

ENVIRONMENTAL DEGRADATION and Conflict in Palestine

by Marla R. Schrader (June 1994)

Historical Palestine is located at the meeting point of the three continents of Asia, Europe and Africa. This, together with its climatic variations, contributes to its ecological diversity. Over 2,500 species of wild plants have been identified in Palestine -- 800 or so are considered rare, while approximately 140 are endemic. At least 80 species of wild mammals are found in Palestine, and its reputation as a geographical and ecological crossroads is reinforced by the fact that 380 different species of birds can be identified there. These numbers become significant when compared with far larger countries such as Britain, which is home to only about 1,750 plant species and 400 to 440 species of birds.

It is, perhaps, not surprising that world interest has traditionally focused far more upon politically conflicting claims to the land than to alterations of the environment. Recently, however, several academics have explored concepts of environmental security in Palestine. By using case study research approaches, environmental changes have been causally connected with conflict. The case of occupied Palestine (West Bank, including East Jerusalem, and the Gaza Strip) illustrates the often descending spiral of the interrelationship between conflict and environmental degradation.

Land Degradation and Desertification

Human infringement upon the composition of

Palestine's native vegetative cover has taken place throughout history. Yet, it was during the Turkish occupation of Palestine that vast areas of the remaining natural forests were lost, as large numbers of trees and shrubs were cut to provide fuel for Turkish railways. Many naturally occurring forests across Palestine disappeared and the subsequent reshuffling of the vegetation led to the loss or marginalization of a large number of native flora.



Beach Camp sewage flowing into the Mediterranean Sea, Gaza Strip.
Marla Schrader

Under Israeli occupation, new sets of military orders and rules affecting the environment and natural resources of Palestine have been imposed under the pretext of security or to facilitate Israeli settlement. These orders and rules "legalized" the uprooting of hundreds of thousands of fruit trees and the closure of large tracts of land -- both contributing to the process of desertification in Palestine.

Since the beginning of the intifada in December 1987, 184,256 olive, fruit and nut trees were uprooted by the Israeli occupation authorities. Between the signing of the Declaration of Principles last September and the end of 1993, 5,540 trees were uprooted to clear 1,025 dunams of land to expand existing settlements in the West Bank.

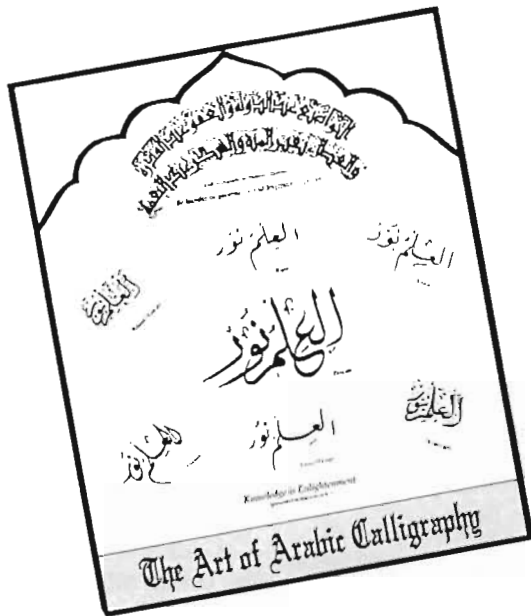
The closure and/or confiscation of approximately 85% of the natural grazing areas since the beginning of the occupation in 1967 have led to severe overgrazing of

(Cont'd on p. 3)

ARTICLES INSIDE

The Art of Arabic Calligraphy	2	Book Reviews	7
Homelessness in Jerusalem	5	Radius of Arab-American Writers (RAWI)	7
Women Prisoners Update	5	Book Orders	8

The Art of Arabic Calligraphy



Poster

Articles:

"World of Mohamed Zakariya"

"Art of Writing"

Arabic Alphabet; forming characters

Classroom Activities

Common Arabic Expressions

Common Names written in Arabic

Najda has published this packet for educators entitled *The Art of Arabic Calligraphy*. Teachers welcome such materials to use as a supplements to a unit on the culture of the Arab world. Order a packet for your child's or neighborhood school for this next year. (Order form on p. 8)

NOTE FROM THE EDITOR

With the rising populations of the Middle East and the emergence of some form of Palestinian autonomy, the Najda Board felt it would be timely to present its members and friends with material on the subject of water and the environment.

In May Najda sponsored a program in San Francisco on the water and environmental situation in Palestine and surrounding countries. Our speakers were Leo Hosh and Marla Schrader Hosh. They both had been working at the Applied Research Institute, Jerusalem, before coming to California to study for their advanced degrees. Leo spoke on the imminent dangers of the overuse and wastage of water in the area. Marla shared her research and observations on the environmental deterioration there, as her slides visually depicted.

For this issue of the Newsletter, Marla very kindly has allowed us to publish her article about the environment in Palestine. She and Leo will be returning to Palestine for the summer where they plan to collect more information and slides on these subjects. Their presentations in May were so informative and timely, that we hope to have them for another program in the Bay Area this coming year.

