

**ALASHTAR TOWN PLAN**  
**(1977 --- 1983)**

**Prepared by :**  
**The Prime Minister's Office**  
**Selseleh Integrated Development Project**  
**Centre for Endogenous Development Studies**  
**Architectural and Planning Group**

**October 1977**

## PREFACE

This Report is presented by the Architectural and Planning Group, Farroukh Afshar, Allan Cain, Mohammed-Reza Darai and John Norton, of the Centre for Endogenous Development Studies. The Town Plan for Alashtar has been prepared following the group's 2½ year's residence in Alashtar, contact and dialogue with the local population concerning local conditions, needs, wants and available resources. The aim has been to employ principles developed from indigenous Iranian town planning, and, where appropriate, the results of comparative research from other areas in the Middle East.

The valuable guidance of His Excellency, Majid Rahnema and useful dialogue with the planners of the Ministry of the Interior, the technical office of the Lorestan province, the Mayor and Town Council of Alashtar and the staff of the Centre for Endogenous Development Studies have been essential to the successful completion of the Town Plan. The staff and the front line workers of the Selseleh are thanked for their hard work in preparation and implementation of the surveys and research related to the Town Plan.

Thanks also to Ms. Valerie Terry for typing this report.

Selseleh Integrated Development Project  
Centre for Endogenous Development Studies

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# IRAN





-  LORESTAN PROVINCE
-  PROVINCIAL CENTRE
-  TOWN
-  ASPHALT ROADS

Fig. 1.1

## 1.0. LORESTAN

### 1.1. Socio-Economic History of the Region

Lorestan, within which the Selseleh region is situated, is a mountainous and remote province of western Iran. Its population of approximately 400,000 consist mainly of tribal agriculturalists and sheep and goat herding nomads. (Fig. 1.1).

Until the 1930's no sedentary villages existed in Lorestan. The Lors lived off agro pastoral activities and sold their animal products in the bazaars of the major towns (Borujerd and Khorramabad). Each tribe had a leader (Khan) who claimed leadership through heritage from his ancestors. In the socio-economic hierachy, the position below the Khan's family was occupied by a group who owned large herds and land. This group made up five per cent of the total population. Another five per cent (5%) were economically independent and owned sufficient land and sheep to ensure a satisfactory standard of living. The remaining population lacked either sufficient flocks or land or both to maintain economic independence and relied upon employment as farmers or shepherds for the upper group.

Early in the 1930's the government's sedentarisation policy was enforced and large numbers of nomads were made to settle on land traditionally known to be used by the tribe for grazing. This policy, however, did not ensure an equitable division of the land between the settled population and it was the most powerful lineages that, despite fierce competition, gained control of the best irrigated and most fertile land.

In the 1950's new roads linked the most remote villages to bazaars in the towns by a two day journey. This increased the contact with the persian plateau and brought a flow of consumer goods which helped to undermine tribal values and the nomadic life style.

During this period many other nomads settled voluntarily. This was partly due to death of sheep stock and partly for reasons of political and economic security.

Consequently, a novel socio-economic organisation evolved which still operates today. The "agro-pastoral combine" forms the basis of rural Lorestan's economy.

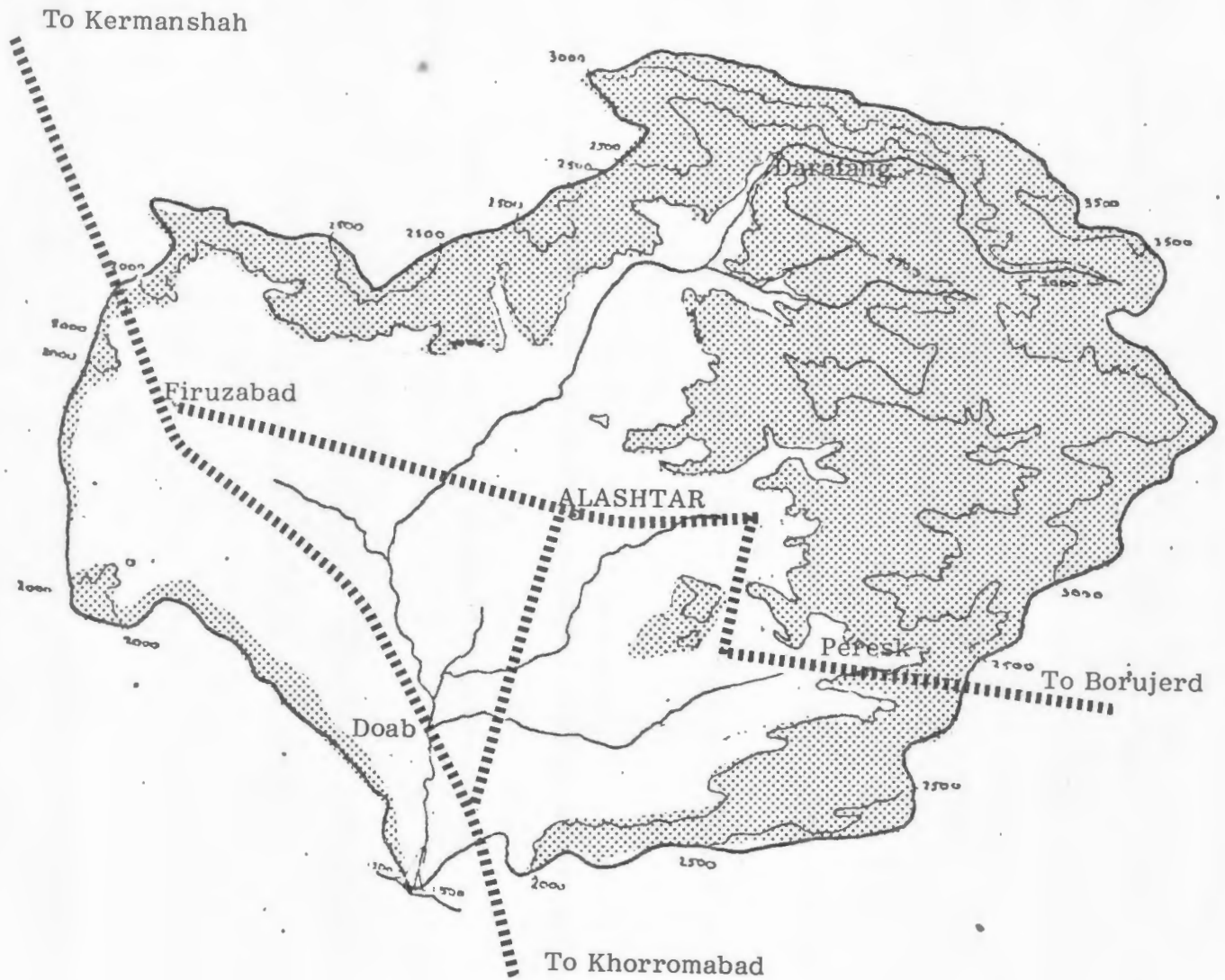
The head of the extended family, with the aid of some of his sons or brothers, farms the land which is normally sufficient to provide the families' annual consumption of wheat. At the same time, one or more of his sons, or close male relatives, are delegated to herding the sheep and carrying out the twice yearly migrations from the summer pastures in the north to winter grazing grounds in the south of Lorestan. This system is flexible and well suited to the needs of the population as members can be withdrawn from the nomadic camp to help with seasonal tasks in the sedentary side, and vice versa.

## 1.2 The Selseleh Region

This high basin, ringed by the Zagros mountains, is the field area of the first phase of the development project. It consists of a land area approximately 400 km<sup>2</sup> and contains a population of 40,000 scattered in about 250 villages. Most of this population are settled in the plains which also contain most of the fertile land in the region. The plains settlements are therefore predominantly agricultural, while the economy of the settlements in the three major valleys in the north and east of the plains is based on animal husbandry. However, as the majority do not own sufficient land or sheep or any other means of production, there exists in the region a large labour force that seasonally migrates to major cities in search of jobs. The villages are scattered and vary in population from settlements formed of one extended family, to major villages of about 1,000, such as Peresk and Firouzabad. (Figs. 1.2, 1.3, 1.4, 1.5)

Alashtar, the administrative centre of the Selseleh 'Division' (Bakhsh) is located 50 km. north of Khorramabad, the provincial capital of Lorestan. With the completion of the Alashtar-Borujerd road, this town will be along the shortest link between Borujerd and the city of Kermanshah. (Fig. 1.6)

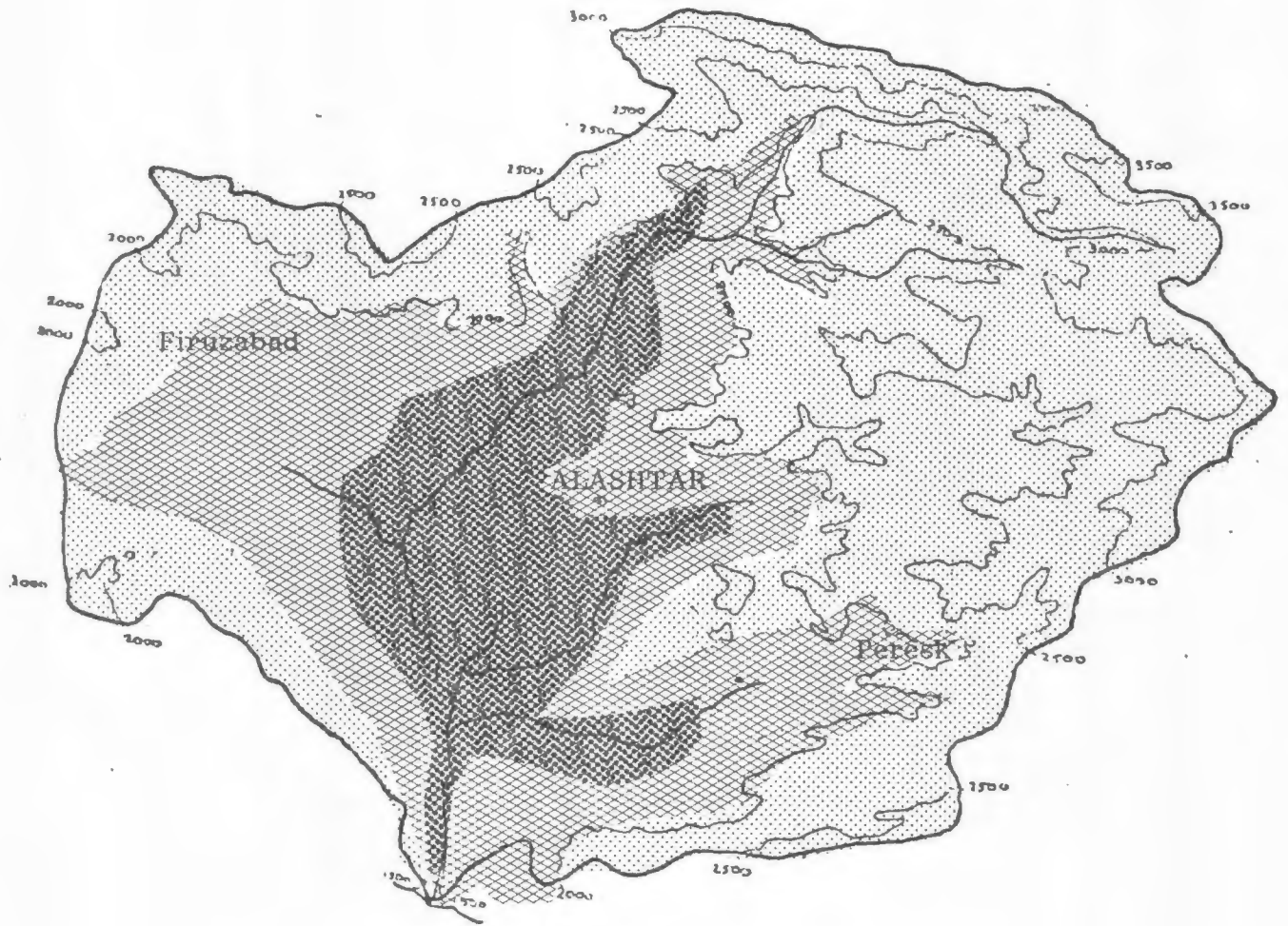
Within the Selseleh region, Alashtar acts as the market, administrative and services centre for the 40,000 population of the area. In addition, there are a number of nomadic tribes who pass through the region on their twice yearly migration, who could use the services offered within the town. Alashtar is already a rapidly growing town, facing the problems of transition from a rural to an urban settlement and it contains the major medical and only secondary education facilities in the region.



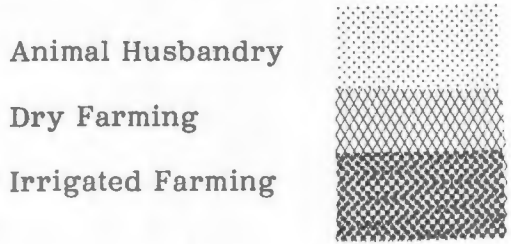
SELSELEH REGION

- Road      ■■■■■■
- River      ~~~~~
- Mountain    ▨▨▨▨
- Plain      □

Fig. 1.2

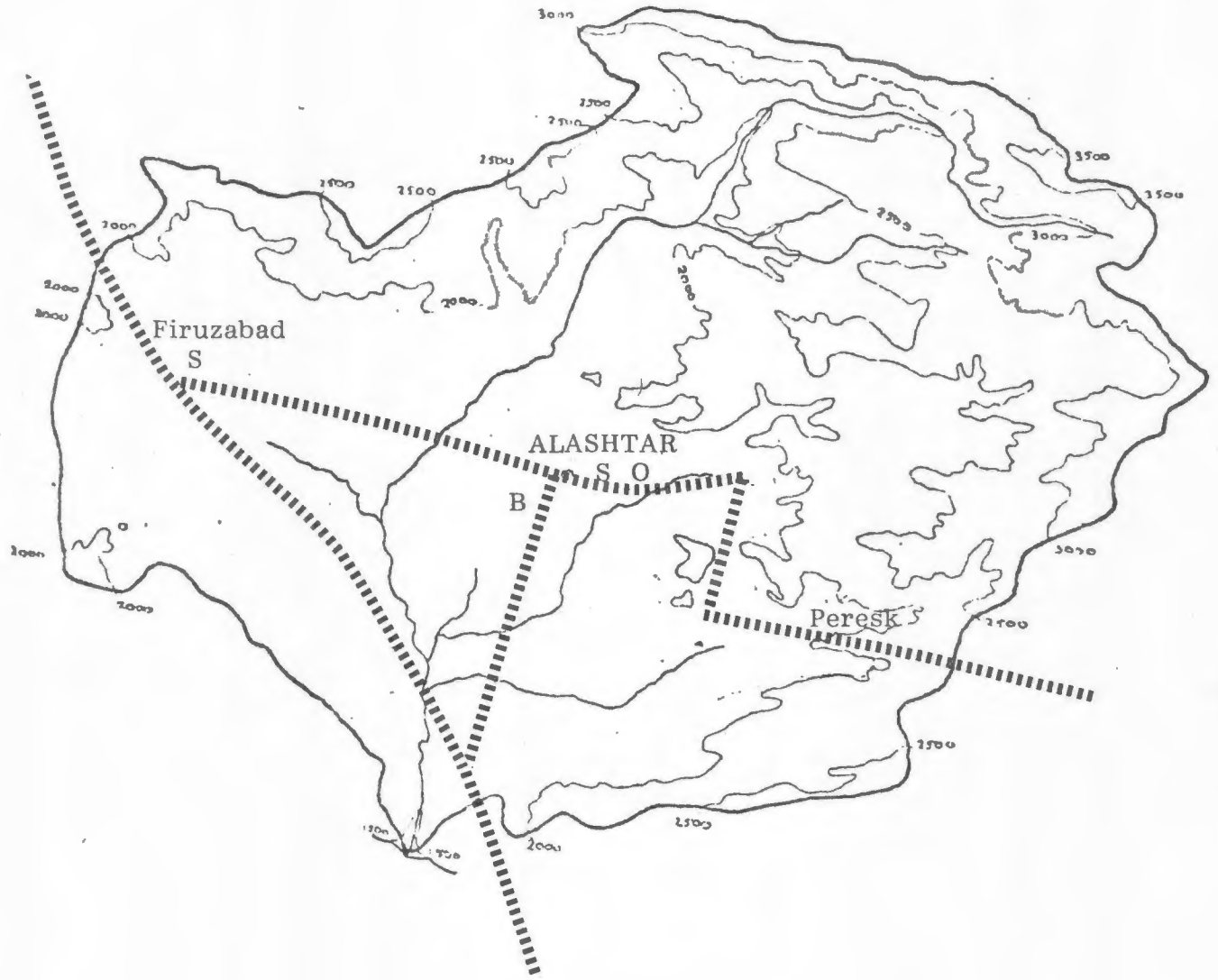


SELSEH ECONOMY : AGRICULTURE - PRIMARY ACTIVITIES



There are seasonal overlaps, e.g., goats on wheat stubble.

Fig. 1.3

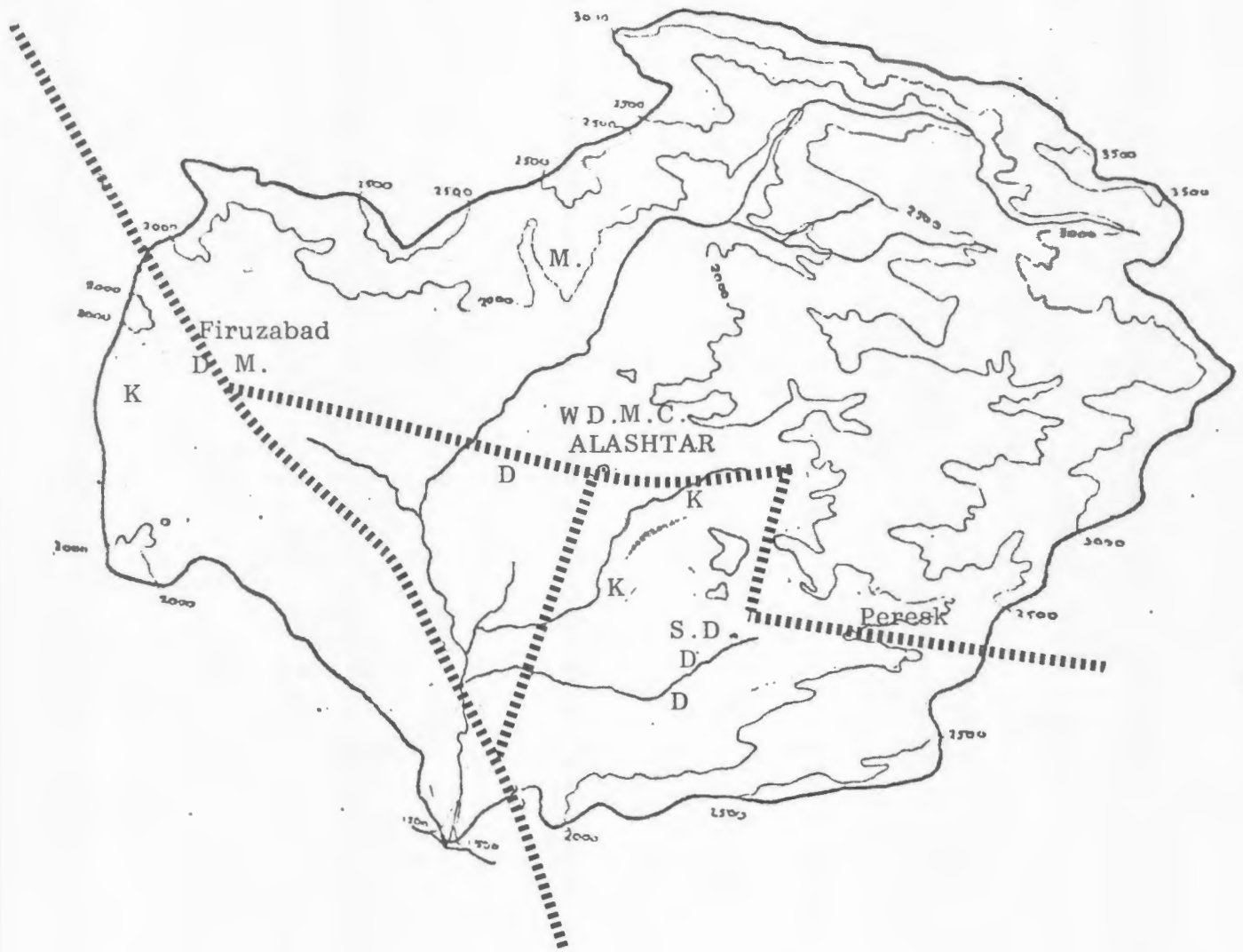


SELSELEH ECONOMY : COMMERCIAL CENTRES

- Shops S
- Offices - O
- Soya bean collection B

There are also co-operative stores in some of the villages

Fig. 1.4



SELSELEH ECONOMY : PRODUCTION AND PROCESSING

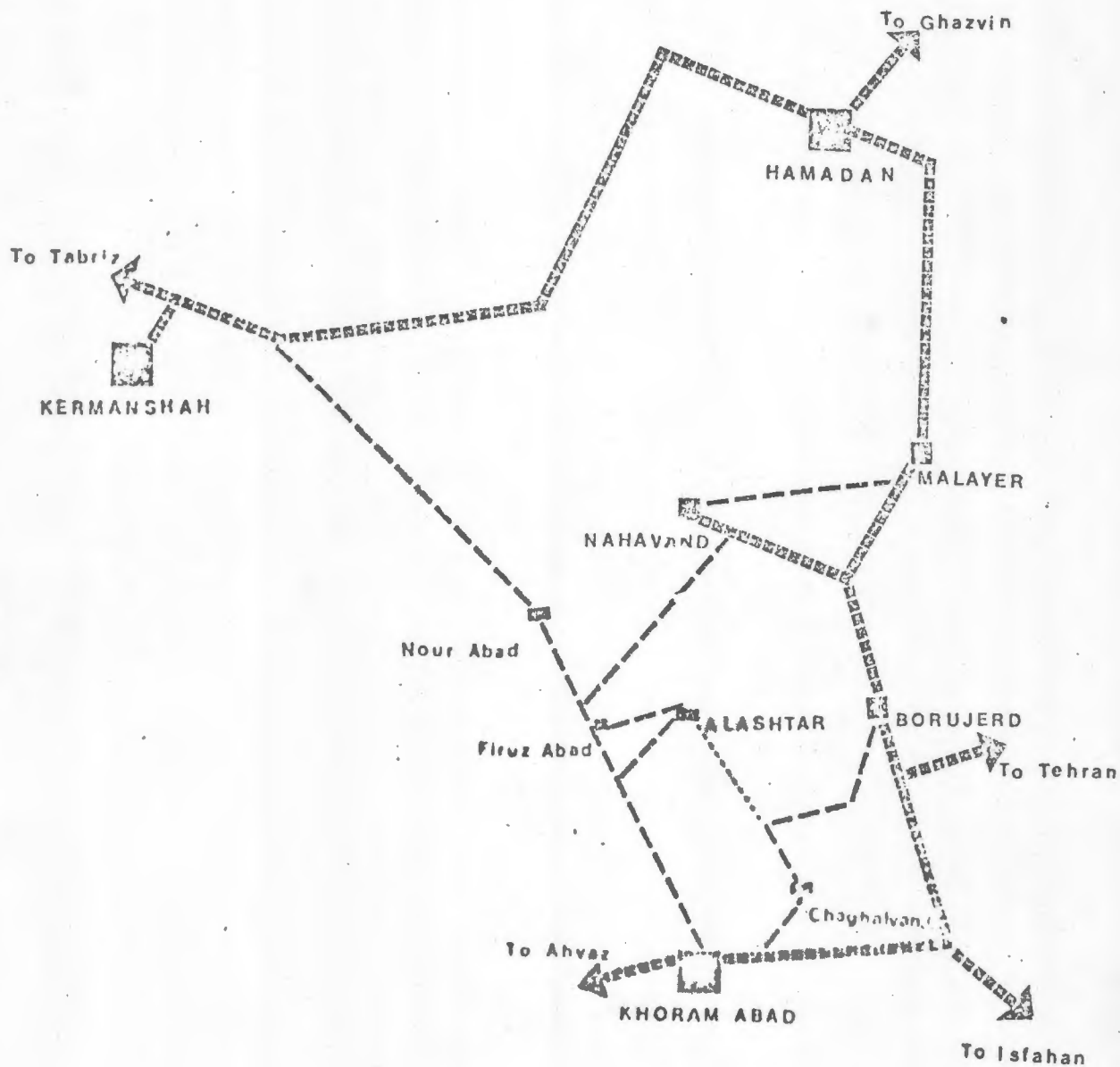
Kilns	K
Stone Quarrying	S
Wood workshops	W
Metal workshops	M
Mills	M
Spinning, weaving and dyeing etc..	D
Chicken farm	C

Weaving, tent making and reed screen making are widespread home industries.

Fig. 1.5

# The National Location of Alashtar

موقعیت ملی آلاشتار










مرکز استان		Provincial Capital
فرمانداری		County Seat (Farmandari)
بخشداری		"Division" Centre (Bakhshdari)
دهکده		Village
جاده های آسفالت اصلی		Main Asphalt Roads
جاده های شوسه		Gravelled Roads
جاده در دست اجرا		Road Under Construction

Fig. 1.6

## a) Meteorological Data

It must be noted that very little climatic data has been collected in the Alashtar region. Small meteorological stations have been set up recently in several villages to collect rainfall data and a larger station has been put at Alashtar to monitor wind, temperature, sunshine, humidity and rainfall. Unfortunately the apparatus has not been in regular operation and data has not always been collected systematically.

Reliable climatic information can only be obtained from the stations which have been operating in Khorramabad, Arak, Dezful and Kermanshah. Climatic data for Alashtar had to be extrapolated from these stations with consideration for differing latitudes and altitudes. This extrapolated information for air temperatures and relative humidities is presented in the accompanying table, along with base data averages taken from the urban stations mentioned above. (Figs.1.7, 1.8, 1.9)

## b) Micro-climate

The physical topography of the region has a strong influence on the local micro-climate. Alashtar is situated in a high basin surrounded by mountains. These mountains to some extent help to protect the Alashtar region from very strong winds and storms. Whereas most of the inhabitants of the region agree that the dominant prevailing wind is from the south-west, those villages located at the foot of the mountains or on slopes experience a diurnal changing pattern. Breezes in these villages are determined by the heating and cooling of the hillsides. During the day time, slopes which have a southern exposure heat up due to the sun's radiation.

A warm low pressure area is formed which draws cooler air up from the valley. This causes a morning up-slope breeze. In the evening cool air from a higher altitude descends down the mountain to replace the low pressure air which has collected in the warm valley basin. This results in an evening down-slope wind.

Lat. 33° 29' " : Long. 48° 28' " : Elevation 1160 meters :

years of Observation 1950 to 1971 : Koeppen Symbol :

Month of the Year	TEMPERATURE			PRECIPITATION			Rel. Hum			Other Data							
	Av. Max.	Av. Min.	Abs. Max.	Average	Total	Days > 1 mm	Days > 10 mm	Max. In a Day	03 GMT	09 GMT	AVERAGE	Sunshine	WIND	PREV. Max.	58-70 Frost	PRESSURE	
Jan.	11.8	0.8	24.0	-13.2	6.3	84.4		54.4	7.8	5.7	6.7	162.0	NW/7			9.8	884.1
Feb.	13.8	1.9	25.0	-14.4	7.8	65.7		53.4	7.6	5.4	6.5	184.3	NW/7			6.7	882.7
Mar.	17.5	5.4	31.0	-6.0	11.4	86.3		60.0	7.2	4.6	5.9	174.5	NW/10			1.4	881.7
Apr.	22.5	9.0	37.0	-7.0	15.7	87.1		51.6	7.2	4.2	5.7	201.6	NW/9				891.3
May	29.6	12.9	40.0	5.0	21.2	38.1		51.2	6.2	3.3	4.7	269.3	NW/8				881.2
June	36.2	15.2	45.0	9.7	26.2	0.6		3.5	4.6	2.1	3.3	350.3	NW/7				877.7
July	40.2	20.2	47.4	11.3	30.2	0.2		3.1	3.8	1.8	2.8	354.0	NW/6				874.2
Aug.	39.8	19.1	46.5	11.1	29.6	0.4		4.0	3.6	1.7	2.6	332.0	NW/7				872.6
Sep.	35.8	14.9	43.2	6.0	25.3	1.8		26.0	3.9	1.9	2.9	503.5	NW/6				872.7
Oct.	28.8	10.8	37.2	1.7	19.8	15.0		26.0	5.0	2.7	3.8	261.0	NW/10				883.9
Nov.	19.7	6.5	35.6	-4.0	13.1	66.4		48.2	6.8	4.4	5.6	190.5	NW/9				885.3
Dec.	13.6	2.6	23.0	-11.7	8.1	70.6		50.8	7.6	5.5	6.5	174.7	NW/11				884.9

### DEZFUL

Lat. 32° 24' " : Long. 48° 23' " : Elevation 143 meters :

years of Observation 1960 to 1971 : Koeppen Symbol :

Month of the Year	TEMPERATURE			PRECIPITATION			Rel. Hum			Other Data							
	Av. Max.	Av. Min.	Abs. Max.	Average	Total	Days > 1 mm	Days > 10 mm	Max. In a Day	03 GMT	09 GMT	AVERAGE	Sunshine	WIND	PREV. Max.	61-70 Frost	PRESSURE	
Jan.	18.1	5.8	28.0	-9.5	11.9	103.4		120.2	8.3	5.3	6.8	151.7				2.7	884.2
Feb.	20.5	7.7	28.2	-4.2	14.1	49.9		66.8	8.3	4.8	6.5	161.6				0.1	886.0
Mar.	27.6	11.3	34.2	1.0	17.9	30.2		65.0	7.3	3.6	5.4	166.6					898.2
Apr.	29.2	15.2	39.0	3.4	22.2	46.6		52.5	6.2	3.1	4.6	215.2					894.4
May	37.1	21.8	45.8	10.0	29.7	13.1		26.2	4.1	1.7	2.9	255.6					892.2
June	43.6	24.6	49.4	17.0	34.1	0.0		0.0	2.4	9	1.6	324.7					885.2
July	45.2	27.2	52.7	22.2	35.8	0.0		0.0	2.6	11	1.8	318.5					883.4
Aug.	44.4	26.5	47.4	20.6	35.7	0.0		0.1	2.7	13	2.0	312.2					883.2
Sep.	41.4	21.4	47.4	10.0	31.6	0.0		0.0	2.7	12	1.9	298.3					892.2
Oct.	34.9	17.3	42.6	8.4	26.1	6.3		26.5	4.0	2.0	3.0	239.2					898.1
Nov.	26.0	12.0	34.6	0.8	19.0	54.9		55.0	6.9	3.4	5.4	175.3					881.3
Dec.	19.6	6.7	28.4	-2.6	13.1	50.5		63.2	8.0	4.7	6.3	151.1					885.4

Lat. 34° 19' " ; Long. 47° 07' " ; Elevation 1322 meters ;  
 Years of Observation 1943 to 1971 ; Koeppen Symbol :

Month of the Year	TEMPERATURE					PRECIPITATION			Rel. Hum			Other Data					
	Av. Max.	Av. Min.	Abs. Max.	Abs. Min.	Average	Total	Days > 1 mm	Days > 10 mm	Max. In a Day	03 GMT	09 GMT	AVERAGE	Sunshine	WIND		58-70 Frost	PRESSURE
														Prev.	Max.		
						444.2											
Jan.	7.6	-3.4	19.6	-20.6	2.1	63.1			65.2	83	67	75	152.7	SE/9		24.8	85.7
Feb.	9.4	-2.8	21.2	-23.9	3.3	54.4			69.0	82	62	72	152.7	S/9		22.2	86.7
Mar.	14.2	1.1	26.6	-11.7	7.6	79.0			48.2	79	47	63	189.2	S/11		14.3	86.6
Apr.	19.1	4.8	31.7	-6.0	11.9	78.9			65.0	77	45	61	196.9	S/11		2.7	86.5
May	25.8	8.5	36.2	0.6	17.1	51.1			45.8	71	36	53	280.6	NW/7		-	86.4
June	33.1	11.7	43.1	2.0	22.4	1.1			8.2	46	19	32	343.3	W/9		-	86.3
Jul.	37.5	15.5	41.2	7.2	27.0	0.1			1.0	37	16	26	353.6	S/8		-	86.2
Aug.	36.8	15.5	42.8	8.4	26.1	0.3			3.0	36	15	25	335.0	W/9		-	86.1
Sep.	32.3	10.6	38.7	2.0	21.4	1.3			8.4	42	18	30	307.9	W/8		-	86.0
Oct.	25.6	6.2	34.2	-3.2	15.9	17.6			52.2	55	26	40	256.3	W/8		1.3	85.9
Nov.	16.6	2.1	26.1	-17.4	9.3	56.9			51.1	76	47	61	192.7	S/9		2.9	85.8
Dec.	9.9	-1.5	22.7	-17.0	4.2	54.1			53.1	83	62	72	168.4	SE/8		21.3	85.7

### ARAK

Lat. 34° 06' " ; Long. 49° 42' " ; Elevation 1754 meters ;  
 Years of Observation 1951 to 1971 ; Koeppen Symbol :

Month of the Year	TEMPERATURE					PRECIPITATION			Rel. Hum			Other Data					
	Av. Max.	Av. Min.	Abs. Max.	Abs. Min.	Average	Total	Days > 1 mm	Days > 10 mm	Max. In a Day	03 GMT	09 GMT	AVERAGE	Sunshine	WIND		58-70 Frost	PRESSURE
														Prev.	Max.		
Jan.	4.9	-5.0	17.5	-24.6	0.0	63.7			67.0	77	63	70	135.0	W/9		24.4	87.1
Feb.	8.0	-2.5	21.0	-26.0	2.7	43.5			38.7	74	56	65	180.7	W/9		17.8	87.3
Mar.	14.2	3.0	25.0	-10.5	8.6	48.6			48.0	66	40	53	194.4	W/9		7.6	87.1
Apr.	19.0	6.7	31.0	-7.0	12.8	69.7			63.0	63	37	50	220.2	W/7		1.1	87.2
May	26.1	11.5	37.0	2.5	18.8	28.4			33.2	57	26	41	281.2	W/10		-	87.3
June	32.5	15.3	40.0	4.0	23.9	1.8			13.6	41	19	30	356.5	W/7		-	87.1
Jul.	35.1	18.8	43.0	12.0	26.9	1.8			8.4	39	20	29	342.5	E/10		-	87.0
Aug.	34.4	17.2	41.5	10.0	25.8	1.0			8.0	38	18	28	324.7	E/6		-	87.1
Sep.	30.0	13.2	37.5	4.5	21.6	1.0			5.5	40	19	29	311.0	E/6		-	87.2
Oct.	23.1	7.9	31.0	-3.0	15.5	15.8			47.4	51	27	39	269.1	W/7		0.2	87.2
Nov.	13.9	2.4	24.0	-16.5	8.1	57.2			48.1	68	45	56	162.8	W/7		7.1	87.2
Dec.	7.8	-2.2	18.0	-17.0	2.8	38.3			40.3	73	56	64	146.6	W/8		22.1	87.3

Fig. 1.8

CLIMATIC DATA.

