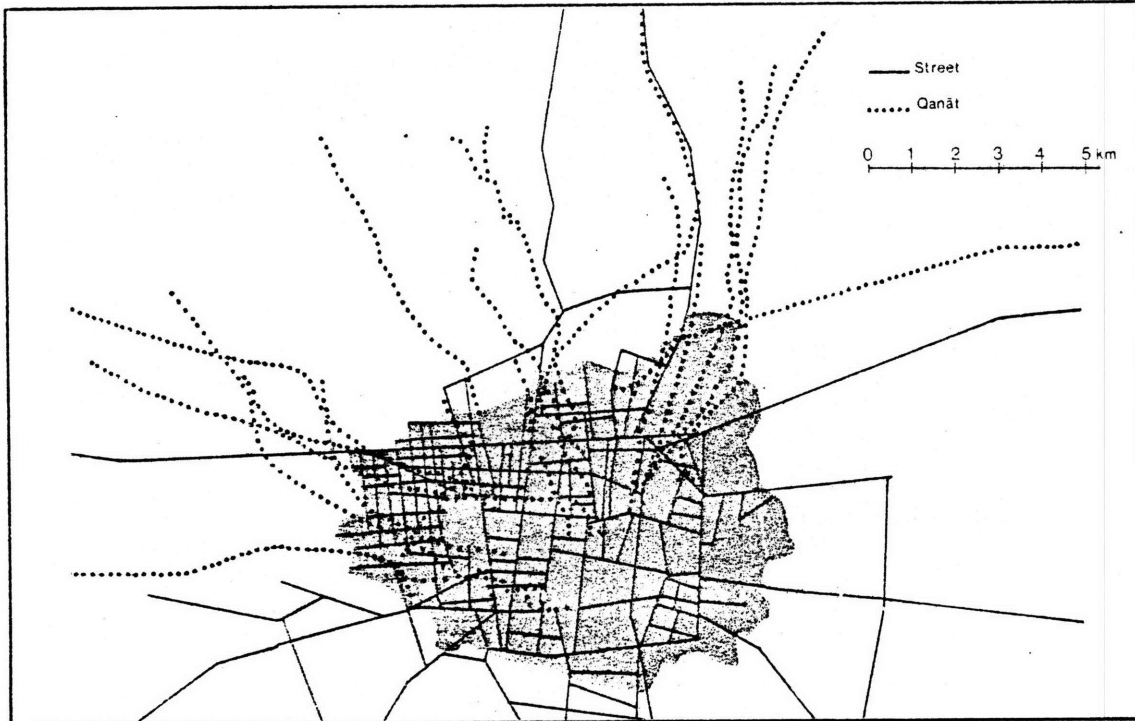


FIG. 6.17 CITY OF TEHRAN SUPPLIED WITH QANAT WATER.
source: Gaube, H: Iranian Cities.



FIG. 6.18 A JUB IN TEHRAN, CARRYING WATER.
source: Sanjoy Mazumdar.

even today, although no new ones are being constructed. The digging of the qanats particularly the tunnelling of the 40-50 km. long ones, involved high technology, tremendous organized effort and enormous private funds. A few were even named after their patrons. Thus the location of the qanat was decided not only by society, but by men of wealth within it, on whose patronage it was largely dependent.

A third feature used by Iranian society to transport water was the jub, which was an open water channel, generally running parallel and adjacent to streets. It performed the function of carrying water to different parts of the town. It was fed by surfacing qanats and at times by mountain streams and melting snows. This was the case in Tehran, where most major roads had jubs of different sizes, carrying water to the south. The jub was a feature used for centuries by Iranians in their towns and villages. Both qanat and jub were unique to Iranian cities.

Climatic Adaptation

Adaptation of built form to deal with climatic elements have also been societally controlled. Controlling the heat was a major consideration for the design of cities and buildings in Iran. Some of the techniques devised and adopted were uniquely Iranian, and have been universally adopted by Iranian society in general. This section will deal with those solutions which have become standardized or common.

Most Iranian cities, having to ameliorate conditions of severe heat, had their houses very densely located. In that way, there were many common walls between buildings and less surface exposed to the heat and the sun. The streets in most cases, had high blank walls abutting them, which cast shadows onto the streets. In addition, as was noted earlier, the streets were narrow, winding and serpentine.

Such curves had the additional effect of exposing only short sections to direct sun. These elements were true for Yazd, Kerman, Isfahan and Tehran and it appears to have been a societal phenomenon.

Buildings often made use of curves and curved surfaces. Curved surfaces remain at least partially in the shade, and partially in the shadow. The arch, vault and the dome were profusely used and were successful in keeping the building cool, as in Yazd and Kerman.

(Fig. 6.19)

