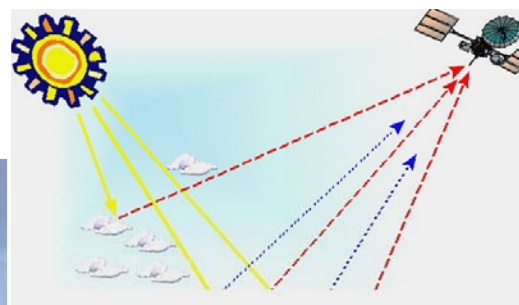




The Historical Remote Sensing Atlas of Al Ain, UAE (1976-2000)

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In Celebrating the 25th Anniversary of
The UNITED ARAB EMIRATES University

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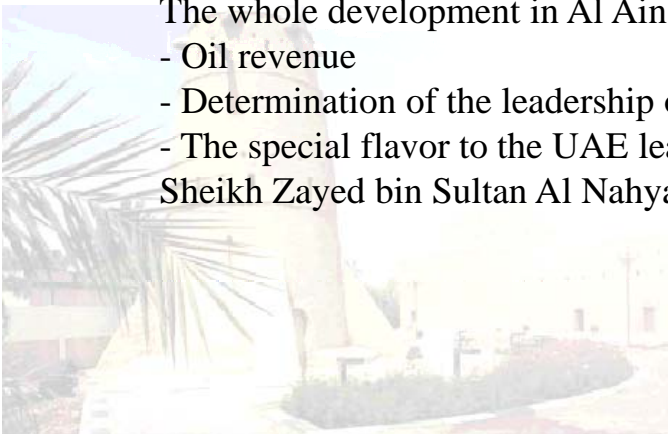


Source: Al Ain Magazine, 2001, volume 69, page:43.

His Highness Sheikh Zayed bin Sultan Al Nahyan and His Highness Sheikh Tahnoun bin Mohammed Al Nahyan discussing Al Ain development (with map of Al Ain in front of them) at Almaqam Palace in 1977.

The whole development in Al Ain may be attributed to:

- Oil revenue
- Determination of the leadership of the UAE
- The special flavor to the UAE leader (Al Ain is the motherland of H. H. Sheikh Zayed bin Sultan Al Nahyan)





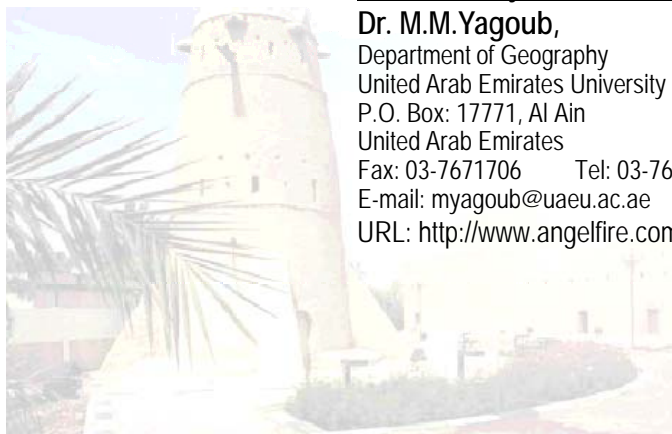
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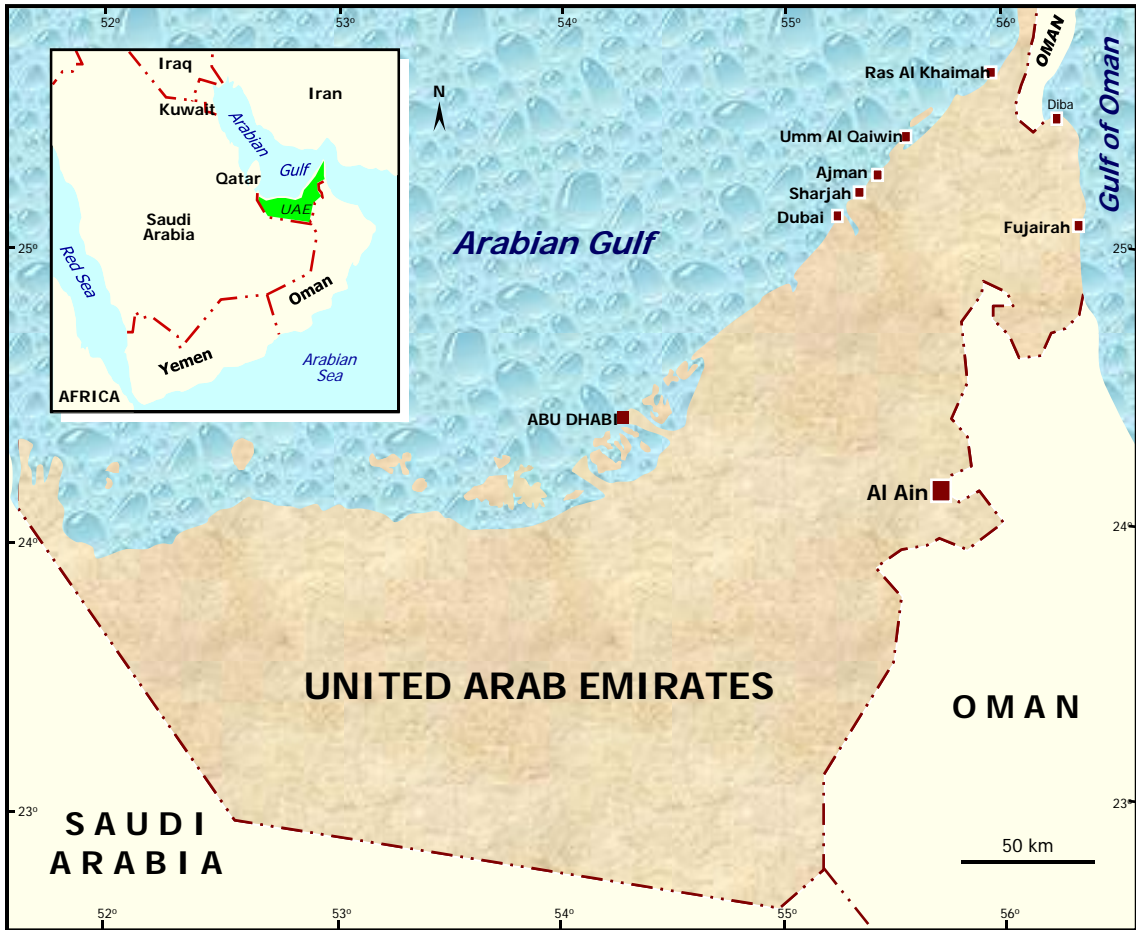
Contents

