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Saudi Arabia Sociological Research Project

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SAUDI ARABIA SOCIOLOGICAL RESEARCH PROJECT

Prepared for the
Leo A. Daly Company

Center for Applied Urban Research
The University of Nebraska at Omaha
Omaha, Nebraska 68101

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INTRODUCTION

Purpose

The Center for Applied Urban Research under contract to the Leo A. Daly Company agreed to provide specific research services regarding housing and community needs and desires of the Saudi Arabia National Guard (SANG). The specific objective of the study was to provide a sociological profile through survey research of the National Guard officer and enlistee, and where married of the officer/enlistee's family and/or dependents. The profile was to include such general variables as family size, sex, extended family, family mobility, and the role of elders and youth. The outcome of the study was to assist Leo A. Daly Company in its architectural and planning work in the development of plans for new communities for the Saudi Arabia National Guard.

Organization of Report

In conducting the study specific work tasks were carried out. First, an extensive literature search was undertaken by the University of Nebraska at Omaha research team. Second, a supplementary data search was initiated in Riyadh, though it was not completed due to cancellation of the latter portion of the project. Third, a survey instrument was designed to obtain primary data for analysis. Although the survey was not completed, efforts were successful in bringing the questionnaire to the pretest stage. The primary literature search is presented in Part I, and data obtained during interviews in Riyadh and the survey design comprise Part II of the report.

PART I: A SURVEY OF RELATED LITERATURE

Introduction

Successful housing must be integrated with the other elements of a culture. Construction of housing in a foreign culture thus demands that architects and builders understand the culture in order to design appropriate housing.

New housing on a large scale often overlooks cultural factors and is subsequently underutilized, with residents who are unhappy, isolated, and even angry. The resulting short-term residency compounds the problems. Even new housing within the builder's own culture, such as large high-rise housing projects built in the 1950's in large American cities, are considered unsuccessful less than 20 years later.¹ Much of this housing failed to provide adequate transportation, local shopping facilities, and play areas for small children. Often the designers failed to examine future population needs, or to understand the "neighboring" concepts of the intended residents.

Three criteria have been found to be essential to successful housing design. First, successful housing must be socially and culturally valid.² It must reflect the general values of the culture, such as norms of interpersonal interaction, family patterns, religious and cultural values surrounding sex and sex roles.

Second, successful housing must be affordable by the greatest number,³ which usually involves the use of commonly available materials. The upkeep must be economically feasible for residents⁴ and the floor plan

¹This can be substantiated in many U.S. cities such as New York, Cincinnati, Buffalo and many others, where large scale high-rise apartments failed to encourage upward mobility as planners had hoped.

²Cain, Allan, Farroukh Afshar and John Norton. "Indigenous Building and the Third World," Ekistics, 242, (January, 1976) pp. 29-32.

³Ibid.

⁴Samizay, Rafi, "Herati Housing of Afghanistan," Ekistics, 227 (October, 1974), pp. 247-251.

adaptable to changing family sizes and styles, especially when the housing is built for a rapidly changing mobile population.⁵

Third, successful housing must be near sources of services which meet other needs of residents such as shopping, schools, and health care facilities.

Existing literature provides much of the preliminary information on Saudi Arabian culture that is essential for successful completion of a detailed study of the housing needs of the Saudi Arabian National Guard. The literature relates to 1) the Saudi Arabian social structure as it relates to religious values; 2) the cultural effects on the general personality traits of Saudi Arabians; 3) current economic and social trends in Saudi Arabian cities, emphasizing 4) urbanization, 5) communities and community development and 6) dwelling structure. The implications of these values and trends for Saudi housing will then be summarized.

Social Structure and Religious Values in Saudi Arabia

Family Structure. In most cultures, social patterns revolve around family relationships and values. In Saudi Arabia, the family is innately intertwined with the religion. Before Islam, the society was characterized by "turbulent tribal loyalties." In this phase, a great emphasis was put on genealogy and purity of descent.⁶

The task of Islam was to kill this spirit by directing attention to the brotherhood of Islam and by strengthening the bonds of relationships within a smaller group, the family.⁷ The prophet disliked the tribal society and directed much of his theology to a code of family obligations, laws, and rules of possession and inheritance. An incentive to family life was the urge to increase progeny. The behaviors prescribed by Islam were simple ascetic life with fasting, prayer and abstinence.

⁵Ibid.

⁶Karmi, H. S. "The Family as a Developing Social Group in Islam," Afro-Asian Affairs, 62:6, part 1. (February, 1974), pp. 61-68.

⁷Ibid. p. 62.

The prophet died before the new codes of family life were widely practiced. The resulting social structure was a combination of family loyalties within related loyalties to the tribe or the extended family.⁸ The three generation linear [patriarchal] family - father, sons and their children - is currently replacing the extended family which includes aunts, uncles, and cousins. Descent is traced through the paternal lines. Allegiance is to the nuclear family with authority accorded to the oldest male in the direct line. Property ownership is localized in the family, not the clan. If a man dies, his children over six years of age are absorbed by others in his family and under six by his widow's family. The widow may reside with either family.⁹

Definite family roles and behaviors are prescribed by the religious laws. Marriages are usually arranged by the family often with the bride and groom meeting at the wedding. Families are very private and wives are not to be seen by any male outside the family. They seldom appear unveiled in public and are not subject for discussion by casual acquaintance. In early Islam as in many nomadic cultures, the oldest male was the spiritual head of the family as well as head of the household. The father had the power to perform weddings, circumcise the sons and instruct them in the law.¹⁰ This pattern is still somewhat operative today. An example is the Royal Family of Sa'ud, in which the king is also the spiritual leader of the country, or the Imman.

In the early 1700's a reform of Arabian Islam was sparked by Muhammed Ibn Abd Al-Wahhab. He felt that Islam had fallen away from the true religion. Abd Al-Wahhab advocated a return to classical law, and the establishment of a society where that law was practiced strictly. He banned all else related to religion and life as superfluous. Wahhabism is a simple austere monotheism requiring prayer five times daily with all activity ceasing and asceticism in daily life - no smoking, drinking, art, or Western clothing. Religious police or Mutawwa enforce the religious practices. Wahhabism greatly affects the social and economic life of Saudi Arabia today, even though it is to some degree mitigated in dealing with Westerners.

⁸Ibid., p. 63.

⁹Ramon Knauerhase, The Saudi Arabian Economy (New York: Praeger Publishers, 1975), p. 26.

¹⁰Ibid., p. 65.

Government Structure. Strong tribal loyalty is antithetical to strong allegiance to a central territorial government. Until the political upheavals of the 1960's there were only tenuous relationships between the central government and the provincial governments. While the ruling Sa'ud family was connected to the tribes, they are believed to have gained power through conquest rather than tribal leadership. Before 1953, the King ruled with a small body of trusted advisors, appointing regional governors to take care of day to day business but concerning himself with a wide range of matters both petty and pressing.¹¹ In 1953 the Council of Ministers was established with regulatory, executive and administrative authority. The King is head of the tribes, religious leader and King of his conquests.

Work and Social Status. In 1940, the wheel was not even in general use in most of Saudi Arabia. Oil had just been discovered but World War II brought a halt to its development. The economy was primarily agricultural and most of the work force was involved in food production. It was only after 1953 that Saudi Arabia entered a modern phase.

Social status has traditionally been determined by family and the tribe or region of orientation. Even today, status is an extension of family relationships. Even education is seen as reflecting on the family which has been able to send a son or daughter to school. A young Saudi's opportunities for education and occupation are both determined by his family status and also reflect prestige on his family.

Most upper class families are related to the royal House of Sa'ud and its branches and, to a lesser extent, to the families of some tribal sheiks and religious men or 'ulamā. The lower classes are the nomadic Bedouin, semi-nomadic herdsmen, unskilled and semi-skilled workers in government and the private sector.¹²

As the industrializing economy requires more educated personnel, a middle class is rising. People are being sent abroad by the government to gain the necessary skills. In so doing, they enter into a new status without regard to family. "They are the first group of people in their society who are not automatically members of a class because of family

¹¹Ibid., p. 29.

¹²William Rugh, "Emergence of a New Middle Class in Saudi Arabia," Middle East Journal, 27:2 (Winter, 1973), p. 7.

ties; they are in the New Middle Class primarily because of their personal qualifications."¹³

Prestige is very important in work. A man will take considerably lower wages for a job with more prestige. Some semi-skilled and unskilled jobs are not being filled by Saudis because of the low status. How money is made is more important than how much money is made. A person who works with his hands is filled with shame and loss of face because of it. He will go to extremes to avoid the public knowledge of such an occupation. For instance, white collar workers and students go to work or school dressed much more formally than is required. Blue collar workers often change their clothes on the job rather than demonstrate by their appearance that they are manual workers.¹⁴

Saudi Arabian Personality Characteristics

Since the family is the major agent of socialization in any society, the structure of the family influences personality development. Because of the authoritarian structure of the family and the family consciousness, the children develop a sense of their own positions in relationship to the rest of the family and society. Consequently, in later life all relationships are seen in an authoritarian whole. Middle Eastern children are socialized into vertical relationships rather than towards peers. "The children are more intimate with and sensitive to their elders than to their peers."¹⁵ This leads to the family consciousness mentioned above.