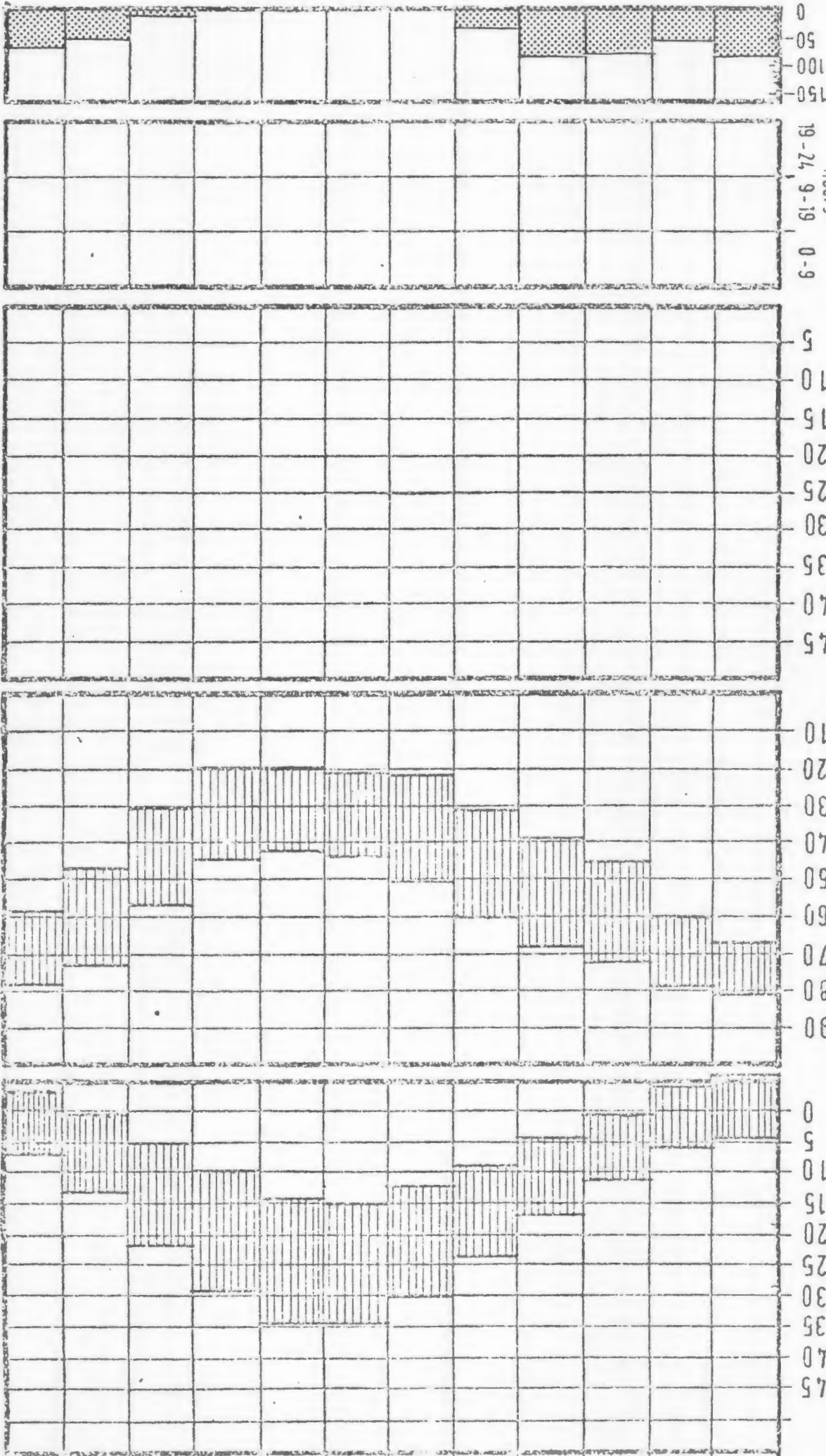
RAIN  
mm.

WIND  
Direction and  
Relative Velocity

EFFECTIVE TEMPERATURE °C

RELATIVE HUMIDITY %

AIR TEMPERATURE °C



## 2.0 Alashtar

### 2.1 The Growth of Alashtar

The three original villages within the present town area of Alashtar are examples of compact indigenous settlements. (Fig. 2.2) Ghalle Mozafari, the largest of the three villages, was built around a communal square onto which the castle of the tribal chief fronted. The settlement began to lose its cohesion when the following occurred. A number of public buildings were situated at a considerable distance from the village and began a linear expansion. (Fig. 2.3)

An official road plan which was partially implemented increased this linear movement and endangered the integrity of all three indigenous settlements by proposing wide roads cutting through the centre of these communities. (Fig. 2.4 ) Furthermore, the local population had been building along the proposed roads of this plan, and the unbuilt areas in-between the ribbons of housing were turned into rubbish pits and stagnant pools, which are a major threat to health. Therefore, the tendency of the town to sprawl has rendered it unsuitable for the two main forms of circulation present today - i.e. pedestrian and animal circulation. It has also caused the engulfing of large areas of fertile agricultural land, without utilising the full potential of these areas for urban development.

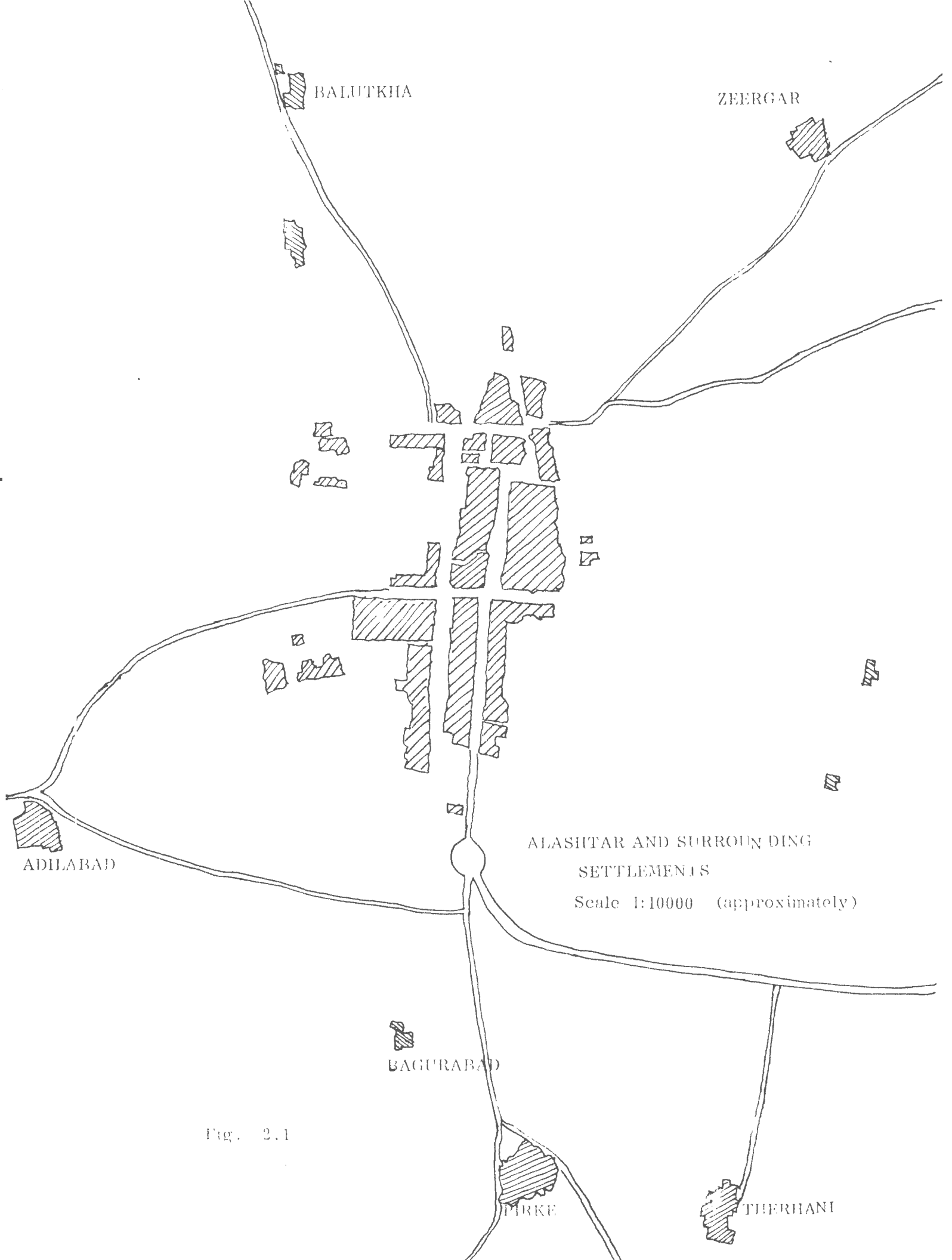


Fig. 2.1

Alashtar was the largest of a number of villages in the neighbourhood. It reflects the local pattern of compact concentric development around a common space. The fort of the local tribal chief was the centre of the village.

INDIGENOUS PATTERN

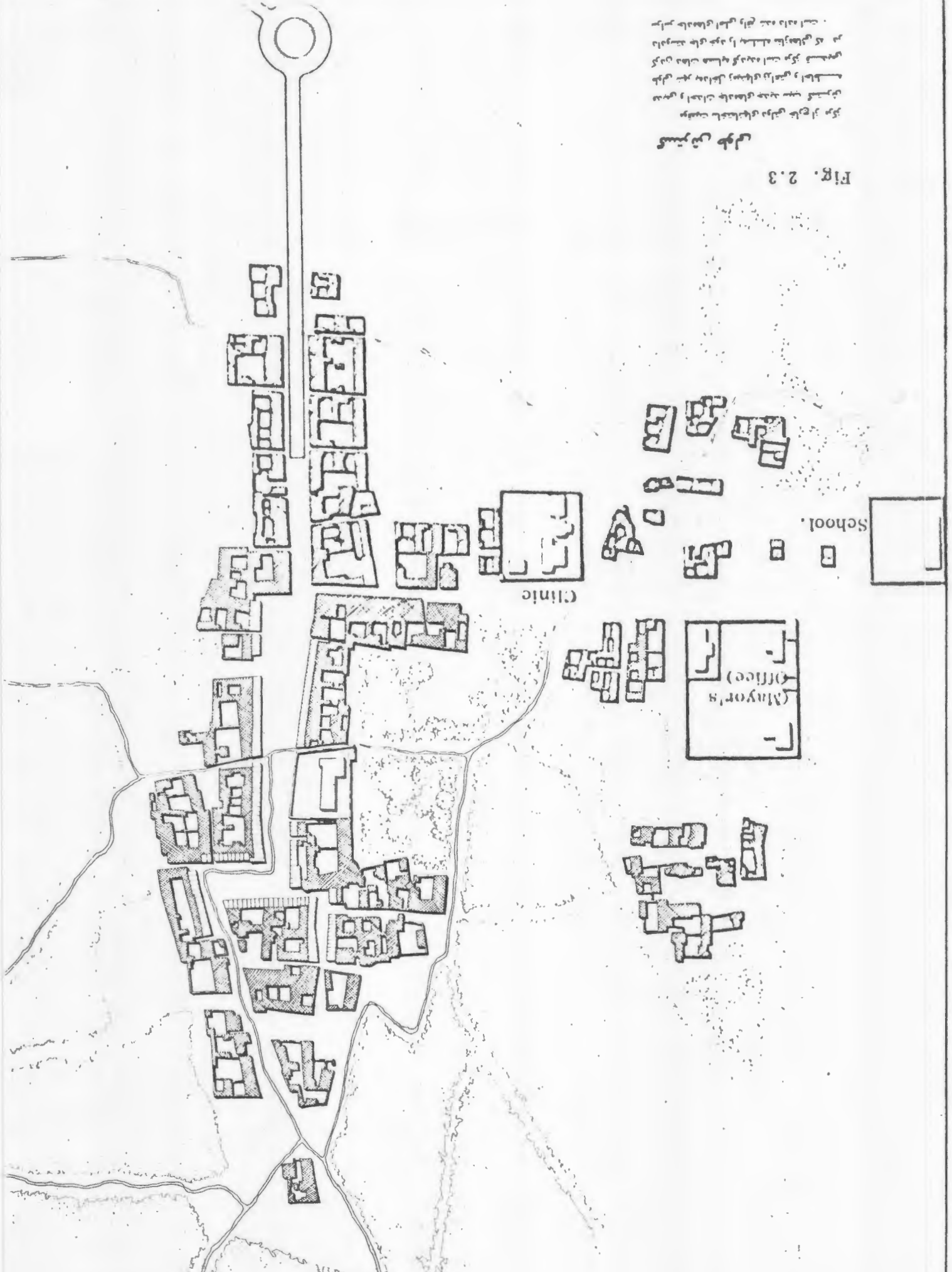
Fig. 2.2



موقعیت ساختمانهای دولتی خارج از مرکز  
 مدرسی و احداث ساختمانهای جدید سیمین گسترش  
 طرحی نیز بر مبنای زمینهای زراعی و احاطه  
 کردن فضای مسکونی گردیده است مرکز نسبی  
 دانسته جای خود را به سمت پارکهای ۱۵  
 متر مربعی اصلی واقع شده داده است .  
 متر مربعی اصلی

گسترش طرح

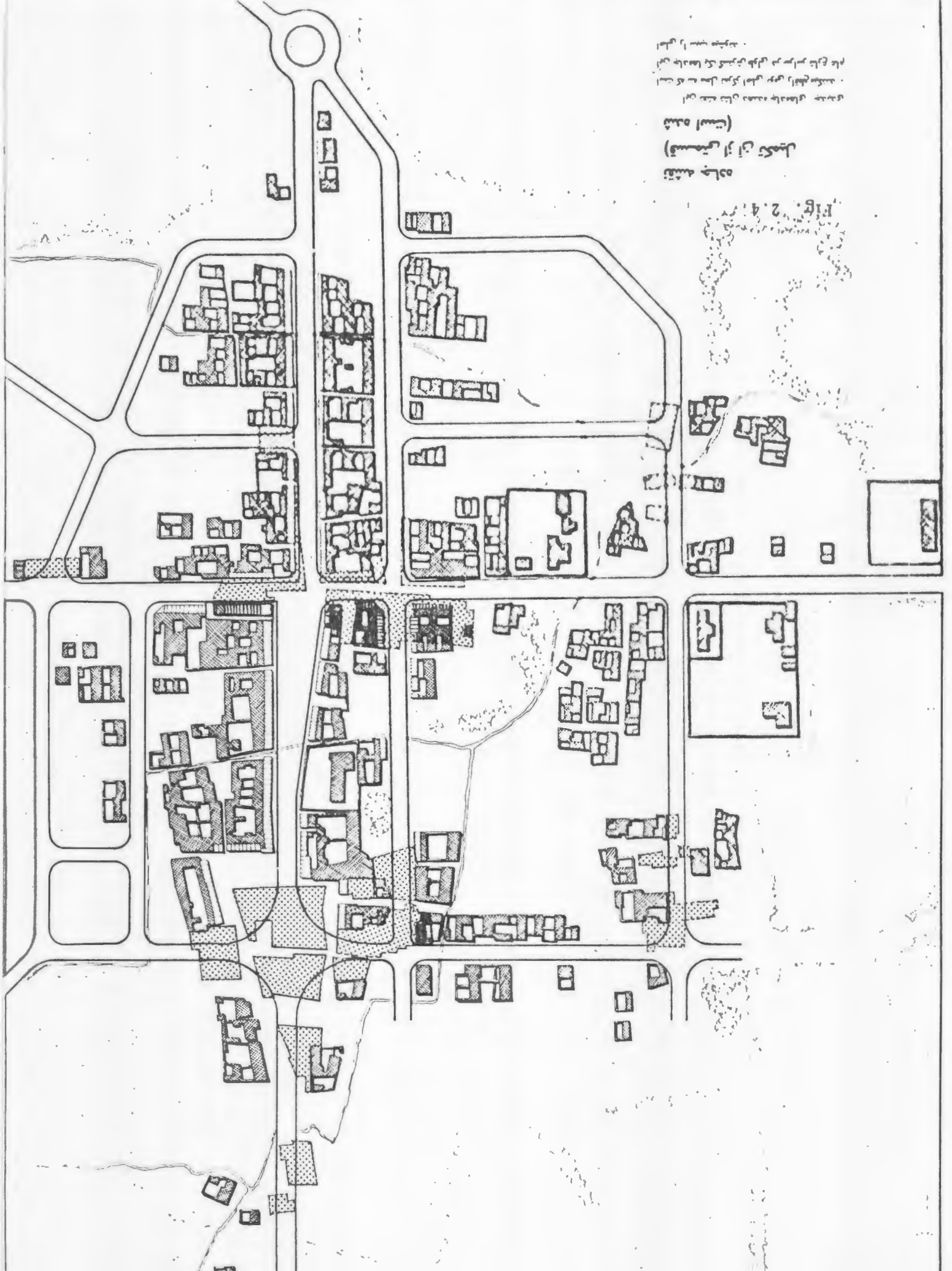
Fig. 2.3



این نقشه نشان دهنده چاروازی جدیدی  
است که به محل مرکزی اصلی برای واقعیتها  
این چاروازی یک گسترش طبیعی بر اساس تاریخ عام  
اصلی و اساسی می باشد.

نقشه چاروازی  
(گسترش از این شکل)  
شده است

Fig. 2.4



## 2.2 Population

The first population figures for Alashtar town itself were gathered in 1966 and recorded as one thousand nine hundred and seventy two persons. (Fig. 2.5 ) It was then the largest settlement in the Selseleh region, although still a village. The latest population census puts the figure at 5737 persons in 1976. This represents an annual growth of 11.21. Although there is no exact data available to show how the population increased year by year, supporting surveys regarding the in-migration into Alashtar (Fig.2.6) and house construction rates (Fig.2.29 ) suggest a higher population increase between 1968 - 1973, falling off in 1974 - 1975, and returning to a peak in 1976 - 1977. This could be explained by an increased importance given to Alashtar by the Government as an administrative centre for the region (this is borne out by the fact that a sizable percentage - 23% - of the total in-migrating population obtained work in Government offices), and also by the activities of the Selseleh Integrated Development Project.

The slack period of 1974 - 1975 was almost certainly due to the Selseleh Integrated Development Project's dual policy of encouraging villagers to stay in their villages by providing services there and also discouraging building in Alashtar till a town plan could be developed to ensure an orderly growth of the settlement. In the last two years, with some planning guide lines set down for Alashtar, and this five year guide plan formulated, the latter policy has been partially relaxed, resulting in a large increase in house construction, some of which represents a population increase. This peak should stabilise downwards as it does not represent a natural annual growth but rather an accumulated back-log from the slack 1974 - 1975 years. Thus, although the annual growth has been 11.21, the town plan allows for a 10% annual growth rate for the next five

years. (Fig. 2.8 ) This has been extrapolated back to 1966 as a simple curve. By 1983, the last year of the guide plan, the population should reach approximately 11,000 persons.

	1956/2515	1966 /2525	
Population	1410	8055	
Male	735	4333	
Female	675	3722	
Households		1535	5.2 persons per household.

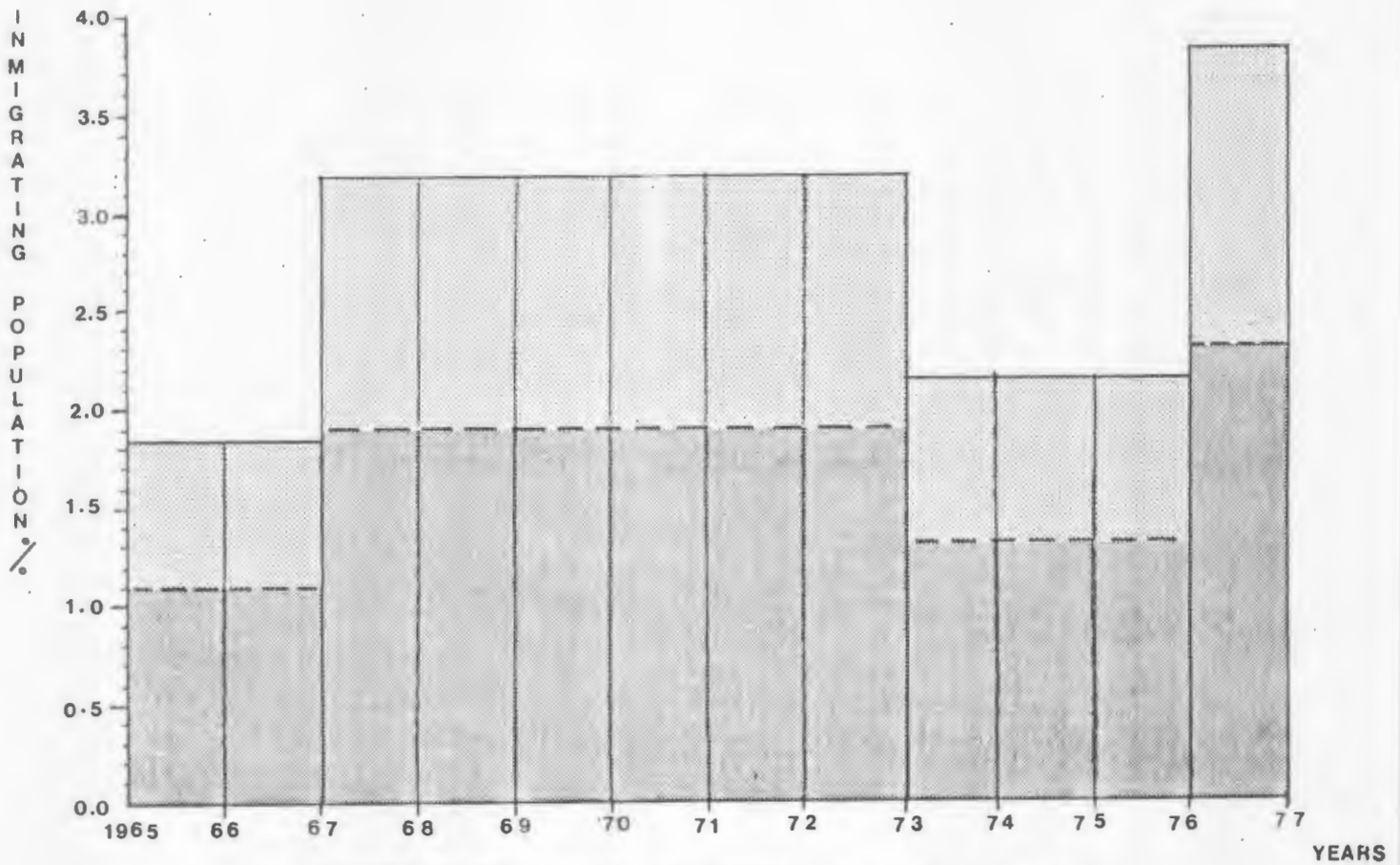
DEHISTAN OF QALEHMUZZAFERI.

	1966 / 2525	1976/2535	
Population	1972	5737	
Male		3035	
Female		2702	
Households	385	1112	5.1 persons per household.

TOWN OF QALEHMUZZAFERI, (Alashtar)

Fig. 2.5 DEMOGRAPHIC DATA: 1956 - 1966 - 1976.

Source: Iran Statistical Centre.



PERCENTAGE OF ANNUAL IN-MIGRATION IN ALASHTAR  
درصد سالانه درون کوچی درالاشتر

- درصد خانوارهایی که از خرم آباد به الاشتر برگشته اند یا مهاجرت نموده اند  
Percentage of households that have returned or migrated from Khorramabad to Alashtar
- درصد خانوارهایی که از دهکده ها به الاشتر مهاجرت کرده اند  
Percentage of households that have migrated from the villages to Alashtar

۵۸/۱٪ کل درون کوچی از سال ۱۹۵۲ (۲۵۱۱)

58.1% total in-migration since 1952 (2511)

REASONS FOR MIGRATION

انگیزه های مهاجرت

Shopkeeping	16.1%	فروشنده‌گی
Manual work	26.4%	کارگری
Office work	23%	کار اداری
Others	35%	دلایل دیگر

Fig. 2.6

### 2.3 Migration

A population growth rate of 11.2% indicates a high rate of in-migration (approx. 8%) into Alashtar. This is due to the recent settlement of many nomadic families and the shifts from one area of Selseleh to another area of that region.\*

Our investigations suggest that many Alashtaris, either whole families or in part, were moving to Khorramabad and to other surrounding towns prior to Alashtar's regained importance as an administrative centre. These people are now returning to Alashtar as jobs and services are increasing. A survey carried out indicated that approximately one third of the total migrants into Alashtar since 1965 were from Khorramabad, the rest being villagers from the Selseleh region. Of those in-migrating over 50% did so to get manual or office jobs, while only 16% work in the traditional activity of shop keeping. (Fig. 2.6 )

Inter-regional marriages also account for a major proportion of the migrations.

In addition, a large number of people seasonally migrate to towns in search of jobs. (Fig. 2.7)

\* Selseleh Regional Study : Industrial Management Institute.

No. of out migration

Total	Men	Women	Name of place
118	45	73	Ghalle Mozaferi

% of out migration to various places

Total	Others	Tehran	Khorramabad	Villages	Place
100	27.3	9/9	50	12/8	% Migration

Out migration - Occupation

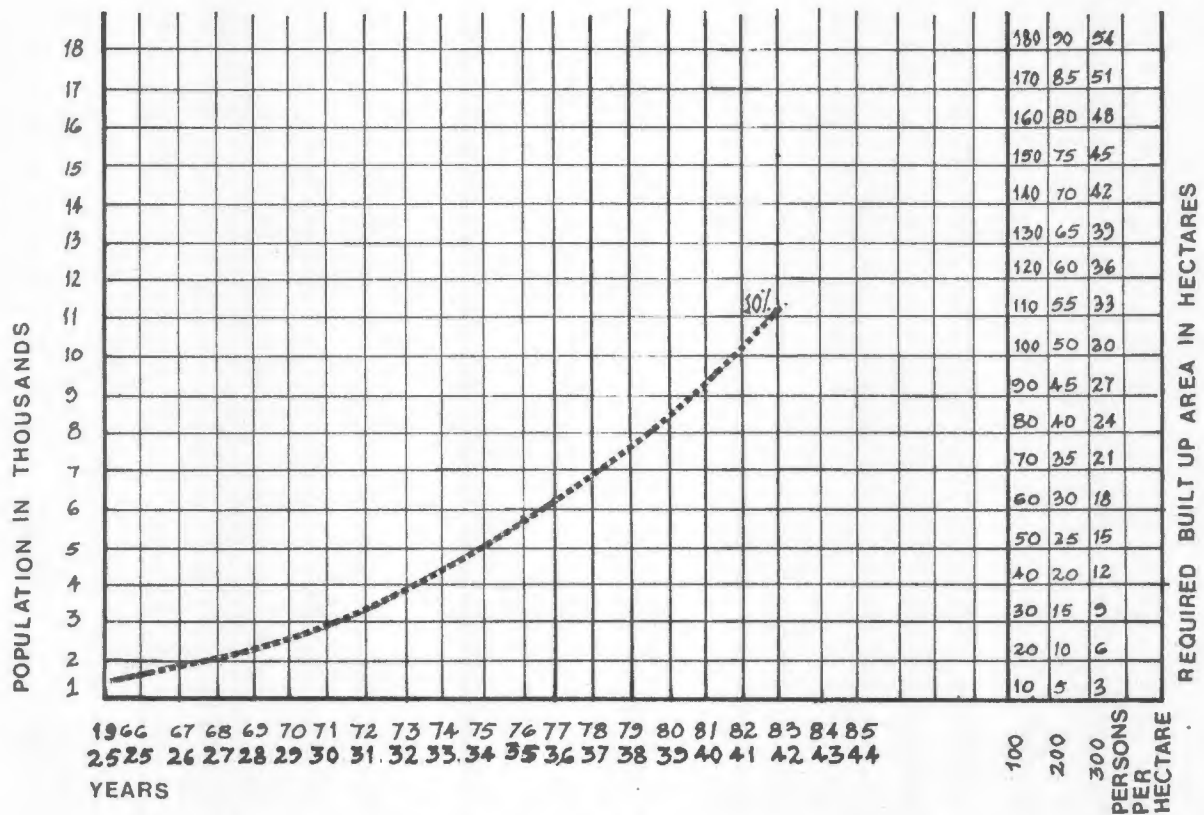
Total	Others	Education	Land	Housekeeping	Agriculture	Labourer
100	21/82	11/5	3/13	10/63	9/38	37/5

Seasonal migration

Places						Status			Sex			
Total	Others	Tehran	Khorramabad	Garin	Villages	Total	Others	Head of household	Total	men	women	Place
100	15/9	50/6	13/30	15/9	5/66	60	51	6	60	46	14	Ghalle Mozaferi

Fig. 2.7 SELSELEH - GHALLE MOZAFARI (Alashtar) MIGRATION.

Source: Institute of Industrial Studies: General Survey of Selseleh.



**ALASHTAR POPULATION--BUILT AREA.**  
**1966; 2525-----1982; 2541**  
 PROJECTED WITH VARYING GROWTH RATES AND DENSITIES.

Fig. 2.8

## 2.4 Economy and Occupation

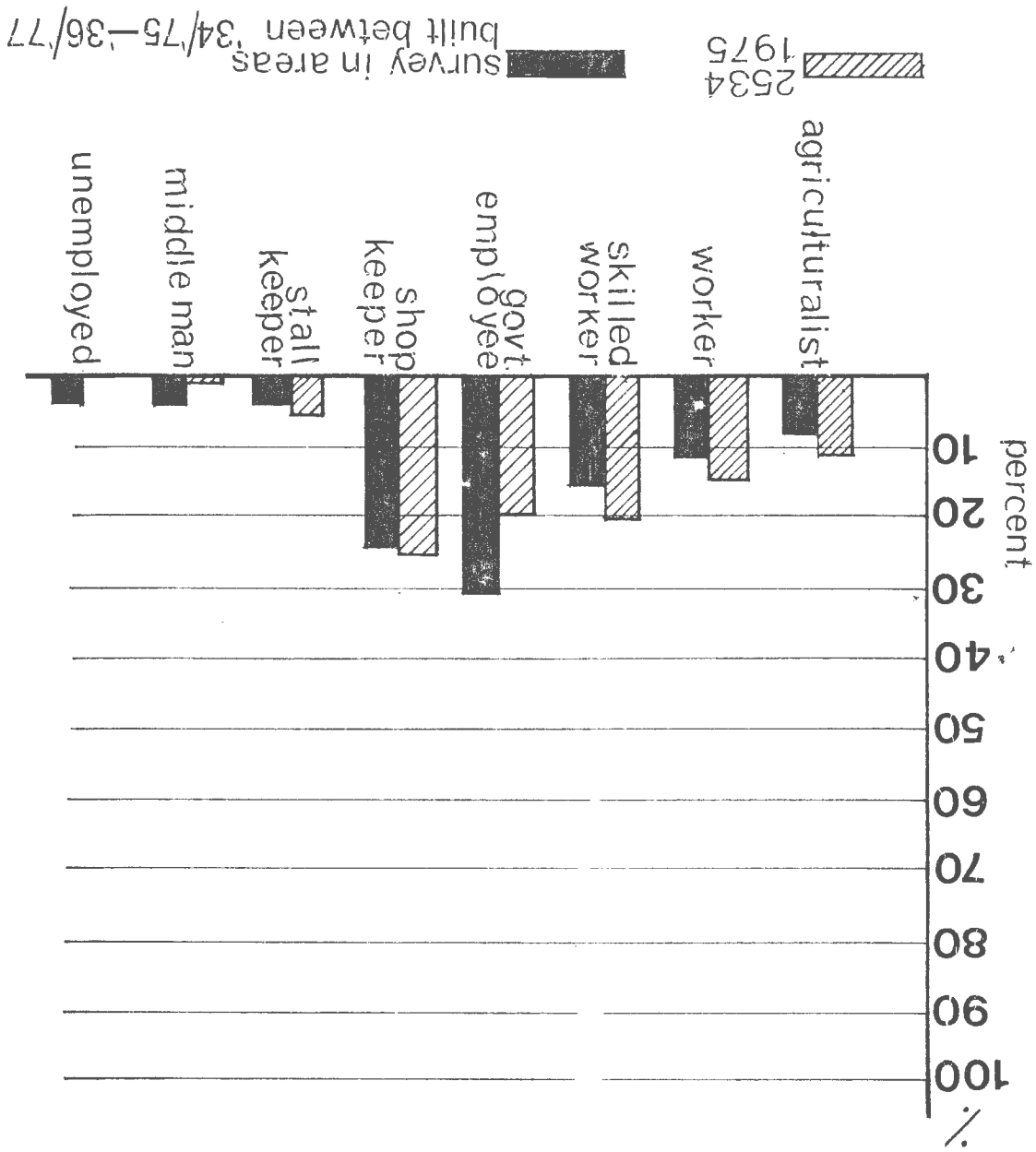
As a village, a significant part of Alashtar's economy was based on agriculture. As recently as 1975, some 12% of the working population were primarily involved in agriculture. Even today this figure is 8% and a much larger number may own agricultural land though they have another primary occupation. (Fig. 2.9 ). The major crops grown around the region are soya beans and wheat.