	Page
• General Map of United Arab Emirates	5
• General Map of Al Ain	6
• Historical Development of Al Ain by Figures	7
• Al Ain, 1990 from Landsat-5	8
• Al Ain, 2000 from Landsat ETM-7	9
• Al Ain Oasis, 1976	10
• Al Ain Oasis, 1984	11
• Al Ain Oasis, 1998	12
• Al Ain, Central Area, 1976	13
• Al Ain, Central Area, 1984	14
• Al Ain, Central Area, 1998	15
• Al Jimi Hospital, 1976	16
• Al Jimi Hospital, 1984	17
• United Arab Emirates University, 1976	18
• United Arab Emirates University, 1984	19
• Public Garden and Private Department Area, 1976	20
• Public Garden and Private Department Area, 1984	21
• Public Garden and Private Department Area, 1998	22
• Al Hosn and Murabba'a Fort Area, 1976	23
• Al Hosn and Murabba'a Fort Area, 1984	24
• Al Hosn and Murabba'a Fort Area, 1998	25





General Map of United Arab Emirates





General Map of Al Ain



Source: Al Ain Tourist and Street Address Guide, 2001. Al Ain Town Planning Department .





Historical Development of Al Ain by Figures

No.	Indicator	1975	1980	1999
1	Population (Persons)	51,000	120,000	351,000
2	Water Daily consumption (Million gallons)	1,17	14,7	48,7
3	Agriculture (Hectare)	2,424	4,369	32,440
4	Health (Doctors)	40	52	494
5	Electricity (Megawatt/hr)	89,069	600,000	4,724,108
6	Education (Number of Primary Schools)	22	46	161
7	Transportation (Length of internal roads km)	337	451	4,588
8	Solid waste (Tons/day)	46	166	331

References

Abu Dhabi Statistical Year Book. 1999. Page: 30, 152, 186.

Al Ain Annual Statistical Report. 2000. Page: 88.

Al Ain Department of Agriculture and Animal Resources. 1999. Page: 5 and 10.

Al Ain Master Plan. 1986. Page: 23.