In social interaction, a Middle Easterner will be conscious of his position and the positions or status of persons with whom he is interacting. "Social, professional, and academic position, age, family influence and clan power are ever present factors in communication."¹⁶ Relationships are more important than work activities. "Most work activities, whether at home or on the job, are taken at a leisurely pace. Any quickness of

¹³ Ibid.

¹⁴ Fathi Yousef, "Cross-Cultural Communication: Aspects of Contrastive Social Values Between North Americans and Middle Easterners," Human Organization, 33:4 (Winter, 1974), p. 385.

¹⁵ Ibid., p. 386.

¹⁶ Ibid., p. 384.

activity is perceived as haste and certain to cause carelessness."¹⁷ This is contrary to Western ideas of the intrinsic value of work.

Finally, Middle Easterners have a different perception of space and personal distance than Westerners. An Arab perceives public space as belonging to him. He can push his way into already occupied space with no sense of rudeness. Privacy in a public space is unknown. It is perfectly proper for strangers to enter into a business transaction between buyers and sellers in the market.

Privacy is an important characteristic of the family home. However, there is no physical privacy as we know it in the Arab family. When an individual wishes to be alone, he merely ceases to interact and is considered alone. Private space is family space - not individual space. The Arab family likes spaces with large dimensions rather than small rooms. "They avoid partitions because they do not like to be alone. The form of the home is such as to hold the family together inside a protective shell, because Arabs are deeply involved with each other."¹⁸

Arabs do not like to be hemmed in by walls. Enclosed space must meet three requirements: 1) unobstructed space to move around in; 2) high ceilings and 3) unobstructed views.¹⁹ They also have a different idea of trespassing - in fact, the word is basically untranslatable. Since strangers and enemies are seen almost in the same light, a person entering into an Arab's space is either an enemy or a friend. Casual trespass across a portion of a Saudi's property outside the walls of the house and garden would cause no concern. Inside the family space, trespass would be cause for battle.

Economic and Social Trends in Saudi Arabia

The change in the Saudi Arabian economy is having and will continue to have a profound effect on Saudi social structure. Agriculture and animal husbandry require large families, stable relationships over generations and socialization into work roles by the family from

¹⁷Richard Nyrop et al. "Living Conditions," Area Handbook for Saudi Arabia, (Foreign Area Studies, 1977), p. 76.

¹⁸Edward Hall, The Hidden Dimension (Garden City, N.Y.: Doubleday, 1966), p. 148.

¹⁹Ibid., p. 151.

generation to generation. Technical, industrial and service economies require different roles, different personality types and more technical socialization or training.

The shift to a technical/industrial society is causing some cultural inconsistencies which are certain to cause major changes in Saudi life. The new middle class is a result of growth of the oil industry and the need for skilled and technical workers. These roles developed beside the traditional social roles determined by family and religion. The gradual gain of political power of the new middle class obviously occurs at the expense of the traditional leaders. Table 1 shows the source of personnel in the top government positions in 1972. While most of the ministers were members of the royal family, most of the deputy ministers attained their positions through education and training.²⁰

Traditional attitudes toward manual labor are also in conflict with the changing economy. Large numbers of foreigners currently perform the manual labor in Saudi Arabia. These foreigners are a disrupting influence on traditional society. The expectation in the next five years is for a tremendous increase in the need for unskilled and semi-skilled workers and a decrease in the number of agricultural workers. There must be a shift in the cultural value to accommodate this change. Table 2 shows this and other expected changes in the labor force between 1975 and 1980.

The economy will probably also affect the values about women and work. More women are already in school and the educational outlook in the five year plan is for the enrollment of girls and women to increase at both secondary and college levels. This untapped labor pool could well provide the expected increase in the number of clerical workers and professionals in the next five years. Otherwise, more foreigners will fill this gap. Values and behaviors about women would have to change for this to occur. In the new middle class, women are already taking more decision making roles in the family though in public the change has not occurred.

The influence of the religious system over life in general has been eroded in the recent past. While the religious police still roam the streets, they no longer enter private houses to enforce Islamic morality. The call to prayer is still made five times daily but people do not often

²⁰Rugh, op. cit., p. 15-16.

TABLE 1

EDUCATIONAL BACKGROUND, TOP SAUDI OFFICIALS, 1972

<u>Ministries</u>	<u>Minister</u>	<u>Deputy Ministers</u>		
Interior	HS ^{a/}	1) HS ^{a/}	2) Cairo BA	3) HS
Defense	HS ^{a/}	HS ^{a/}		
Finance	HS ^{a/}	Cairo BA		
Foreign Affairs	Traditional	1) US BA ^{a/}	2) Cairo BA	
Education	Traditional	1) US BA ^{a/}	2) US PhD	
Commerce	Cairo BA	US MA		
Petroleum	US MA	1) US BA ^{a/}	2) US PhD	
Agriculture	US MA	1) US MA	2) US BA	3) Cairo BA
Health	Cairo BA	Cairo DDS		
Labor	Cairo BA	1) US MA	2) US PhD	
Information	Cairo BA	1) US BA ^{a/}		
Communications	Traditional	1) Cairo BA	2) HS	3) US MA
Pilgrimage	HS	Cairo BA		
Justice	Traditional	Traditional		
<u>Major Agencies</u> ^{b/}				
National Guard	Traditional ^{a/}	Traditional ^{a/}		
Central Planning Org.	US MA	US PhD		
Petromin	US PhD	1 UK BA		
Gen. Personnel Bur.	US MA	US BA		
Investigation Bur.	Cairo BA	Cairo MA		
<u>Major Governorates</u>				
Mecca	HS ^{a/}	US BA ^{a/}		
Riyadh	HS ^{a/}	US BA ^{a/}		
Madina	HS ^{a/}			
East. Prov.	HS ^{a/}			

^{a/} Members of the royal family.

^{b/} Headed by directors who hold Minister of State rank and sit on the Council of Ministers.

Source: Compiled from the Saudi press and interviews by William Rugh, "Emergence of a New Middle Class in Saudi Arabia," Middle East Journal, 27:2 (Winter, 1973), pp. 15-16.

TABLE 2

ESTIMATED SAUDI MANPOWER BY OCCUPATIONAL GROUP,
1395 AND 1400 (1975 AND 1980)
(Thousands)

Occupational Group	1395 (1975)	1400 (1980)	Increase 1395-1400 (1975-1980)
Managers, officials	7.4	8.7	1.3
Professionals	48.4	52.9	4.5
Technicians and sub-professionals	25.0	33.4	8.4
Clerical workers	67.5	99.6	32.1
Sales workers	82.3	97.2	14.9
Service workers	105.2	134.5	29.3
Operatives	40.0	57.1	17.1
Skilled workers	70.1	93.5	23.4
Semi-skilled workers	170.0	265.0	95.0
Unskilled workers	244.0	296.4	52.4
Farmers	311.2	281.0	(30.2)
Bedouins	114.9	98.7	(16.2)
TOTAL	1,286.0	1,518.0	232.0

Source: United States-Saudi Arabian Joint Commission on Economic Cooperation, Summary of Saudi Arabia Five Year Development Plan, 1975-1980. (Washington, D.C.: U.S. Department of the Treasury, 1975), p. 64.

stop in the middle of the streets to pray. Businesses close, but the business men do not necessarily go to pray. Traditionally, the Grand Mufti or spiritual leader also serves as the Chief Quadi or judicial leader. When the conservative Grand Mufti died recently, the King appointed a replacement from a less conservative family who had some contact with secular problems in the community.²¹

Two tenets of traditional Islamic law are also being re-examined in the light of current economic change. The King recently called for an interpretation from the Koran, the source of all law, on the prohibition of charging interest and on the lack of laws to control commercial transactions.²²

The increasing population of Saudi Arabia is expected to continue at a greater rate in the future, both by natural increase and by immigration. Current demographic indices in Middle Eastern countries can be found in Table 3. The natural growth rate will be due to a continued high birth rate and a decline in mortality initiated by the development of more hospitals and clinics, better sanitary facilities, inoculation of children and the government emphasis on health as seen in the five year plan. The government's five year plan emphasizes an increase in health facilities from 1975 to 1980.

Table 4 shows the population policy and the growth rates for Middle Eastern countries. Saudi Arabia prohibits the importation and use of contraceptives. This means that as women have better health care, and as infant mortality declines, and with the use of contraceptives prohibited and with the religious emphasis on the production of children, a tremendous natural population growth is likely in the near future. Immigration will also continue as the economy expands and the work force remains the same and with the religious values on manual labor.

Urbanization in the Arab World and Saudi Arabia

Urbanization in the Arab World has not proceeded at the same rate nor reached the levels to be found in either the industrialized world or in some parts of the Third World. According to Professor Ibrahim, in 1970

²¹Rugh, op. cit., p. 14.