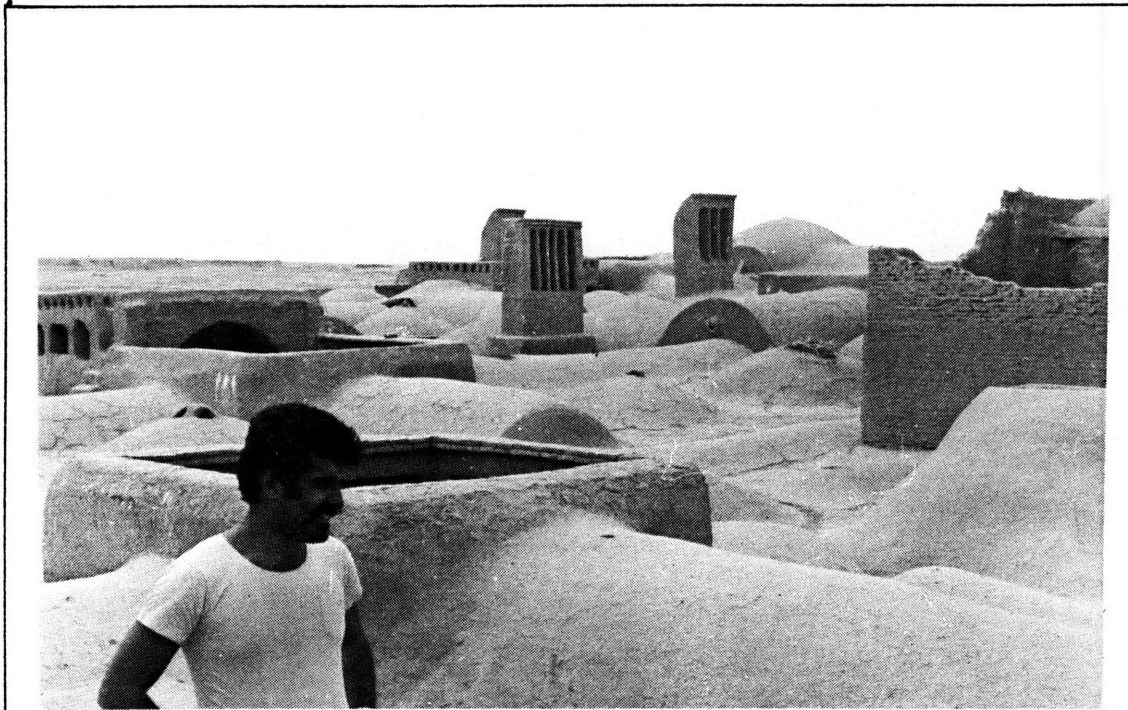


FIG.
6.19

PHOTOGRAPH OF MAZRA-E-KALANTAR ON ROOF TOP.
note: the curved forms .
source: Sanjoy Mazumdar.

Another technique which assisted in keeping the buildings cool was the use of heavy thermal-mass walls. In cities like Yazd and Kerman, the walls were of mud and were of heavy cross section. As a result, there was quite a time lag in the transmission of heat. The inside of the houses were cool during the day and radiated heat

at night when the family slept outside on the roof.

Winds being very hot had to be regulated. Many houses in Yazd and surrounding areas had wind catchers or badgirs which effectively cooled the room by 10° - 15° C. These generally extended a storey or two above the top of the building. They were constructed of brick and mud, essentially to catch whatever little breeze and using the Venturi effect, to cool it by passing it through small openings through the rooms. Rich people, who had a qanat or other water source below their houses, had badgirs designed such that the wind was drawn in, passed over the water before entering the rooms. The wind as well as the water were thus cooled due to evaporative cooling. The surprising element of societal control of badgirs was that those built in Iran were all remarkably similar in form, but quite different from those in use in India and Pakistan. (Fig. 6.20)

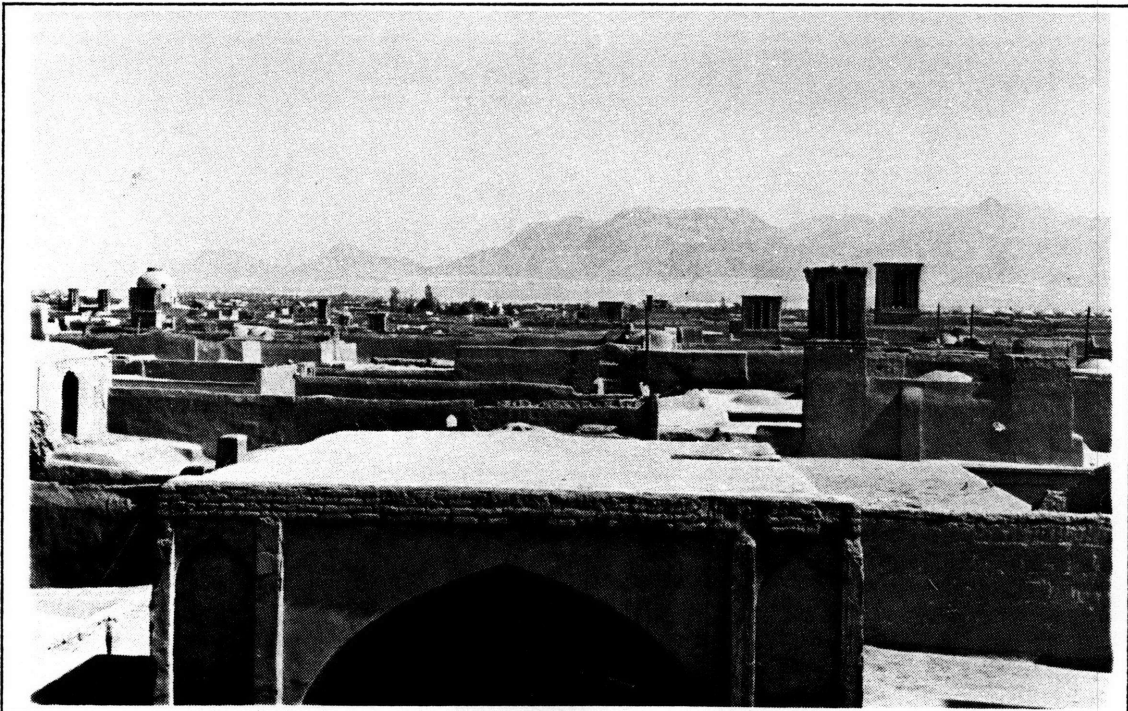


FIG. PHOTOGRAPH OF ROOFS OF YAZD.
6.20 note: the badgirs protruding above the general profile.
source: Sanjoy Mazumdar.

Besides heat, summer was a time of intense sunlight. Rooms in traditional houses had very small windows. As a result, they were dark inside and also very cool and humid because they effectively barred the rays of the sun from coming into the rooms. Direction was important in this regard. Living and bedrooms were often located to the south. Light control of this nature was restricted to Iran and few other Middle Eastern and North African countries. The manner in which light was brought in varied. In Yazd and Mazra-e-Kalantar there were small openings at the tops of domes and many rooms did not have any windows. Since entry to some of the rooms were through others, doors did not lead directly into sunlit space. It should be noted however, that the above techniques were generally used, although various solutions to the problem of intense light could have been possible, an indication of societal control of choice. Houses were planned with courtyards in the center; in terms of climatic adaptation, this served as an exit for the hot air from inside the house. And since for the creation of a good draft, it is better to have the exit for the air be larger than the entrance, the courtyard served to create a good draft in the houses with badgirs. The courtyard was also an enclosed space which remained partially in shade for most part of the day, where people could sit out. Landscaping, addition of water bodies, and planting in the courtyard also assisted in keeping the effective temperature down through evaporative cooling.