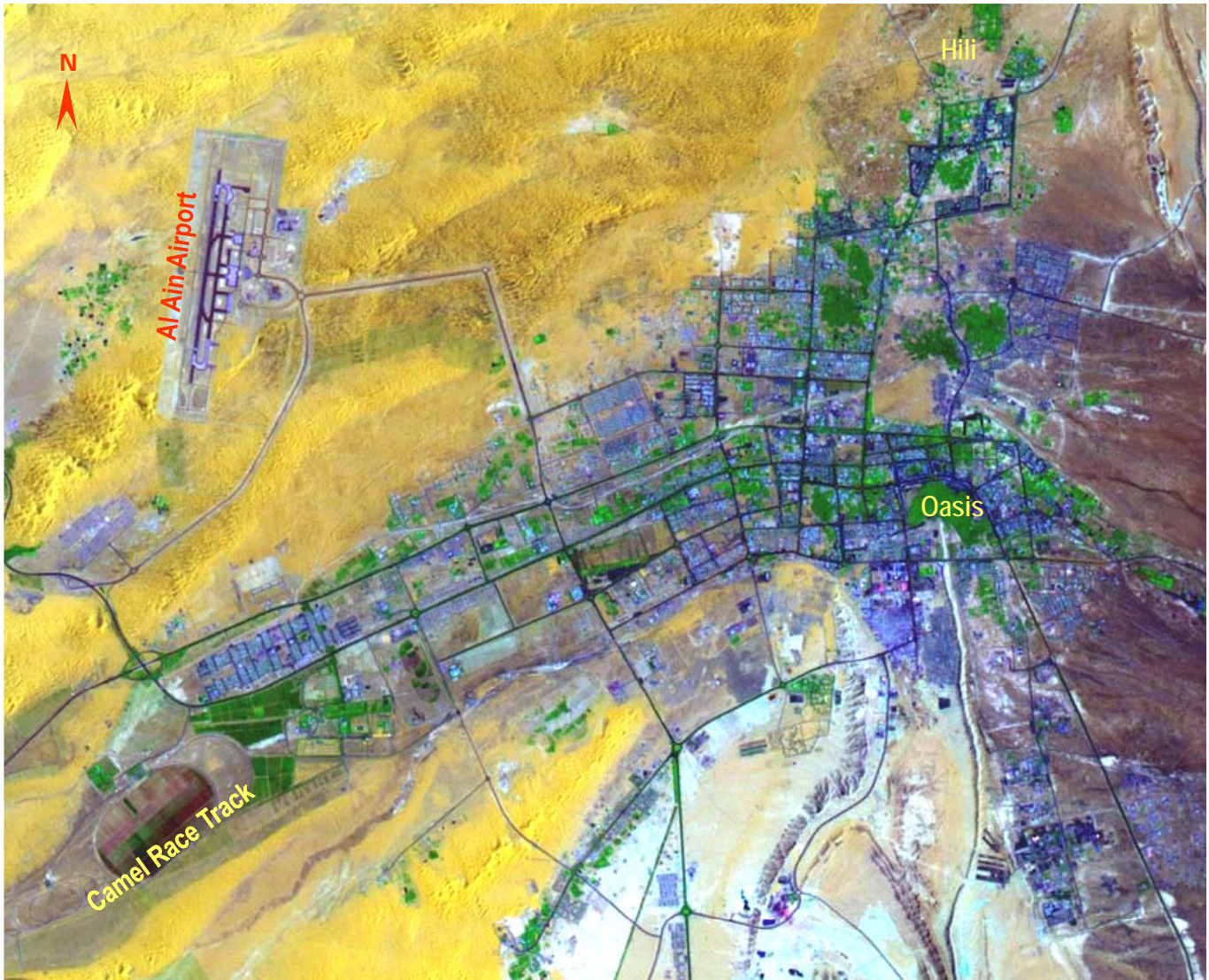
Qanim, A. Hameed. 1986. *Al Ain City: Urban development and water resources*. Kuwait: Al Falah Publisher. Page:87

Qanim, A. Hameed and Saef Al-Qaydi. 2001. *Urban development in Al Ain*. Abu Dhabi: Cultural Foundation Publications. Page:55, 73, 85, 110, 111, and 116.





Al Ain, 1990 from Landsat-5



- The appearance of Al Ain as an international destination (The construction of Al Ain Airport).