However, Alashtar's major economic activity has been and continues to be a commercial centre for the surrounding region. In 1966 , with a population of under 2,000 persons, there were approximately 220 retail, workshop and service units, with the retail trade being the most important (150 units). (Fig. 2.9). Shopkeepers and skilled workers (such as carpenters, doors and window makers, tailors) accounted for over 50% of the working population in 1975.

Although there has been a greater percentage increase in the number of government offices compared to any other unit, (Fig. 2.10) and a survey of occupations in recently built areas of the town show the increasing importance of government employment (30% government employees compared to 25% shopkeepers), even in those new areas the significant majority are employed in commercial activities of one sort or another. Fig. 2.11 gives a complete breakdown of the type and number in retail, production and service facilities in Alashtar. Although weaving is widespread in the region, in the town - apart from a few home looms - it is not a major activity.

# OCCUPATION, comparisons & trends

Fig. 2.9



SHOPS - FACILITIES - OFFICES

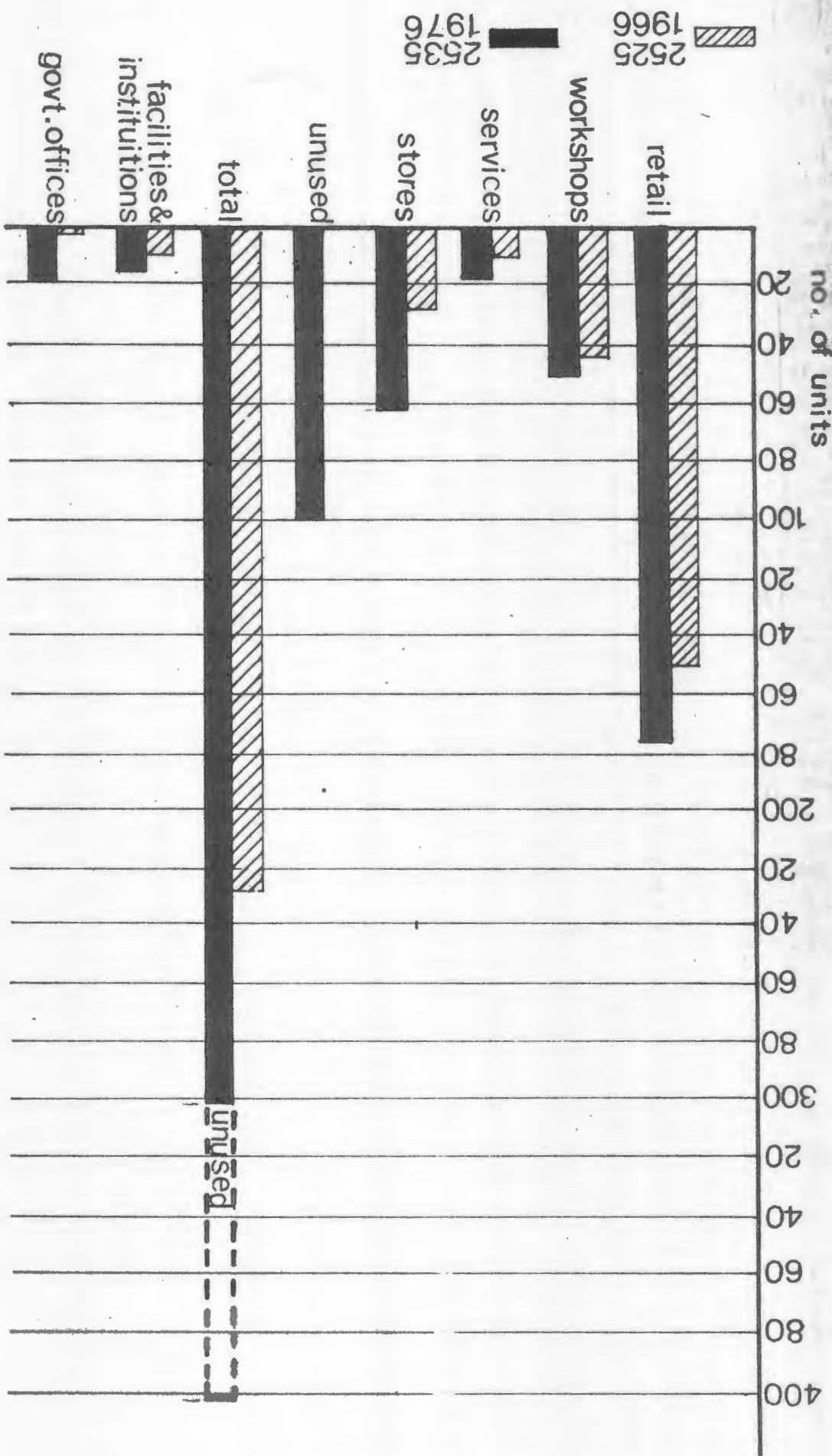


Fig. 2.10

There have been two negative physical expressions of this commercial activity. Firstly, whereas in the indigenous settlement the commercial area was focused around the fort, with the construction of roads and a lack of a policy defining commercial areas, shop fronts have tended to line both sides of every road. This has resulted in a loss of a clear commercial centre for the town, the abandonment and gradual disrepair of many shop units particularly where the original commercial centre was, and major roads either defaced by a continuous elevation of garage door shop-fronts or by unseemly vacant front lots on which the owners plan to build shops. In 1976 there were as many as 100 empty shop units either abandoned or built on speculation waiting to be rented out. (Fig. 2.12)

Secondly, most shop units are too small for their activities and invariably spill out onto the narrow pavements and often into the road itself, impeding pedestrian and vehicular traffic. The problem is aggravated when with no zoning of commercial activities, noisy and dangerous pursuits such as metal welding are spread all over the town.

TYPE AND NUMBER OF SHOPS IN ALASHTAR.

Fig. 2.11

TYPE	No.	TYPE	No.	TOTAL
A. SELLING.				<u>175</u>
General Foods	108	Household Goods	5	
Cloth Shop	25	Clothes shop	2	
Shoe shop	9	Butcher	7	
Chieken (incl.stalls)	3	Fruit (incl.stalls)	5	
Pharmacy: People	1	Kerosene	2	
Animals	2			
Chalk	5	Doors/Windows (wood)	1	
B. PRODUCTION & SALE.				<u>50</u>
Metal Welders (Drs.Windows etc)	11	Carpentar	4	
Mechanic	4	Quilt	4	
Dye	2	Metal workers Heaters, grainsilos	4	
Bread	3	Flour Mill	1	
C. SERVICES.				<u>16</u>
Radio Repair	2	Barber	3	
Laundry	1	Lamp Repair	1	
D. MISCELLANEOUS				
Restaurant - Tea, Kebaabs etc	5	Ice-cream, drinks	4	
Shop Owners Store	11	Wheat & Soya-Bean Stores	51	
Empty Shops	99	<u>GRAND TOTAL</u>		<u>491</u>

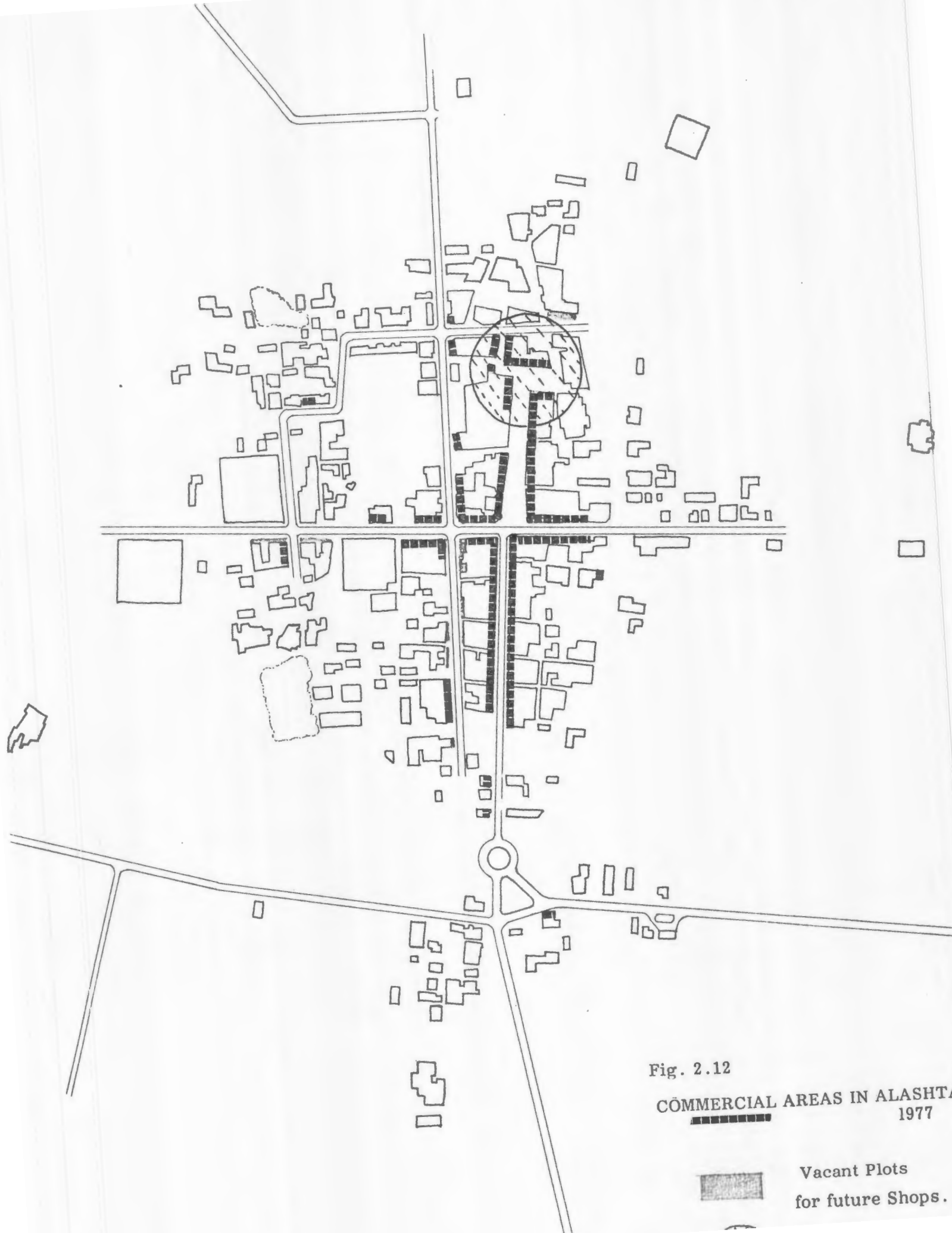


Fig. 2.12

COMMERCIAL AREAS IN ALASHTA  
1977



Vacant Plots  
for future Shops.

## 2.5 Traffic

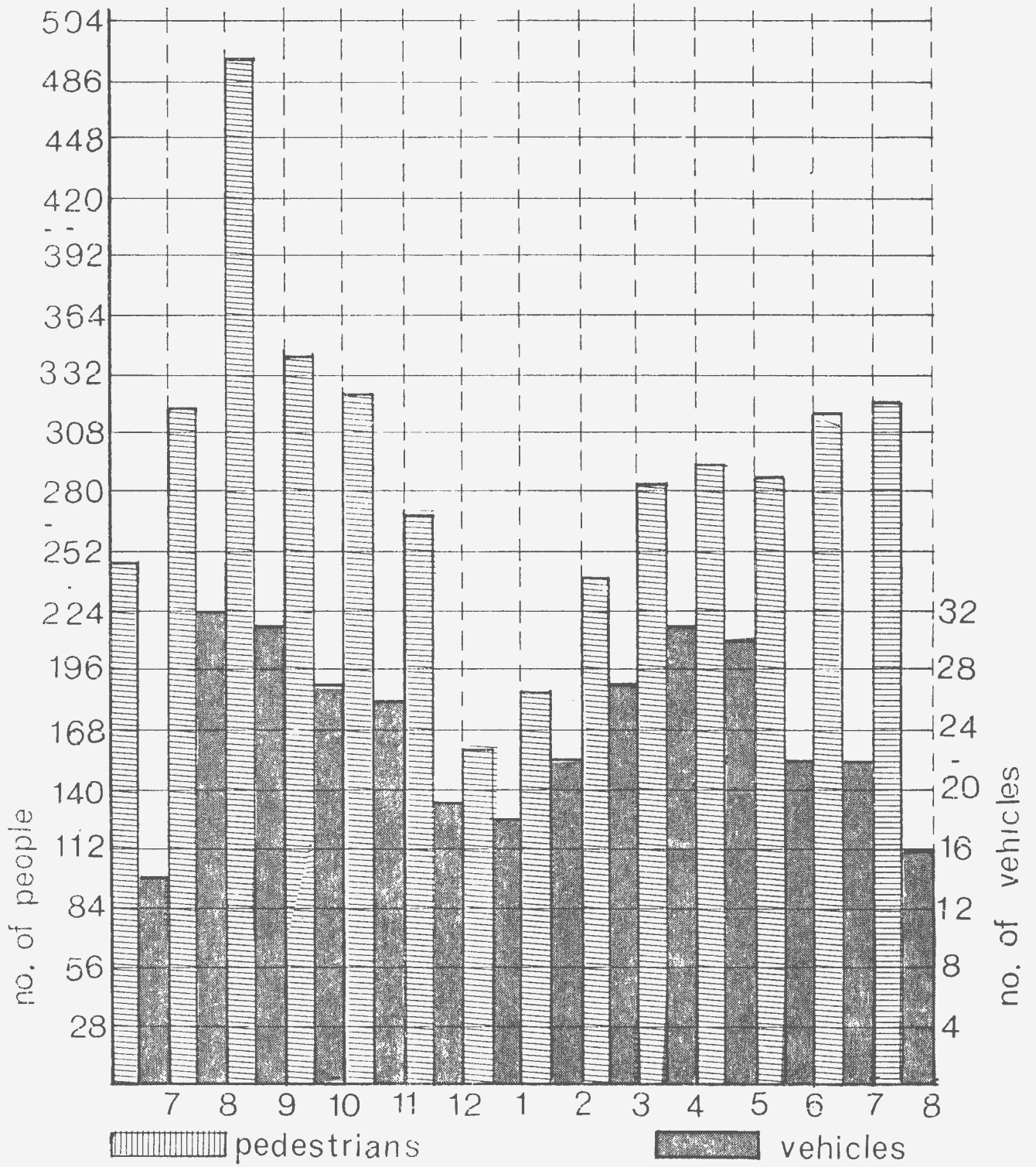
As Alashtar's major activity is in providing commercial services to the surrounding villages, it is predominantly a pedestrian town. Traffic surveys carried out (Fig. 2.13 ) indicate that even the majority of those entering or leaving the town 63.6% do so on foot. Of the 36.4% that enter in a vehicle, the vast majority do so in a public transport system (bus, vanette or private cars plying between Khorramabad, the surrounding villages and Alashtar) which terminates at Alashtar leaving the passengers to move about on foot. A significant number of people enter and leave on donkeys, cycles and motor cycles as well (12% compared to 88% pedestrian). These modes of transport being privately owned, it can be assumed that their owners move about within the town on them. (Fig. 2.14)

Of the vehicular traffic, almost 50% are lorries and tractors which are either delivering produce in the town, or going to the SIDP offices in the north part of town, or passing through from village to village. The rest of the vehicular traffic are predominantly buses or vanettes which after delivering people at a terminus point ply up and down the town's central streets looking for passengers. Of the approximately 25 cars, some 20 belong to the SIDP, which generally move on a set route between the surrounding villages and the SIDP office. (Fig. 2.15)

The present road system neither reflects the predominantly pedestrian circulation within the town, nor the nature and route of the little vehicular traffic there is. (Fig. 2.16 ) Three major asphalted thoroughfares cut right across the town centre. The roads are far too wide (15 m.) for the traffic now and for the foreseeable

future. They leave narrow pavements on either side (2 - 3 m.). As a result the roads are full of pedestrian and animal traffic creating a hazard even for the few vehicles using them. The problem of shops spilling out onto the narrow pavements and onto the streets further aggravating this situation, has been mentioned. Also, because of the expense incurred in constructing unnecessarily wide roads there is no money left for the largely unpaved alley ways which lead to the majority of houses. Thus, in the long and severe winter and rainy seasons, the majority of people trek through mud to their houses.

Regarding the vehicular traffic and the routing of the roads, because the roads all cut through the town centre, so does the traffic. Since there is no by-pass route around the town, or connecting such strategic locations such as the SIDP offices, a common produce delivery area and public transport terminus, unnecessary traffic is introduced into the centre of the town. A rational routing system could leave the town centre practically to the half-dozen or so private cars.

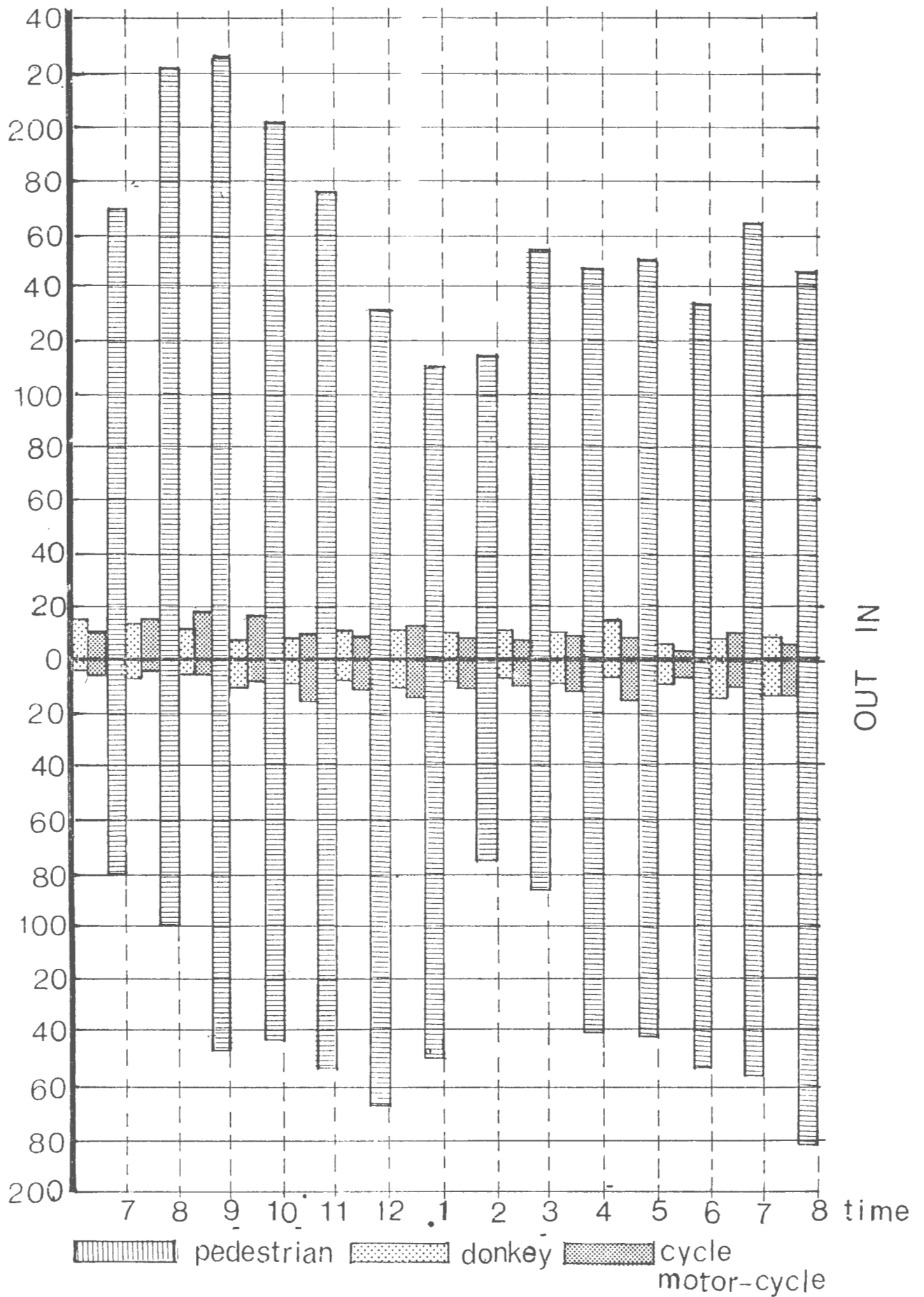


**TRAFFIC entering & leaving**



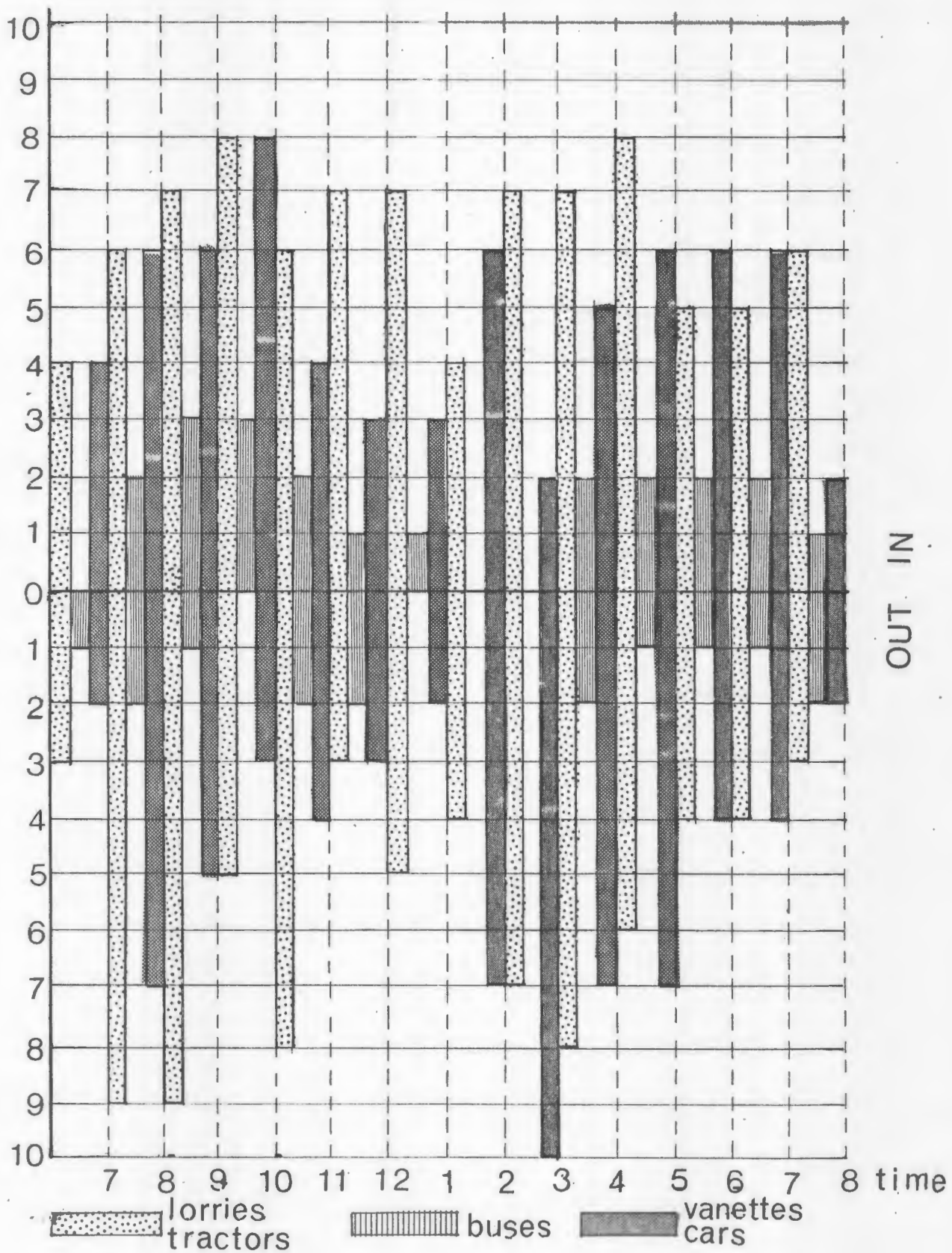
% age entering & leaving town on foot & in vehicles.

Fig. 2 13



**TRAFFIC CIRCULATION.** Fig. 2.14

57% 62% 88% 1%  
 %age over 24 hours.

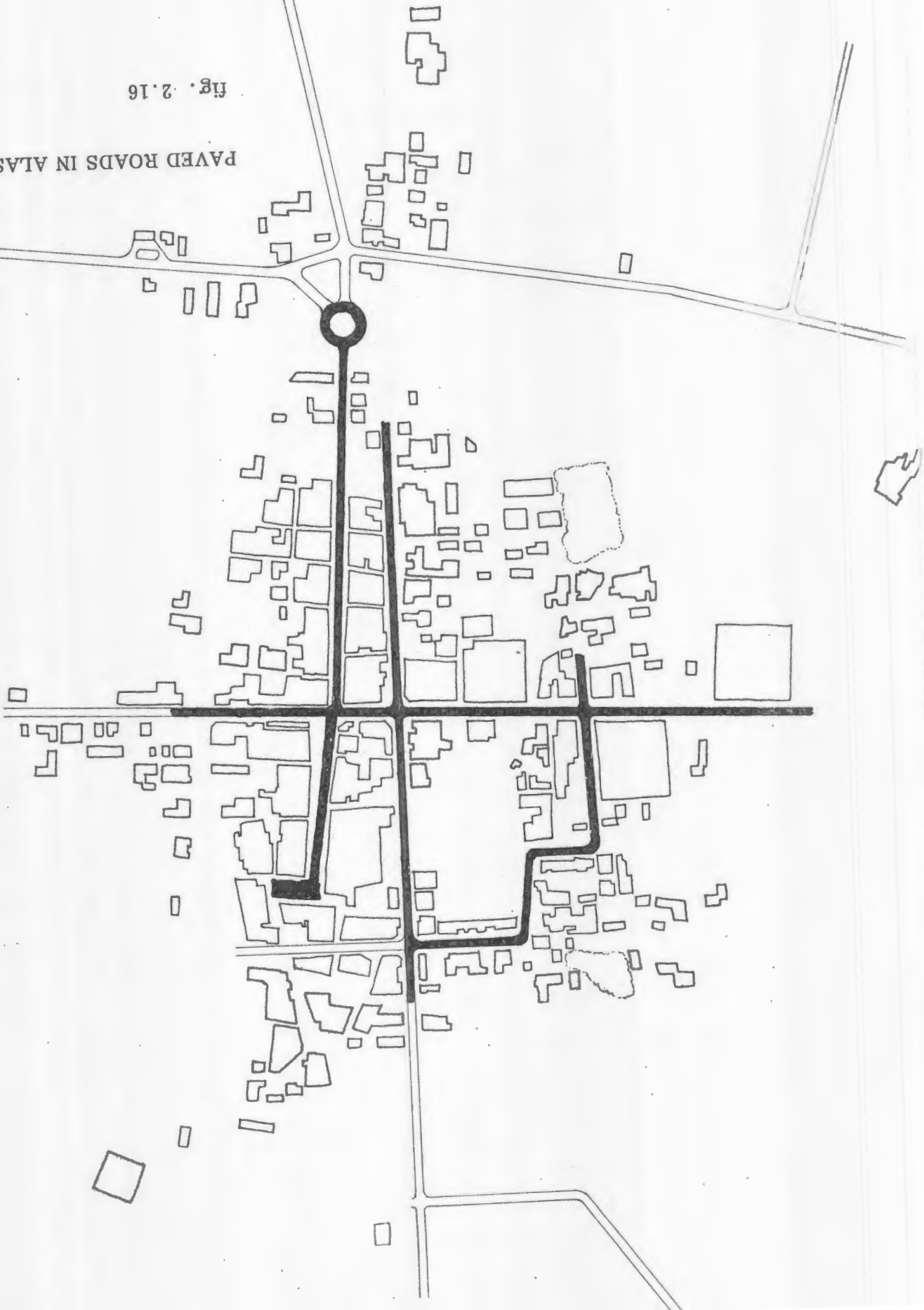


**TRAFFIC CIRCULATION.** Fig. 2.15

10.7% 40.0% 49.3% % age over 14 hours.

PAVED ROADS IN ALASHTAR 1977

fig. 2.16



## 2.6 Housing

### 2.6.1 Indigenous Housing (Figs. 2.17 - 2.22)

The indigenous house reflects the climatic, social and economic conditions of the region.

Climate : From the information presented in Figure 1.9 (Climatic Chart for Alashtar) we can see that the average annual range of temperatures extends from about -5C to 35C. We assume that the comfort zone (the range of temperatures between which Alashtar inhabitants will feel thermally comfortable in normal clothing) extends between about 18C and 28C. It will be noted that for only part of the day during the months of June, July, August and September, people will feel uncomfortably warm. During these months, evenings will still be comfortable. On the other hand, day time temperatures lie below comfort limits from November until April.

Alashtar's indigenous house forms reflect these climatic conditions. Thick walls isolate the interiors from the extremes of heat and cold. Thermal properties of the mud walls store daytime heat from the sun and re-radiate it back into the room interiors at night. The predominant south orientation of buildings means that the low winter sun can penetrate and warm the interiors of the houses. Aivans also facing south provide warm protected outdoor activity spaces in the cold months and similarly, a cool shaded space in the summer months.

The rooms are built around a high-walled courtyard and open onto it. This courtyard helps protect the rooms from the occasional dust storms and the severely cold winter winds.

**Social & Economic :** Many of the domestic and social functions of the house take place in the courtyard, such as washing, cooking and entertaining friends. The courtyard provides privacy and often there is a pool in the centre and is well planted with trees, providing a quiet and pleasant atmosphere.

The indigenous process of construction consists of first building a wall around the plot and then gradually adding rooms around as the need arises with the increase in family members, and as money becomes available. In some cases, the house has grown up to two stories around the courtyard.