Another climate adaptation strategy, to keep houses cool, was the use of the zir-zamin or basement. Houses in hot areas often had a zir-zamin where the family could retire during the day. It was often the coolest part of the house. In the houses of the rich the zir-zamin was located close to the water source, was therefore humid, and was then cooled further by breeze from the badgir. The rooms were extremely cool, pleasant and dark during the day.

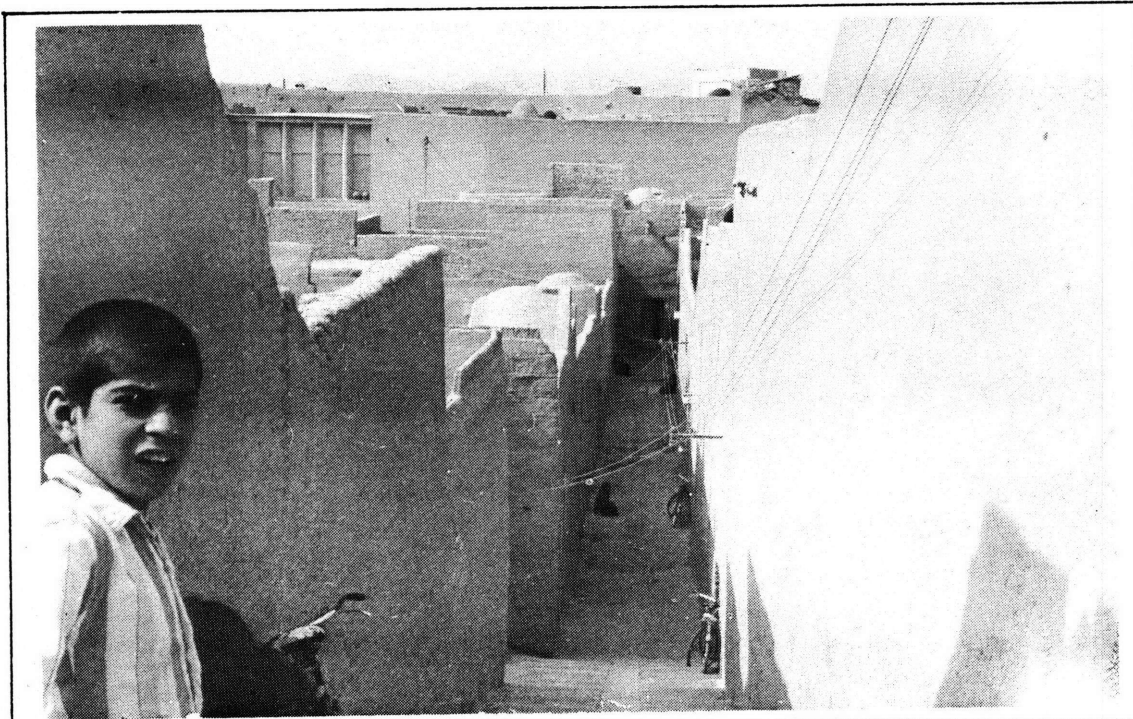
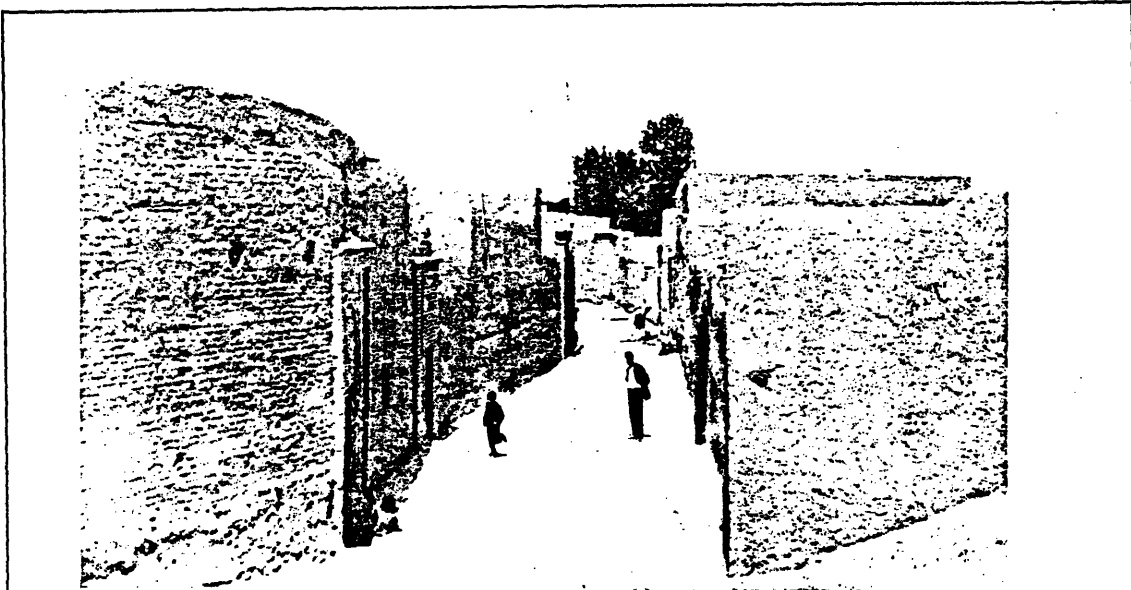


FIG. 6.21 A STREET IN YAZD.
note; use of street by women
source: Sanjoy Mazumdar



FIG. 6.22 MODERN STREET IN TEHRAN (PAHLAVI AVENUE).
note; use of the street.
source: Sanjoy Mazumdar.



DAGRADI, Piero: Due Capittali Nella Steppa: Ankara e Tehran, in Revista Geografica Italiana, 70, 1963: 276.

FIG.
6.23

TEHRAN: AN OLD STREET AND HOUSES.
note: the crooked street, the high walls, heights.
source: DAGRADI, P: in Geografica Italiana R. 70.1963.



FIG.
6.24

TEHRAN: A TYPICAL STREET IN LATER TIMES.
NOTE: different materials, gutter in center.
source: BOBEK, H, 'Tehran', op cit.