Najda: Women Concerned about the Middle East is a tax-exempt, non-profit organization founded in 1960 to increase understanding of the people and cultures of the Arab world, and to provide assistance to persons of the area in need.

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Environment (Cont'd from p. 1)

the remaining land. Closed areas, often used as sites for the Israeli military training, have also been damaged. Neither cultivation nor land tending is permitted in these areas; therefore, land degradation continues to worsen. Currently, about two thirds of the total area of the occupied West Bank and over one third of the Gaza Strip are closed to Palestinians. Both factors have contributed greatly to increased desertification.

In addition to uprootings and closures, afforestation has also been forbidden throughout most of Palestine by the Israeli military.

Presently, Palestine is reliant upon agriculture as a principal source of income, contributing approximately one third of its GNP. On the eve of the 1967 occupation, the percentage of cultivated land in the West Bank was 47% of the total land area; this amount has now dropped to less than 20%. Due to the closure of many irrigation wells and through harsh drilling restrictions, Palestinians are at present able to irrigate less than 6% of the cultivable land in the West Bank.

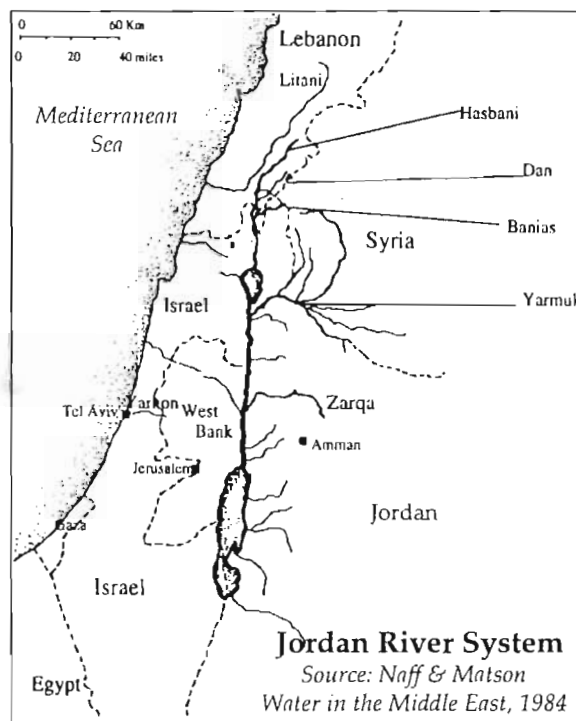
The low revenue of non-irrigated, rainfed farming combined with the rapidly rising cost of living has forced seasonal farmers to abandon their land and seek employment elsewhere, especially in Israel. The Palestinian agricultural sector will continue to decline due to high competition with subsidized Israeli agricultural products which have cornered Palestinian farmers into a marginal or no-profit situation. Unequitable trade laws which allow subsidized Israeli produce into the territories while simultaneously banning West Bank and Gazan produce in Israel, also contribute to this decline and the further abandonment of cultivated land.

Thus, sizeable areas of land have either been destroyed or neglected and returned to semi-desert in yet

another chapter in the long legacy of environmentally disruptive displacement.

Water Resources

Water in the Middle East is a strategic resource with a standing comparable to oil. Today, access to the majority of surface and ground water in Palestine is denied to Palestinians and approximately 85% of West Bank water is pirated by Israel.



The Jordan River is the major source of fresh surface water in Palestine. Several Israeli projects have altered and polluted the Jordan River, reducing it to little more than a trickle. The early 1960's diversion of the Jordan River system's water to the Negev via Israel's National Water Carrier has drastically dropped the water level. In the 1970's, salty tributaries of Lake Tiberias were diverted into the Jordan River, increasing its salinity. An additional 60,000 tons of salt is dumped into the river each year due solely to this diversion.

The more recent Israeli Gilgal

Project, begun in 1977, pumps Jordan River water to new Israeli agricultural settlements in the Jordan Valley. This combined with the dumpage of waste by settlements and military bases into the river has resulted in degrading the quality and severely limiting the quantity of water that would be available to downstream Palestinians if and when they regain access to the Jordan.

Regarding groundwater, Israelis use approximately 500 million cubic meters (MCM) from West Bank aquifer waters per year, while West Bank Palestinians use only 115 MCM of their own water.

The water subsidies from the World Zionist Organization, available solely to Israeli citizens, enables extravagant, unsustainable water usage. Jewish settlers pay \$0.16 and \$0.40 per cm for agricultural and domestic purposes, respectively. Palestinian consumers in the West Bank and Gaza pay up to \$1.20 per cubic meter of water, with no subsidized rate for agriculture. On a per capita basis, an Israeli uses 375 cm/year, a Palestinian uses 107-156 cm/year, while a Jewish settler uses 640-1,480 cm/year.

Excessive water pumping by Israeli settlements from newly equipped and maintained wells in the West Bank is another threat to the Palestinians water supply. Many Palestinian wells have died up, as adjacent settlements are allowed to drill deeper than Palestinian wells.