Often a few animals are kept in the house. Their quarters are segregated either on the ground floor itself or by constructing a basement. The latter is also a common practice in the villages. (Figs. 2.21, 2.22)

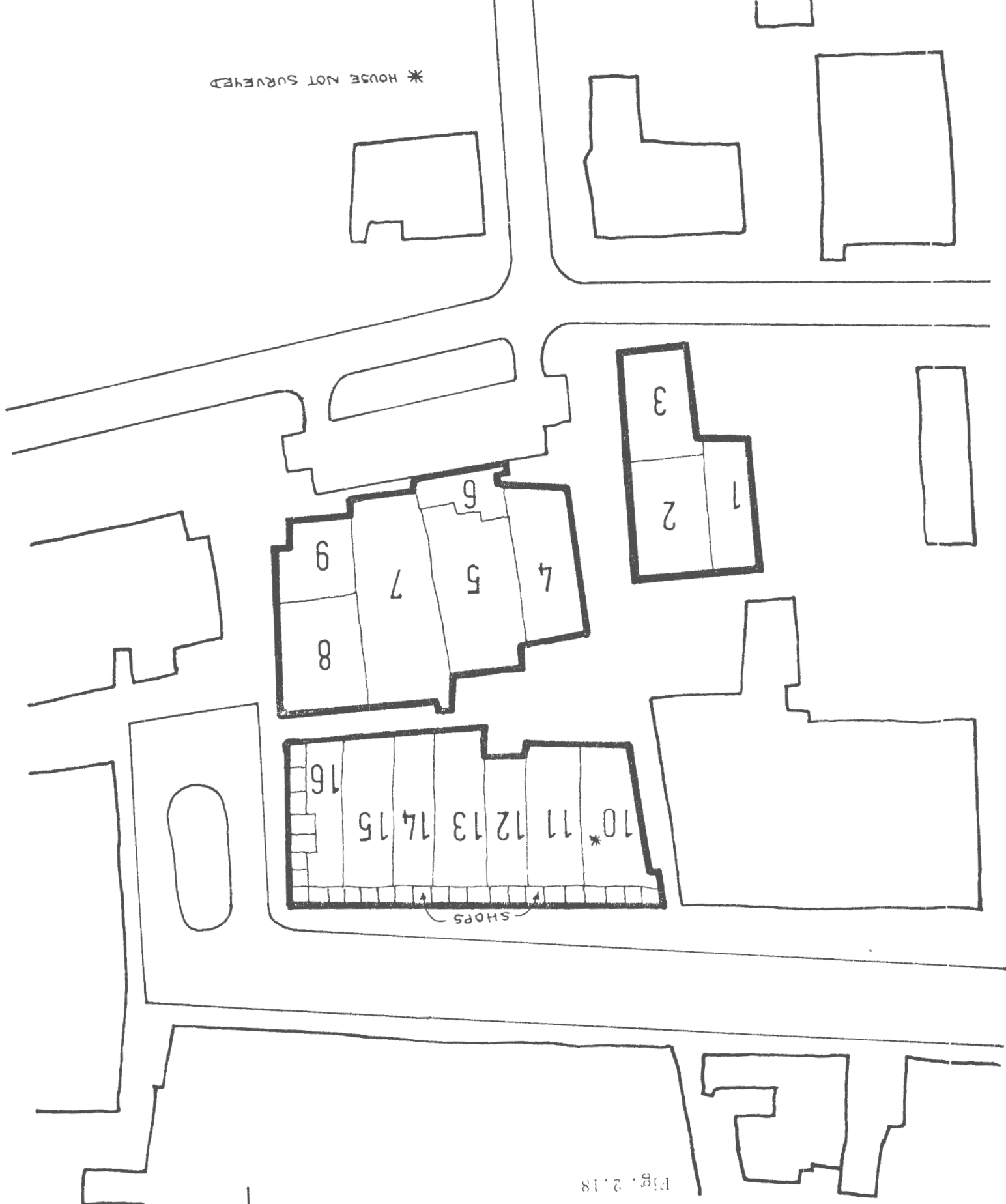


ALASHIAR TOWN PLAN

NEIGHBOURHOOD SURVEY

Location Plan 1:1000

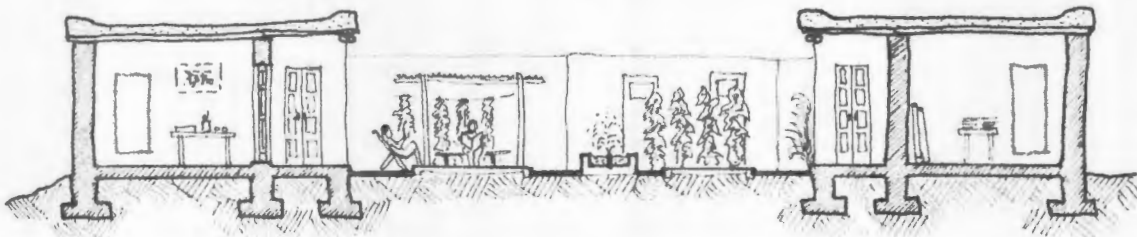
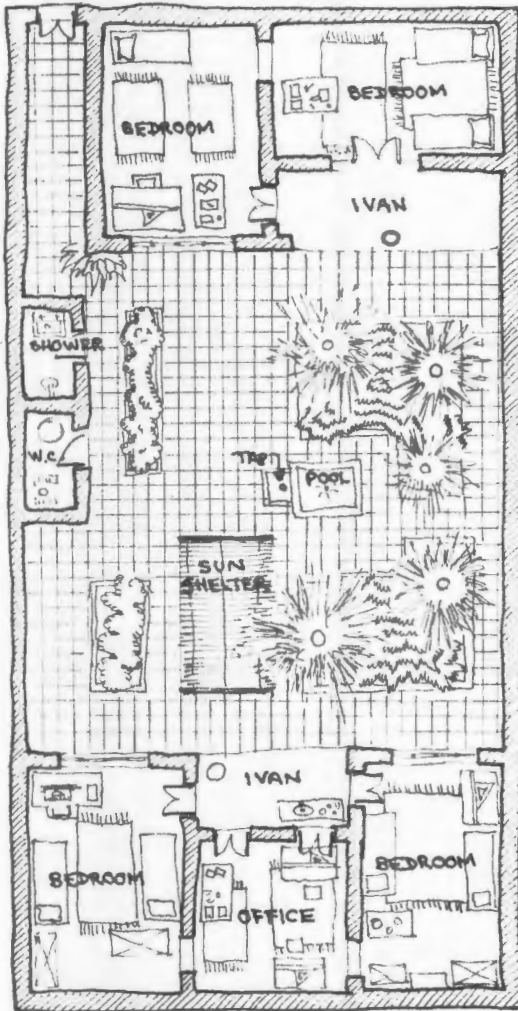
Fig. 2.18



5-6 persons

1:200

Fig. 2,19

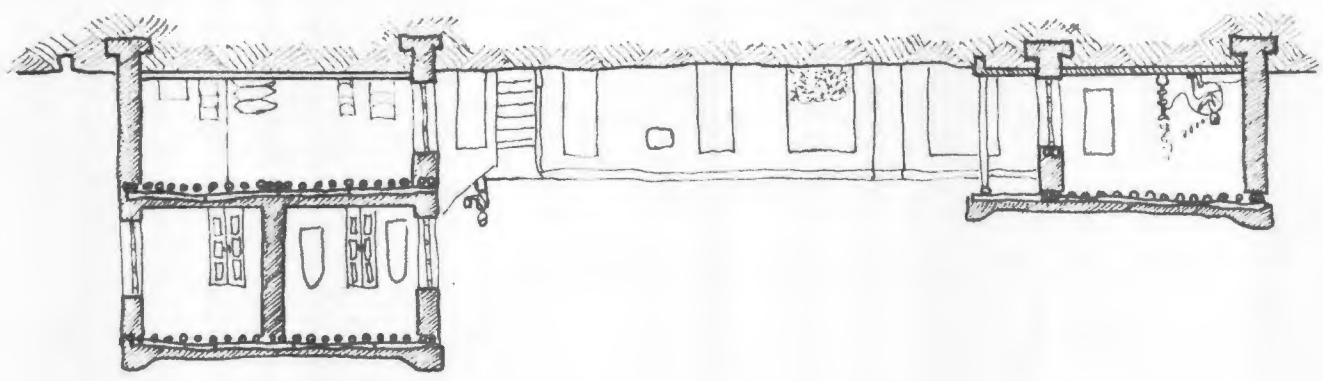
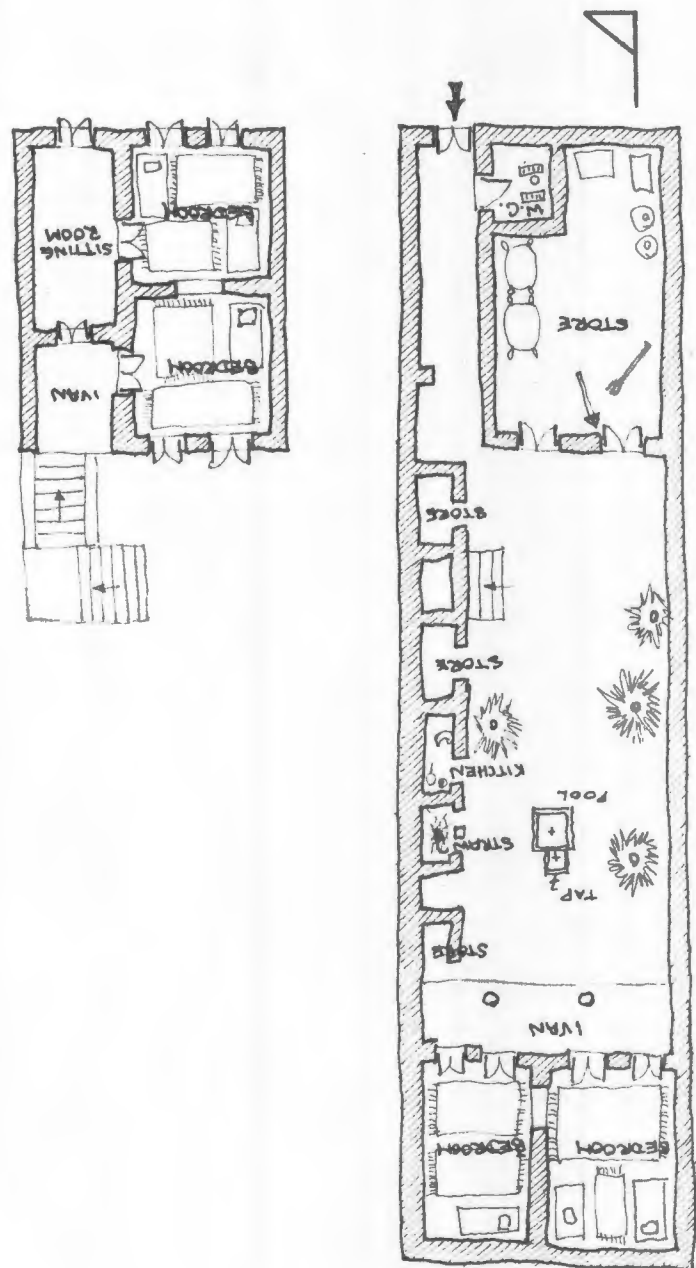


HOUSE SAFAR SULAIMINEE

2 households (12 persons - 9, 3)

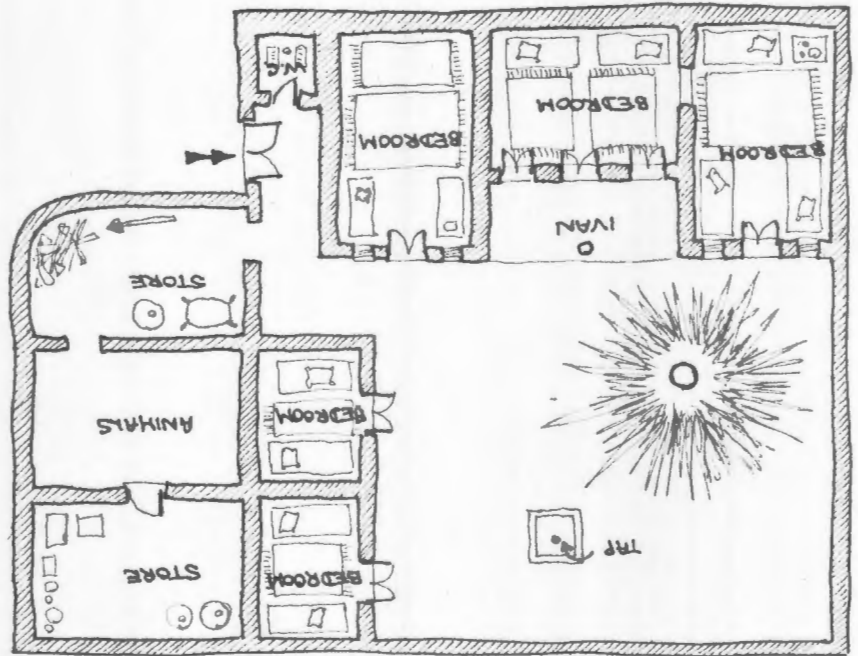
Fig. 2.20

1:200



HOUSE AHU-ASSADI

3 households (8 persons:- 4,2,2.)  
1:200  
Fig. 2.21

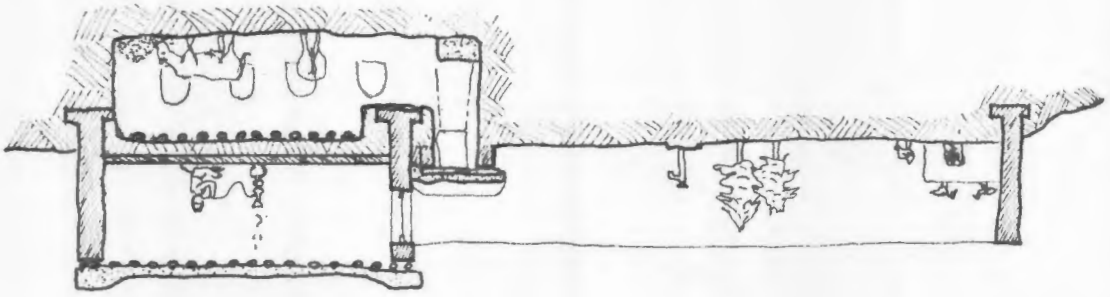
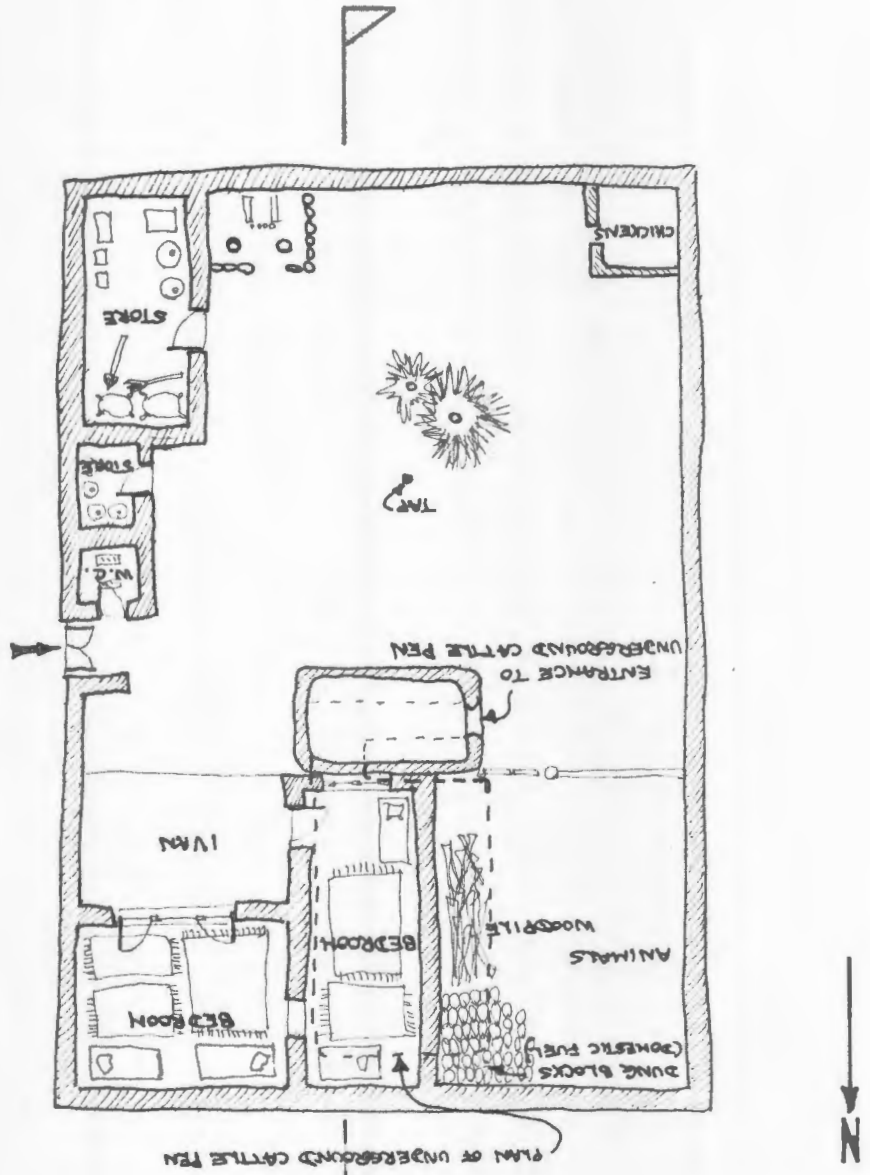


HOUSE GOLMORAD

1 household - 7 persons

1:200

Fig. 2.22



### 2.6.2 Materials & Technology

The indigenous wall materials are packed mud (chine) and mud brick. The roofs are constructed flat using timber beams, wood planks (previously branches) and packed mud. The majority of houses in Alashtar still use this method. 82% of the houses built up to 1975 used compact mud and mud brick walls and 96% of these houses used flat timber roofs. (Fig. 2.23)

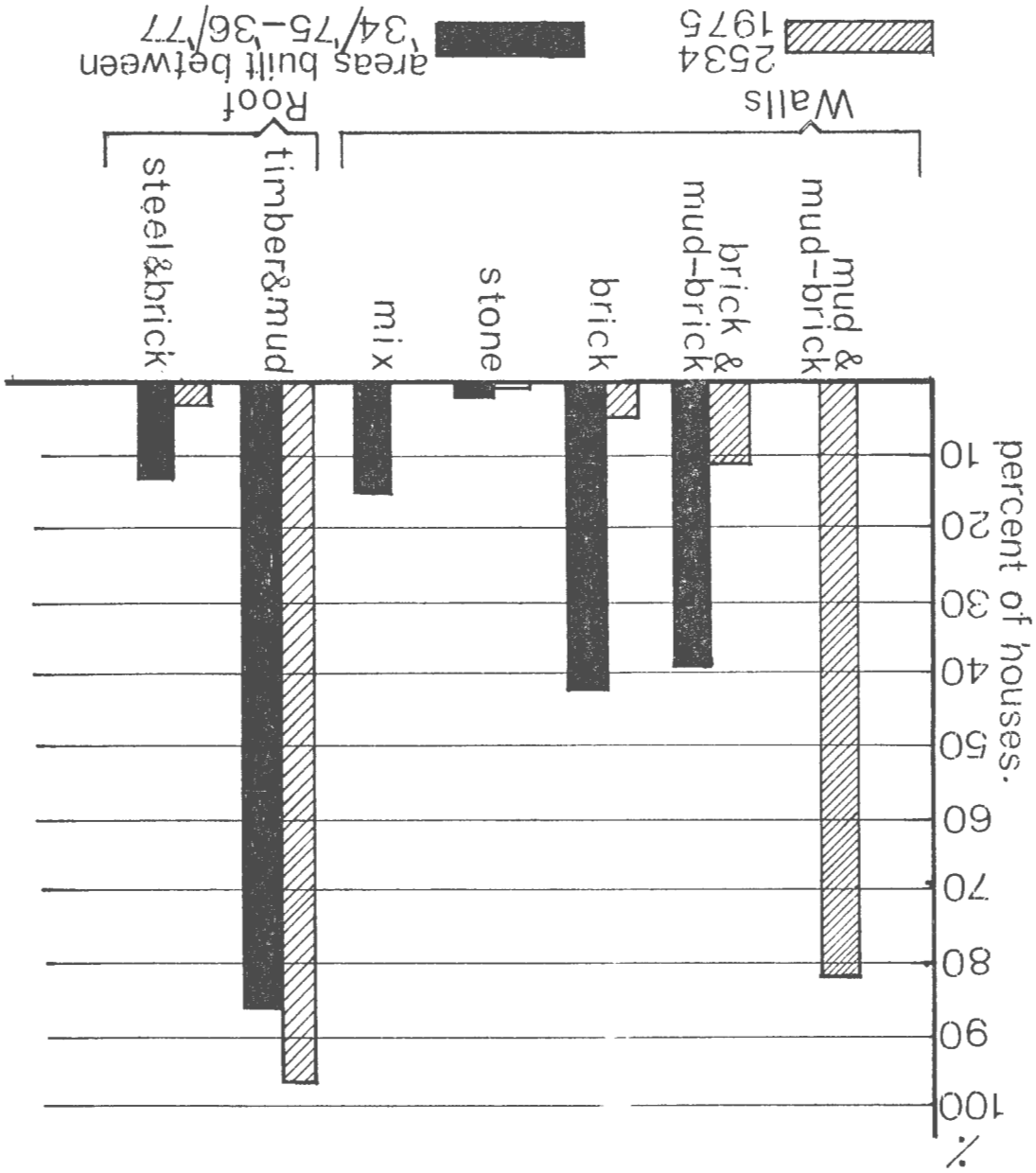
The houses recently being constructed tend to use brick more often, either as complete walls or as a single protective layer bonded in, in front of a mud brick wall. The flat timber roof is still most common in new houses although steel I beams and brick jack arch roofs have increased. (Fig.2.23)

Materials for the indigenous house are all either made on site (such as the compact mud and mud brick for walls) or locally available in the region (such as timber beams). To date, the majority of materials for the newer houses have to be imported from outside the region, with bricks coming from Qom and the Malayer area, and steel beams from Khorramabad. However, the SIDP has started brick and lime kilns in two villages in the region. Lime is under production and bricks are just beginning to be produced. A private entrepreneur has also started a lime kiln.

Stone is much less used than the materials mentioned above. It is used for footings and sometimes for courtyard walls. There has been a slight increase in the use of stone walls in the recently constructed houses. (Fig. 2.23 ) Stone is collected as boulders or quarried from the foothills in the Selseleh region.

# HOUSE BUILDING MATERIALS.

Fig. 2.23



### 2.6.3 New Housing (Figs. 2.24, 2.25, 2.26, 2.27)

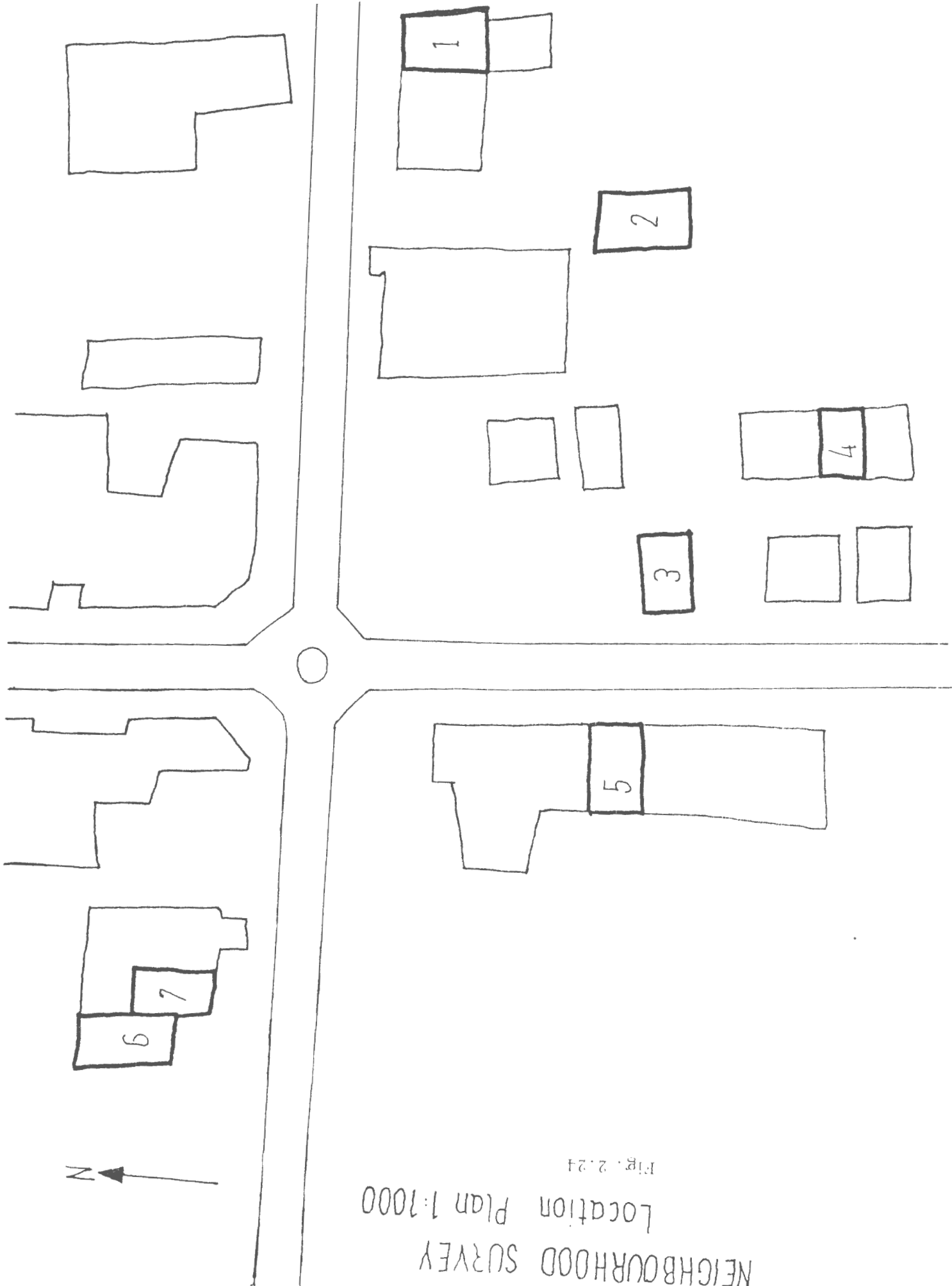
The newer houses tend to have their rooms all to one side of the plot (usually facing south) leaving a small front yard. They do not use aivans and have large windows. (Fig. 2.25 ) They thus forego the advantages of a pleasant courtyard space and also, by using large glass windows and thin brick walls, the rooms are too hot in summer and too cold in the winter. This new house plan type is being adopted partly for prestige reasons. i.e. as a copy of similar 'villa' types built in Teheran, and partly for functional reasons since the 'villa' style appears to be a simple way of providing more rooms on a smaller plot of land. The latter is often not the case, as the rooms often do not meet habitable standards of a minimum size and at least one window opening to the outside. (Fig. 2.25, 2.26)

A comparison of the indigenous and new houses shows a general decline in housing standards.

Despite the fact that 60% of the plot area is being built on in new houses compared to 46% in the old houses, m<sup>2</sup> per person built area has dropped from 21.5 m to 16.3m and persons per habitable room has increased from 2.4 to 3.5. (Fig. 2.28)

Alashtar has experienced a housing boom in the past two years with a relaxation on housing construction controls. 26.8% of the total number of houses built between 1966 - 1978 were built in 1976. This fell slightly to 24.7% in 1977, and for the first time there was a significant amount of house construction (6%) outside the guide plan limits. (Fig. 2.29 ). In terms of the total number of houses constructed, approximately 85 new houses were built in 1976 and approximately 75 new houses were built in 1977. (Figs. 2.30, 2.31, 2.32) The slight drop represents a stabilisation after the initial thrust of house building following the strict controls of 1974 and 1975.

NEIGHBOURHOOD SURVEY  
Location Plan 1:1000  
Fig. 2.24



SIF HASANVAND 1 Family 8 Persons

Scale 1:200

Fig. 2.25

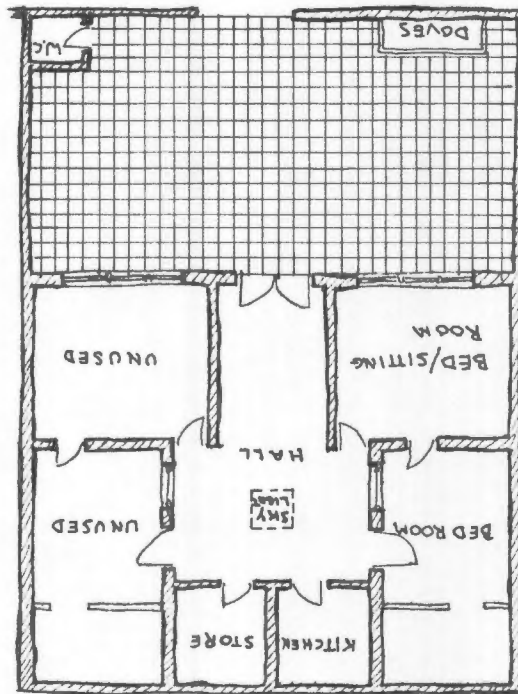
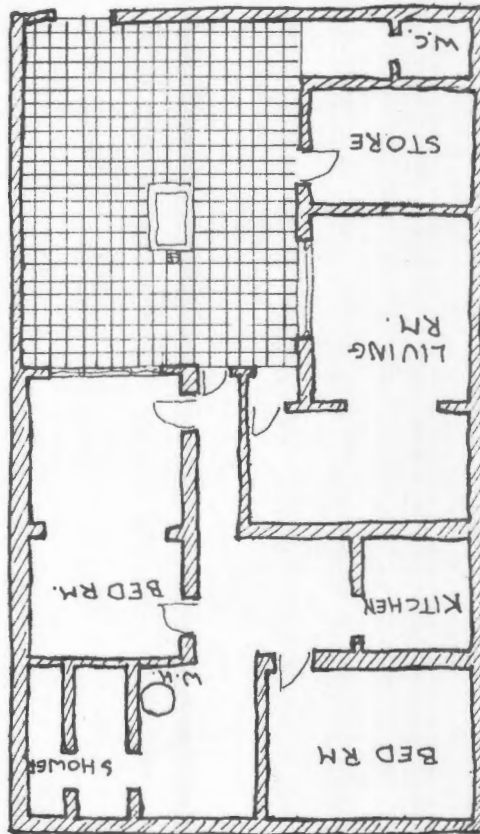


Fig. 2.26

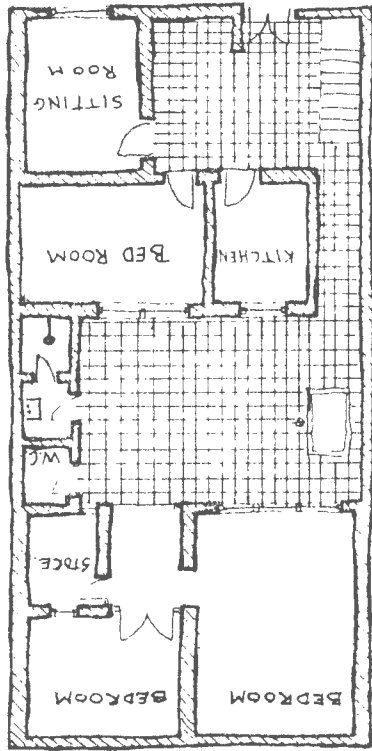
Scale 1:200

MAHADI BAKHRY 1 Family 7 Persons



Scale 1:200 Fig. 2.27

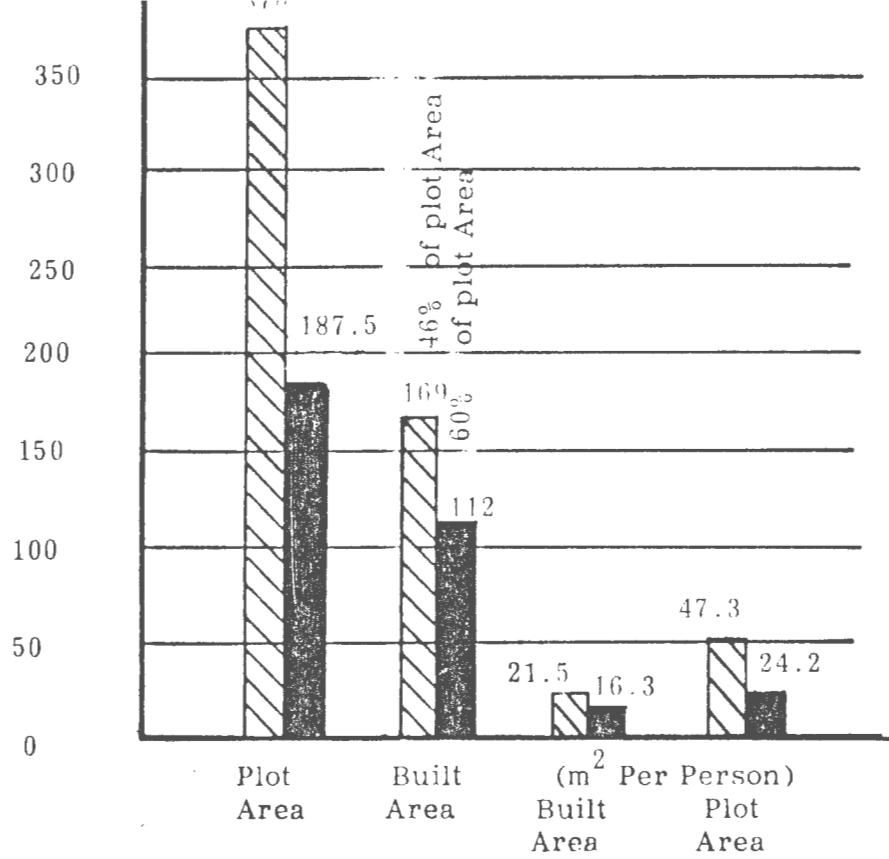
RAVINJAD 1 Family 3Persons



Although some guidance was given on the layout of housing, it had to be limited pending the approval of the five year plan. Thus many unauthorised houses have been built in a haphazard fashion, leaving plots of agricultural land in-between built areas and either over-providing or under-providing in terms of roads and alley ways. Particularly damaging to the homogenous growth of the settlement is the recent construction of a group of houses west of the roundabout, despite the fact that large areas of land within the town remain to be built on (Fig. 2.32 & Fig. 2.33 ). Uncontrolled land prices within the main body of the town has contributed to this situation.

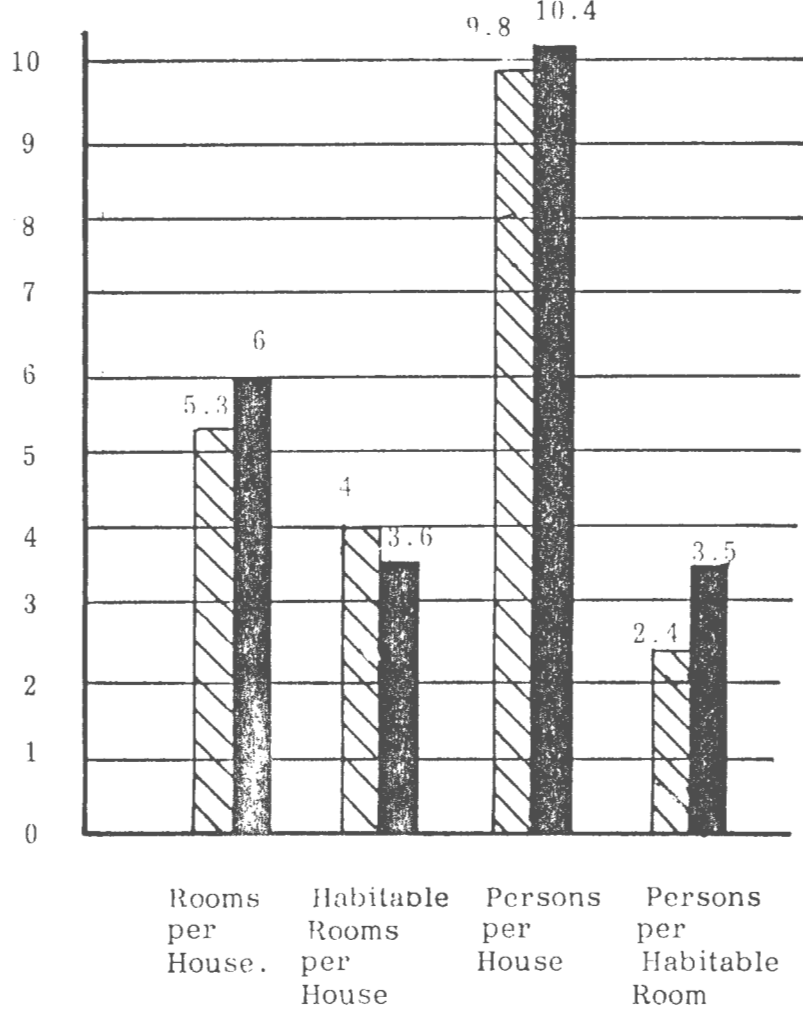
The increase in house construction reflects both a population increase through migration, as well as a move by tenants and younger couples to set up house on their own. Along with the land prices, rents have also been rapidly increasing. Despite the amount of house construction, there continues to be a significant demand for low-cost housing, either owned or rented. In Alashtar, 12.7% persons put such housing as top priority, after roads, alley ways and water supply (38.2% and 21.8% respectively). (Fig. 2.34 ) The demand would be considerably higher amongst the low-income people who have to move to Alashtar from the villages and those who live under landlord harassment to raise rents.