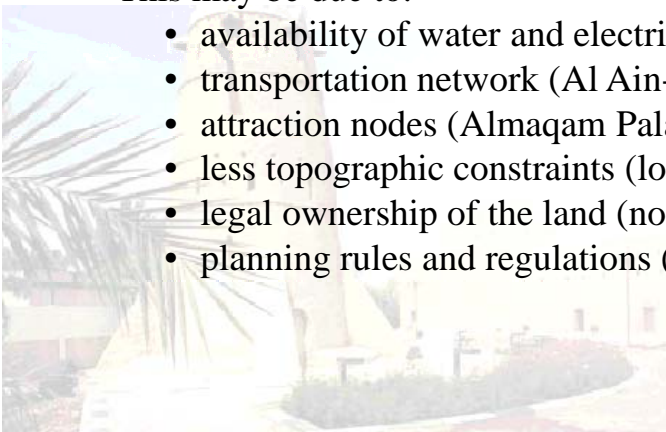




Al Ain, 2000 from Landsat ETM-7

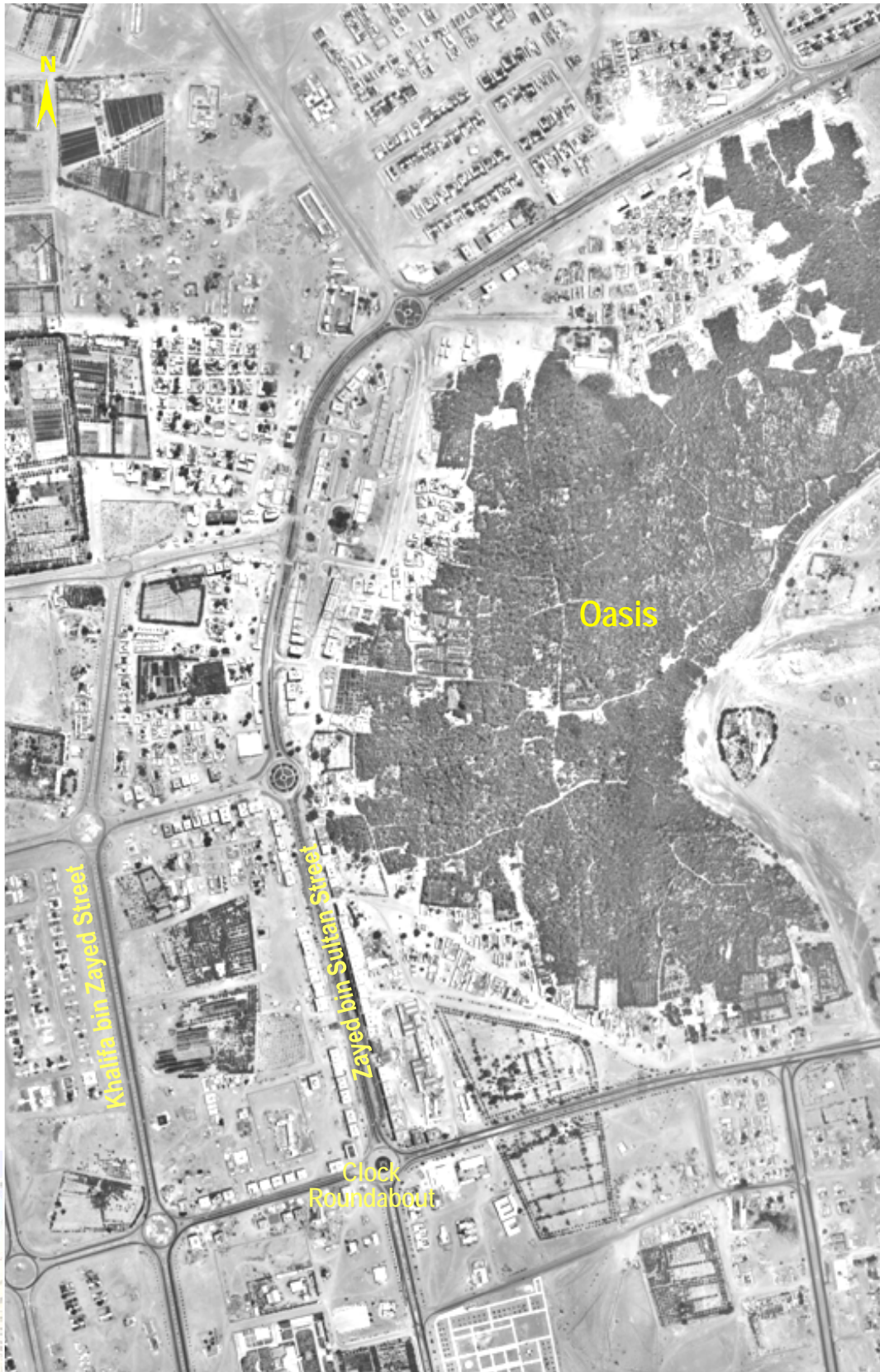


- Al Ain witnessed an expansion in agricultural areas in the south-west, increase in built-up areas in the north-west (Al Towayya), and road network (Al Towayya-Al Slammat).
- The city is largely extended in the south-west direction.
- This may be due to:
 - availability of water and electricity along the line from Abu Dhabi.
 - transportation network (Al Ain-Abu Dhabi road).
 - attraction nodes (Almaqam Palace, Tawam Hospital, UAE University).
 - less topographic constraints (low sand dunes).
 - legal ownership of the land (no political boundaries).
 - planning rules and regulations (Master plan implementation).





Al Ain Oasis, 1976



- **The legacy:** the oasis dominated the center of Al Ain with few roads and buildings scattered around it.



Al Ain Oasis, 1984



- More roads and buildings started to dominate the center of Al Ain with the oasis being conserved.