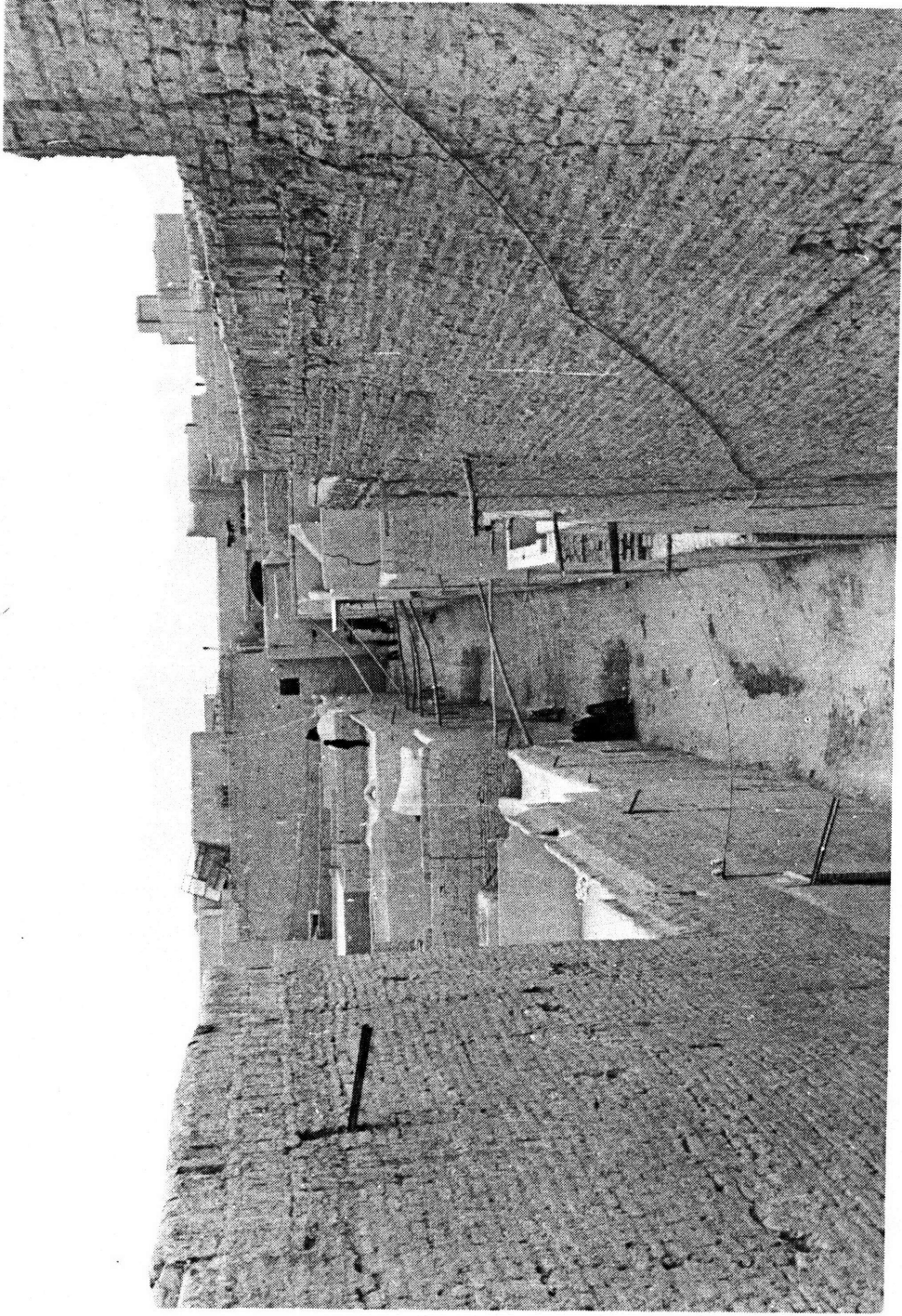
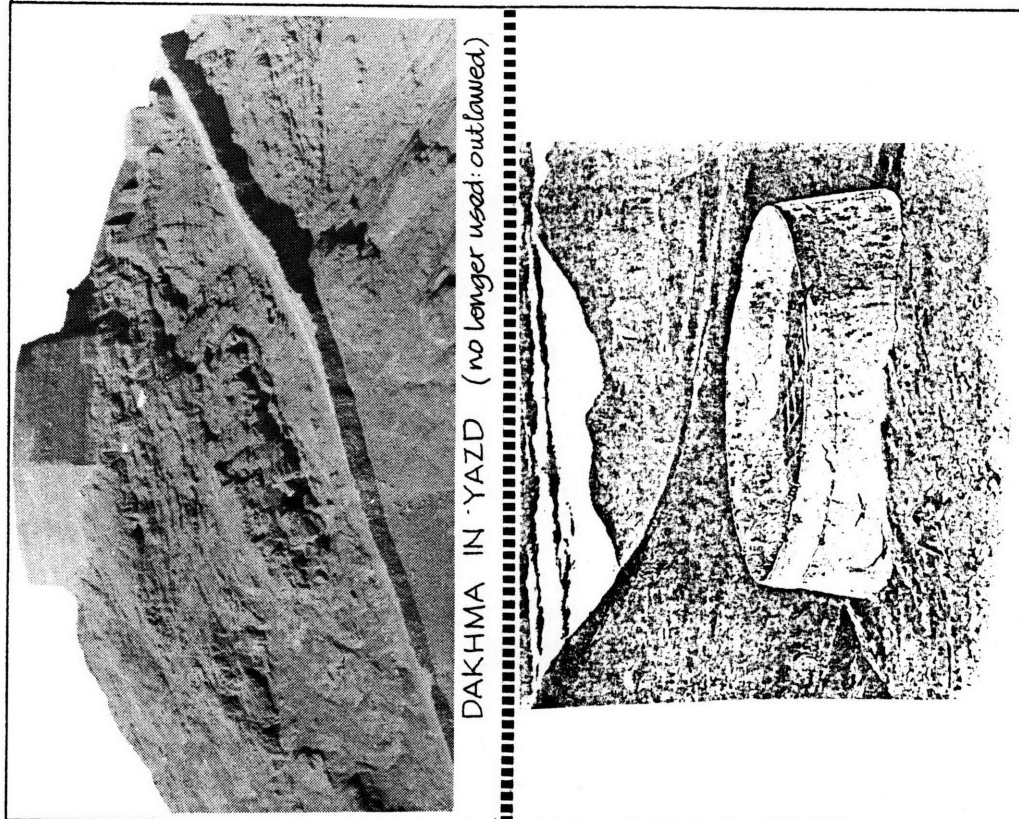


FIG. 6. 25 YAZD: A STREET SCENE, a typical one in Yazd.
note: the streets are used by women to sit out and chat, also see materials
source: Sanjoy Mazumdar.



