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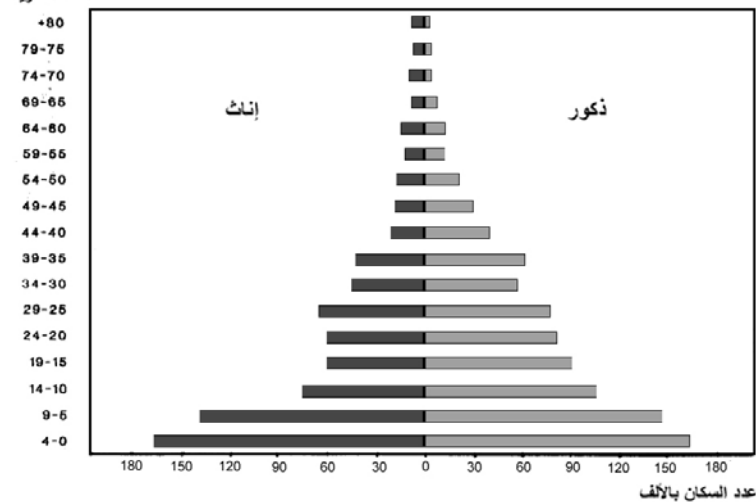
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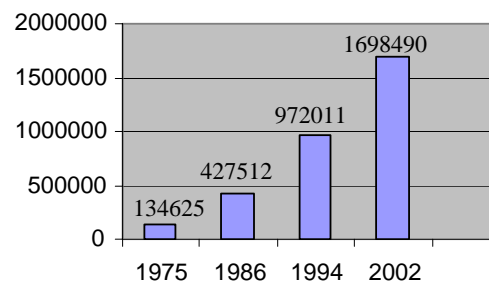
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	12.5	16.89	
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	23.6	4688.11	
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	0.7	139.05	
	7.1	1410.41	
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2.9	23.6	26.5	
9.7	0.7	10.4	
10	2.5	12.5	

4.9	7.1	2.2	
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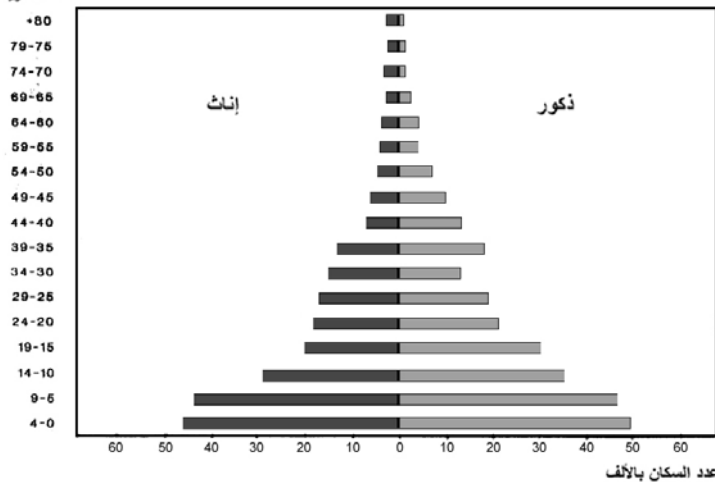
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(8)

(13105)

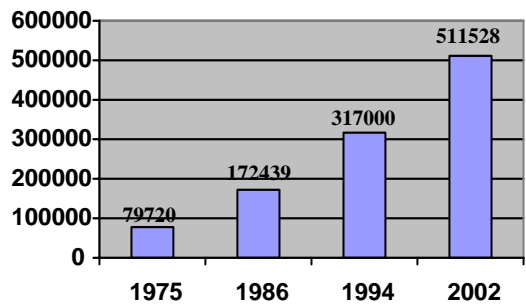
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الفئة العمرية



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	%	/	
	40	18.4	
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	11.6	5.34	
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	% 1.24	(0.8- 0.6- 0.4)	
	% 0.74	0.4	
	% 1	(0.8 - 0.7 - 0.6)	
% 0.25	% 0.27	0.3	
	% 26.48		