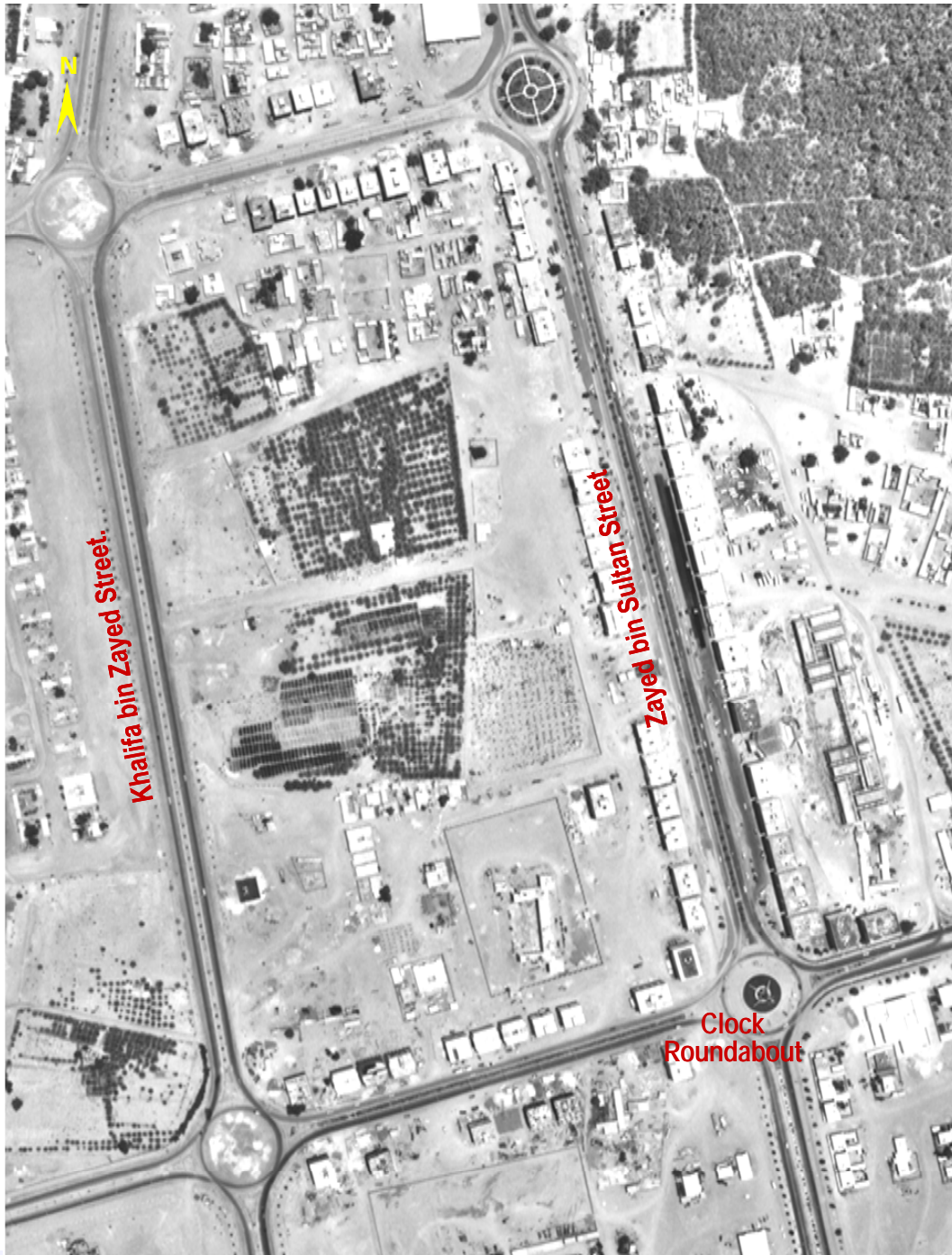
Al Ain Oasis, 1998



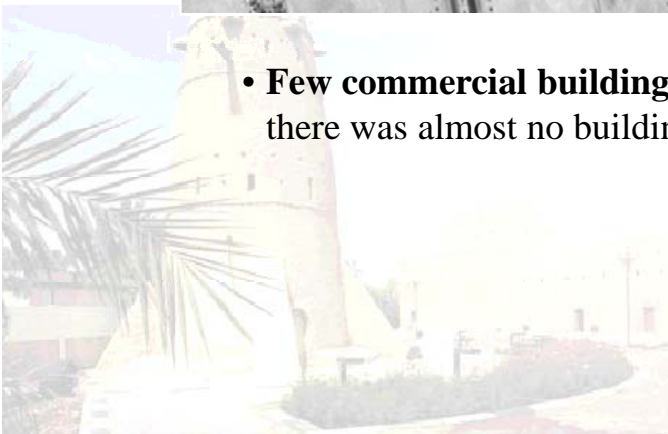
- Although of the continuous expansion of buildings and roads, the oasis is almost remains the same between 1976 and 1998. This is a unique example of environmental conservation.
- Worldwide there is intrusion of urban areas into agricultural ones, however, in Al Ain the case is not the same.