DAKHMA IN YAZD (no longer used: outlawed.)

PANDE GRIFFERS, NEAR TEHRAN.

A DAKHMA IN TEHRAN.

source: BENJAMIN, S.G.W.

FIG. 6.27

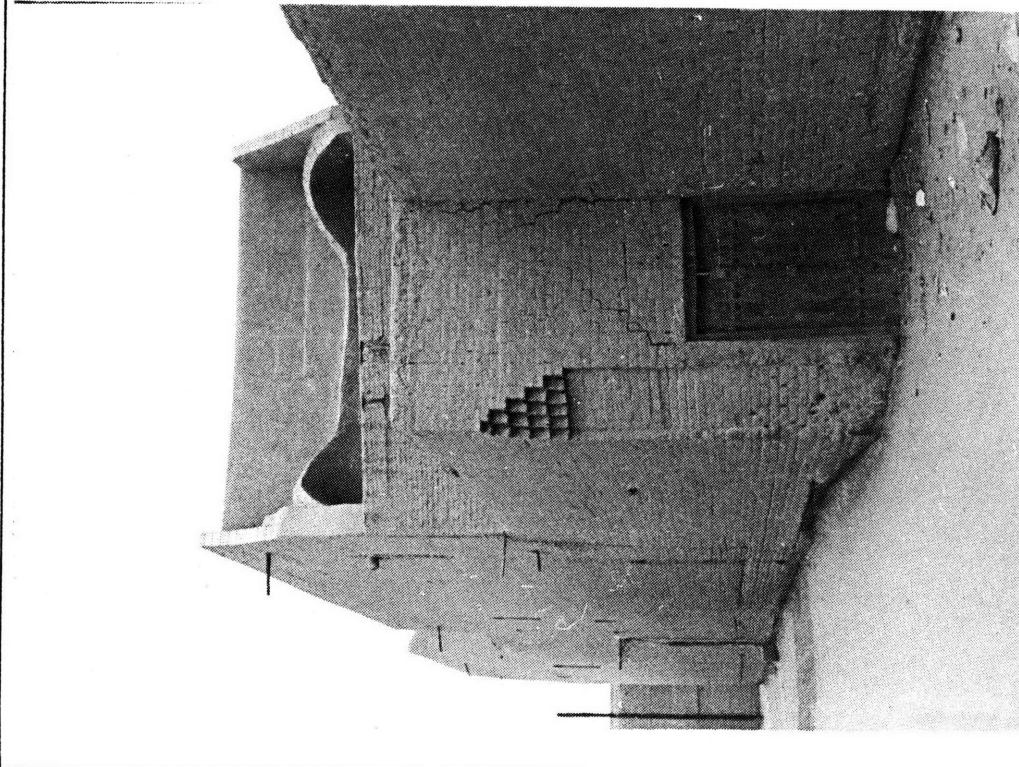


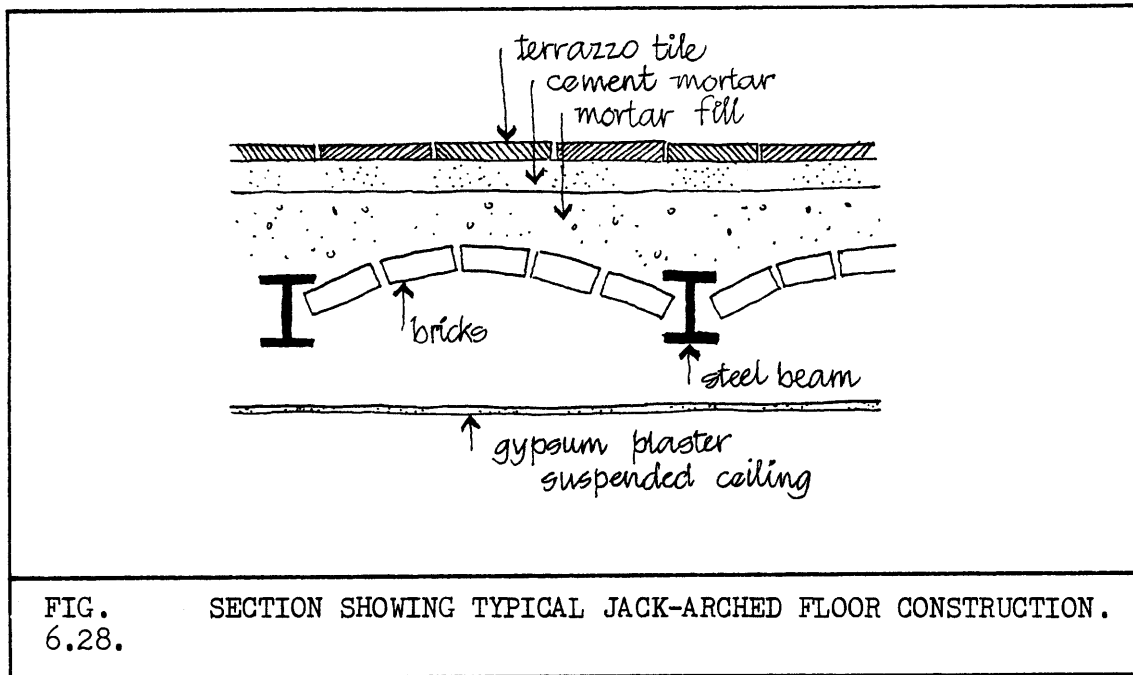
FIG. 6.26

HOUSE IN YAZD.
note: use of mud brick, gatch plaster
source: Sanjoy Mazumdar.

In the cooler regions of Iran, the kind of house design adopted by the Iranians was different. The climate was more temperate, in places such as Isfahan and the houses were not required to be as cool. But the compact nature of the houses in the city were not very different from those in the hot, dry areas, indicative of the societal preference for those forms. The buildings were different to the extent that they lacked domed roofs, and were little more angular in form. Bricks were used in building along with gatch plaster (of mud and straw). Vaults and domes were less common in Isfahan's residential sectors, than those of Yazd, Kerman and Tehran. Flat roofs for domestic buildings was much more common.