²²Knauerhase, op. cit., p. 25.

TABLE 3

SELECTED DEMOGRAPHIC INDICES: COUNTRIES IN THE MIDDLE EAST AND NORTH AFRICA

Country	Mid 1976 Population Estimates (Millions)	Crude Birth Rate (Per 1000)	Crude Death Rate (Per 1000)	Population Growth Rate ^{a/} (Percent)	Percent Urban	Estimated Infant Mortality Rate (Per 1000 Live Births)	Life Expect- ancy at Birth (Years)	Physi- cians	Nurses	Mid- Wives	Hospital Beds
Southwest Asia - Arab Countries	41										
Gaza	0.4	48	15	3.3	79	-	-	-	-	-	-
Lebanon	2.7	35	(10)	-	60	(159)	(63)	6.8	8.0	(2.0)	38.5
Syria	7.6	45	15	3.0	44	93	54	3.4	3.5	2.0	9.8
Jordan	2.7	47	14	3.3	43	86	58	3.9	8.9	(1.1)	10.7
Iraq	11.4	49	15	3.4	61	100	53	4.2	2.0	1.5	20.9
Saudi Arabia	6.4	50	20	3.0	20	152	(45)	2.4	1.8	-	11.1
Kuwait	1.1	44	6	5.9	-	44	69	8.8	34.2	(2.3)	48.2
Bahrain	0.3	50	(15)	(4.0)	78	78	61	5.7	28.8	(12.3)	44.4
Qatar	0.1	50	(15)	(3.5)	-	(138)	(47)	8.9	3.3	-	76.9
U.A. Emirates	0.2	50	(15)	(4.0)	65	(138)	(47)	10.1	(42.0)	-	-
Oman	0.8	50	19	3.1	-	(138)	(47)	1.2	1.1	-	3.6
Yemen A.R.	5.5	50	21	2.7	7	152	(45)	0.4	0.9	-	6.9
Yemen P.R.	1.7	50	21	2.7	26	152	(45)	0.3	(0.4)	(0.1)	15.0
Other Southwest Asia Countries											
Israel	3.5	28	7	2.9	86	23	71	27.4	(38.5)	(2.1)	59.2
Turkey	41.3	37	15	2.2	43	119	57	5.0	3.2	3.1	21.4

() = Very rough estimate, or present circumstances unusual with current figures perhaps quite different, as in Lebanon.

- = Unknown.

^{a/} Including estimated immigration and emigration.

Source: Adapted from Robert J. Lapham, "Population Policies in the Middle East and North Africa," Bulletin of the Middle East Studies Association, 11:2 (May, 1977), pp. 22-25.

TABLE 3
(Continued)

SELECTED DEMOGRAPHIC INDICES: COUNTRIES IN THE MIDDLE EAST AND NORTH AFRICA

Country	Mid 1976 Population Estimates (Millions)	Crude Birth Rate (Per 1000)	Crude Death Rate (Per 1000)	Population Growth Rate ^{a/} (Percent)	Percent Urban	Estimated Infant Mortality Rate (Per 1000 Live Births)	Life Expect- ancy at Birth (Years)	Physi- cians	Nurses	Mid- Wives	Hospital Beds
North Africa	99										
Morocco	18.0	47	16	2.9	38	130	53	0.7	5.0	0.08	14.4
Algeria	17.2	49	17	3.0	50	(125)	53	1.2	3.7	0.4	28.1
Tunisia	5.9	37	12	2.4	40	(100)	54	1.6	10.2	14.3	23.6
Libya	2.5	46	16	3.7	30	(130)	53	7.4	21.9	(2.2)	44.6
Egypt	38.0	38	14	2.3	44	98	52	6.6	6.6	5.9	21.7
Sudan	18.2	48	18	2.5	13	(140)	49	8.0	5.4	1.9	9.1
Middle Asia - Selected Islamic Countries											
Afghanistan	19.5 ^{b/}	(47)	(24)	2.3	15	182	40	0.4	0.4	0.3	1.4
Iran	34.1	45	16	3.0	44	139	51	3.3	4.0	0.8	13.8

() = Very rough estimate, or present circumstances unusual with current figures perhaps quite different, as in Lebanon.

- = Unknown.

^{a/} Including estimated immigration and emigration.

^{b/} A 1976 population figure of 19.5 million is reported for Afghanistan. However, demographic studies in Afghanistan in recent years may suggest a much smaller population, but the data have not been released by the Government of Afghanistan.

Source: Adapted from Robert J. Lapham, "Population Policies in the Middle East and North Africa," Bulletin of the Middle East Studies Association, 11:2 (May, 1977), pp. 22-25.

TABLE 4

MIDDLE EAST AND NORTH AFRICA: A TAXONOMY OF POPULATION GROWTH
AND FERTILITY REDUCTION POLICIES IN MUSLIM COUNTRIES^{a/}

Government Policy	Annual Population Growth Rate (Percent)				Total Population 1970 (Millions)	Percent of Total Muslim Population
	2.0-2.4	2.5-2.9	3.0-3.4	3.5 or more		
Encourage population growth						
Explicitly, contraceptives impor- tation prohibited			Saudi Arabia		6.4	3
Government favors increase in population, no family plan- ning except in some places with limited private sector activity			Oman Iraq	Kuwait (for Kuwaitis only) Libya	4.4	2
Neutral regarding population growth with no family planning except in some places with limited private sector activity		Lebanon P.R.Yemen A.R.Yemen	Syria Qatar Sudan	Bahrain United Arab Emirates	47.7	22
Not explicit, but government appears to favor decreased growth rates; some family planning, especially in the context of maternal and child health.		Afghanistan	Algeria	Jordan	18.9 ^{b/}	9
Explicit to decrease growth rate: national family planning pro- grams exist as well as private association programs	Egypt Tunisia Turkey		Iran Morocco		137.3	64
TOTAL					214.7 ^{b/}	100

^{a/}Lebanon included; Israel and Gaza excluded as non-Muslim or no official Government.

^{b/}Excluding Afghanistan.

Source: Adapted from Robert J. Lapham, "Population Policies in the Middle East and North Africa," Bulletin of the Middle East Studies Association, 11:2 (May, 1977), p. 26.

the Arab World had an estimated 130 million people of whom over 30 million (25 percent) lived in cities and towns ranging in size from 20,000 to 5,000,000.²³ This percentage is well below the percentage of the population in cities of similar size in Anglo America, Europe/USSR and Latin America, though higher than the urban percentage in Asia and Sub-Saharan Africa (Table 5).

Estimates of the urban population of fourteen Arab countries ranged from a high of 42 percent in Egypt to a low of six percent in Yemen. Saudi Arabia ranked twelfth on the list with an urban population of only 16 percent.²⁴ Among the 25 Arab cities estimated in 1970 to have more than 250,000 inhabitants, the Saudi cities of Riyadh and Jidda ranked 15th and 24th respectively (Table 6). Knauerhase reports the population of Mecca to be 200,000 and estimates by field observers suggest that Taif, the summer capital in the southwestern mountains, may have more than 100,000 inhabitants.²⁵ Knauerhase refers to "twelve major Saudi cities" but names only Riyadh, Jidda and Mecca among them.²⁶ The rapidly growing cities of Dhahran, Al-Hobar, Damman, Ras Tanura, Medina, Jidda, Najran and Kamis Mushayt would all doubtless be included as major cities in Knauerhase's list, but no estimates of their populations are available,

Estimates of the total Saudi population range as widely as do those for the Saudi cities. The International Bank for Reconstruction and Development (IBRD) suggests a figure at between 5.0 and 5.5 million; Knauerhase estimates between 3.75 and 4.0 million "with an absolute upper limit of 4.5 million persons in 1974." Shamekh reports the 1972 nomadic and semi-nomadic population of Saudi Arabia to have been 1,375,000.²⁷ Technical and cultural difficulties in estimating population will be improved by the release of 1974 Census reports. If Knauerhase's upper

²³Saad E.M. Ibrahim, "Over-Urbanization and Under-Urbanism: The Case of the Arab World," International Journal of Middle East Studies, 6, (1975), p. 33.

²⁴Professor Ibrahim does not indicate whether his source, the Population and Statistical Bulletins of the League of Arab States, applies some minimal population figure for an urban area.

²⁵Knauerhase, op. cit., p. 13.

²⁶Ibid.

²⁷Ahmed A. Shamekh, "Bedouin Settlements," Ekistics, 258 (May, 1977), p. 249.