Al Ain, Central Area, 1976

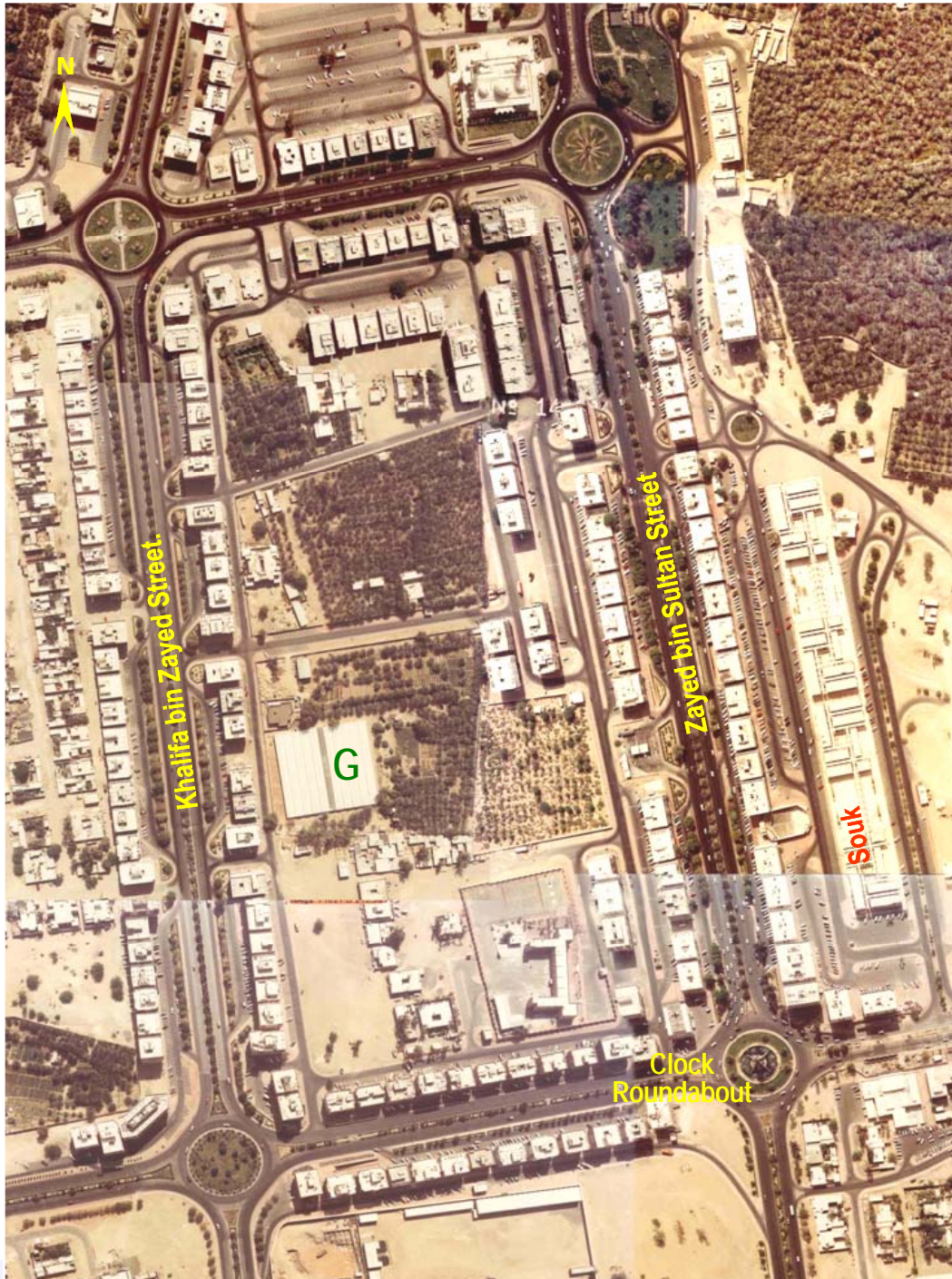


- **Few commercial buildings:** along Zayed bin Sultan Street and there was almost no buildings along Khalifa bin Zayed Street.