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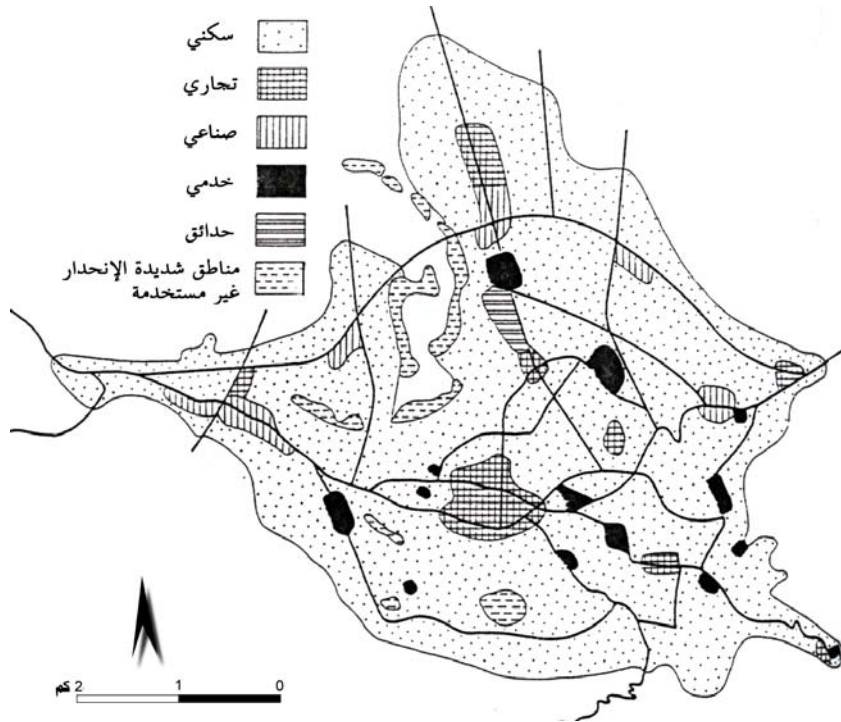
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	%	/	
	58.5	5252.7	
	5	449	
	1.1	98.7	
	14.3	1284	
	8.3	745.3	
	4.8	431	
	8	718.3	
	100	8979	

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%	%	%	
18.5	58.5	40	
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Berger, Louis International. 1978. Sana'a, The City and Its Region, USA.		1996
Japan International Cooperational Agency. 1988. Urban Transport Study in Yemen, A.R., 1, Main, Tokyo.		1996
Japanese Consortium of Consulting Firms. 1989. The Integrated Capital Development Plan of Baghdad, Baghdad, Tokyo.	1	38
		2003
Lewcock, Ronald. 1986. The Old Walled City of Sana'a, Unesco.		()
		1995

**The Inner Structure of the Old and Modern
Cities of Yemen, Checking Whether Each is Suitable for
Human and Natural Needs (Sana'a-Taiz)**

*Mohammed Ahmed Sallam El-Madhagi **

ABSTRACT

The old Yemeni cities are distinguished in their balanced land uses particularly in their inner structures, that gave them well-knitted and harmonious urban tissue, satisfying the human needs, which came as a result of wide knowledge and reflexes to the natural and climatic factors, that were also real examples for town planning in all their factors and components.

In recent years, these cities have developed and their territories have extended more than ten times, which led to a great defect in the land use "inner structure" of those cities, and many of the land uses and public services are absent, allowing the evident control of the car on the structure of those cities, which are suffering from true new problems on a daily basis, making us fear the resulting complications, which would make their solution difficult in the future.

The aim of this study is to show the positive aspects in the structure of the old and modern cities in the past and present, and the most important problems in the land use "inner structure" of the modern cities. To reach that goal, I followed a method which depends on complete analysis studies of land use in old and modern Yemeni cities (Sana'a-Taiz). The purpose is to reach recommendations for the solution of the problems of the old Yemeni cities.

KEYWORDS: inner structure, land use, old cities, modern cities.

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