The above account indicates that societal values played an important role in the choice of the technology and also kept the choice remarkably consistent until almost the 1925's -1930's. Many different possibilities could have been chosen to serve the same needs of climatic adaptation as has been mentioned. For instance, in the old city of Tehran, most houses had thick mud walls with gatch plaster.¹⁷ This seems to have been the socially accepted norm, as a majority of the houses had used this material and had utilized similar architectural elements. The use of stone walls, for instance, was not common in Iranian cities. Later, residential buildings became more angular as they used exposed brickwork. In the late 1960's and early 1970's most new residential construction used bricks, with steel columns and beams, with brick walls face with polished travertine, a stone available in Iran. Inside they had jack-arched floor constructions with terrazzo-tile flooring. (Fig. 6.28.). Remarkably enough, most new buildings had their facade of polished travertine stone, and most used white or light colored travertine. Office buildings, meanwhile, were mostly of exposed concrete and glass. This change of materials through time was more a result of a slow change in societal values rather than new technology. In the adaptation of space, and choice of form as indicated in the earlier sections of this

chapter, societal control has played an important role.



FOOTNOTES.

1. They drifted apart in the third millenium B.C. See:
BOYCE, M. Zoroastrians: Their Religious Beliefs and Practices.
London, Routledge and Kegan Paul. 1979. p.2.
2. It seems unlikely that this was correct as it eventually makes two classes, the nobility and the others.
3. This made it strikingly similar to the Hindu caste system.
4. FRYE, R.N. Heritage of Persia.
Cleveland, The World Publishing Co. 1963. p. 50.
5. 'Pollution' is used here in the Zoroastrian sense. There were more than 1000 ways in which one could get 'polluted.'
6. PLANHOL, X.De The World of Islam.
Ithaca, Cornell University Press.
1957. p. 17.
7. SINGER, C. Half the World is Isfahan. 1933.
This was true until the time of Reza Khan who eventually opened up the mosques to visitors.
8. FIROOZI, F. "Tehran: A Demographic and Economic Analysis."
In Middle Eastern Studies, January 1974,
Vol: 10:1. pp. 60-76.
9. Now Rouz celebrations was another feature which was assimilated by Islam and is continued even today. Along with Now Rouz came the Zoroastrian clalendar. Many other societal values continued. The distinction between beh-din (good creed) and bad-din (bad creed) of the Zoroastrians became a vital principle of Islamic society especially concerning the location and treatment of non-Muslims. The notion of accumulation of merit for the reading of the Holy Quran was an assimilation of merit for the reading of the Holy Vendidad. The significance awarded to the number 33 was another case of continuation of

of societal values.

10. In India, The Brahmins were supported through donations.
11. People now have such strong stereotypes about these elements being Islamic that they find it hard to believe that a mosque is not required to have these elements. Modern architects who use other forms are labelled as deviants. In similar note, a roomfull of Islamic scholars could not believe that an architect could have chosen to use a geodesic dome for a mosque in a North African country. The slide lecture was given at MIT in April 1980 by Renata Holod.
12. BLACK, D. The Behavior of Law.
New York, Academic Press. 1976.
13. SCHACHT, J. Introduction to Islamic Law.
London, Oxford University Press. 1964. p.163.
14. MEHDEVI, A.S. Persia Revisited.
New York, Knopf. 1964.
15. The studies by the Planners of Shahestan Pahlavi indicate that they intended to revive the birun-andarun separation but neglected to consider that the control which had set it off in the first place, had become transformed in time.
16. ENGLISH, P.W. "Qanats in Kirman" in his book, City and Village in Iran: Settlement and Economy in the Kerman Basin.
Madison, University of Wisconsin Press. 1960.
17. A modern straw plaster used commonly in Iran. See photographs of houses for examples.

Chapter 7

Conclusion

In conclusion, in this chapter, some specific, particular, and general statements can be made based on the above work. In addition, a few areas of further research will be outlined.

Specific Conclusions: The workings of autocratic control demonstrate that a few kinds of autocratic control such as the control of imposition required a great deal of military and coercive power, especially when it involved the forced movement of large numbers of people. The chapter also demonstrates surprisingly that, while a great deal of military power and political might were necessary, for the functioning of the other kinds of autocratic control there was no necessity to utilize or mobilize that power. Just the presence of the power was coercion enough. Some of the grandiose projects for self-glorification and demonstration were at times attempts by the autocrats to demonstrate their reserves of power and their ability. In fact, works for self-glorification seem to have been popular with many monarchs in Iran. Demonstrative intervention and modelling techniques have been common with the later Shahs. This was particularly true when there was a general perception that some other nation was more advanced or 'better' than their own. The controls of demonstration and self-glorification were implemented to exemplify to the subjects that 'they' could do equally, if not better, especially with the help of the autocrat, and of course boost their self-confidence through this process.¹ Reza Khan's efforts to associate himself with the glorious period of Iran's past was particularly poignant, in this regard. Another important point brought out by the chapter on Autocratic Control was the idea that a strictly centralized system was not essential to the functioning of autocratic control. To be

sure, a centralized system allowed for greater efficiency in the functioning of the control. But Mohammad Reza demonstrated that autocratic control could be just as effective with a large degree of decentralization. When the governmental system was more centralized, direct and creative intervention were popular techniques. With decentralization, oversight functions were more effectively used.

Administrative controls have been based on authority and representative power and not on military power. Among administrative controls, those exerted through professionalism were important. They show the effects of controls exerted by notion and models of 'professional good work and good conduct' by the administrators. Models developed by the professional played an important part in Tehran's form and development. This chapter also illustrates how professionals are affected by various kinds of technical information. The effects of the predictions of Tehran's population to 12 million by 1985 on the planners and administrators, and the consequent controls have been indicated. Effects of controls applied by administrators to achieve certain purposes, but having contrary effects have also been illustrated. For example, land around Tehran was 'sealed' to prevent unplanned expansion, while the planners thought of a way to alleviate the housing and transportation problems of Tehran. This produced contrary results. The 'sealing' resulted in a tremendous rise in prices of land within, which made it difficult and expensive to construct apartments, thus exacerbating the problem. This chapter also demonstrates how the planners often overlook the effects of societal values, and attempt to 'rationally' deal with the problems they identify.