Al Ain, Central Area, 1984



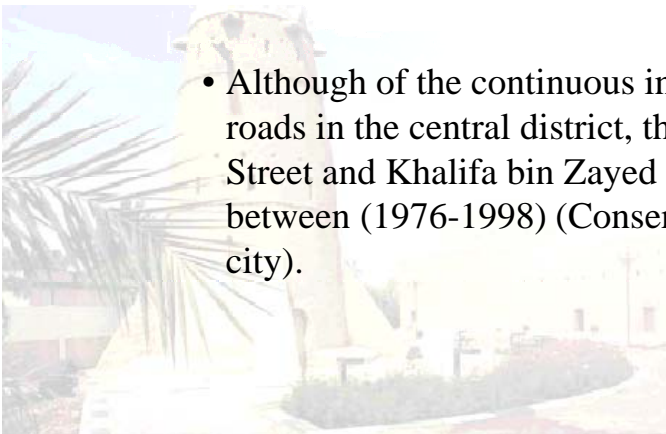
- **New buildings**, roads and farming techniques started to appear.
- **Buildings**: more commercial buildings along Zayed bin Sultan Street, Khalifa bin Zayed Street and the Souk.
- **Roads**: Roads linking Zayed bin Sultan and Khalifa bin Zayed Street started to appear.
- **Farming techniques**: Green houses (G) was practiced at the farm in the center of the photo.



Al Ain, Central Area, 1998

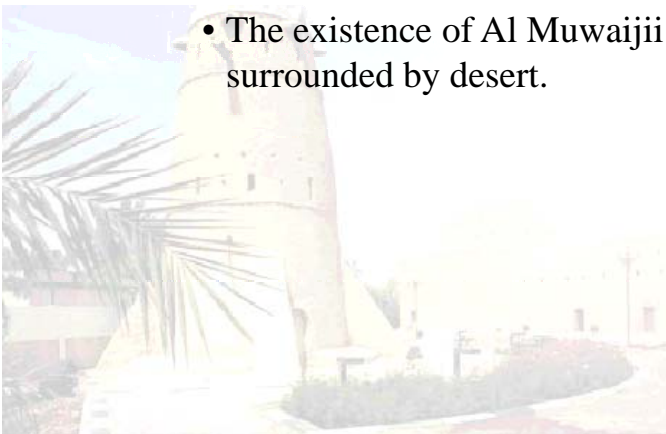


- Although of the continuous increase in the number of buildings and roads in the central district, the three farms between Zayed bin Sultan Street and Khalifa bin Zayed Street had resisted the urban expansion between (1976-1998) (Conservation of green areas at the center of the city).





Al Jimi Hospital, 1976



- The existence of Al Muwaijii Fort and Al Jimi Hospital before 1976 surrounded by desert.



Al Jimi Hospital, 1984



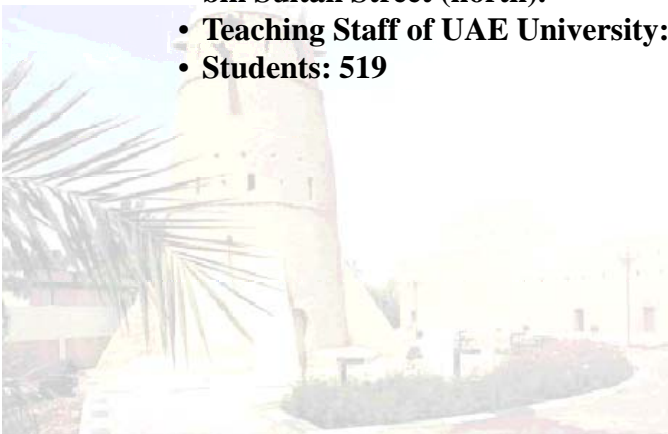
- New buildings, roads, sport activities, and vegetation cover started to appear around Al Jimi Hospital.
- **Buildings:** Villas were built to the north of the hospital (Hai Al Wadi). However, until 1984, there was no Preventive Medicine Department (PMD).
- **Roads:** Shakhboot bin Sultan Street (north of the hospital) was extended from east to west and Saeed bin Tahnoun Al Awwal Street to the west of the hospital.
- **Sport activities:** Camel Race Track appeared at the north-west corner of the photo (Heritage conservation).
- **Vegetation cover:** More landscaping trees appeared inside Al Jimi Hospital and along Al Baladiyya Street. Farms to the south of the hospital and Al Muwaijii Fort have witnessed an increase in the density of trees.



United Arab Emirates University, 1976



- The existence of the UAE University before 1976 (The Islamic Institute)
- There was no celebration ground to the south and no landscaping on the Shakhboot bin Sultan Street (north).
- Teaching Staff of UAE University: 56
- Students: 519