TABLE 5

PERCENTAGE OF URBAN POPULATION IN WORLD REGIONS, 1960s

	Percentage of people living in cities of:		
	1 Million or More	20,000 to 1 million	Total Urban
Anglo America	34	38	72
Europe (including USSR)	13	29	42
Latin America	12	23	35
Asia	6	11	17
Africa (excluding Arab Africa)	1	9	10
The Arab World	10	20	30
World Total	10	17	27

Adapted from: (1) Homer Hoyt, World Urbanization (Urban Land Institute Bulletin no. 43, 1962, Washington, D.C.), pp. 48-49; (2) Frederick Harbison et al., Quantitative Analyses of Modernization and Development (Princeton University Press, Princeton, N.J., 1970), pp. 199-201, by Saad E. M. Ibrahim, "Over-Urbanization and Under-Urbanism: The Case of the Arab World," International Journal of Middle East Studies, Volume 6 (1975), p. 33.

TABLE 6

MAJOR ARAB CITIES OF OVER 250,000 POPULATION

City	Population
Cairo, Egypt, UAR	5,100,000 ^{a/}
Baghdad, Iraq	2,000,000 ^{b/}
Alexandria, Egypt, UAR	2,000,000 ^{a/}
Casablanca, Morocco	1,300,000 ^{c/}
Algiers, Algeria	1,000,000 ^{c/}
Beirut, Lebanon	800,000 ^{c/}
Damascus, Syria	600,000 ^{c/}
Giza, Egypt, UAR	600,000 ^{a/}
Aleppo, Syria	550,000 ^{c/}
Tunis, Tunisia	500,000 ^{d/}
Rabat, Morocco	450,000 ^{c/}
Amman, Jordan	400,000 ^{e/}
Oran, Algeria	400,000 ^{c/}
Basra, Iraq	350,000 ^{c/}
Riyadh, Saudi Arabia	300,000 ^{c/}
Marrakesh, Morocco	300,000 ^{c/}
Constantine, Algeria	300,000 ^{c/}
Fes, Morocco	285,000 ^{c/}
Port Said, Egypt, UAR	280,000 ^{f/}
Ismalia, Egypt, UAR	275,000 ^{f/}
Suez, Egypt, UAR	270,000 ^{f/}
Mosul, Iraq	260,000 ^{c/}
Tripoli, Libya	250,000 ^{c/}
Jidda, Saudi Arabia	250,000 ^{c/}
Omdurman, Sudan	250,000 ^{c/}

^{a/} 1 May 1971 figure as announced by the UAR Central Agency for Public Mobilization and Statistics, El-Shabab al-Arabi, 6 May 1971.

^{b/} Based on the 1965 census as quoted by L.W. Jones, "Demographic Review: Rapid Population Growth in Baghdad and Amman," Middle East Journal, Spring 1969, pp. 209-15.

^{c/} Estimates based on an extrapolation of the last fifteen years; the latest available U.N. figures (some of which are also estimates) were used as check-points for the extrapolation.

^{d/} The United States Bureau of the Census Bulletin on Population of Foreign Countries: Tunisia, March 1971.

^{e/} Based on the 1966 Social Survey of Amman, which set the population at 330,000; we added the conservative figure of 50,000 for the refugees from the West Bank and 20,000 for natural increase.

^{f/} Figures pertain to the pre-1967 War only.

Source: Saad E.M. Ibrahim, "Over-Urbanization and Under-Urbanism: The Case of the Arab World," International Journal of Middle East Studies, Volume 6 (1975), p. 34.

limit and the above Saudi city estimates are correct and another 100,000 persons are added for the smaller urban centers, the resultant Saudi aggregate urban population of 950,000 would equal 21 percent of the total population. Saudi Arabia cannot be considered heavily urbanized. Nevertheless village or rural to urban migration does seem to be accelerating. Knauerhase reports seeing three deserted villages between Jidda and Medina, drained of inhabitants by larger cities.²⁸

Communities and Community Development in Saudi Arabia

Saudi communities are commonly walled and strongly fortified.²⁹ The suq (marketplace) occupies the center of the community and dwellings separated by narrow alleys surround it. The small shops of the suq face covered lanes and alleys. Carpet sellers, jewelers, cloth merchants and the like are clustered in specific areas of the market.

Most of the larger cities are now divided into two sections. One and two story mud buildings dominate the older sections whose narrow streets and alleys are not wide enough to accommodate modern vehicles. Knauerhase observes that

Westerners frequently label as slums the mudbrick dwellings and narrow streets and alleys of the older sectors of towns and villages, but such labeling is often incorrect. No doubt, slums exist, as anyone with a normal amount of perception can see, but mudbrick buildings and narrow streets and alleys are not necessarily evidence of slums. On the average, mudbrick buildings are cooler inside than similar buildings constructed of concrete blocks, and narrow streets offer protection from heat and dust storms. Because of the lack of a cloud cover, nights in the desert are often rather cool. This coolness is trapped in the narrow streets and released slowly during the day, providing some protection from the heat of the day. Furthermore, the crooked, narrow streets of the old sector provide excellent protection from wind and dust. Clearly, the old quarters are an example of town building designed to modify the environment, rather than evidence of slums.³⁰

Most larger Saudi communities contain shanty towns occupied by foreign laborers and some newly-arrived Bedouins. Knauerhase does not specify whether these shanty towns are in fact slums or whether they are as nicely

²⁸ Ibid.

²⁹ Ibid.

³⁰ Ibid., p. 109.

adapted to the environment as the older sections described above.

Broad streets and avenues are found in the newer sections but they do not always reflect the needs of the traffic pattern. Many new buildings in Riyadh are high-rise and street oriented in contrast to the traditional courtyard-oriented plan. Nevertheless, Knauerhase says that because of the prevailing technology, most growth in Saudi cities takes place horizontally rather than vertically.³¹

The indigenous community structure or "indigenous built environment" of Cain, Afshar and Norton is often ignored as a model for new communities in the Arab as well as the Third World.³² Indigenous urban sectors are by no means simply fossilized relics of the past. There are cultural and environmental rationales for their scales, proportions, vistas and for the juxtaposition of open and closed spaces. The shaded streets, orientation to the sun and beneficial air movement are climatically functional. Their patterns make them lively social communities operating with economic efficiency. Cain, et al., believe a study of their successes and failures to be invaluable for community planners in similar environments.³³

Dwelling Structure and Plans in Saudi Arabia

The Westernization of Arab architecture began in Egypt in the early nineteenth century and spread widely and rapidly over the Arab world. Professor Fathy decries the loss of traditional architecture which satisfied both cultural and environmental needs.³⁴ "In house design," he says, "the introverted plan looking into the courtyard was changed to the plan looking out upon the street. The cool clean air, the serenity and reverence of the courtyard were shed into the street with its heat, its dust, and its noise."³⁵ The central area and its high, sometimes domed, ceiling became an ordinary, low-ceiling living room. Thus was

³¹Knauerhase, op. cit., p. 109.

³²Cain, op. cit., p. 29.

³³Ibid., p. 32.

³⁴Hassan Fathy, The Arab House in the Urban Setting: Past, Present and Future (London: Longman Group Ltd., 1971), p. 10.

³⁵Ibid., p. 11.

lost one element that Professor Hall says is essential to satisfy the Arab psyche regarding internal space: "very high ceilings--so high in fact that they do not normally infringe on the visual field."³⁶

Professor Fathy bemoans the fact that the fountain and the wind-trap have been discarded in the name of progress and modernity. He continues:

It may seem that, from the functional point of view, the mechanical air-conditioning made possible by modern technology has rendered all these features redundant and superfluous; but we must recognize that they also have a cultural role. In fact, this role may be even more important than the practical, considering the special place occupied by the decorative arts in Arab culture.³⁷

In his dissertation on housing requirements of middle income families in Saudi Arabia, Professor Baleela analyzed the floor plans of houses and how these plans were used by Saudi families.³⁸ Baleela established five cultural requirements against which each plan/function was tested. They included: 1) space for guests; 2) privacy in dining [the women of the family must not be seen by dinner guests]; 3) living space-garden extension; 4) plan privacy for family part; and 5) lot privacy. Among those families satisfied with their house plans and functions, all the applicable cultural criteria were met. Among those families dissatisfied, one or more of the criteria applicable to that house were not met.

Design features of Saudi homes, some of which are related to cultural requirements and some not, generally include the following problems:³⁹

Inadequate kitchen floor, counter and storage space.

Inadequate storage space in other family rooms and for tools in the garden area.

Inadequate privacy in the gardens and balconies to permit wives to use them.

³⁶Hall, op. cit., p. 151.

³⁷Fathy, op. cit., p. 11.

³⁸Moustafa M. Baleela, The Housing Requirements of Middle Income Families in Saudi Arabia, (unpublished Ph.D. dissertation, University of Pennsylvania, 1975).

³⁹Ibid., pp. 101 and 106.

Saudi Arabian Government Commitments to Housing and Community Development

During the First Saudi Five Year Plan (September 2, 1970 to July 8, 1975) settlements with municipal status increased from 54 to 85.⁴⁰ In addition master plans for the principal cities of the five major regions and a master plan for Riyadh are being implemented. Also, beautification studies and final designs for the cities of Mecca, Medina, Jidda and Taif were readied for implementation. Housing construction, however, has not kept pace with urban needs as the result of a combination of shortages and rising costs in labor, land and materials. During the First Five Year Plan approximately 75,000 standard or better dwellings were constructed compared with an estimated need of 154,000 units.⁴¹ Demand is twice the supply and the result is overcrowding and shanty towns.