At present the only alternative such people have is to build in unauthorised areas outside the five year plan because land costs are cheaper, or to build on extremely small plots in the town.



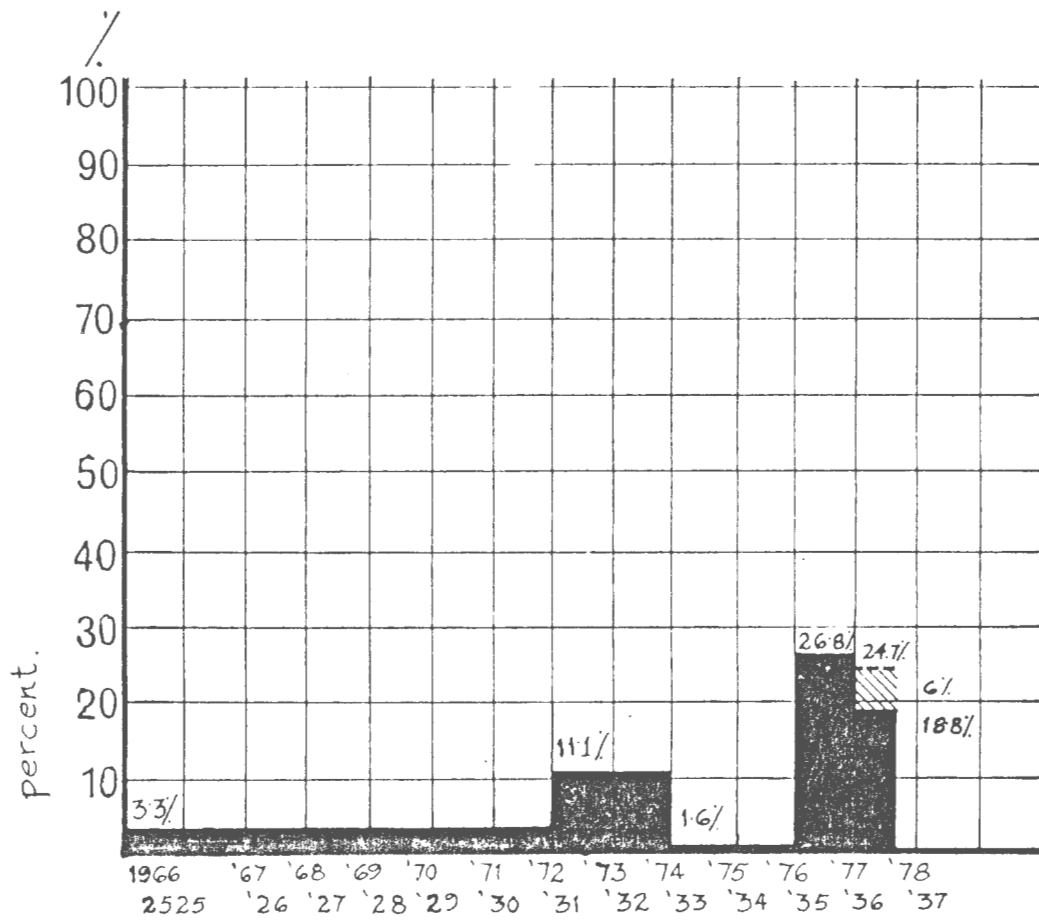
Old Houses  
 خانه های قدیمی

New Houses  
 خانه های جدید



مقایسه خانه های جدید و قدیم

OLD AND NEW HOUSES COMPARISONS. Fig. 2.28



**HOUSE CONSTRUCTION RATE.**  
 as a percentage of total houses built  
 between 1965 - 1978. 2524 ~ 2537.

میزان خانه سازی

بعنوان درصد کل خانه های ساخته شده بین سالهای ۶۵-۷۸

▨ outside town limits. خارج از محدوده شهر

Fig. 2.29

ALASHTAR BUILT AREA 1975

Fig. 2.30

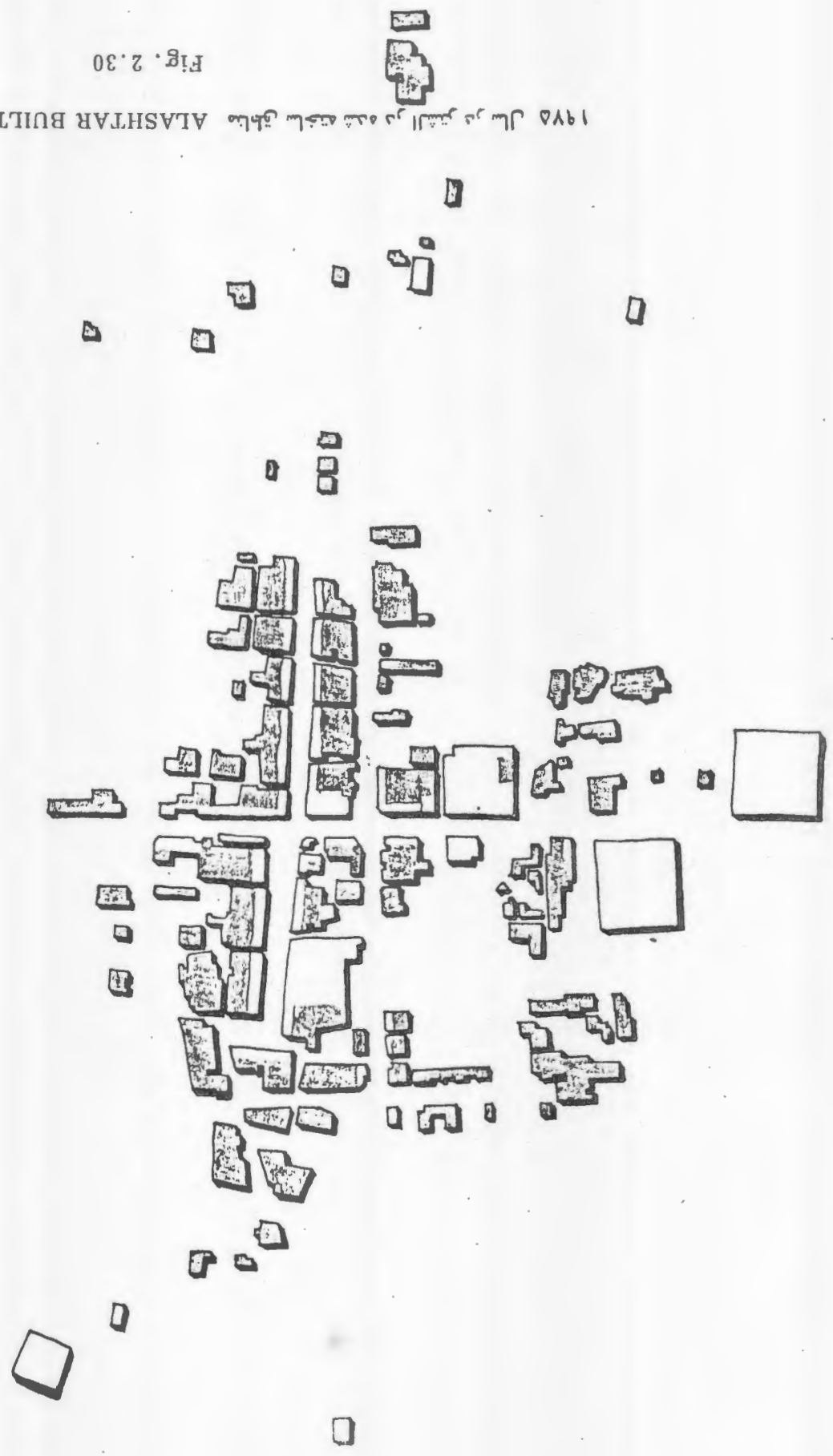
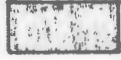


Fig. 2.31

Housing Additions  
1976 Building Season.



ALASHTAR BUILT AREA 1976.

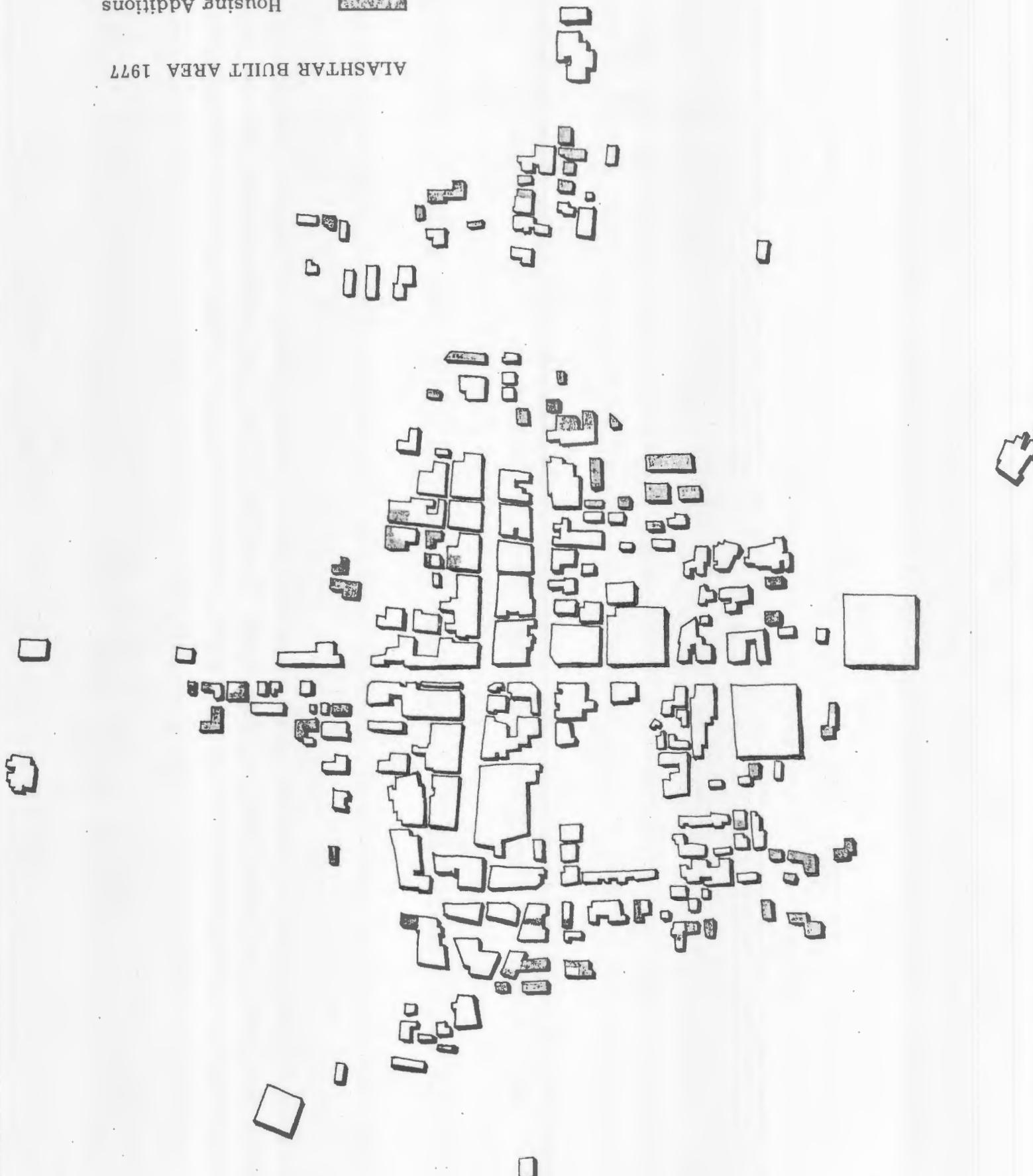


Fig. 2.32

Housing Additions  
1977 Building Season.



ALASHTAR BUILT AREA 1977





ALASHTAR BUILT AREA UPTO 1983.

 Building Areas 1977 - 1983.

Fig. 2.33

## 2.7 Hotels and Hostals

Alashtar is frequently used as a 'short stay' place by a variety of people. Villagers often come to buy and sell, visit the clinic or just to visit friends and relatives. Similarly, many Alashtaris have friends and relatives in Khorramabad and again, there is a lot of visiting back and forth. Up till now, visitors to Alashtar had to limit their stay to a day's outing or stay overnight with acquaintances. There is an apparent and frequently expressed need in the town for a reasonably priced hotel where visitors can stay.

Similarly, since Alashtar has the only secondary schools serving the region's 40,000 population, many villagers send their children to study and live in Alashtar for the school months. It is common for two or three young boys to share a small rented room lacking the minimum of services. The lack of adult support, both in terms of guidance and basic things such as the provision of food, and the wretched living conditions severely handicap the education and the growing process of these rural school children. There is no hostel facility where such children could have their basic needs taken care of so that they could concentrate better on their schooling.

Furthermore, because of this bad situation, many villagers either do not send their children to school in Alashtar, or are forced to move into the town themselves, thus unnecessarily adding to the depletion of agricultural activity in the region and increasing the pool of unskilled labour in the town, for which there is not sufficient demand.

## 2.8 Drainage, Sewerage and Refuse Disposal

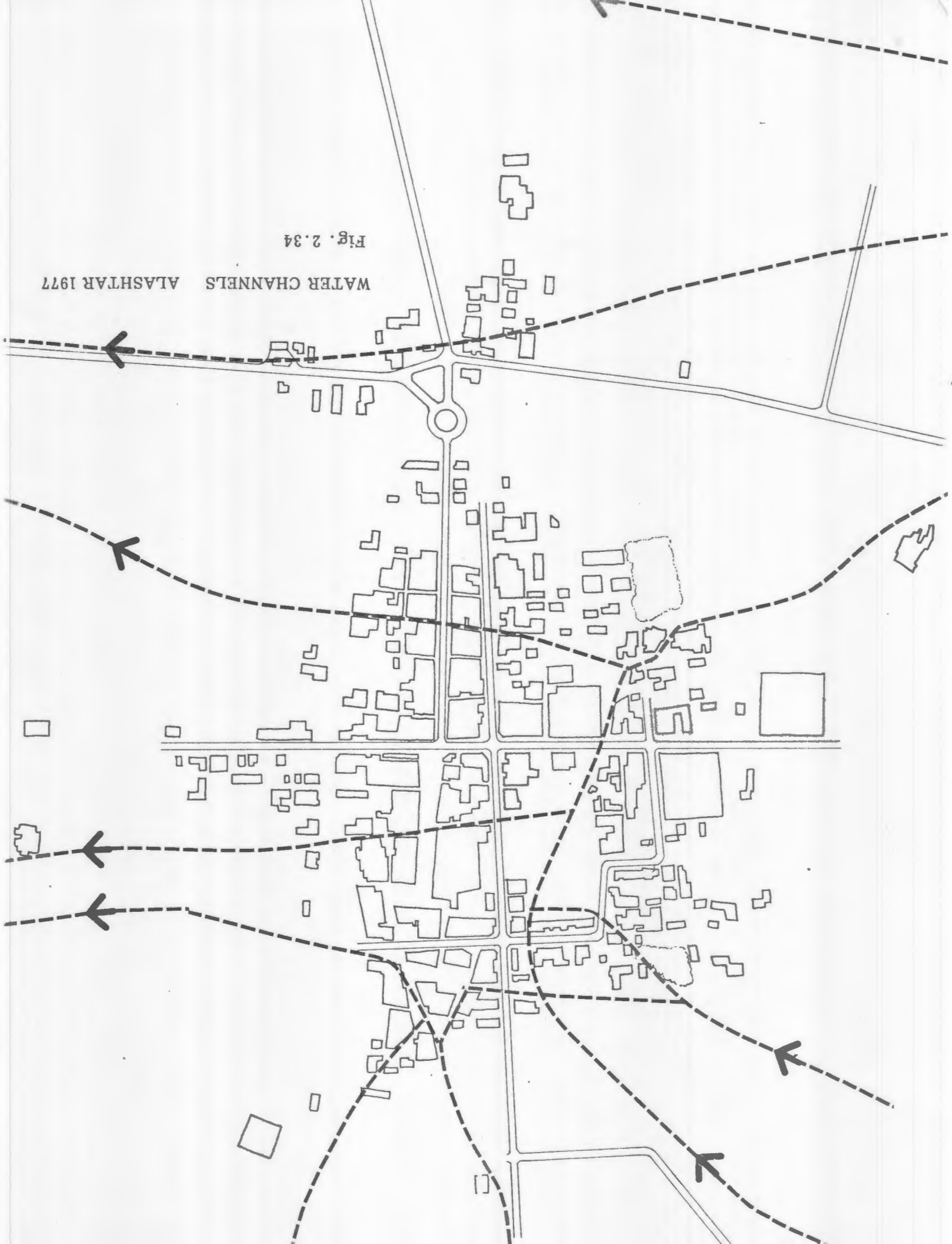
There are several major and many minor water channels that pass through the town (Fig. 2.34 ). They are both agricultural water channels (that come from the fields north of the town, watering fields also in the south) and also the town's drainage. In spring and early summer, their numbers and volume are increased due to the melting snows and rains.

Since there are very few lined drains, most of these channels are open ditches that often block up or overflow to create stagnant water.

A refuse collection and disposal system has been begun, but it is not yet fully operational neither in terms of collection nor of disposal. Thus many inhabitants deposit their refuse in the open water channels or beside them in rubbish tips. Similarly, it is also common for mothers to wash their clothes, vegetable sellers to wash their produce, and children to play in these channels. All this constitutes a major health hazard. There is a serious need for lined drains, an efficient refuse disposal and collection system, proper washing facilities in homes and in the bazaar areas, and general education in sanitation for the public.

Pit privys are widely used and this system seems to be adequate, at least for the five year time reference of this study. A survey carried out showed that approximately 75% of the houses in Alashtar have pit privys.

WATER CHANNELS ALASHTAR 1977  
Fig. 2.34



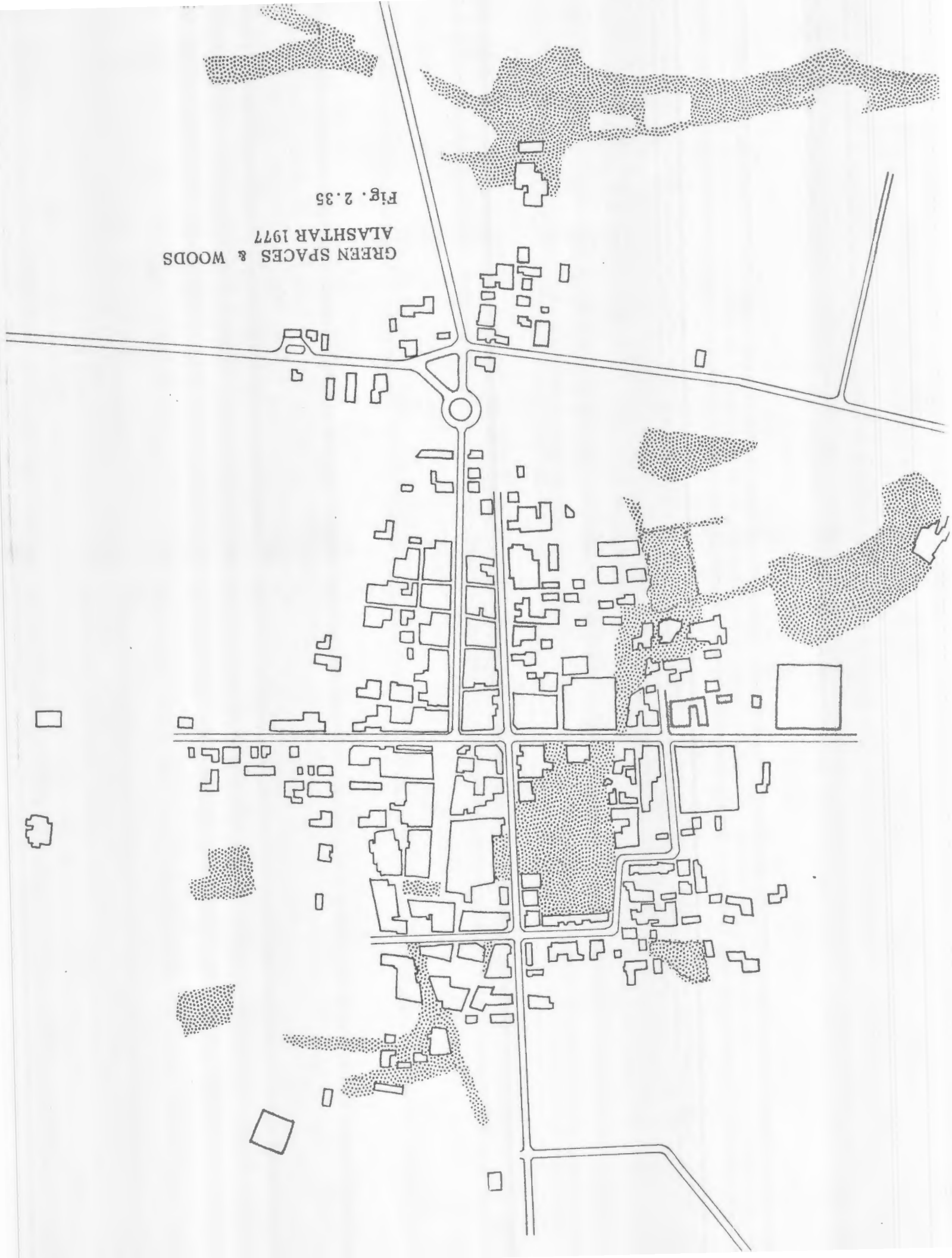
There is no recreational facility of any consequence in the town, other than the traditional tea and kebab houses. A stadium is being constructed north of the town, but it will be some time before it is complete. For the older men and youths the few asphalted roads become promenades and meeting places, adding to the confusion of pedestrian and vehicular circulation. There is no playground either for youths or younger children who again use either the main roads or the dusty alley ways for their games. Some tree-lined spaces within the town are also used in a limited way for playing in. Recreation for women tends to consist of squatting in front of their houses to talk. This is a relatively safe and private pursuit in the areas of town where the indigenous settlement pattern of houses cloistered around primarily pedestrian areas is still present. Where the new roads have cut in front of houses, the loss of privacy and the limited pavement widths have inhibited this most popular form of recreation.

## 2.10 Green Spaces

Scattered between the built-up areas, there are several green areas with trees and bushes (Fig. 2.35 ). Some are remnants of old orchards. A linked series of these green spaces run diagonally across the town along the course of a small stream. This diagonal link forms an informal pedestrian route across the town. A large open, tree-lined space is located approximately in the centre of this diagonal and of the town. These green areas are the closest thing the town has to a park at present, and in a limited way, are used as such, with children playing in them and schoolboys using them as quiet places to study.

Two particularly pleasant orchards to the north-east and north-west of town would have been destroyed by the previous road plan. Although there is a law against it, people have been known to cut trees down in such green spaces in order to speculate on the land.

GREEN SPACES & WOODS  
ALASHTAR 1977  
Fig. 2.35



AGRICULTURAL LAND 1977

Fig. 2.36





1. Shahrदारie
2. Bakhshدارie
3. Malaria control
4. Welfare
5. Registry office
6. Womens organisation
7. Telephone office
8. Rastakhiz
9. Post office
10. Police station
11. Education office
12. Dept. of Environment
13. Water board
14. Min. of agriculture
15. Wedding office
16. Forestry office
17. Min. of health
18. Technical office
19. Post and telephone office
20. National Iranian Oil Co.

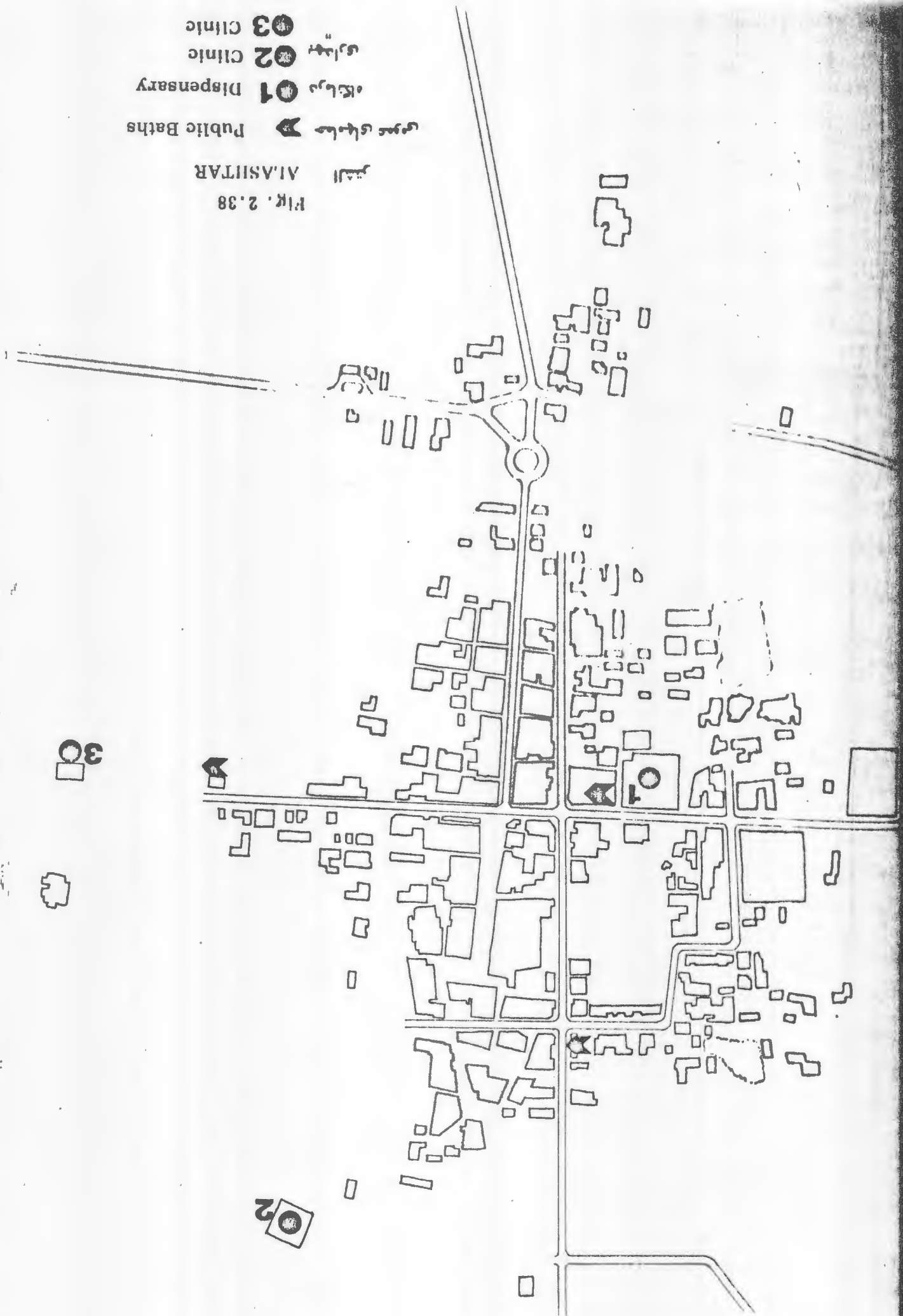
GOVERNMENT OFFICES  
IN ALASHTAR

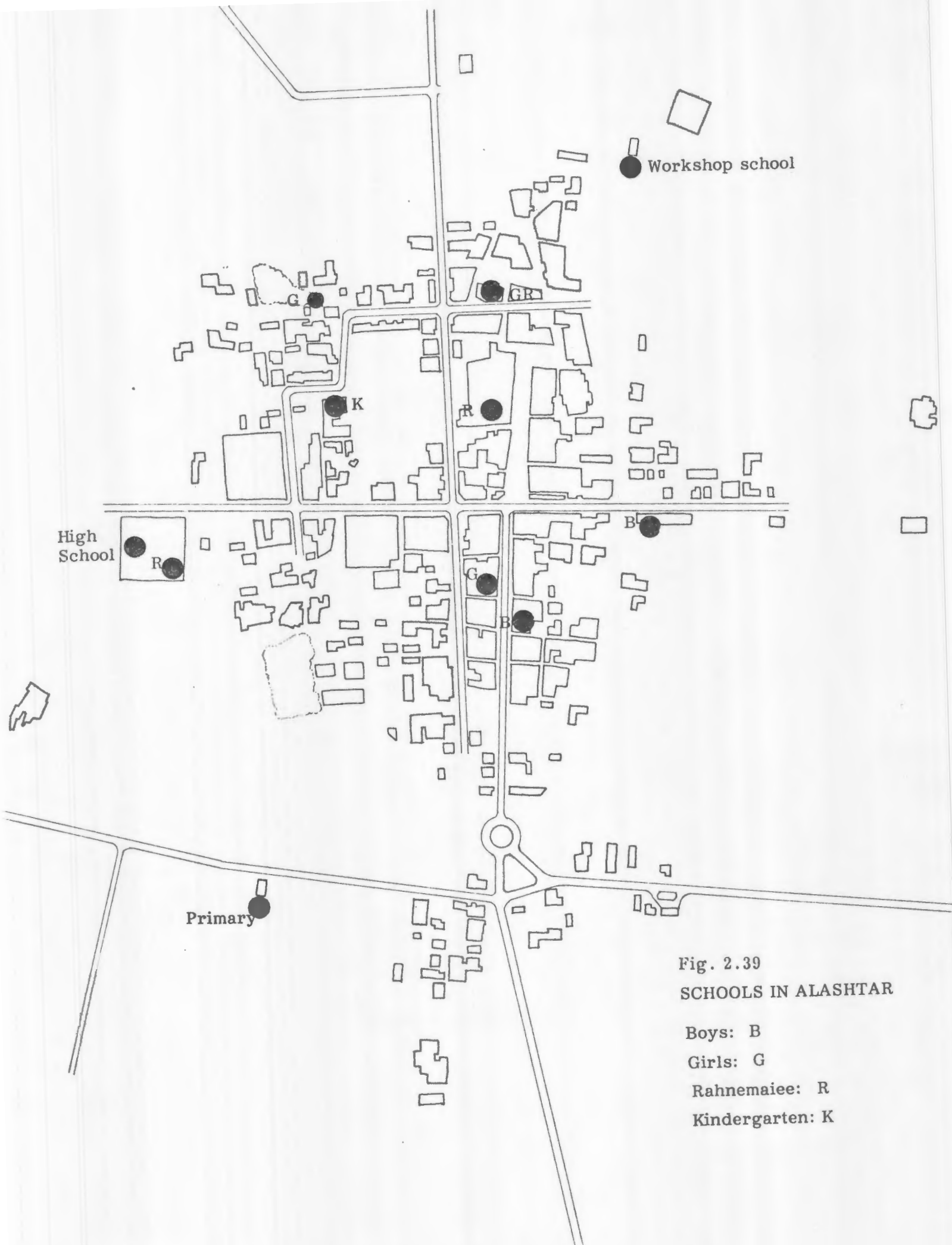
Fig. 2.37

- 3 Clinic
- 2 Clinic
- 1 Dispensary
- Public Baths

الصحر ALASHITAR

FIG. 2.38





Workshop school

High School

Primary

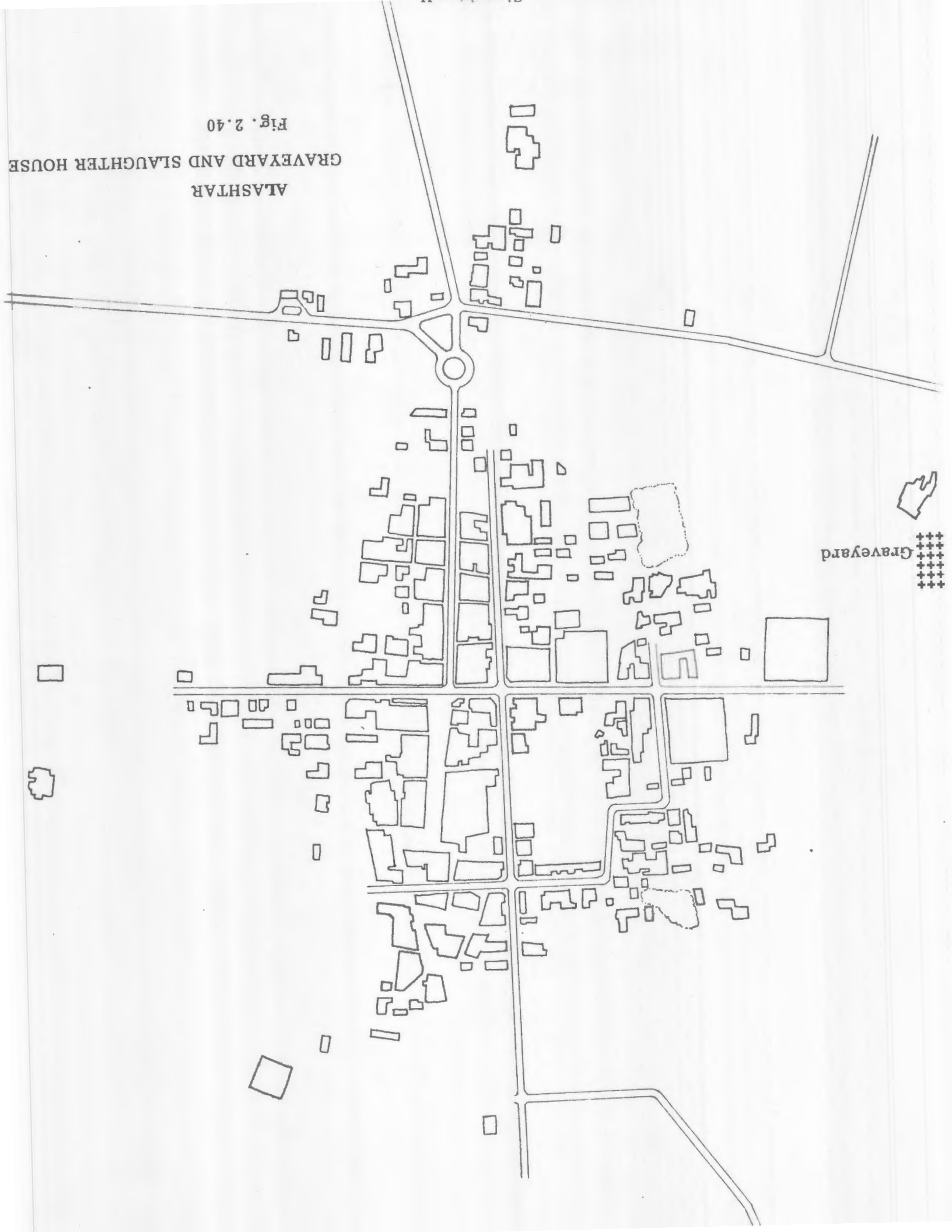
Fig. 2.39  
SCHOOLS IN ALASHTAR

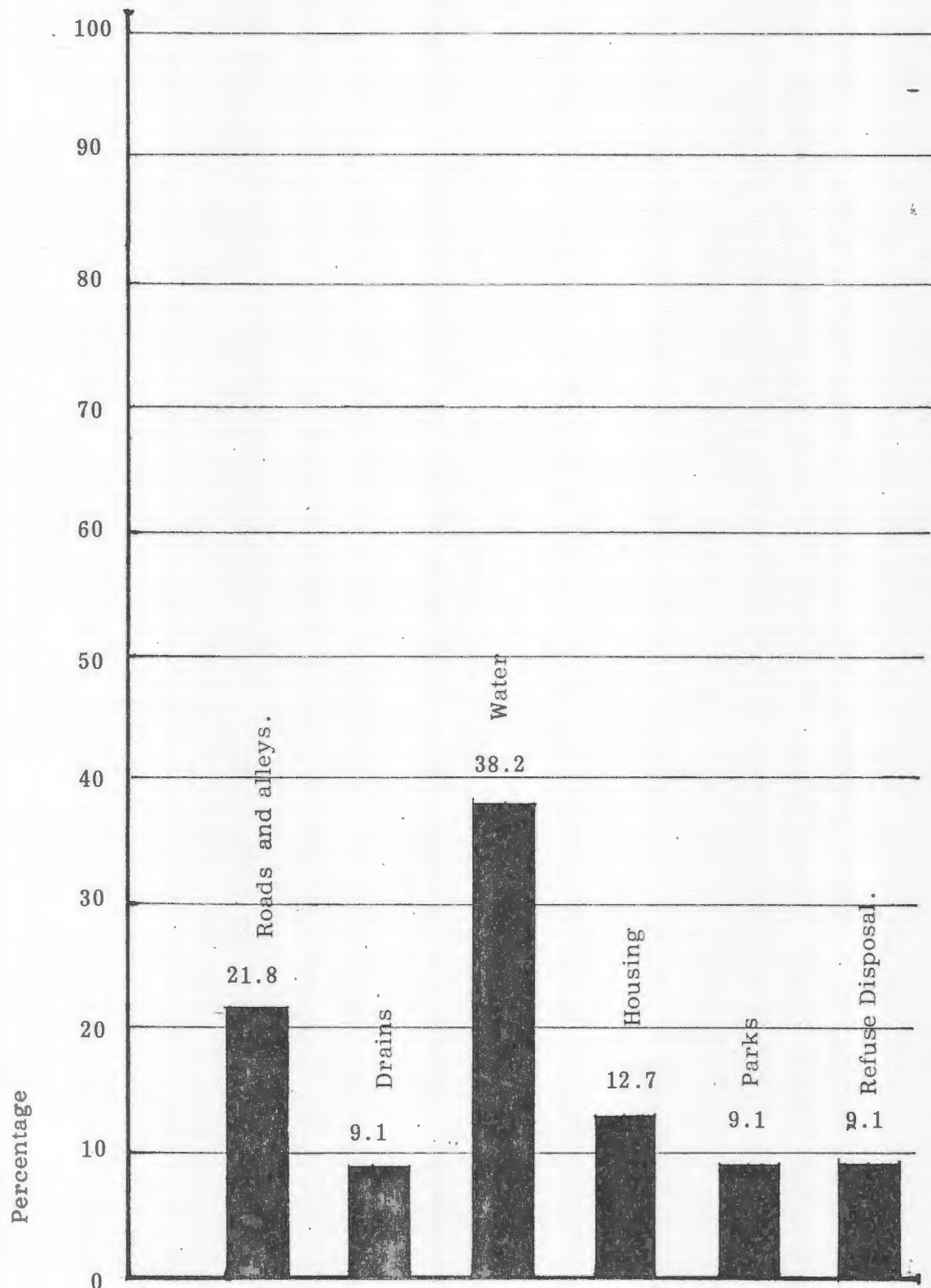
- Boys: B
- Girls: G
- Rahnemaiee: R
- Kindergarten: K

ALASHTAR

GRAVEYARD AND SLAUGHTER HOUSE

Fig. 2.40





FELT NEEDS: %age of persons placing above services as 1st. priority.