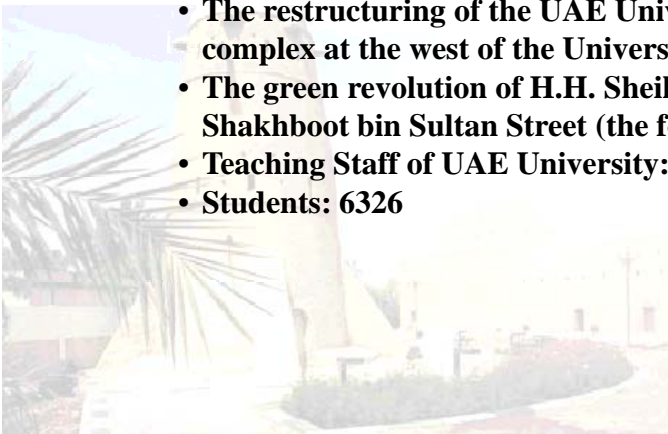




United Arab Emirates University, 1984



- The restructuring of the UAE University (parking area to the east and sport complex at the west of the University).
- The green revolution of H.H. Sheikh Zayed bin Sultan started to appear at Shakhboot bin Sultan Street (the formation of the Al Baladiyya Park).
- Teaching Staff of UAE University: 469
- Students: 6326

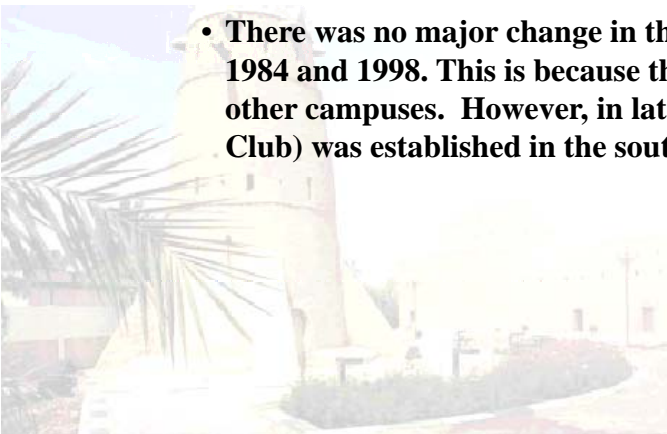




United Arab Emirates University, 1998



- There was no major change in the UAE University (Islamic Institute) between 1984 and 1998. This is because the majority of students were distributed among other campuses. However, in late 2001 an additional facility (Almultaga-Social Club) was established in the southern part of the University.





Public Garden and Private Department Area, 1976



- The Public Garden was existed since 1976 as an entertainment node for the public. However, there was no Private Department during that period.
- There was a big farm extended across Al Ain Street and no buildings along the street.





Public Garden and Private Department Area, 1984



- The Public Garden witnessed more plantation. However, until 1984 there was no Private Department.
- The big farm extended across Al Ain Street was disappeared and new buildings along the street replaced it.





Public Garden and Private Department Area, 1998



- The Private Department appeared as a land mark at the center of the photo.
- The number of buildings along Al Ain Street has increased and more internal streets appeared.





Al Hosn and Murabba'a Fort Area, 1976



- **The area contained important historical landmarks: Al Hosn and Murabba'a Fort, Fish and vegetable Market, Police Station, and the old settlements surrounding Al Hosn Fort. These settlements may indicate association of people in the past to Al Hosn Fort and the Oasis.**





Al Hosn and Murabba'a Fort Area, 1984



- **Until 1984, no action has been taken on Al Hosn and Murabba'a Fort and Police Station.** However, the old settlements surrounding Al Hosn Fort had been displaced and new commercial buildings appeared along Zayed bin Sultan Street in the northeastern direction of the area.
- **Fish and vegetable Market had been renovated.**





Al Hosn and Murabba'a Fort Area, 1998

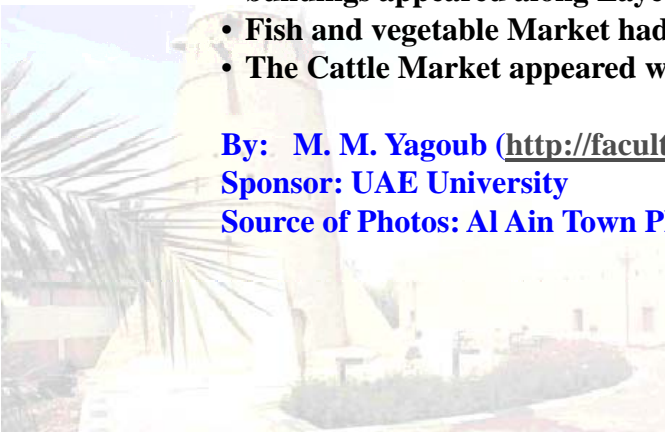


- Al Hosn and Murabba'a Fort had seen some renovations. The Al Hosn Fort was becoming part of Al Ain Museum. The old settlements surrounding Al Hosn Fort had been displaced and new commercial buildings appeared along Zayed bin Sultan Street in the northeastern.
- Fish and vegetable Market had been renovated.
- The Cattle Market appeared with roads and shelters.

By: **M. M. Yagoub** (<http://faculty.uaeu.ac.ae/~myagoub>)

Sponsor: **UAE University**

Source of Photos: **Al Ain Town Planning Department . June 2002**





Private Department and Jahili Fort 1998