During the Second Five Year Plan (July 9, 1974, to May 14, 1980) demand for standard or better units will rise to 338,000 units. New urban households will require 181,000 of this total. The remaining 157,000 units will serve to replace those lost to nature or by accident (40,000) and to supplant the 117,000 substandard or improvised dwellings.

Middle income Saudi families live in low-rise buildings (one and two stories) in row houses and in villas, according to Professor Baleela.⁴² Very few of them live in high-rise buildings. High rises are not part of the Arab tradition. Should a person build a two-story house, the visual security of the neighbor's courtyard, where women are supposed to work and not be seen, is breached. As traditional as are most Saudis such multi-storied dwellings might pose similar problems in new urban developments.

The Summary of the Saudi Arabian Second Five Year Development Plan concludes its section on Housing with the following remarks:

Resources for planning, building, and maintaining houses are in short supply, as are resources for the construction sector as a whole. Prices of residential land in the cities have more than doubled. Labor prices have increased dramatically, reflecting the real shortages of unskilled, skilled, and managerial labor for construction.

⁴⁰U.S. - S.A. Joint Commission, op. cit., p. 77.

⁴¹Ibid., p. 78.

⁴²Baleela, op. cit., p. 69.

Capital for residential building is also difficult to obtain. Nearly all new residences are financed through savings or incomes of the owners. No private-sector institutions to plan, finance, build, and manage housing have been established to meet this need. For this reason the Real Estate Development Fund was established in 1974. The Real Estate Development Fund has been empowered to lend to individuals and corporate entities who want to build or purchase housing, to enter into joint agreements with municipalities for the development of profitable residential or commercial projects, and to assist employers in the construction of housing for their employees.⁴³

Doxiadis Associates see housing in a broad context and call for the National Housing Program to recommend both long- and short-term solutions for housing, community buildings and public utilities.⁴⁴ In addition they suggest that the Saudi government:

...propose solutions on particular problems, such as resettlement programs on new lands, housing of special social groups (public servants, industrial laborers, etc.), creation of new cities. City development should be included within the housing program.

Successful Housing Assumptions: A Summary

The design and production of successful housing for families of members of the Saudi Arabian National Guard will demand a compromise. Housing that satisfies the families must be consistent with two closely related cultural values and three social-economic trends. Recommendations for construction by the SANG, however, must also consider the essential nature of the government and the costs of construction in Saudi Arabian cities today.

Two cultural values have essential implications for family housing: space and privacy. The literature suggests that the Saudi family will be best satisfied with a house that has large rooms, high ceilings, a garden or courtyard and space for gracious entertaining of the three-generation family toward which there are strong obligations. On the other hand, the house must also protect the privacy of the women of the household, suggesting that the guest space must be carefully separated from family space and the house and garden must be walled or in some way separated from the street.

⁴³U.S. - S.A. Joint Commission, op. cit., p. 78.

⁴⁴Doxiadis Associates, "Formulating a Housing Program for Saudi Arabia," Ekistics, 261, (August, 1977), p. 108.

The three social-economic trends with greatest implications for housing do little to ameliorate these expensive cultural needs. The principal trends identified were increases in education, population and Westernization of the Saudi culture. With the increase in education, the trend toward the monogamous nuclear family is expected to continue and become the dominant family form. However, population trends demonstrate that the number of children in each family is expected to rise at least temporarily and immigration is also expected to increase. As women have more contact with other cultures and as they increase in education they may wish to have fewer children, but any impact from this trend will be too distant to affect current housing plans.

Increasing Westernization, including industrial and technological development, will contribute to continually rising expectations, especially for labor saving appliances and air conditioning.

Implications for location and layout of the SANG developments follow from these factors. Services such as the market should be near housing, because shopping is one of the major leisure activities of women. Housing built in urban areas should reflect the village as much as possible, perhaps in smaller complexes with their own markets and schools. The more traditional the target group for each development, the more traditional the housing should be. Housing appropriate for members of the new middle class would not be appropriate for many of the more traditionally oriented National Guard officers and enlistees.

Because the proposed housing will be constructed by the Saudi government, the requests of the intended residents will be tempered by the nature of the government and by cost factors. The basic authoritarian nature of the Saudi government is enhanced by the religious structure. Thus SANG families would probably not demand housing characteristics not believed to be essential, and their government would not be expected to feel obligated to provide luxuries. A final constraint is the clearly documented rise in costs for land and construction materials, coupled with a shortage of workers willing and skilled in construction trades. Therefore use of local products is indicated or increased use of pre-fabricated housing.

PART II: SUPPLEMENTARY DATA SEARCH AND SURVEY DESIGN

Supplementary Data Search in Saudi Arabia

The second phase of the data search occurred after the first members of the research team arrived in Riyadh. In preparation for the survey, local sources were consulted. Interviews were conducted with Dr. Monstafa M. Baleela and Dr. Al Banyan of the University of Riyadh and representatives of the Ministry of Planning, the Ministry of Finance and the Ministry of Public Works and Housing.

Demographic, sociological, and economic data on Saudi Arabia were found to be limited. The United States-Saudi Arabia Joint Commission on Economic Cooperation was another potential data source on the agenda. The Ministry of Planning library was utilized in the data gathering stage; however, much of the data which might have pertained to the Saudi Arabia population were classified as confidential. The researchers intended to obtain the necessary permission to examine the confidential documents.

All agencies contacted had representatives who endorsed the concept of, and need for, a sociological survey. Perhaps because these individuals are constantly required to work with such data they were biased in favor of any such data gathering effort. However, it also appeared that the Ministry of Planning, Ministry of Public Works and Housing, and University of Riyadh representatives recognized that such survey work can lead to improvements in the overall planning and economic development in Saudi Arabia.

More specific detail on the results of the meetings with representatives of the University of Riyadh and the Ministry of Planning is presented in this section.

Interviews with Representatives of the University of Riyadh. One of the most productive interviews was held with Dr. Moustafa M. Baleela of the University of Riyadh. At that time, Dr. Baleela served as the Dean of the College of Architecture.

Major findings from Dr. Baleela's dissertation, The Housing Requirements of Middle Income Families in Saudi Arabia, have been reported in the Survey of the Literature.

The interview with Dr. Baleela produced several recommendations concerning housing design as well as survey design and implementation. Dr. Baleela emphasized that areas most often neglected by housing designers and architects in Saudi Arabia are those with which the woman of the house is most familiar. Kitchen design, storage facilities throughout the house, and the impact of various types of housing design on the facilitation of housekeeping chores are cases in point.

His recommendation was thus to solicit and incorporate the views of Saudi Arabia women toward housing use, needs, and preferences.

Dr. Baleela indicated that his efforts to interview women for his dissertation had largely failed. The few successful interviews with women were completed when he was introduced by friends of the family and by Baleela's sisters and aunts. He stressed the importance of obtaining a female Arabic-speaking interviewer.

Dr. Baleela advanced several other comments and recommendations. Some relate specifically to housing design, others relate generally to future field researchers attempting to gather data through a survey of Saudi Arabian households:

1. In conducting interviews related to housing design, professional architects should accompany the interviewers to housing units in which layout sketches are required.
2. Room size is as important as floor plan. Dr. Baleela estimates that 20 to 25 percent more space is required in the Saudi Arabian house than in the American house.
3. National Guard enlistees present a more complex sampling problem than he had encountered in his study of middle income households. Because of the potential variation in family characteristics and attitudes, field interviews with such lower income persons should include a larger sample size than he used.
4. With reference to the Bedouin population, some questions in the survey should focus on housing progression, their satisfaction with current housing conditions and whether they would rather live in their former housing. Baleela cited an example of Bedouins who invested in housing and then preferred to rent it out and return to living in a tent.

5. Dr. Baleela confirmed that many of the concepts in his study of middle income households apply to the Bedouin population. Specific mention was made to basic needs identified in the dissertation, e.g., the importance of privacy in housing design.
6. Freedom of movement is very important to the Bedouin population, and closeness to nature is related to this. Consideration should therefore be given to the use of the courtyard, higher ceilings, free movement from room to room (respecting first the privacy requirements), windows, skylights, and access to the roof.
7. The privacy of women concept changes somewhat when living in tents, when women are more likely to go unveiled, talk to men, go hunting with men and have a more liberal interaction with others. This attitude is not found when Bedouins are mixed with other Saudis in an urban setting.

Interviews with Dr. Abdullah S. Al Banyan, Chairman of the Sociology Department of the University of Riyadh, produced two comments worth documentation. Two cultural considerations were assumed to have impact on the design for the SANG housing. First, Dr. Al Banyan indicated a study he had undertaken in 1974 that dealt with soldiers and police. He found most of these people constantly in debt because of costs of entertaining guests. Quite often the Saudi had no choice, as when a member of his tribe would appear at the house and custom required that he provide a big meal and invite all relatives. One meal could take his whole salary at a cost of up to 1,000 to 2,000 riyals (\$250 to \$500).⁴⁵ This custom has implication on the importance of providing space for entertaining, including food preparation and a guest sleeping room.