Religious controls have been important in Iran. The kind of religious controls that led to the development of some of the characteristic features of the cities have been indirect religious controls. Religious beliefs have put values on behavior which

ultimately affected built form or locational choices. This chapter also illustrates some of the problems of stereotypes created by deterministic literature. The study of physical form for connections with religion, have deduced characteristic elements, and thus put inordinate stress on the physical forms without adequate consideration of the context. Thus, these studies could be misleading. The analysis in the chapter enhances and gives credence to the notion that physical forms when completely divorced from their controls, remain only physical objects.

The chapter on Societal Control illustrates that societal values could very effectively control built form. The fact that many of the norms and values have survived through time, through changes in religion, changes in government and monarchs, indicates very strongly that the values behind the controls were societal in nature. Societal values have been affected and influenced by the nature of family values and relationships, and the manner in which society dealt with natural problems. The link between values and physical form is shown to be very close in this section.

Particularistic Conclusions: On a particular note, this work demonstrated that for Iranian cities controls such as autocratic, administrative, religious and societal have been extremely effective in shaping city form. Iranian cities display the effects of institutional controls very well. The institutions discussed have been strong institutions in Iran. For instance, the cities discussed, were very strong in their display of religious control. The monarchy, and associated autocratic controls, was a strong factor in the development of Tehran and the changes in its form. Royal patronage, at certain times was an effective control, as shown by the effects of withholding of the patronage.

On a general level it can be concluded that controls exist, are

devised by institutions, and control built form, distribution of space, and access to facilities of the city. The study demonstrates that controls constitute a very strong element in the eventual form and development of the city and gives credence to the idea that controls are devised by humans in collectives. It points out that city form is perhaps best thought of as an evolutionary process in time, and that while there can be some 'final stages' of the form at certain points in time, it is in essence a process which builds on the pre-existing form, changes, and comes anew; and this happens even when the perimeter form remains recognizably constant over periods of time. It also demonstrates that controls consider the norms and values of the collective, and thereby relate physical form to these collective norms.² One important conclusion of use to architects and planners, is that physical form largely cater to the values of the collective, and that physical form should be considered as an embodiment of, and a response to collective standards and desires.

Areas For Further Research: There are a number of areas which could gain from further research. One such area would be the question regarding the actions taken by the collectives or the institution to ensure conformance with their values and physical form. A second area for experimentation would be to explore the effects of the dynamic nature of the controls. This work treated them as static and independent. Effects of dynamic interaction between controls, and the final product would examine issues of power on a relative basis. For instance, the clashes for political power between the clergy and the Shahs was an important element. While the Shah controlled the state power, the clergy controlled the 98 % Muslim population and also the enormously endowed waqf, mosques and associated sermons, madrassas and makhtabs. The Islamic clergy used the Friday sermon time to comment on the state and misuse of state power by the Shah in order to arouse public sentiment for themselves and against the Shah. The clergy also used their close relationship with the

bazaaris to arouse opposition to policies they disliked. They were instrumental in the Tobacco movement, and the constitutional movement of Iran. Also they could use waqf funds to build schools and educate children in the 'Islamic way'. The Shah, Reza Khan, attempted to demolish the clergy's power base, without enraging the public. A western school system was instituted much to the dismay of the clergy. The Islamic schools lost pupils and remained only as schools for religious teaching. Attempts were made by Reza Khan and Mohammad Reza to isolate mosques physically, from the neighborhoods. The areas around some mosques were cleared. It was claimed that this was for easier access for troops, as mosques were a refuge for people seeking protection against the state or the law. Many other similar examples of controls adopted on physical form, due to dynamics between institutions, could be found.

A third area would be to explore the notion of membership of the collectives and the results of shared, and overlapping membership, and the effects on controls. A fourth area would be to explore notions of distribution of power within collectives, a study of the power-elite within the collectives. And finally, a fifth area would be to explore ideas of transferability of the concept.

This work did not consider the issues of transferability. Hence no examples from the western world were used. Doubtless some will consider transferability of the concept. Some may find parallels between the notions discussed in the chapter on Autocratic Control with the process employed in other cities such as Washington.³ Others have commented on the similarities between the ideas in Administrative Control and the process in the city of Boston.⁴ But one needs to be cautioned against the use of controls without the use of the total concept. The major problem with the consideration of transferability of some controls alone or the resulting physical form is that it does not use the total concept. Architects and planners often tend

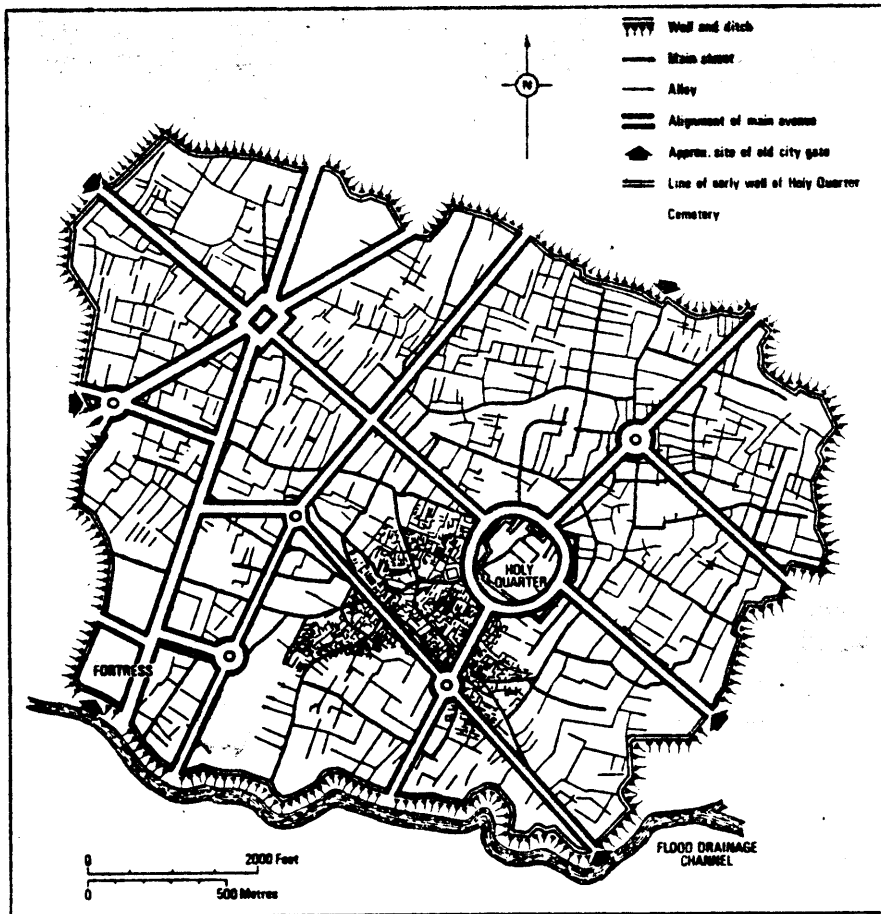


FIG.
7.01

MOSQUE: HOLY SHRINE OF IMAM REZA, MASHHAD.
note; demolition of neighborhood, and reconstruction
source; Beaumont et al: op cit.