Fig. 2.41

### 3.0 Five Year Town Plan

#### 3.1 The Need for the Town Plan

Towns with a population of 5 - 50,000 people form the largest number of urban settlements within the country today and in the foreseeable future. (Fig. 3.1 ). Alashtar is an example of such towns which service large numbers of rural population of their surrounding villages.

Alashtar is already a rapidly growing town, facing the problems of transition from a rural to an urban settlement, and it contains the only medical and secondary education facilities in the area.

It is important, therefore, that the correct growth of intermediate centres such as Alashtar be guided, so that the population pressure upon the larger cities can be relieved and the local people can obtain the required services within their own region. However, it must be emphasized that Alashtar should only provide those facilities that cannot be decentralized throughout the Selseleh region, so that people can come from the village, obtain the services needed during a short stay and return to their village.

	1976 2535	1991 2571	2012 2571
Rural	17877	15500	10000
Urban	15715	32000	50000
Total	33592	47500	60000
Urban %	47	67	83

### RURAL AND URBAN POPULATION FORECASTS .

( 1000 of inhabitants )

Cities by Size	1976			2012		
		2535			2571	
	1	2	3	1	2	3
Tehran	1	4996	28.6	1	9050	18.1
+ 1000	0	0	0	6	9650	19.3
500-1000	3	1941	12.4	9	5250	10.5
250-500	4	1332	8.5	26	8470	16.9
50-250	34	3566	22.6	98	9900	19.8
5-50	329	4380	27.9	460	7680	15.4

### NUMBER OF CITIES AND DISTRIBUTION OF POPULATION .

1. No. of Cities.    2. Population in each bracket.    3. %age of urban pop.  
(1000 of inhabitants)

(Source: Plan and Budget Organisation. Centre for National Spatial Planning.

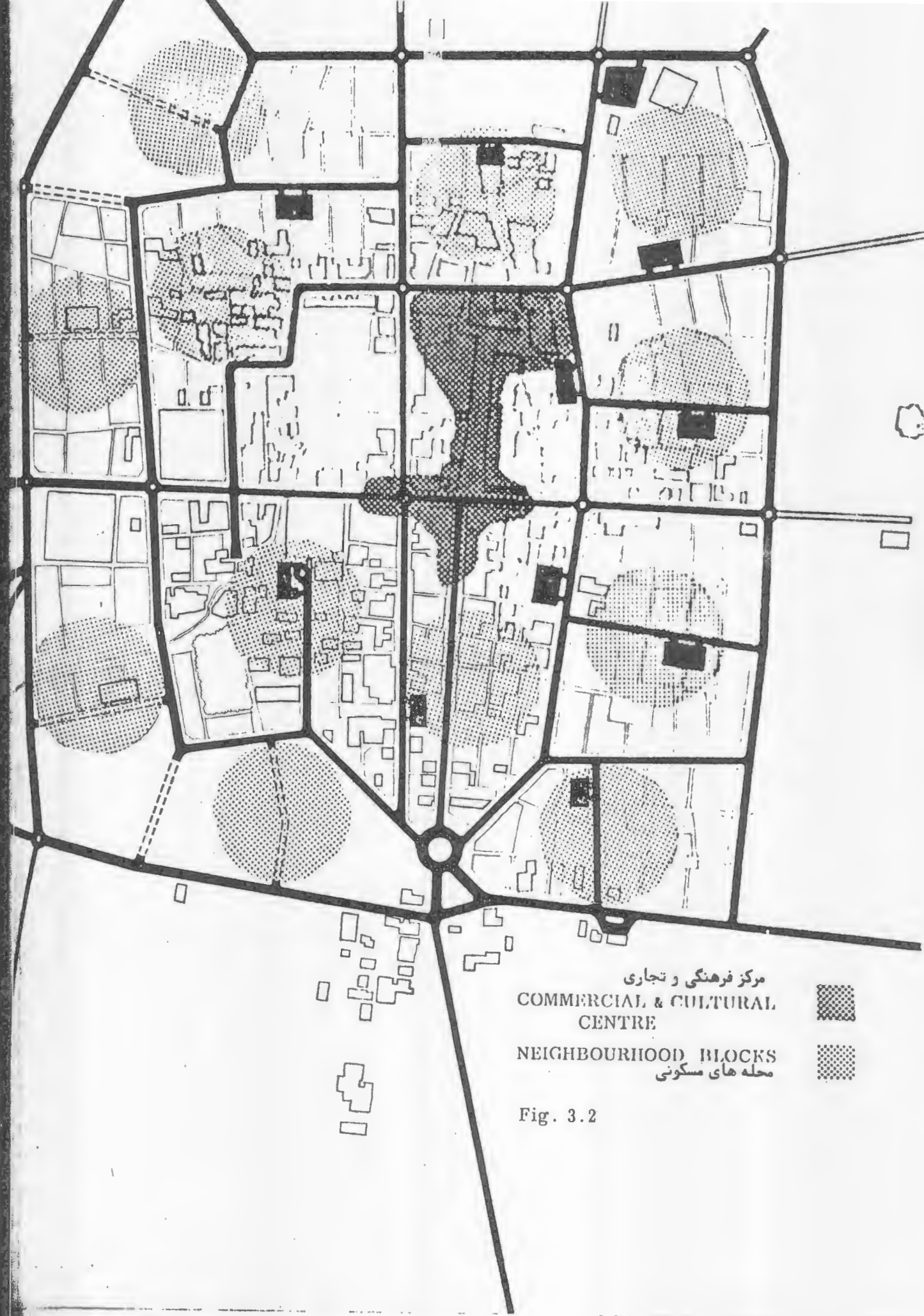
Urban Development Vol.3 2nd. Stage Final Report. May 1977)

Fig. 3.1    RURAL - URBAN FORECASTS.

### 3.2 The Concept of the Town Plan (Fig. 3.2)

The proposed plan aims to combat the problems of urban sprawl into agricultural land, ribbon development and poor pedestrian circulation, unhygienic wastelands between buildings, and the disintegration of local communities.

A concentric development in three phases will ensure efficient usage of the urban area before expanding the limits of the town. A commercial/cultural centre containing a bazaar, workshops, Mehmanseraï, the old fort, the town square, a museum and a park, is circled by residential Mahalles. The residential neighbourhoods themselves contain a central green space and community facilities such as launderette, kindergarten, shops, etc. The Mahalles are ringed by major service roads. Smaller access roads lead into a public car park, where motorized traffic gives way to pedestrian circulation, the dominant mode of transport within the Mahalles, except for emergency vehicles such as ambulances and fire engines.



مرکز فرهنگی و تجاری  
COMMERCIAL & CULTURAL  
CENTRE

NEIGHBOURHOOD BLOCKS  
محلله های مسکونی



Fig. 3.2

### 3.3 Traffic (Figs. 3.3, 3.4)

In order to avoid congestion in the central town, ring roads are provided which act both as a bypass and as a rapid transit route to specific locations of importance such as the Municipality (presently the SIDP headquarters). These ring roads have the widest paved areas amongst the three road sizes in the plan, and contain a hard shoulder and planting on either side, in order to act as a buffer to the bordering buildings. The roads will be paved to a width that their traffic intensity demands, with a possibility of future expansion, so that funds can be directed to paving pedestrian alley ways and more length of road rather than providing unnecessary widths. The pedestrian alley ways are planned according to the effects of the climate, with wider north-south alley ways and narrow east-west ones.

طابقه سلسله جاده‌ها  
ROAD HIERARCHY

- جاده حلقه Ring road
- جاده اصلی Primary road
- جاده فرعی Secondary road
- مکان پارکینگ Parking

Fig. 3.3



### 3.4 Climatic Rationale of the Alashtar Plan

The hierarchy and pattern of streets and open spaces has a climatic rationale. As mentioned earlier, the indigenous house in the Alashtar region tends to be oriented facing south. North orientations are less favoured though north facing rooms are often the result of physical site layout limitations of the central courtyard house having two rows of rooms facing each other onto an open court. The plan has been organized to maximize the number of plots which can accommodate this dominant courtyard form and its most favourable orientation.

The arrangement of the alley ways within a neighbourhood block is such, that in the summer, the 6m wide north/south street, are shaded by the buildings on either side. East/west alley ways, lying parallel to the path of the sun, in order to remain shaded, are narrow (4m). Figs. 3.4, 3.5)

The sunnier open spaces at the junction of east/west and north/south street, along with the different degree of shading in the two types of streets, and the larger perimeter roads, all act to create pressure differentials which induce cooling air movement.

Whilst it is stated that shade temperature is only uncomfortable for part of the day during the four summer months, the sun's radiant temperature in open spaces is hotter and more uncomfortable.

During the winter, the open squares and large streets, shaded in summer by trees, will be open to the sun (the trees now being bare), and the north/south 6m alleyways will also be penetrated and warmed by the low angle winter sun.

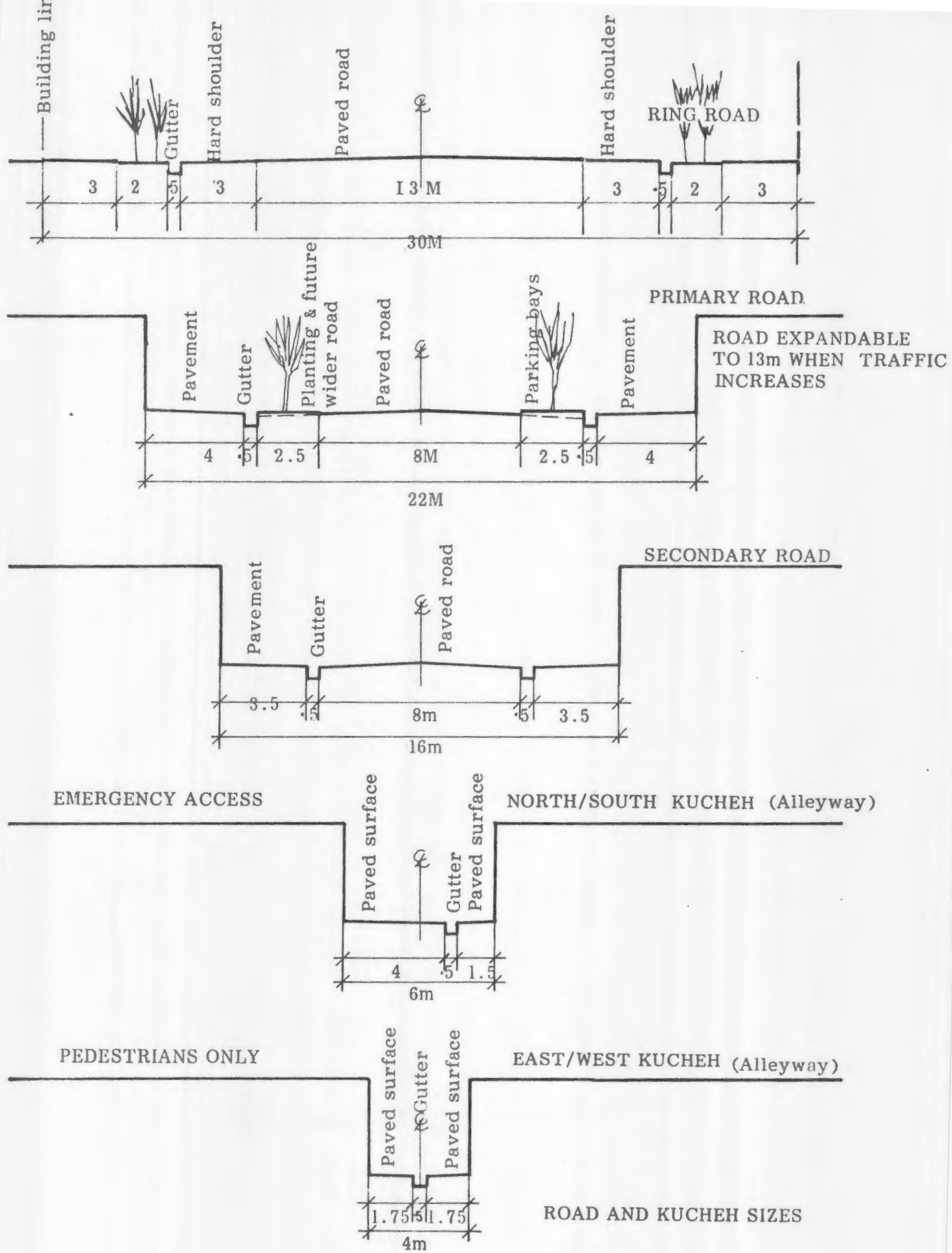
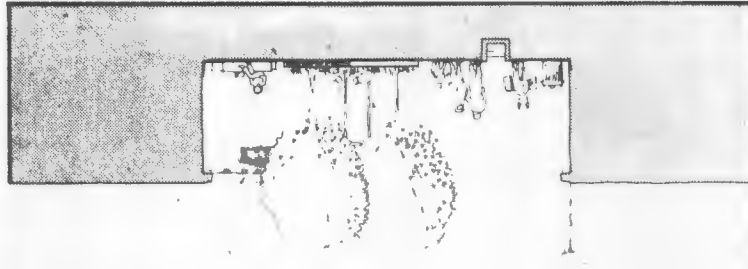


Fig. 3.4

Proposed

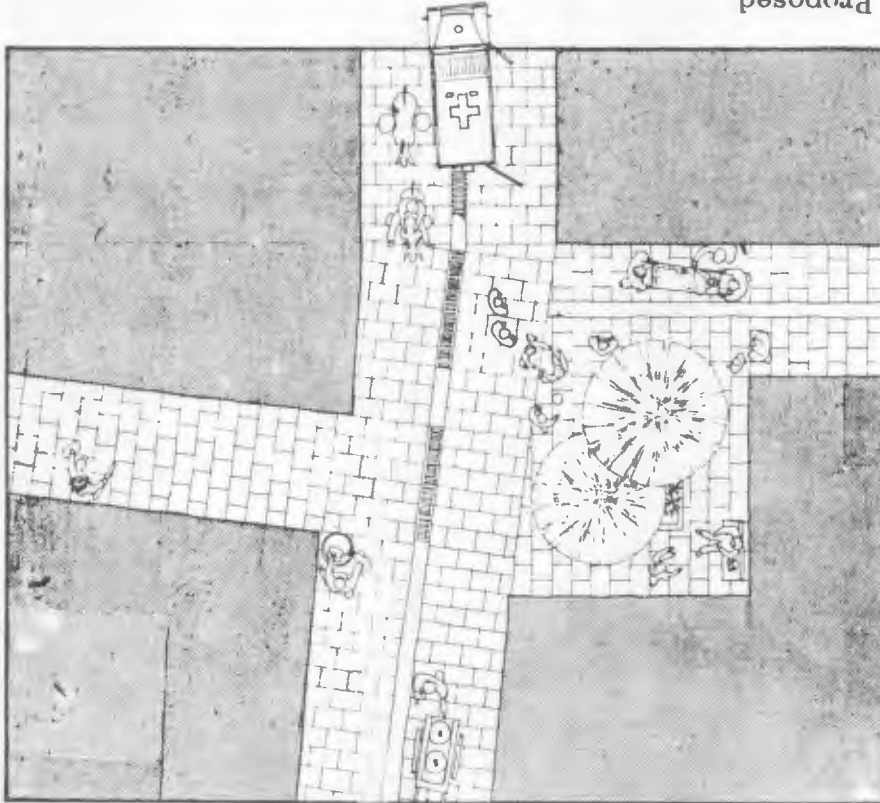


ALLEYWAYS

Existing



Proposed



Intersection Treatment.

ALLEY - WAYS.

Each neighbourhood unit is bound by primary roads which provide rapid access to it from any location in town, but only a secondary service road enters the neighbourhood leading to a centrally located public car park. In this way heavy traffic roads do not intersect the residential mahalleh. Two hundred dwellings which house approximately one thousand people at densities ranging from 100 to 150 persons per hectare are contained in each residential neighbourhood. Every mahalleh also contains a community space providing a public meeting place and childrens' play area. A local corner shop catering for every day household needs is available within the mahalleh. (Fig. 3.6)

Between 10 - 15% of the land within the neighbourhood unit is designated for public use and includes the community space, parking and public buildings such as schools, kindergarten and launderette, etc. The neighbourhood can act as an administrative unit, with the community organizing themselves to run their neighbourhood facilities and elect representatives to the town council.

Fig. 3.7 locates the Mahallehs and the public use areas in them.

Fig. 3.8 gives a complete breakdown of Mahalleh sizes, spaces for public use, averages of population and number of plots.

Fig. 3.9 compares space consumption between Khorramabad and Alashtar.

Fig. 3.10 gives space hierachies according to the 'Ekistics' system.\* The small town size (1.2 km<sup>2</sup>) relates closely to Alashtar's projected size by 1983. However, Alashtar's neighbourhoods are smaller than the 'Ekistics' scale, reflecting the more pedestrianised nature of the town (compared to those considered in Ekistics), as well as relating more closely to the size of the indigenous settlement.

\* C. A. Doxiadis 'EKISTICS : An Introduction to the Science of Human Settlements', Hutchinson & Co., London 1968.

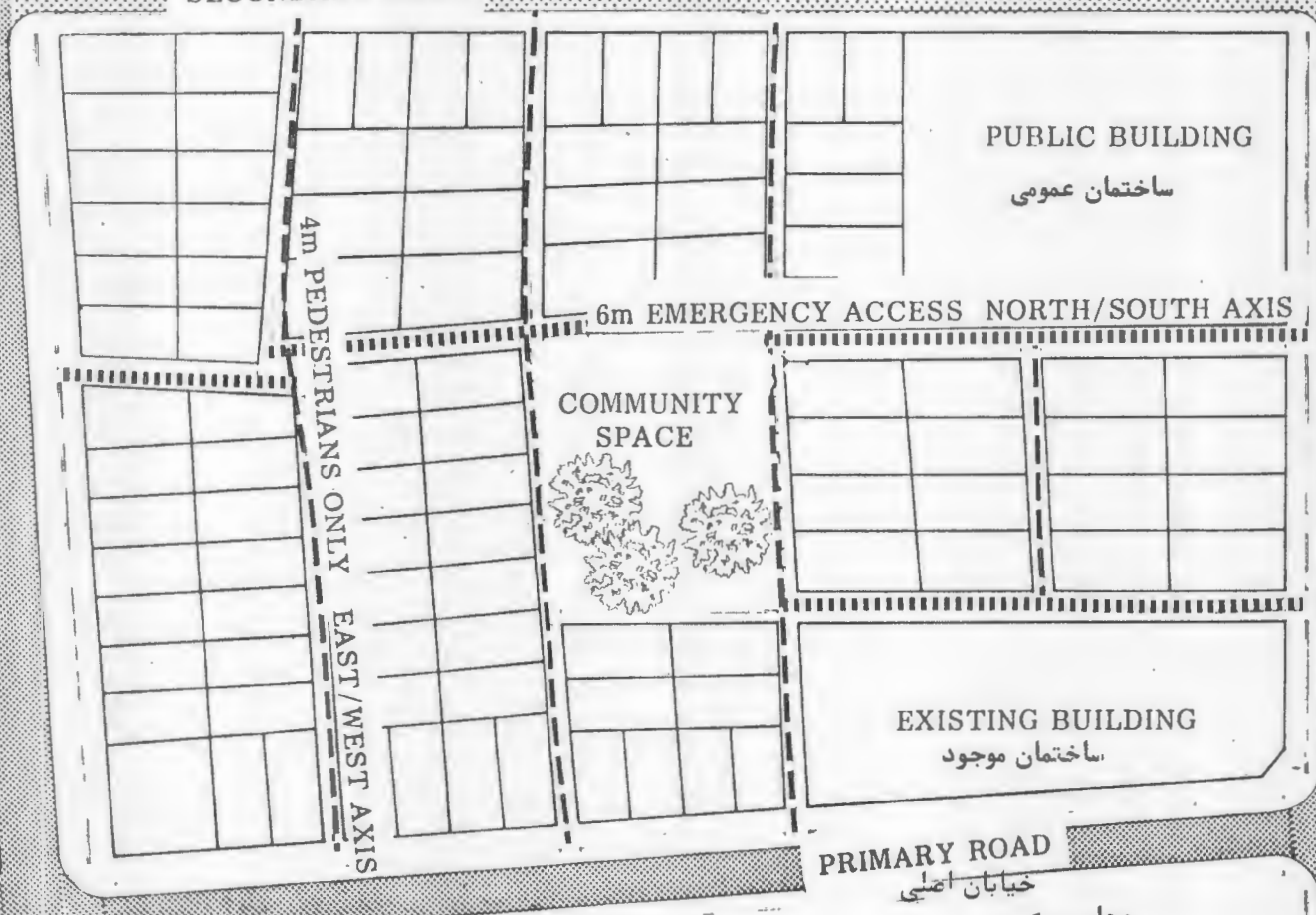
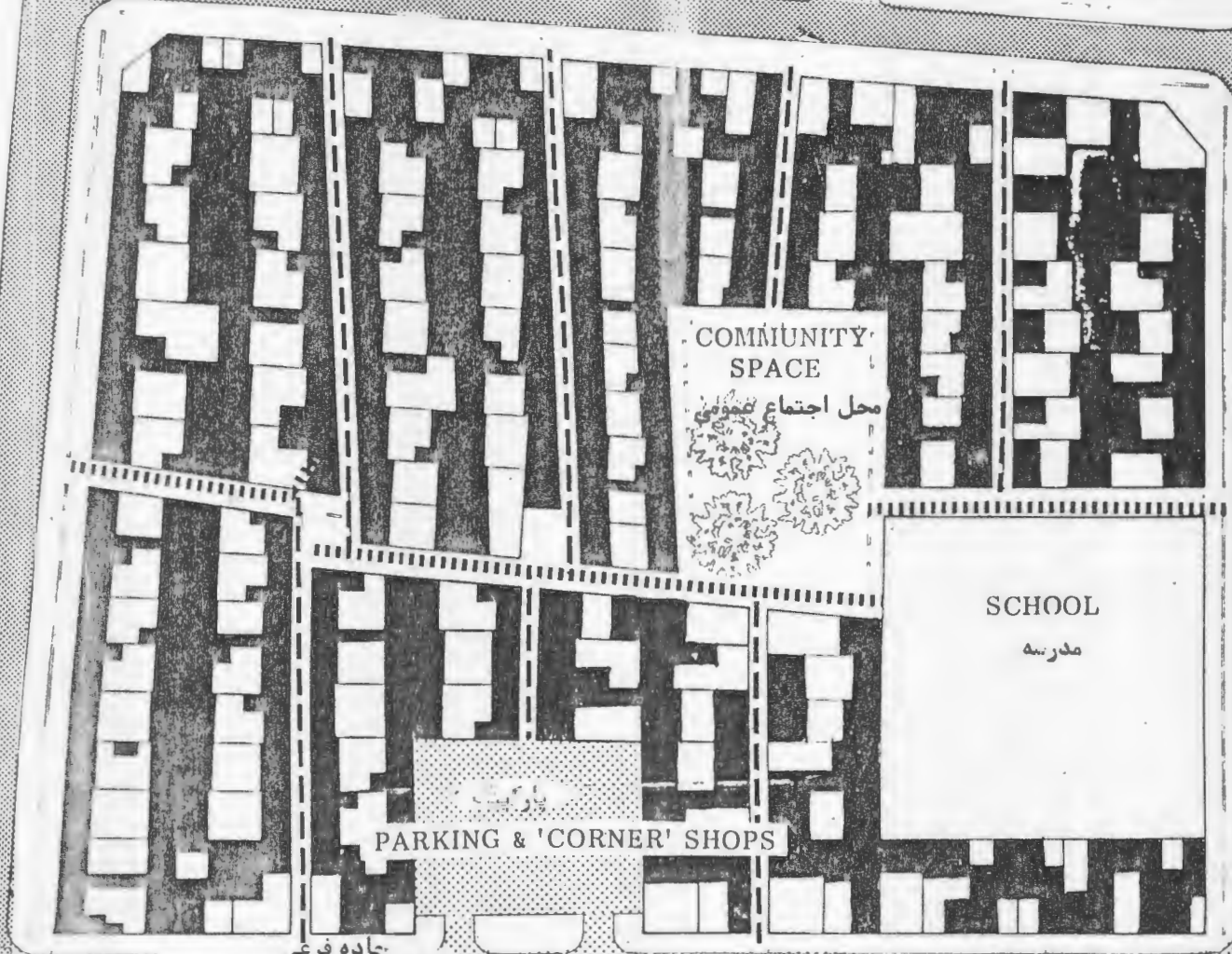
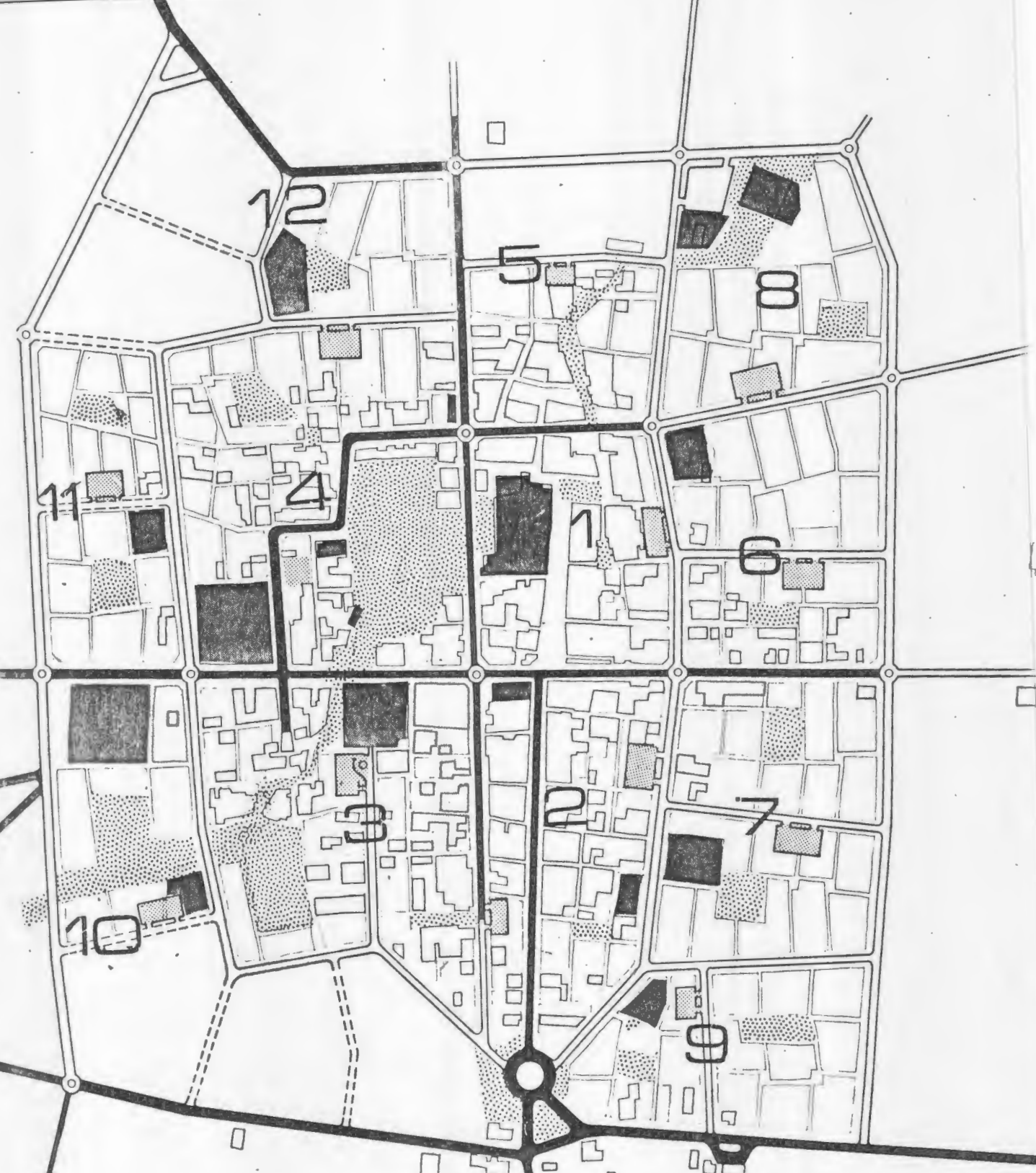


Fig. 3.6 NEIGHBOURHOOD BLOCK WITH ROAD & PEDESTRIAN HIERARCHY



موقعیت محله های مسکونی و نوع استفاده از آن

NEIGHBOURHOOD LOCATION AND LAND USE. Fig. 3.7

-  ساختمان عمومی  
Public Building.
-  پارکینگ  
Parking.
-  فضای سبز  
Green Space.