Dr. Al Banyan also stressed the consequences of privacy on the placement of windows in the house. Saudi houses have windows placed near the ceiling instead of in the middle of the wall as is customary in the West. This insures the privacy of particularly the women in the household from outsiders' vision and hearing.

Interviews with Representatives of the Ministry of Planning. An interview with Abdubranag A. Algain of the Ministry of Planning provided some insights into the direction of the study along with a list of names of others to meet with in the Ministry of Planning. Mr. Algain made two points of particular interest: (1) single persons traditionally stay

⁴⁵One riyal = \$0.25. Rate of exchange quoted November 7, 1977, by Manfra, Tordella & Brooks, Inc., New York brokerage firm.

with their families and (2) in developing cities in Saudi Arabia, enough land is available to allow for the horizontal growth of communities rather than forcing a vertical growth pattern. (See p. 19.)

An interview with Mr. Jerry Finn of the Ministry of Planning confirmed that data on demographic, social, and economic characteristics of the population and country were fragmented. Although there are some data on population, a data base for analysis purposes is virtually non-existent. According to Mr. Finn, consultants in the past have done little field work.

Mr. Finn provided observations on population growth in Saudi Arabia, noting that sociologically it is an extremely dynamic situation. The rapid urbanization has changed the concept of the extended family, as families have become more spread out.

Regarding the income level of the National Guard members, Mr. Finn's impression was that income was not very high for enlisted persons. Their income in relation to the cost of housing and land in urban areas led Mr. Finn to conclude that the current housing conditions of enlisted SANG personnel are explained by economic circumstances, not by personal preferences. Mr. Finn estimated that 1,000 riyals (\$250) a month maintain a family in a plain mud hut, exclusive of bathrooms, 2,000 riyals (\$500) a month would maintain a family on basic necessities.

Mr. Finn also noted that approximately 5,000 villas are vacant in Riyadh, which he felt supported his contention that many families live in less desirable types of housing by necessity rather than by choice. For verification he suggested we interview "squatters" in the public housing area.

A public housing project is now under construction. These units are high-rise apartments and Finn pointed out an apparent conflict with the cultural requirement for privacy. Strictly observed, it would require separate entrances and thus, separate elevators and separate corridors for men and women.

Survey Design and Procedures

Several steps were taken by the University of Nebraska research team toward the completion of a survey instrument to obtain the necessary data for a sociological profile of Saudi Arabia National Guard officers and enlistees.

Steps taken by the team included: a) determination of cultural problems related to survey research in Arabic countries; b) development of an initial framework for the survey questions; c) development of a set of preliminary survey questions; d) determination of information required from sources such as the Saudi Arabia National Guard (to assist in the survey design process and in the determination of sample size and survey procedures); e) refinement of the survey instrument in consultation with the University of Riyadh research team and with the approval of representatives from the Leo A. Daly Company and the Corps of Engineers; and (f) determination of a sampling plan.

Several steps had not been completed when the project was discontinued: a) pretesting the questionnaire; b) interviewing the sample; c) tabulating and analyzing the results; d) writing the study report.

Survey Research in the Arab Culture. During the initial phase of the research, four sociologists who have completed research in Arab countries were contacted. Dr. Robert Lapham from the National Academy of Science, Dr. Ali Zaghel from the University of Utah, Dr. Janet Aba Sughal from Northwestern University, and Mr. Richard Atmore from the Princeton in Asia program provided valuable guidance regarding literature sources and insight into methodological problems arising from cultural values. Thus these interviews also provided an introduction to the religion, economics and population factors of the Arab world.

The United Nations Statistical Office provided several sources and the International Statistical Program Center of the U.S. Bureau of the Census provided the Arabic translation of the 1974 Saudi Arabia Census with the name and address of an American sampling consultant currently working in Saudi Arabia.

Initial Survey Framework. Dr. Baleela's dissertation provided an excellent guide toward establishing the survey framework. His survey design concentrated on: 1) user characteristics, 2) user responses to current housing, and 3) physical properties of the housing. Special survey design considerations were given to basic cultural needs such as the position of women, attitudes toward privacy, and attitudes toward social intercourse.

In general, the survey framework for this project followed his outline. Additional sections were added, however, to obtain preferences in housing design and to obtain current attitudes and future preferences for selected community facilities.

Preliminary Survey Questions. Several preliminary survey documents were prepared by members of the University of Nebraska research team before embarking on the trip to Saudi Arabia. Students from Saudi Arabia completing studies at the UNO and UN-L campuses were contacted and their views on the project and questionnaire solicited. Concerning the survey instrument, Munir A. Al-Kadi of UN-L devoted many hours of assistance in refining the initial set of questions and to point out several useful sources of literature on housing in Saudi Arabia. (In this respect, our research efforts pointed out that foreign students completing their studies in institutions of higher education in the United States are valuable resources in projects such as this.)

Information from External Sources. Seven points of information concerning the National Guard population would have assisted in providing a reliable basis for estimating the sample size and for determining the most appropriate survey procedures and survey questions.

First, the number, size and location of the battalions were necessary to establish a framework for sample size and survey procedures. Similarly, the availability of a list of National Guard members would have been most helpful in drawing the sample. The five other areas to be identified included housing presently available to the population; major differences in cultural and educational backgrounds of the population; importance of differences in rank; percent married versus percent single; and special organizational or functional characteristics of the battalions which might have affected the survey.

Finally, the willingness of the Saudi Arabia National Guard command to support the survey efforts had to be determined.

Refinement of Survey Instrument. Once in Saudi Arabia, members of the University of Nebraska research team contacted members of the research team from the University of Riyadh. Several meetings were held with Dr. Abdulla Saleh Al Banyan, Chairman of the University's Sociology Department, and Saad Mohamen Al Tokhais, a research associate in the Sociology Department. Dr. Al Banyan suggested a young female Saudi psychology major who could interview the women, although he foresaw some difficulty in obtaining permission for her to enter the military complexes.

The questionnaire was also discussed with Abdubranag A. Algain of the Ministry of Planning. He stressed his pleasure that we were undertaking

the study and reminded us that housing in Saudi Arabia would not have the space limitations we would face in the Western world. Algain also suggested that we should avoid direct questions regarding the number of wives in a household.

After reviewing the preliminary questionnaires, revisions were made to reflect the thoughts of the University of Riyadh researchers and English and Arabic questionnaires were finalized for pretest purposes. Copies of these questionnaires are presented in the Appendix.

The questionnaire was approved in general by William Coibion of the Daly Company, although he withheld final approval until after it had been translated.

Sampling Plan. A three-stage sampling plan was envisioned. First, three battalions would be randomly picked. The second stage would involve the random selection of three companies from the battalions selected in the first stage. Third, the sampling units (officer and enlistee) would be randomly drawn from the company rosters. A majority of the personal interviews would be conducted at a common station on the National Guard facility. Follow-up interviews would be at homes of some SANG personnel. To insure the female perspective in housing, the survey plan would also involve a limited number of in-depth interviews with the wives of Guardsmen. These interviews would be conducted by females from the University of Riyadh and University of Nebraska at Omaha research team.

Summary of Findings

Although the study was halted prior to the completion of the survey, the preliminary work tasks of literature search and interviews with knowledgeable representatives of Saudi governmental agencies and the University of Riyadh produced agreement in what is thought essential in successful housing for the Saudi Arabia National Guard.

The housing design must incorporate both spaciousness and privacy. The family will be best satisfied with a house that has large rooms, high ceilings, a garden or courtyard and space for gracious entertaining of guests for which the family has strong obligations. Spaciousness itself will not insure satisfaction and therefore rooms must be designed to protect the privacy of the women of the household, suggesting that the guest space must be carefully separated from family space..

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APPENDIX

SURVEY QUESTIONNAIRES

October 5, 1977
Preliminary
For Pretest

SAUDI ARABIA NATIONAL GUARD
HOUSING SURVEY

(INTERVIEWER: Begin with letter of introduction and your verbal statement of introduction)

Background

1. How old are you? (approximately) _____
2. Where was your place of birth? _____
3. What is your marital status?
 - a. bachelor-single _____
 - b. single-left wife with tribe, family _____
 - c. married _____
 - d. divorced _____
 - e. widower _____(INTERVIEWER: If married, how many wives?) _____
4. When did you join the national guard? _____
5. What is your rank in the national guard? _____
6. What is/was your father's occupation? _____
7. Where did you live before you joined the national guard? Was it in a:
 - a. big city _____
 - b. small town, village _____
 - c. farm _____
 - d. nomad _____
8. What was your profession before joining the national guard?

9. What is the name of your tribe? _____
10. What is the province where you came from?
 - a. eastern _____
 - b. western _____
 - c. central _____
 - d. northern _____
 - e. southwestern _____

11. What amount of education have you had? _____
12. What type of house (residence) did you live in before you joined the national guard?