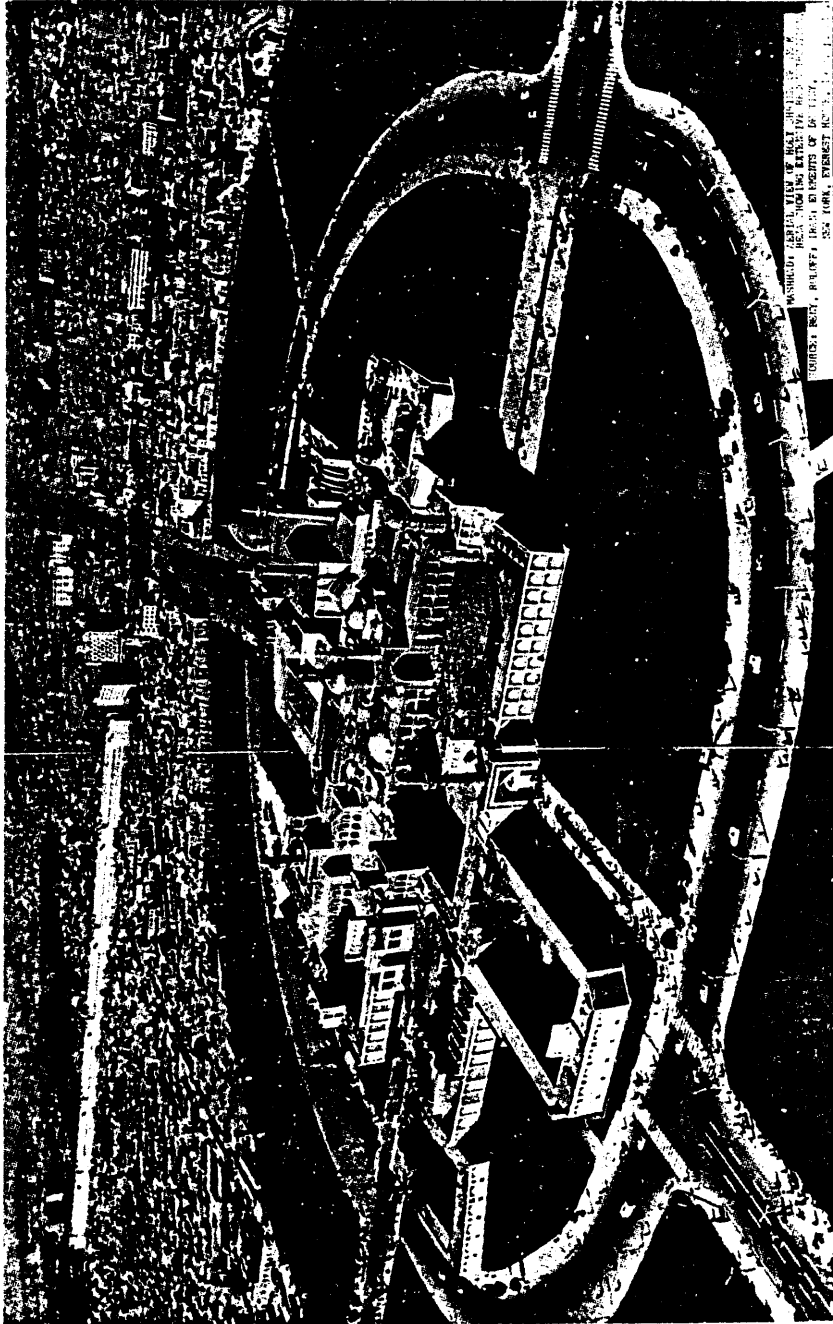


FIG. 7.02 MOSQUE IN MASHHAD. (THE HOLY SHRINE OF IMAM REZA)
note: the isolation from the community due to the avenue encircling it.
source: BENY, R: op cit.

to abstract out the forms or the controls and then use them as if they were the embodiment of the spirit of the control and the process therein. They also often tend to use physical forms, associated with certain controls, and hope that these will serve the 'new' society in similar manner as it did the old. Administrators and others have attempted to use belief-based controls or 'religious' forms. Reza Khan attempted to revive past glory and state of affairs by simply re-using and reviving Achaemenian forms. Present day Islamics are using religious controls of the past in an effort to make present society work and have similar values as the one in the past. The physical forms re-used, may create a few of the conditions of the built environment. But what is often missed out is that the forms may be lacking the controls and the associated collective values and structure which created the original controls in the first place. And if the developing structure and collective develops its own controls, these may conflict with the imposed control or form. Although humans are tremendously adaptable and may adapt themselves to the setting, the situation may also lead to restlessness, misuse or abuse of the controls and imposed forms. Such incongruence results in misfits and rejection of the provisions made by the planners and may result in modification, partial or total, and the obvious waste in resources. Examples of this physical planning are quite abundant as in the cases of Chandigarh, Brasilia and many public housing projects. The questions thus raised get at issues of unqualified transference.

The above questions do not withdraw from the study but on the other hand emphasize further that the concept of control would be useful in the understanding of the process, and that the context and values of human collectives are very important, in understanding built form and its use. This thesis attempted to demonstrate the importance of these points and their strong relationship with city form.

FOOTNOTES.

1. How true this is for developing nations and their leaders!
2. It demonstrates that city form can consider natural elements, other living beings when collective norms value these, as was the case with Zoroastrian values regarding the elements of fire, water, air and earth.
3. This parallel was drawn by L. Buckle.
4. This comparison was made by T. Lee.

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