Neighbourhood	Hectare	M <sup>2</sup>				% of Neighbourhood for public use.
		Public Bldng.	Parking	Green Space	Public Use Total	
1 <sup>F</sup>	7.2 (6.7)	14800 (5000)	1500	2200	18500 (8700)	25.7 (12.9)
2	8.0	3125	2300	2000	7425	9.3
3	11.5	6000	1500	12500	20000	17.4
4 <sup>K</sup>	14.7 (12)	8700	3000	35000 (8000)	46700 (19700)	31.8 (16.7)
5	8.0	5000	1500	8000	14500	13.8
6	8.0	2400	1500	4000	7900	9.87
7	9.52	5400	1500	5000	11900	12.6
8	8.1	5000	4000	3000	12000	14.8
9	6.4	2000	1500	3300	7300	11.4
10 <sup>#</sup>	9.6 (5.6)	9600	1500	6900	18000	18.75
11	6.8	2000	1500	3800	7300	10.7
12 <sup>#</sup>	10.1 (4.1)	4000	1500 (0)	8000 (1600)	13500 (5600)	13.3
Total (Ha)	107.9 (95.22)	6.8 5.8	2.13	8.78 (6.08)	18.5 (14.14)	17.1 (13.2)
Average.	8.65	0.48	0.18	0.51	1.2	13.2

Fig. 3.8 NEIGHBOURHOOD STATISTICAL INFORMATION.  
By 1983, number of hectares released for building: 95.22; for a projected population of 11197 persons.

Average Density: 117.6 persons per hectare.

Average Neighbourhood Size: 8.65 Hectares.

Average population per neighbourhood: 1017 persons.

No. of Households/Plots per neighbourhood: 200 (at 5.1 persons per household)

\* Neighbourhoods 1 & 4 have large areas of civic building and the city park. Figures in brackets compensate for this so that they do not distort the %ages and averages for the typical neighbourhoods.

# Figures in brackets relate to the amount of land to be released by 1983.

\$ All averages are worked out using the bracketed figures.

year	Population	Space Consumption		Density
		Sq/m. Inhab	Total/Ha.	Inhab/Ha.
2533/1974	95000	83	790	235
2541/1982	150000	100	1500	100
2551/1992	270000	120	3250	83
2571/2012	500000	150	7500	66

KHORROMABAD.

(Source: Plan and Budget Organisation .Centre for National Spatial Planning.  
Urban Development Vol.3. 2nd. Stage Final Report. May 1977)

Year	Population	Space Consumption		Density
		Sq.m/Inhab.	Total (Ha)	Inhab/Ha
2523/1964	1262	147	18.5	68.2
2535/1976	5737	83	47.7	120.3
2542/1983	11179	85.2	95.2	117.6

ALASHTAR.

POPULATION - SPACE CONSUMPTION : KHORROMABAD - ALASHTAR.

Fig. 3.9

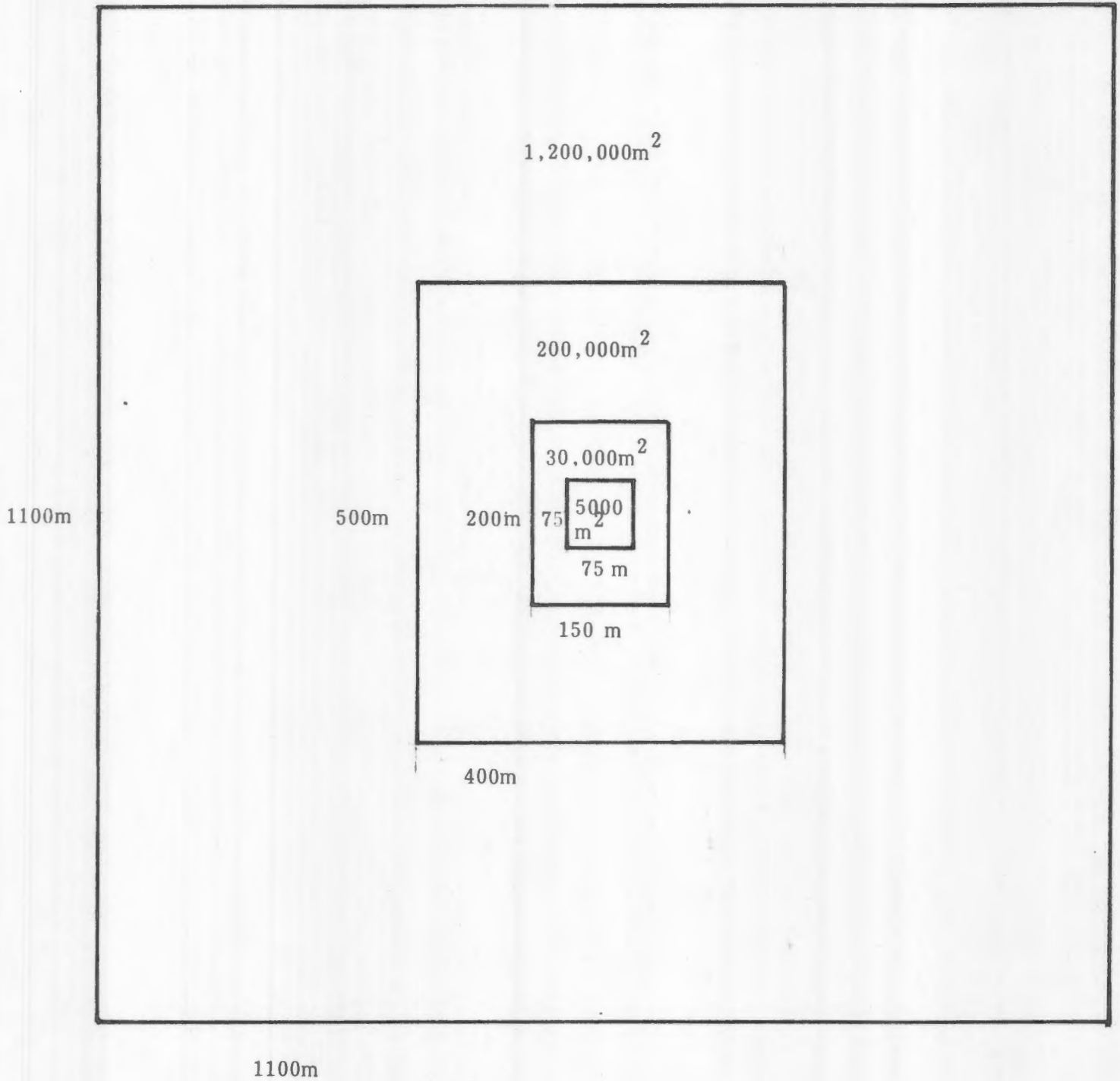


Fig. 3.10. SETTLEMENT SIZES (According to the Ekistics system)

Dwelling.	50m <sup>2</sup>
Dwelling Group .	5000m <sup>2</sup>
Small Neighbourhood.	30,000m <sup>2</sup>
Neighbourhood.	200,000m <sup>2</sup>
Small Town.	1,200,000m <sup>2</sup>
Town.	7 000,000m <sup>2</sup>
Large City .	40,000,000m <sup>2</sup>

### 3.6 Housing (Fig. 3.11)

The combination of a great demand for housing in Alashtar and of land speculation causing land costs to soar, has resulted in damaging both the quality of housing and the planned growth of the town. Low income people have one of two choices. They can either buy extremely small plots of land or build outside the five year plan limits. In the first case, their houses are sub-standard to their needs and in the latter case they build in unauthorized areas before these have been laid out for roads and services.

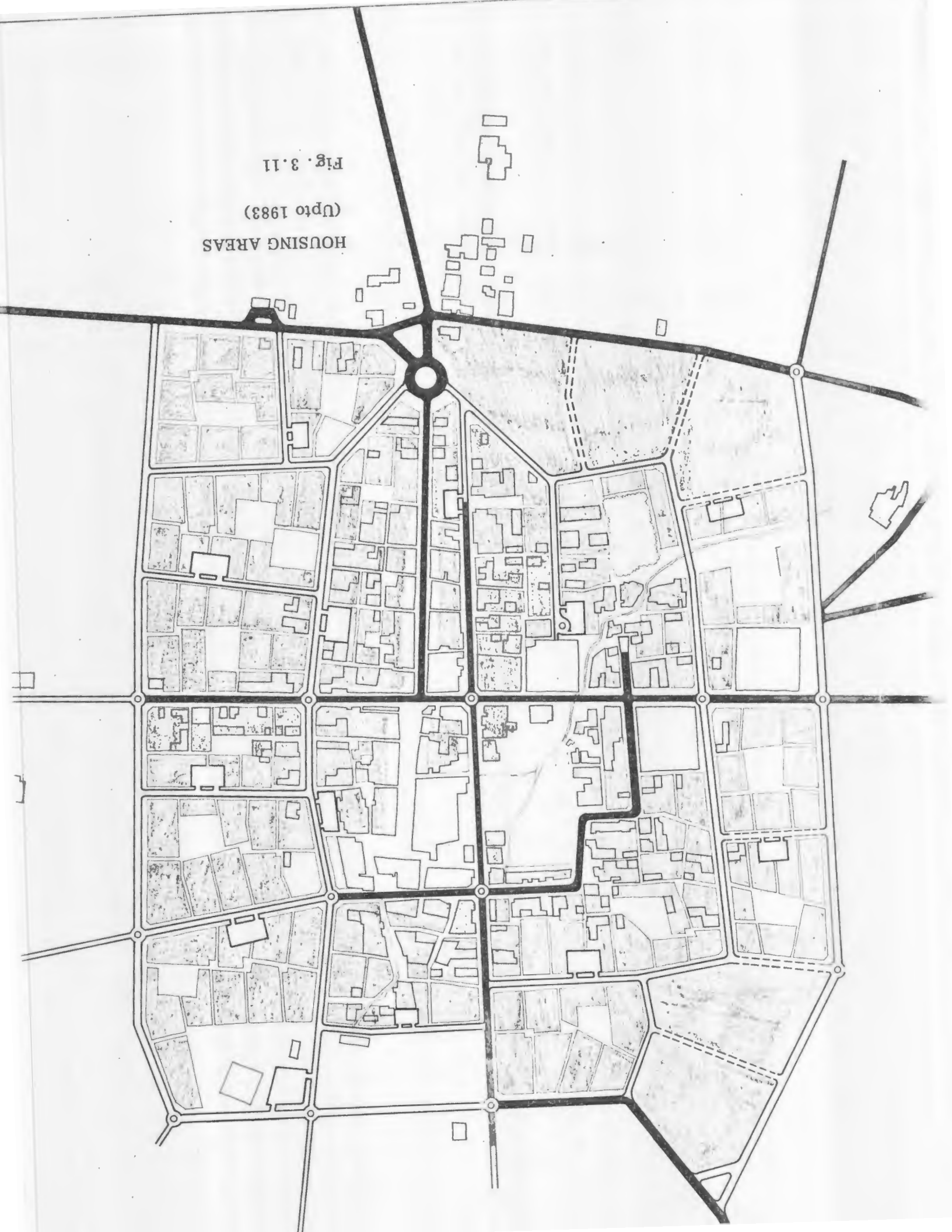
Effective legislation to control land prices would be difficult to enforce. A low-cost housing scheme, taking one complete neighbourhood as a site will go a long way in solving the problem and will have several other beneficial effects. Low income people will be provided with housing either on a self-help construction basis or by buying completed houses at low cost.

Thus, there will be no need for these people to build on too small plots or in unauthorized areas, and minimum plot sizes and housing area controls will be easier to enforce.

People who will lose land and even houses in the implementation of the town plan could also be compensated by being given land or housing in this scheme.

The actual construction of the neighbourhood unit as a pilot project will demonstrate the principles of the town plan in practical terms, making the construction of other neighbourhoods much easier.

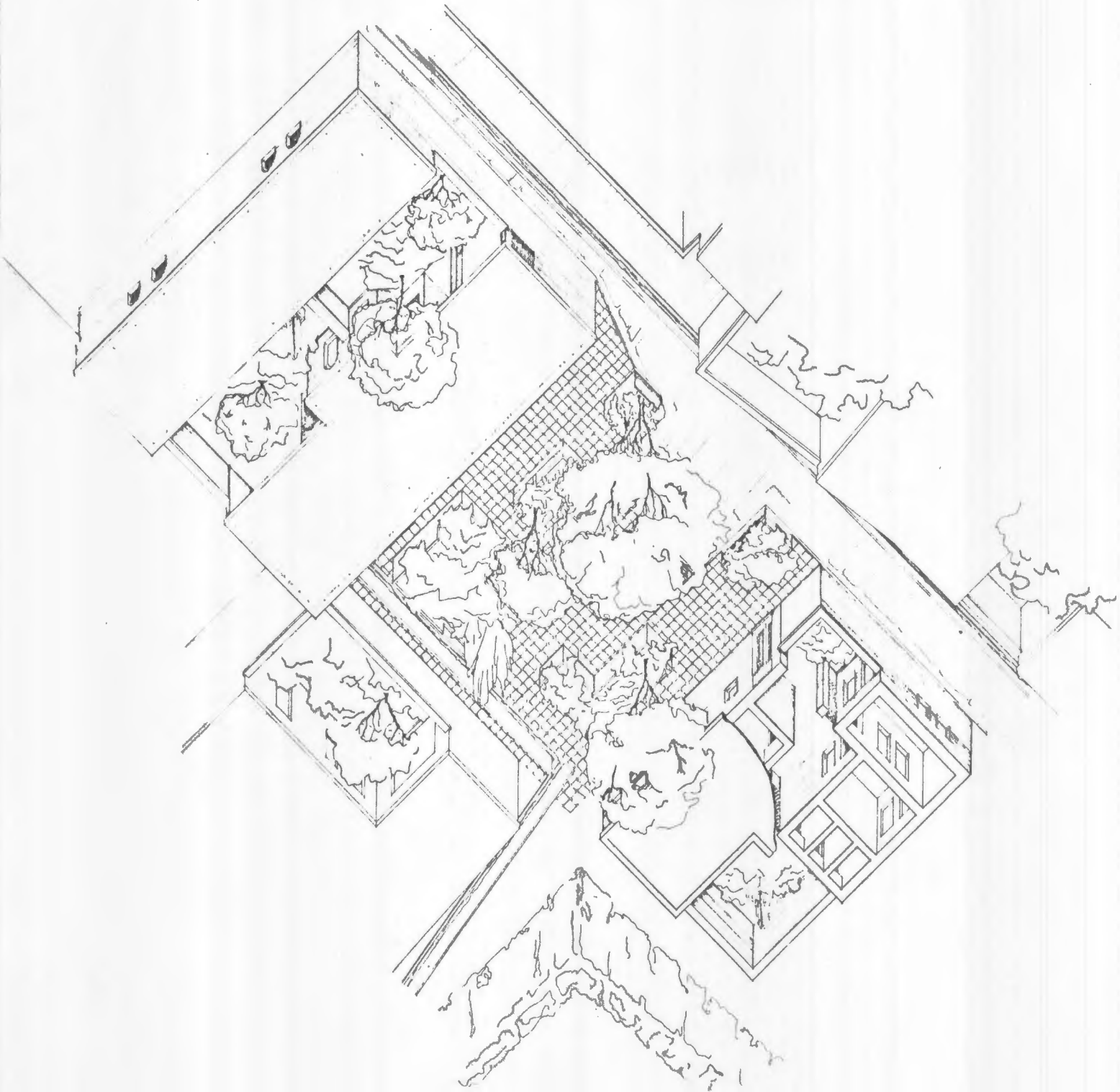
HOUSING AREAS  
(Upto 1983)  
Fig. 3.11



Similarly, the houses will act as practical examples of how the indigenous house form can be improved to meet Alashtar's modern needs. Local builders and future house builders will learn from these examples and this will stem the defects noted in the new houses being built at present. (Fig. 3.12)

Fig. 3.12

NEIGHBOURHOOD SQUARE AND NEW HOUSE DESIGNS BASED ON THE INDIGENOUS



### 3.7 Parks and Green Spaces (Figs. 3.13 & 3.14)

The green space design for the town consists of :

1. A diagonal line of linked green areas, forming an informal and pleasant pedestrian route across the town.
2. A city park located at an existing open green area lying central to this diagonal link and the town.
3. Neighbourhood green spaces.

Many of these green spaces already exist within the town and around its immediate vicinity. These should be preserved and developed. As Alashtar urbanizes, these areas of greenery within the increasingly built-up environment will take on added importance. It would not make sense to cut, clear and build on already existing treed and planted areas only to later feel the need of such places. Some of the planted areas have been incorporated as the neighbourhood green spaces. Neighbourhoods that do not have existing planted areas have been designated such areas where trees and bushes will have to be planted.

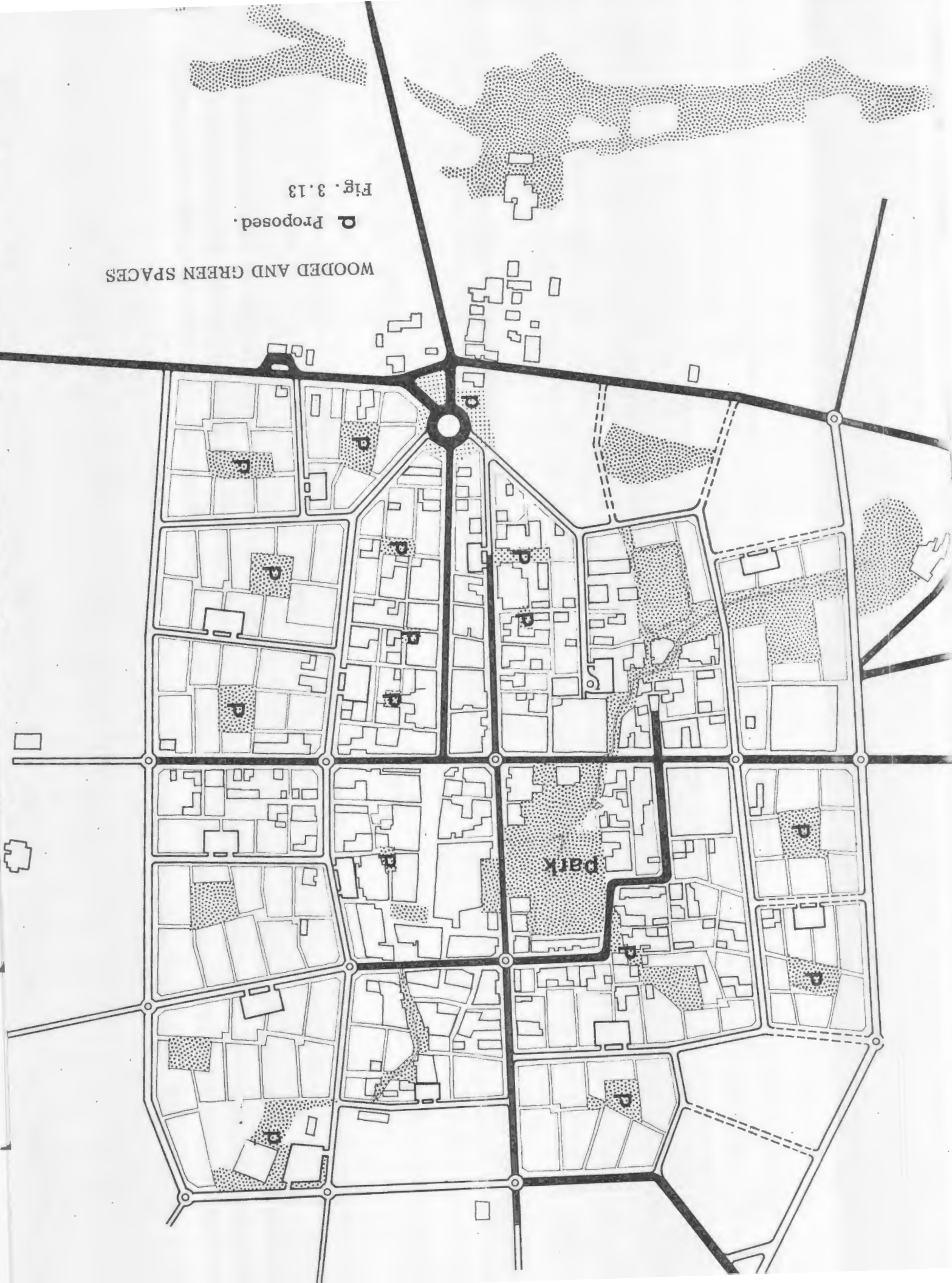
The site for the city park was chosen for the following reasons :

1. It is the only large open area centrally located in the town.
2. It already has park-like features such as a stream and trees.
3. Because of its natural park-like qualities, it is already used by people as such, particularly children.

WOODED AND GREEN SPACES

P Proposed.

Fig. 3.13



4. It lies central to and along the green pedestrian diagonal route across town.

5. There are several public buildings around it such as schools and clinics, to which a nearby park will be a welcome addition.

The park is divided into three basic areas :

1. A quiet, secluded, wooded section with a central fountain.
2. A childrens' playground area.
3. An open field for ball games and volley-ball courts for youths.

The park also has the following elements :

1. A gardener's house with adjoining plant nursery.
2. A youth centre with residential and recreational facilities.

The residential facilities are particularly for rural school children whose parents still live in the villages.

girls school

youth recreation

volley-ball

caretaker & nursery

kinder-garten

childrens playground

boys school

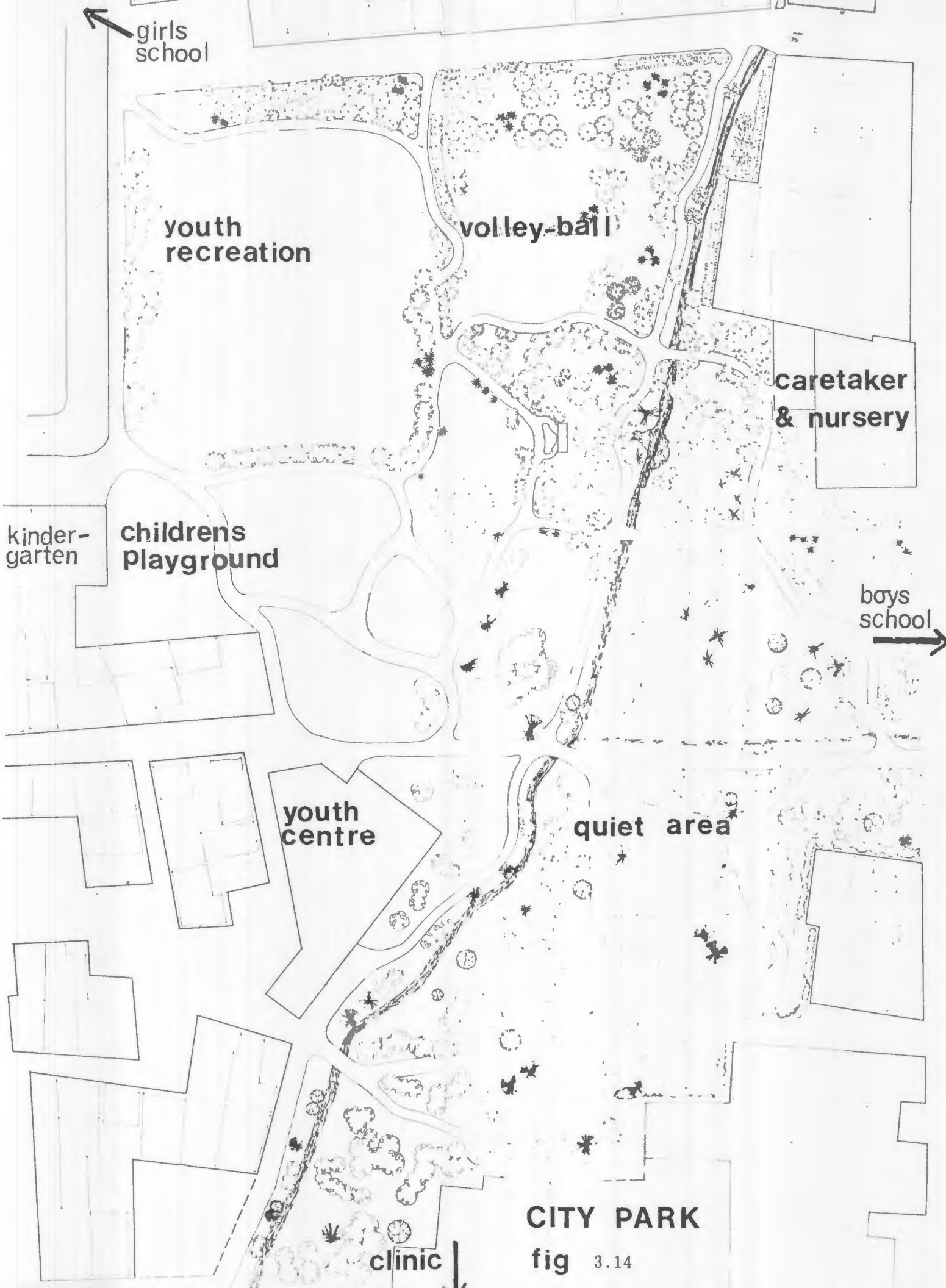
youth centre

quiet area

clinic

# CITY PARK

fig 3.14



### 3.8 Commercial - Cultural Centre

To combat the problems raised by the haphazard spread of commercial activity along all the road frontages, a clear zoning policy is proposed.

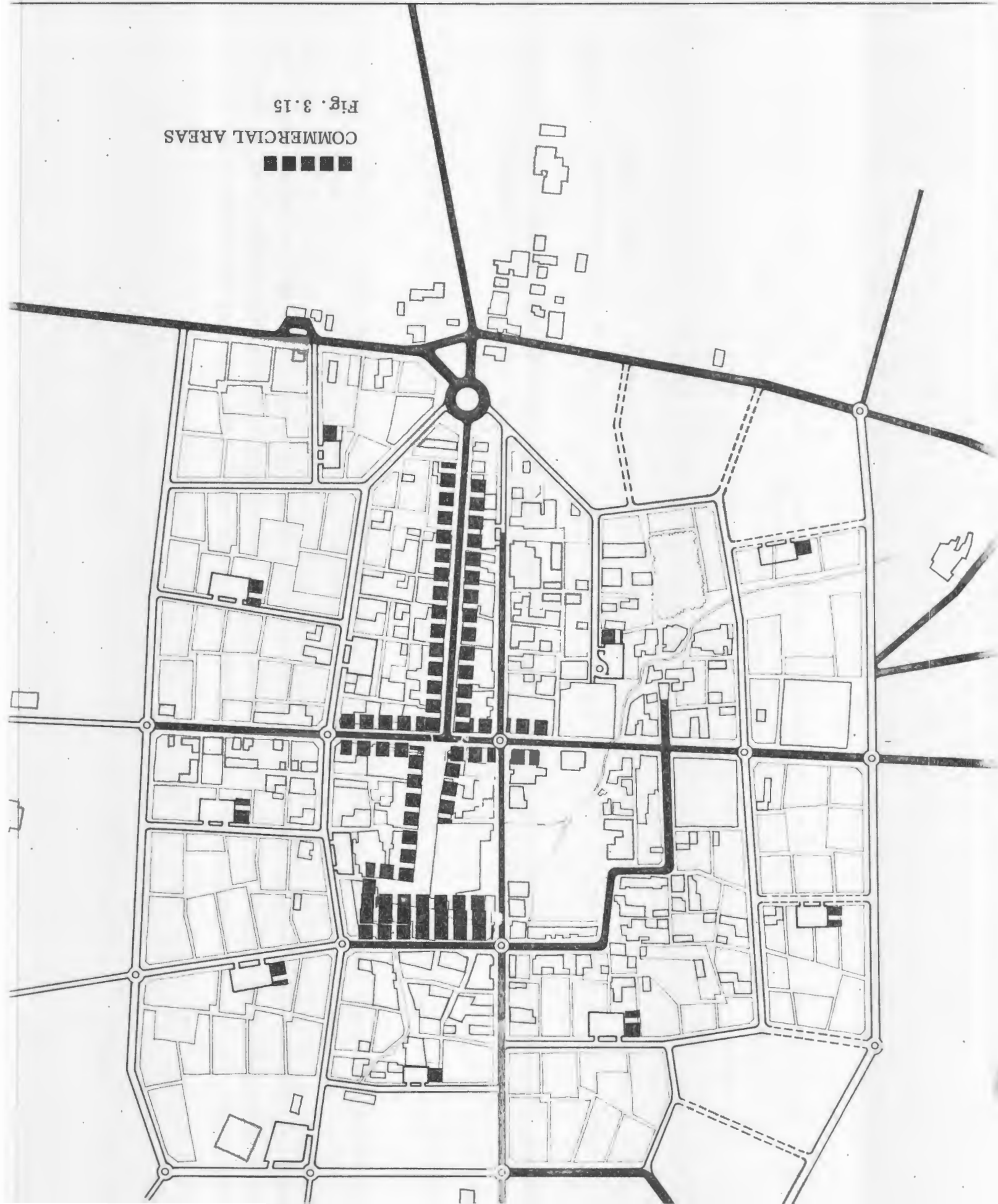
Shops are concentrated along a centrally located intersection of roads serving the whole town. In addition, shops border the parking areas serving each neighbourhood. This is a convenient location both because it is the natural entry and exit point to the neighbourhood and also because being set off the parking space, customers stopping would not impede the through traffic of the road. (Fig. 3.15)

The major commercial-cultural focus is around the old town centre which will be pedestrianized and contains a school, the old fort and a proposed bazaar-workshops area with a hotel (Mehmansara) and restaurant. (Figs. 3.16 & 3.17)

Although pedestrianised, the area would be open to delivery vehicles during certain hours. A covered arcade lining the existing shops would allow shops to extend out while also providing shoppers protection in bad weather. Shop-stall owners who now also clutter the main roads and pavements could be located in this area.

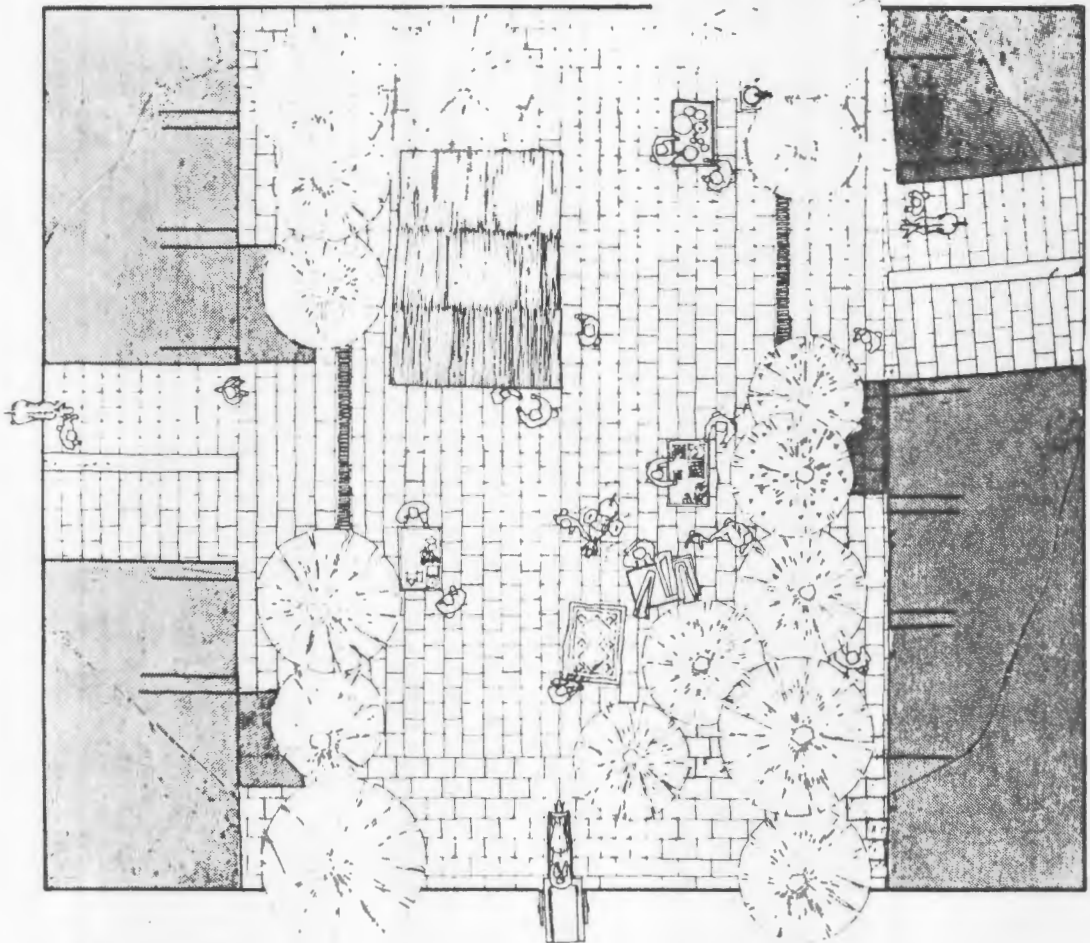
It is proposed that the old fort, which also has an old domed hammam underground, be connected to a cultural-recreation centre and museum. Activities such as group meetings, musical and theatrical events, film shows and displays of Lori art could take place here.