13. What region (province) was this in? _____
14. What are your sources of income?

15. Approximately, how much is your monthly income? _____
16. Approximately, how much do you spend monthly on the following:
- a. food _____
 - b. drinking (water, tea, coffee) _____
 - c. rent _____
 - d. transportation _____
 - e. clothes _____
 - f. health, medical expenses _____
 - g. education of children _____
 - h. receiving guests _____
17. How many persons are living with you? _____
males? _____ females? _____
18. What is your relationship to each of the persons living with you?
- | <u>Males</u> | <u>Females</u> | <u>Age</u> | <u>Relationship</u> | <u>Education</u> |
|--------------|----------------|------------|---------------------|------------------|
|--------------|----------------|------------|---------------------|------------------|

Current Housing

19. What type of house (residence) do you now live in?

- | | | | |
|------------------|-------|-------------|-------|
| a. villa | _____ | e. shack | _____ |
| b. apartment | _____ | f. tent | _____ |
| c. popular house | _____ | g. barracks | _____ |
| d. mud house | _____ | h. other | _____ |

20. Do you own or rent your residence?

- a. own _____ b. rent _____ c. other _____

21. Are you satisfied with the present residence?

Yes _____ No _____ (If not satisfied, why not?)

22. Are the following items available in your residence?

Number of Rooms?

- | | |
|----------------|-------|
| a. bedroom | _____ |
| b. living room | _____ |
| c. dining room | _____ |
| d. kitchen | _____ |
| e. bathroom | _____ |
| f. guest room | _____ |
| g. others? | _____ |

23. How many floors do you have in your housing unit? _____

24. Do you have a garden (court yard)? Yes _____ No _____

25. Are the following items available in your house?

Check if available

- | | |
|--------------------|-------|
| a. water | _____ |
| b. electricity | _____ |
| c. telephone | _____ |
| d. gas stove | _____ |
| e. heating | _____ |
| f. television | _____ |
| g. air conditioner | _____ |
| h. refrigerator | _____ |
| i. washing machine | _____ |

26. Are the following also available?

Check if available

- | | |
|-----------|-------|
| a. garage | _____ |
| b. roof | _____ |

27. Do you own a car? Yes _____ No _____
28. If own a car, how many cars do you own and what type?
 Number _____ Types _____
29. If don't own car, what is your primary means of transportation?

30. Which of the following items do you complain about/think deficient in your current house?

Check if Yes

- a. number of rooms too few _____
- b. no garden (court yard) _____
- c. no roof _____
- d. no guest room _____
- e. no garage _____
- f. no place for animals _____
- g. no electricity _____
- h. no running water _____
- i. no private entrance for women _____
- j. others? _____

31. Do any of the following bother you about your current location?

Check if Yes

- a. noise from neighbors _____
- b. traffic _____
- c. others? _____

32. Do you have detached rooms to your house? Yes _____ No _____

33. If have detached rooms, what are they used for?

Future Housing

34. What type of residence do you prefer?

35. How many floors do you prefer?

36. How many rooms do you prefer:

- a. bedroom? _____
- b. living room? _____
- c. family room? _____
- d. guest room? _____
- e. kitchen? _____
- f. arabic bathroom? _____
- g. western bathroom? _____

37. Do you prefer the guest room to be detached from the house?
 Yes _____ No _____

38. Would you prefer to have the following:

Check if Prefer

- a. garden (court yard) _____
- b. garage _____
- c. roof _____
- d. barn _____
- e. high fence _____

39. Do you prefer for your house to be close to your neighbors? Yes_____ No_____

40. How many windows do you desire to have in each room?

41. Where do you prefer the windows to be located?

- a. in the middle of the wall _____
 - b. near the ceiling _____
 - c. other _____
- why? _____

42. Do you prefer large (wide and big) windows or smaller windows?

43. As you know, in the new style of houses there are usually many windows which people might be able to see in. Do you object for people or your neighbors to be able to see in? Yes___ No_____

44. In case you had windows in which you could see your neighbor, what would you expect him to do?

- a. object_____
- b. sue_____
- c. other_____

45. In your opinion, which of the following items are essential. Order them by importance. (1=most important)

- | | | | |
|---------------------|-------|--------------------|-------|
| a. refrigerator | _____ | f. washing machine | _____ |
| b. gas stove | _____ | g. desert cooler | _____ |
| c. color tv | _____ | h. air conditioner | _____ |
| d. black & white tv | _____ | i. heat | _____ |
| e. telephone | _____ | | |

46. In which direction do you prefer the front of your house to face? (e.g., north)

47. Do you prefer the rooms to be large and the ceilings to be high?

Yes_____ No_____ Approximately how high do you prefer the ceilings to be?

48. What kind of heating system do you prefer?

49. Do you prefer to live in an area where your relatives live?

Yes_____ No_____

Community Facilities

50. Rank the following items: (a) according to their importance to you and (b) according to your desire to be close to them:

	importance	closeness
a. public park	_____	_____
b. school	_____	_____
c. health center	_____	_____
d. kindergarden	_____	_____
e. playground	_____	_____
f. mosque	_____	_____
g. super market	_____	_____
h. public library	_____	_____
i. parking lot	_____	_____
j. gas station	_____	_____

51. Do you prefer your house to be on a main road (two lane street)?
Yes _____ No _____

52. Do you prefer to have artificial road humps near your house?
Yes _____ No _____

53. Do you prefer public transportation to private transportation?
Yes _____ No _____

54. Do you prefer to have your neighbors active in community service activities? Yes _____ No _____

55. If you do, give examples of things you like to see done for your area.

56. Do you prefer to have a community center for neighborhood meetings, holiday celebrations, and so forth? Yes ___ No _____

57. Do you prefer to have sports and social/cultural clubs in your area? Yes _____ No _____

(NOTE: Because this questionnaire was to be conducted in Arabic, the difficult task of making concise translations back to English was not to be undertaken until after the pretest.)

Physical Layout

For a smaller sample, the interview team was to go with the respondent--or arrange another meeting--to sketch the physical layout of the respondent's current housing. It was during this phase that female interviewers were to obtain interviews with the respondent's female portion of the family.

In sketching the house, the interviewer was to note the following:

Kitchen:

Check if Yes

- a. electricity _____
- b. running water _____
- c. stove (type? _____) _____
- d. sink _____
- e. refrigerator _____
- f. garbage disposal _____
- g. dishwasher _____
- h. storage space adequate? Yes ___ No ___

Bathroom:

Check if Yes

Check if Yes

Check if Yes

- a. eastern style _____
- b. western style _____
- c. sink _____
- d. shower _____
- e. mirrors _____

Location _____

Family Room:

Check if Yes

Special Comments

- a. table _____
- b. chairs _____
- c. tv _____
- d. others _____

Guest Room:

- a. sofa _____
- b. chairs _____
- c. others _____

Bedrooms:

(Check if yes)

- a. double bed _____
- b. single bed _____
- c. dressers _____

Location _____

Special comments concerning bedrooms?

Other Rooms? Special Comments:

Final Question: Is there enough privacy for the women in this residence?

- ٨- أين كنت تعيش قبل التحاقك بالحرس الوطني ؟
- أ - مدينة كبيرة ب - مدينة صغيرة ج - منطقة زراعية
- د - البادية هـ - قرية أو هجره
- ٩- ماهو اسم قبيلتك ؟
- ١٠- ماهى المنطقة التى تعيش فيها قبيلتك ؟
- أ - المنطقة الشرقية ب - المنطقة الغربية ج - المنطقة الوسطى
- د - المنطقة الشمالية هـ - المنطقة الجنوبية الغربية (عسير . تباهمه . جيزان . نجران)
- ١١- ماهو تخصصك التعليمى ؟
- أ - أسمى ب - يقرأ ويكتب ج - أقل من الابتدائية
- د - الابتدائية هـ - المتوسطة و - الثانوية
- ز - ما فوق الثانوية ح - غير ذلك تذكر الشهادة
- ١٢- ماهو نوع المسكن الذى كنت تسكنه فى السابق ؟
- أ - فيلا ب - شقة فى عمارة ج - بيت شسمى مسلح
- د - بيت طين هـ - صندوقه و - بيت شمر أو خيمه
- ز - نوع اخر يذكرك .
- ١٣- فى أى منطقة من مناطق المملكة يوجد هذا المسكن ؟
- أ - المنطقة الشرقية ب - المنطقة الغربية ج - المنطقة الوسطى
- د - المنطقة الشمالية هـ - المنطقة الجنوبية الغربية (عسير . تباهمه . جيزان . نجران