COMMERCIAL AREAS  
Fig. 3.15

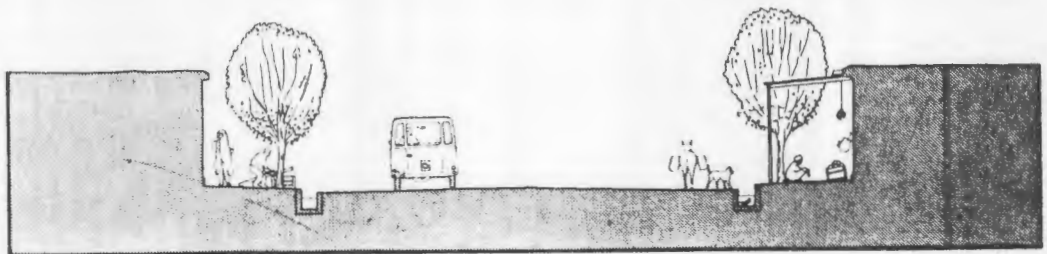


COMMERCIAL - CULTURAL CENTRE.  
Location Plan. Fig. 3.16





Proposed



Existing



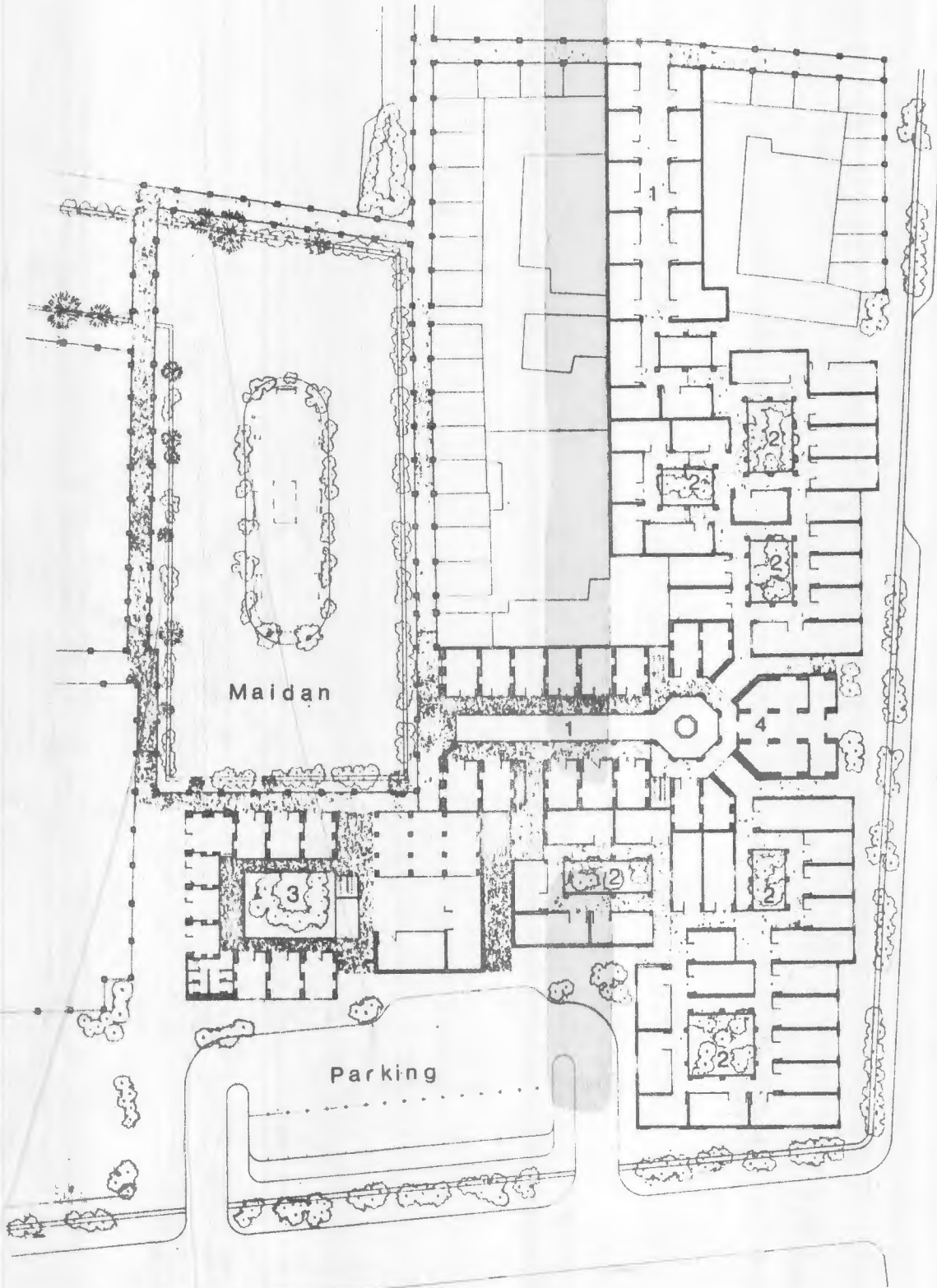
Proposed

The proposed bazaar, as its traditional counterpart, has a multi-functional role. Apart from being the focus of productive and commercial activities, the bazaar is a node of social and cultural exchange and contains certain recreational facilities, such as the tea house and restaurant. The concentration of the shopping activity along a central axis facilitates bulk purchasing, which is especially suited to the villagers and the nomadic population, and avoids the traffic problems of street front shopping areas. (Figs. 3.18 & 3.19)

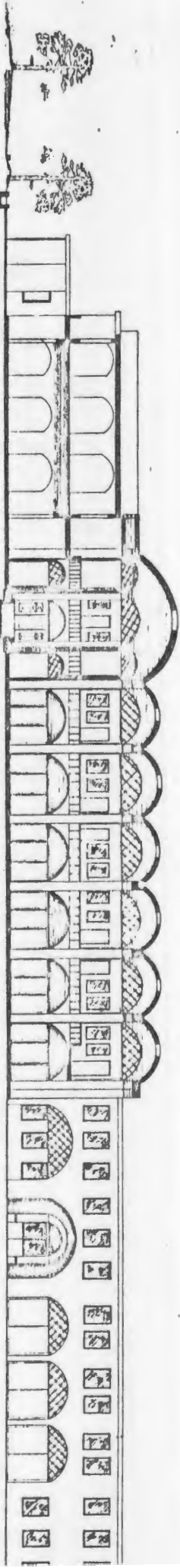
Surrounding the shopping axis are production workshops (Fig. 3.18 ) such as weaving, metal work, woodwork, etc. Each workshop is formed around a central courtyard. The collection of such workshops around the bazaar prevents the noise and the loading and unloading activities from interfering with residential privacy and the pedestrian pavements along the roads. A Guesthouse (Mehmansara) is located within the complex and caters for short stays of visitors and shoppers from outside the town.

ALASHTAR BAZAAR

Fig. 3.18



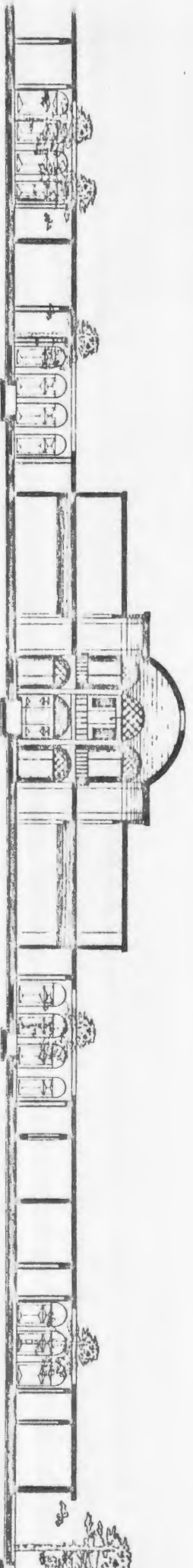
- 1 Shopping Arcade
- 2 Workshops
- 3 Guest House
- 4 Tea House



Tea House

Shopping Arcade

Guest House



Workshops

Shopping Arcade

Workshops

### 3.9 Densities and Zoning

At present, the only two-storey buildings in Alashtar are a bank, an old house and the fort. Several authoritative studies have shown that three and four storey buildings can achieve high densities equivalent to those achieved by high rise buildings\*. Furthermore, buildings above three stories should be constructed to complete engineering drawings (This is a law, for example in Teheran). Thus for reasons of harmony in building heights, densities and technical factors, a three-storey maximum has been recommended for Alashtar. (Fig. 3.20 ) It is expected that single storey construction with some increase in two-storey buildings, will be the norm within the guide plan period.

Zoning shows the maximum densities permitted for the areas, but it is not meant to be the only density or land use allowed. (Fig. 3.21 ) So, although the central town area will primarily be used for high density office and shops, there will also be medium density housing there. Similarly, the low density areas, although residential, would also contain limited commercial activity.

There is a low density diagonal link across the town which corresponds with the green-belt pedestrian link.

\* S. Angel & S. Benjamin : Urban and Regional Studies Faculty, Asian Institute of Technology, Bangkok, Thailand.

TYPE OF USE	MAX. No. of STOREYS	% BUILT AREA/FLOOR	% OPEN SPACE	%BUILT AREA	MIN. PLOT SIZE
RESIDENTIAL LOW DENSITY	2	60%	40%	100%	150m
RESIDENTIAL & MIXED USE MEDIUM DENSITY	3	50%	50%	150%	150m
EDUCATIONAL & HEALTH MEDIUM DENSITY	3	50%	50%	150%	300m
INDUSTRIAL MEDIUM DENSITY	3	50%	50%	150%	150m
OFFICES HIGH DENSITY	3	66%	33%	200%	100m
SHOPS HIGH DENSITY	2	100%	0%	200%	15m

Fig. 3.20

### BUILDING REGULATIONS

#### Domestic. Single Storeye.

Drawings Required: Site Plan. Floor Plans. Elevation..  
 Details on Materials, Finishes. Fixtures and Fittings.




#### Domestic and other buildings. Two and three storeyes.

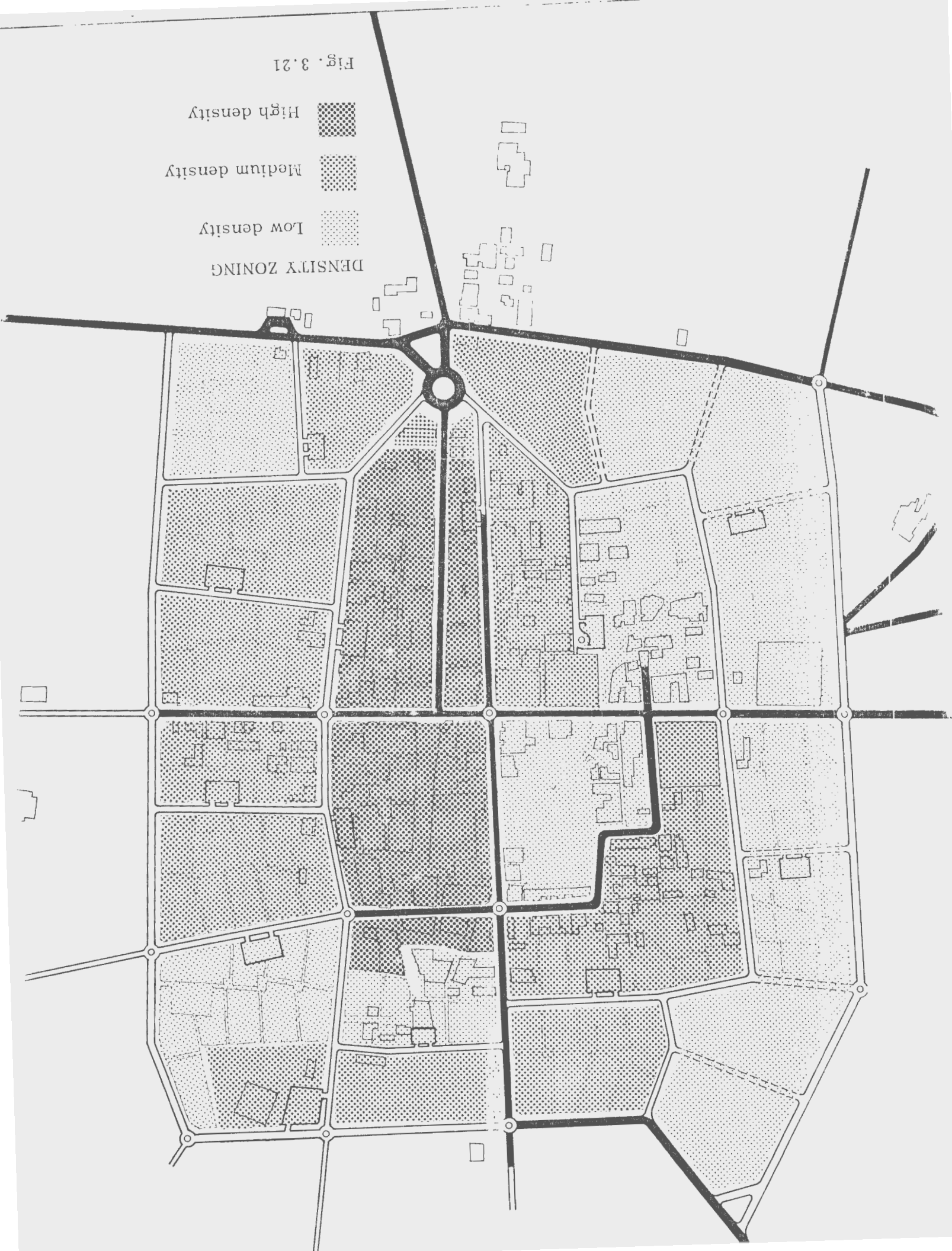
Site Plan. Floor Plans. Sections. Elevations.  
 Technical Details. Finishes, Fixtures and Fittings.

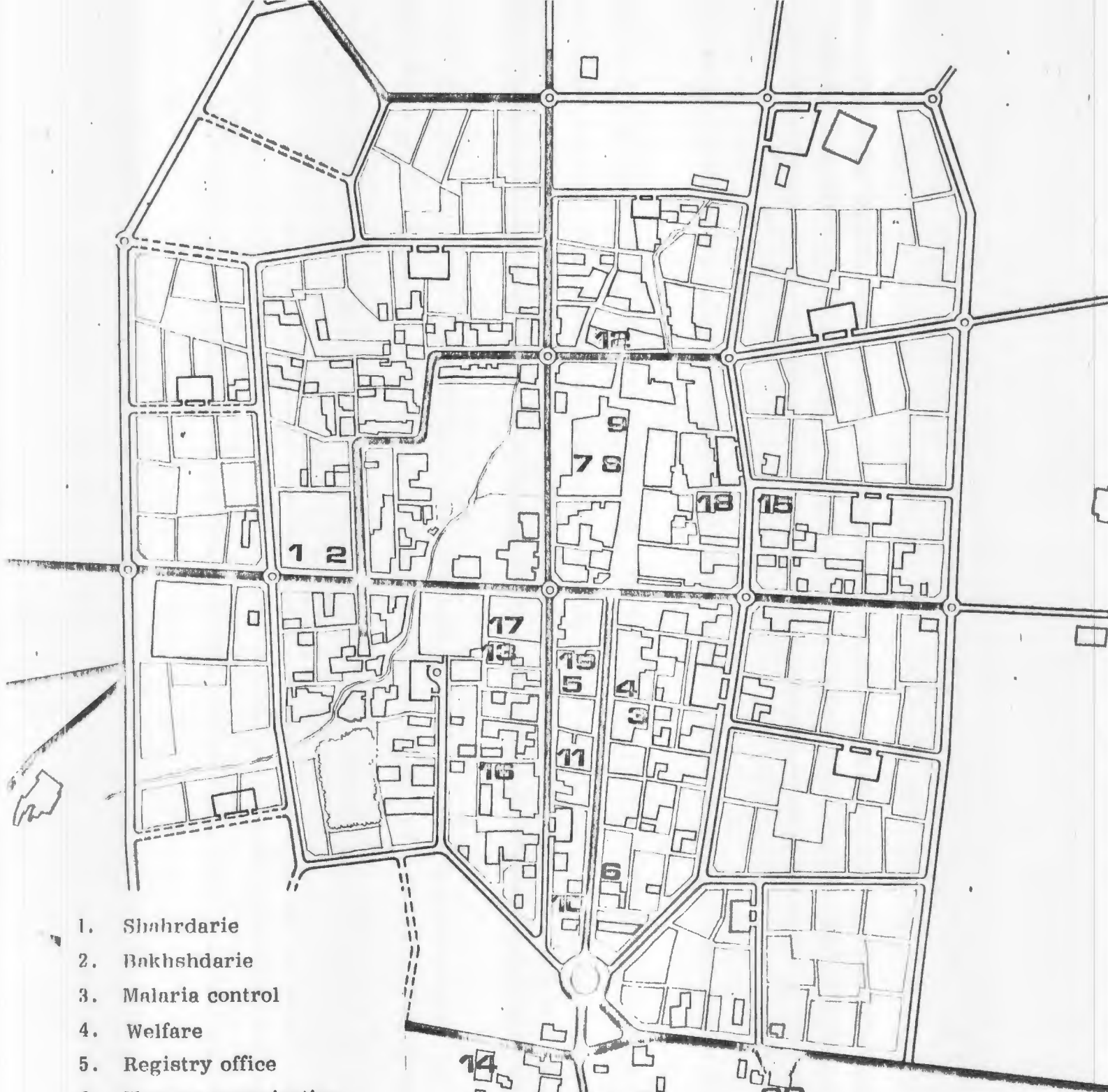
Minimum Residential Plot Size: 150 m<sup>2</sup>

Fig. 3.21

DENSITY ZONING

High density	
Medium density	
Low density	





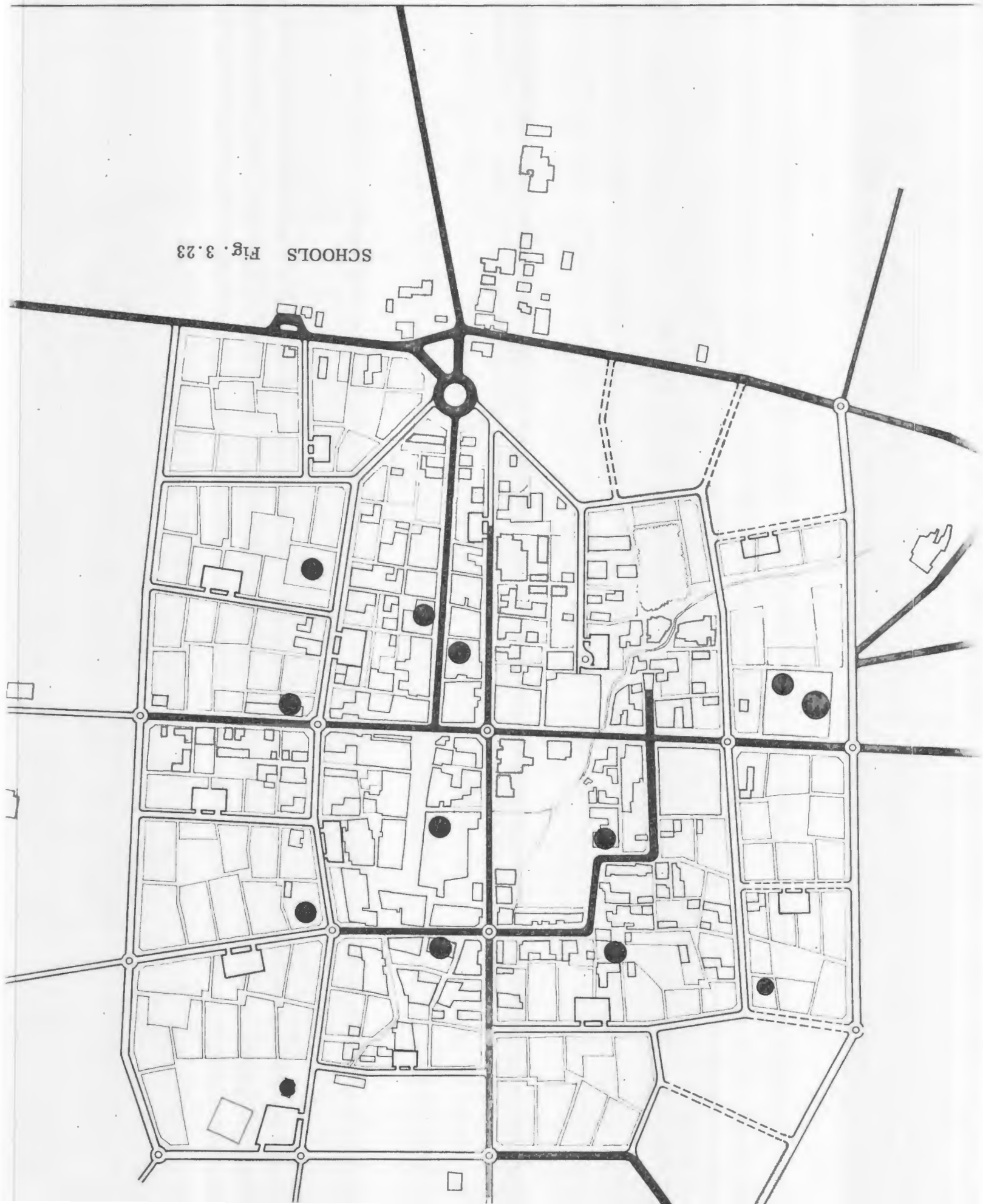
1. Shahrदारie
2. Bakhshdarie
3. Malaria control
4. Welfare
5. Registry office
6. Womens organisation
7. Telephone office
8. Rastakhiz
9. Post office
10. Police station
11. Education office
12. Dept. of Environment
13. Water board
14. Min. of agriculture
15. Wedding office
16. Forestry office

17. Min. of health.
18. Technical office
19. Post and telephone office
20. National Iranian Oil Co.

**ADMINISTRATIVE OFFICES**

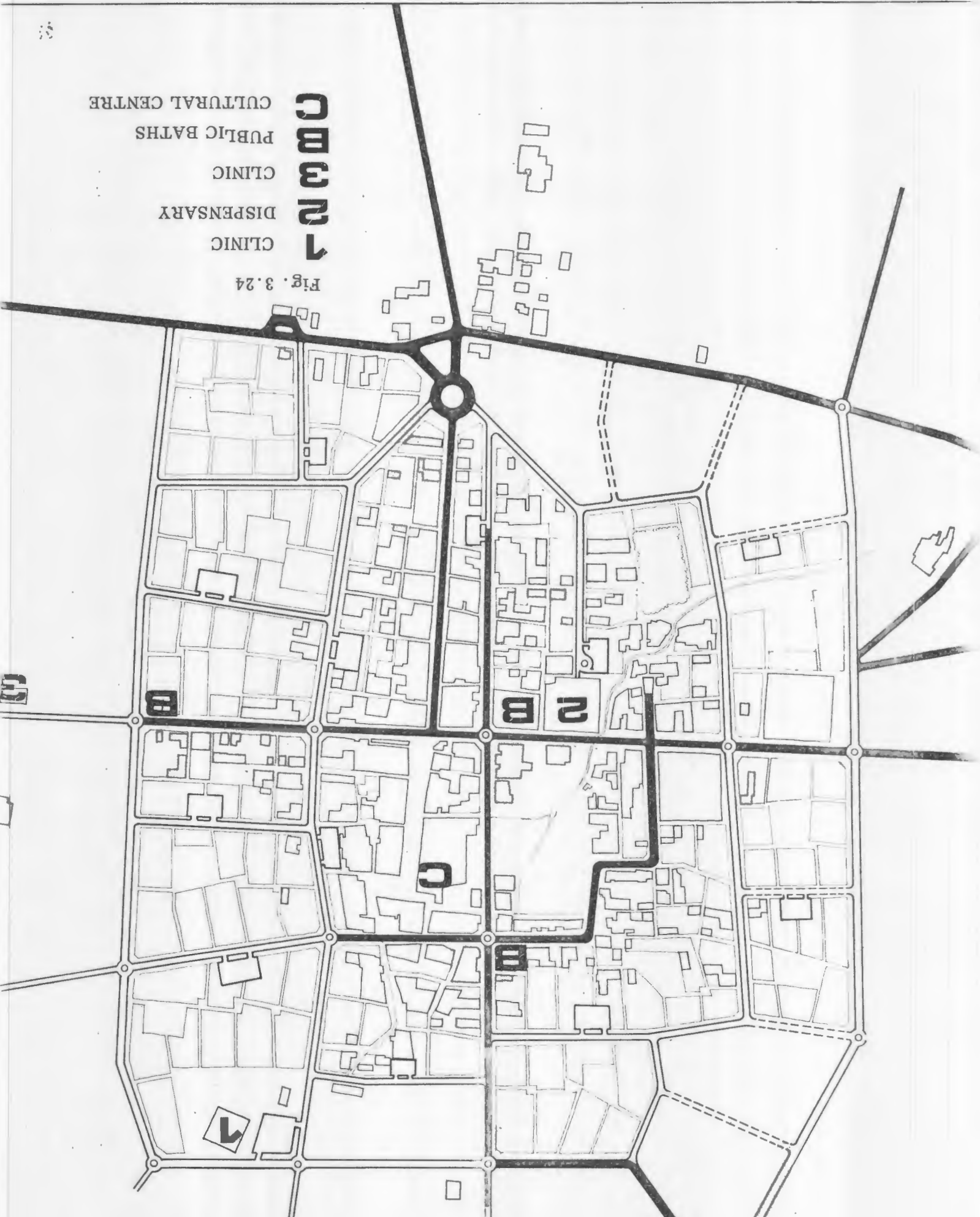
**Fig. 3.22**

SCHOOLS Fig. 3.23



**1** CLINIC  
**2** DISPENSARY  
**3** CLINIC  
PUBLIC BATHS  
CULTURAL CENTRE

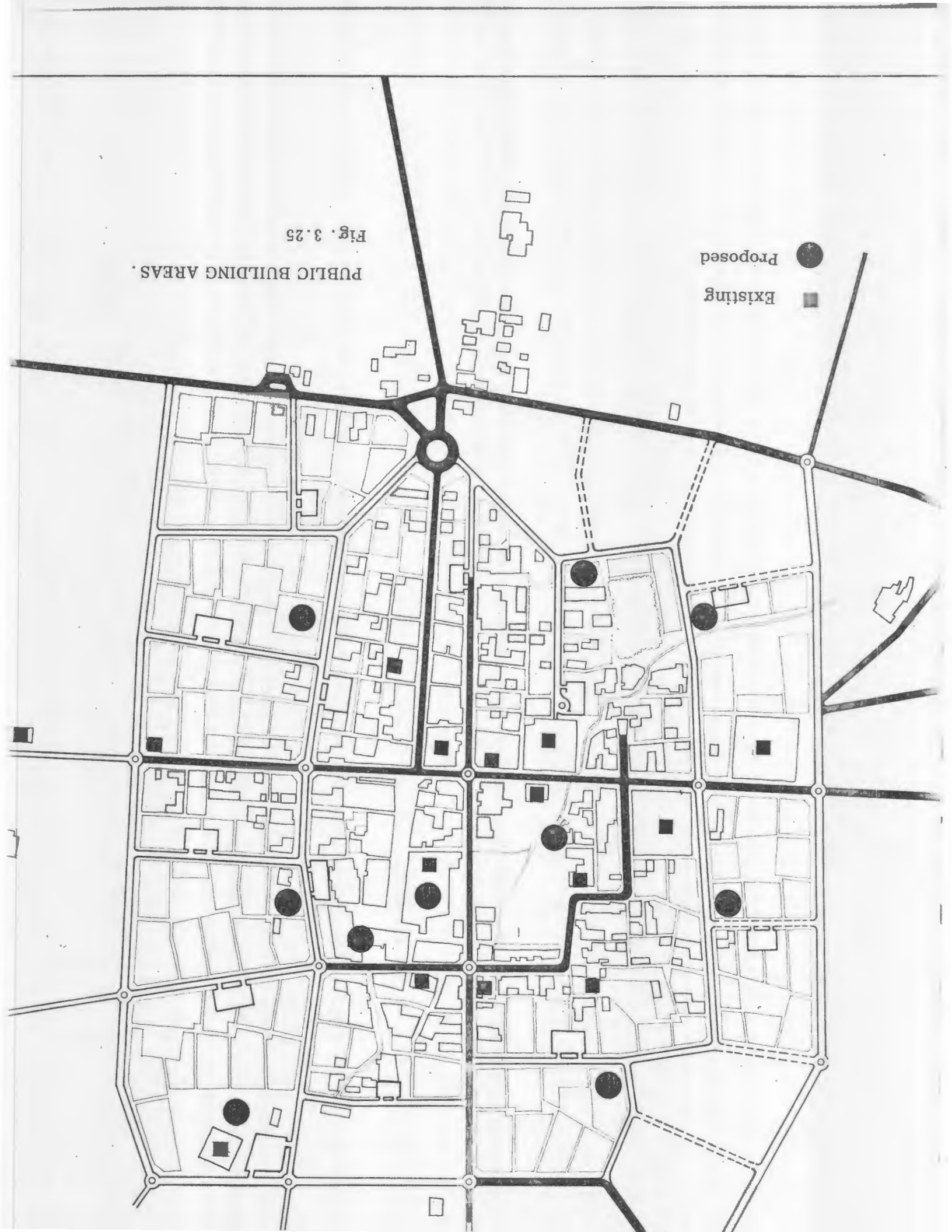
Fig. 3.24



PUBLIC BUILDING AREAS.

Fig. 3.25

● Proposed  
■ Existing



### 3.10 Implementation Phases

Since most of the areas for the five year plan are already being built on, it is essential, particularly with regard to laying out roads and alleys, that implementation is carried out as soon as possible.

The first stage should be a basic indication of where all the roads and alleys are in the whole plan by some simple method such as using a grader to mark the water channels or building lines. This would be sufficient to allow people to commence building according to the plan. If this minimum is not implemented by the next building season (May 1978) many people may start construction on land designated for other uses, causing friction and hardship.

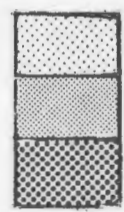
The second stage should be a block by block completion of roads and alleys. The implementation phases shown in Fig. for this follows an order of priority according to where most houses have been constructed. The exception is the park block, which already has a budget. The implementation phases roughly follow a spiral growth for the town.

Parallel with this, the implementation of one of the neighbourhoods as a self-help, cooperative, low-cost housing scheme should be given priority for reasons already mentioned. The successful implementation of the town plan in general, and the housing scheme in particular, are closely interlinked.

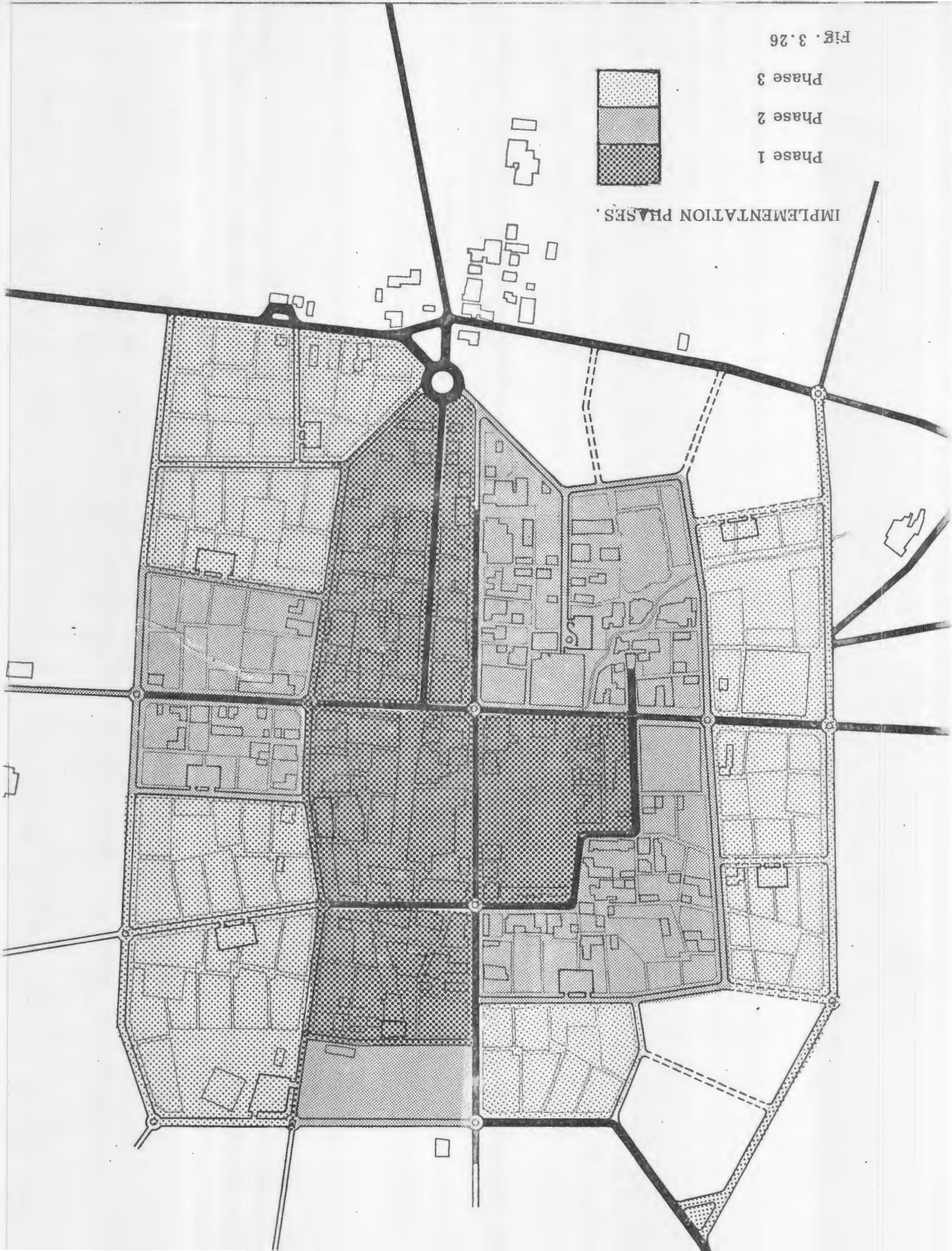
All this must be done as a matter of urgency, as fast as resources and programming will allow. Otherwise, unauthorized building will advance to a state that will make implementation extremely difficult.

Fig. 3.26

Phase 3  
Phase 2  
Phase 1



IMPLEMENTATION PHASES.



## APPENDICES

### A. Sources of Information

In addition to government sources such as the Iran Statistical Centre, several surveys and questionnaires were carried out for the specific purpose of the Town Plan. These included the following :

1. A questionnaire on Household and Housing conditions in Alashtar.
2. A questionnaire on Migration and reasons for migration into and out of Alashtar.
3. A survey of Traffic - Pedestrian, Animal & Vehicular - in Alashtar.
4. A survey of Economic and Occupational Trends, particularly of retail, wholesale and production units.

The surveys and questionnaires were made by a planning team of economists, sociologists and architects on the staff of the Selseleh Integrated Development Project. They were carried out by the Front Line Workers of the SIDP, who had a good knowledge of local conditions, and collated them under the supervision of the architects.