- ١٤- ماهي مصادر دخلك ؟
 أ - راتب حكومي ب - عمل حر ج - عقارات
 د - مصادر اخرى تذكر
- ١٥- ماهو دخلك الشهري على وجه التقريب ؟
- ١٦- كم تصرف على وجه التقريب بالشهر على الاشياء التالية ؟
 أ - الاكل ب - الشرب (ماء . شاي . قهوة) .
 ج - ايجار المسكن اذا كان مستأجرا
 د - وسائل المواصلات
 هـ - الملابس و - العلاج ز - تعليم الاولاد
 ح - الضيافة ط - اشياء اخرى تذكر .
- ١٧- كم عدد افراد اسرتك الموجودين معك في المنزل .
 أ - ذكور ب - اناث
- ١٨- ماهي علاقتك بكل منهم ؟
 النوع العمر نوع القرابة مستواه التعليمي
- ١-
 ٢-
 ٣-
 ٤-
 ٥-
 ٦-
 ٧-
 ٨-
 ٩-
 ١٠-
 ١١-
 ١٢-
 ١٣-
 ١٤-

الجزء الثاني
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- ١٩- ماهو نوع مسكنك في الوقت الحاضر ؟
- أ - فيلا  
 ب - شقة في عمارة  
 ج - بيت شعبي مسلح  
 د - بيت طين  
 هـ - صدقة  
 و - بيت شعر او خيمة  
 ز - عنبرين عنابر الحرس الوطني  
 ح - انواع اخرى تذكر .
- ٢٠- ماهي نوعية حيازة هذا المسكن ؟
- أ - ملك  
 ب - مستأجر  
 ج - من مباني الحرس
- ٢١- هل انت راضى عن مسكنك الان ؟
- أ - نعم  
 ب - لا  
 اذا كان الجواب بلا يسأل لماذا ؟
- ٢٢- هل تتوفر الاشياء التالية في منزلك يذكر عددها ؟
- أ - غرفة نوم  
 ب - صالون استقبال  
 ج - مطبخ  
 د - غرفة معيشه  
 هـ - حمام  
 ز - غرفة ضيوف  
 ح - غرف اخرى تذكر ووجه استعمالها .
- ٢٣- كم عدد ادوار منزلك ؟
- أ - د ور واحد  
 ب - د ورين  
 ج - ثلاثة او اكثر
- ٢٤- هل يوجد حد ليقة في منزلك ؟
- أ - نعم  
 ب - لا

٢٥- هل توجد بمنزلك الاشياء التالية :

- أ - الماء      ب - الكهرباء      ج - غاز المطبخ      د - تلفون  
هـ - تلفزيون      و - تكييف      ز - تدفئة      ح - ثلاجه  
ط - غسالة      ي - حاجات اخرى لم تذكر .

٢٦- هل يوجد في مسكنك الاشياء التالية :

- أ - فراش      ب - سطح

٢٧- هل تملك سيارة ؟

- أ - نعم      ب - لا

٢٨- نوعية السيارات وعدد ها :

- أ - سيارة خاصة صغيرة      ب - نقل ونيت  
ج - سيارة اجرة      د - نقل كبيرة

٢٩- اذا كنت لا تملك سيارة ماهى وسيلة المواصلات التي تستخدمها ؟

- أ - سيارة خاصة صغيرة      ب - نقل عام      ج - سيارة الحرس الوطنى  
د - سيارة اجرة .

٣٠- ماهى النواقص التي تشكو منها ؟

- أ - قلة فنى غرف النوم      ب - عدم وجود حديقة      ج - عدم وجود سطح  
د - عدم وجود غرفة استقبال ( صالون ) للضيوف  
هـ - عدم وجود فراش  
و - عدم وجود حظيرة للحيوانات      ز - عدم وجود كهرباء  
ح - عدم وجود ماء      ط - عدم وجود مدخل للنساء  
ي - نواقص اخرى تذكر .

٣١- هل تشكو من :  
أ - الجيران  
ب - الضجيج  
ج - مرور السيارات  
د - اشياء اخرى تذكر

٣٢- هل يوجد في بيتك ملحقات ؟  
أ - نعم  
ب - لا

٣٣- اذا كان الجواب بنعم ماهي اوجه استعمالاتها ؟

### الجزء الثالث

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٣٤- ماهو نوع المسكن الذي تفضله ؟
أ - فيلا
ب - شقة في عمارة
ج - بيت مسلح شعبي
د - بيت طين حديث
هـ - نوع اخر يذكر

٣٥- كم دورا تفضل أن يتكون منها البيت
أ - دور واحد
ب - دورين
ج - ثلاثة اد وار أو اكثر

٣٦- كم عدد الغرف التي ترغب ان يحتويها المنزل ؟
أ - غرف نوم
ب - غرف استقبال (للرجال)
ج - غرف استقبال (للنساء)
د - مطبخ
هـ - غرف معيشة
و - غرف ضيوف
ز - حمام عربي
ح - حمام افرنجي

٣٧- هل ترغب أن تكون حجرة الضيوف خارج المنزل في الحديقة مثلا ؟
أ - نعم
ب - لا

٣٨- هل تحب أن يوجد في البيت ما يلي رتبها حسب اهميتها :

- أ - حديقة ب . فراش للسيارة ج - سطح
د - حوش للبهائم (الغنم والبقر) هـ - سور عالي
و - فناء (بطن الحوى) في الوسط

٣٩- هل ترغب أن يكون منزلك ملاصقا لمنزل جارك ؟

- أ - نعم ب - لا

٤٠- كم نافذة ترغب ان تكون في الغرفة الواحدة ؟

- أ - نافذة واحدة ب - نافذتين ج - ثلاث نوافذ او اكثر

٤١- هل تحبذ أن تكون النوافذ واسعة ؟

- أ - نعم ب - لا

اذا كان الجواب بنعم .. كم وبلا كم ..

٤٢- هل ترغب أن تكون النوافذ :

- أ - في وسط الحائط . ب - في اعلى الحائط قرب السقف

في حالة الاجابة على ب لماذا ؟

٤٣- في المبانى الحديثة توجد نوافذ تطل على مختلف الجهات هل تعارض ان يكون

لجارك نوافذ تطل على منزلك ؟

- أ - اعارض ب - لا اعارض ج - لا يهتم

٤٤- في حالة وجود نوافذ منزلك تطل على منزل جارك .. ماذا تتوقعه ان يفعل :

- أ - يعارض ب - لا يعارض ج - لا يهتم

٤٥- ماهى الاشياء الاساسية فى نظرك الواجب وجودها فى المنزل رتبها حسب اهميتها :

- أ - شلجيه ب - بوتاجاز وفرن ج - تلفزيون عادى
 د - تلفزيون ملون هـ - تلفون و - تكييف صحراوى
 ز - تكييف فريون ح - غسالة ط - تدفئة

٤٦- على أى جهة تحب ان تكون جهة بيتك (واجهة البيت) ؟

- أ - الشمال ب - الجنوب ج - الشرق د - الغرب

٤٧- هل تفضل أن تكون الغرف واسعة وعالية السقف .

- أ - نعم ب - لا

٤٨- فى حالة الاجابة بنعم . . كم ارتفاع السقف تقريبا ؟

٤٩- ماهى انواع التدفئة التى تفضل وجودها فى البيت ؟

- أ - نار الحطب ب - الكيروسين . الغاز ج - الغاز ب - الكهربا

٥٠- هل تفضل السكن فى منطقة يسكنها جماعتك ؟

- أ - نعم ب - لا

٥١- رتب الاشياء الاتية حسب اهميتها :

- أ - حديقة عامة ب - مدارس ج - مستوصف
 د - دور حضانة هـ - ملاعب اطفال و - مسجد
 ز - سوق خضار بقالة ح - مكتبة عامة . ط - مواقف للسيارات
 ي - محطات بنزين .

- ٥٢- رتب الاشياء الاتية حسب رغبتك ان تكون قريبة من منزلك :
- | | | |
|--------------------|------------------|--------------------|
| أ - حديقة | ب - مدارس | ج - مستوصف |
| د - دور حضانه | هـ - ملاعب اطفال | و - مسجد |
| ز - سوق خضار بقالة | ح - مكتبة عامه | ط - مواقف للسيارات |
| ي - محطات بنزين . | | |
- ٥٣- هل تفضل ان يكون الشارع الذى يقع فيه منزلك شارعاً واسعاً وخطين مزدوجين ؟
- أ - نعم ب - لا
- ٥٤- هل تفضل وجود مطبات اصطناعية فى شارعك ؟
- أ - نعم ب - لا
- ٥٥- هل تفضل وجود مواصلات عامة فى الحى بدلا من السيارات الخاصة ؟
- أ - نعم ب - لا
- ٥٦- هل تحبذ أن يقوم اهل الحى - منطقتك - باعمال نافعة للحى ؟
- أ - نعم ب - لا
- ٥٧- اذا كان الجواب بنعم تذكر الاعمال النافعة .
- ٥٨- هل تحبذ وجود مكان عام يجتمع به الناس فى اوقات الاعياد وفى المناسبات العامة ؟
- أ - نعم ب - لا
- ٥٩- هل تحبذ وجود اندية رياضية وثقافية فى حيك أو منطقتك ؟
- أ - نعم ب - لا