In the Gaza Strip, groundwater has an annual potential of 80 MCM and is the only source of fresh water. At present, the continuous overpumping of more than 120 MCM from this aquifer has resulted in a drop in the water table at a rate of 15-20 cm per year. Such a drop permits seawater intrusion and increased brackishness of the aquifer. Nearly

(Cont'd on p. 4)

60% of groundwater stocks have reached a salinity of over 600 ppm rendering them essentially unfit for

replenishes the aquifer under Gaza, eliminates a high percentage of the groundwater recharge necessary to maintain sustainable water levels. Much of this diverted water is used to irrigate farmlands in the Negev desert.

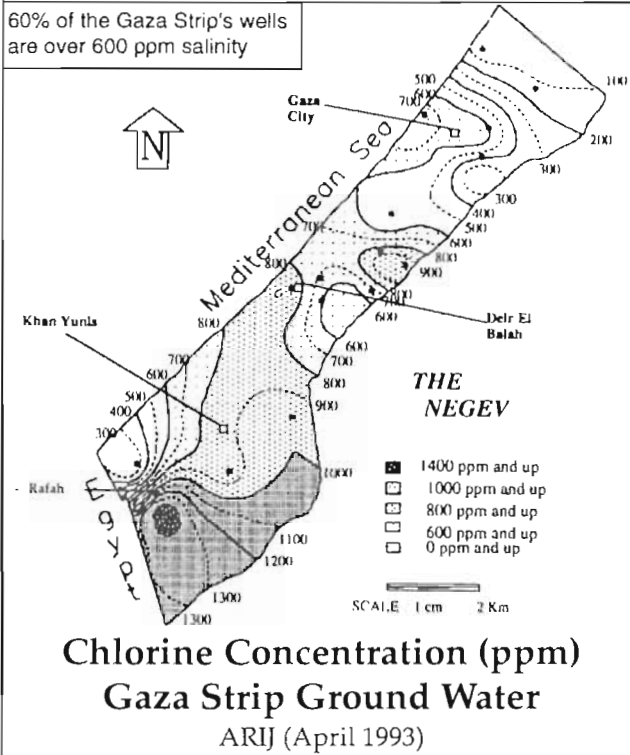
The 1994 Gaza-Jericho agreement exacerbates this inequitable situation of water distribution even further. The agreement leaves the areas of Gaza with the lowest water quality under pseudo-Palestinian control, while the areas with the highest quality of water are allotted to areas under the control of Israeli settlers. (see maps.)

Agriculture which contributes only 6% to Israel's GNP, absorbs about 60% of all the water resources currently under its control. Most Palestinian water scientists

the sale of wrongly labelled chemicals and banned pesticides are rife. Agrochemicals imported from Israel are mostly labelled in Hebrew, which most farmers can't read, and who consequently apply much larger quantities than actually necessary. Application instructions may also be in Hebrew and thus, farmers often unknowingly place themselves and their families in a health risk when applying the agrochemicals.

There have also been several reported cases of hazardous industrial plants relocated to the West Bank. One plant operated in Kfar Saba, inside Israel, until 1987 when the surrounding citizens obtained a court order to shut it down because of its negative effects on public health and land. It was moved to the Tulkaram area in the West Bank. Subsequently, many trees near the factory have died and adjacent land has become unsuitable for cultivation because of waste dumping. Effects on public health have not yet been published.

(Cont'd on p. 6)



domestic consumption and for most agricultural crops. Citrus fruit, a major crop in Gaza, can tolerate a maximum salinity of 700-750 ppm. If overexploitation continues, citrus groves may survive only a few more years. According to World Health Organization standards, the maximum level of chloride considered safe in drinking water is 250 ppm.

Sewage and pesticides have leaked into Gaza's groundwater. The resulting high concentrations of fluoride in the water have increased the number of cases of tooth necrosis among Palestinian children. And in the past three years, a direct correlation between increased incidents of renal failure and Gaza's poor water quality has been drawn.

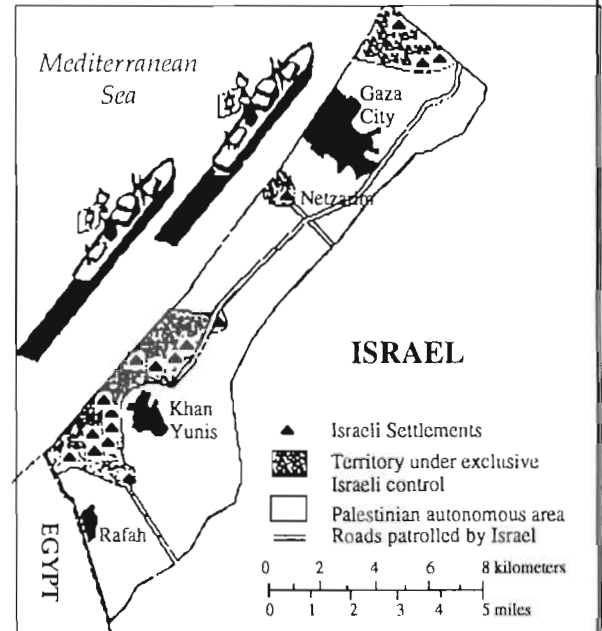
The Israeli capture and diversion of the run-off water from the southern mountains near Hebron that normally

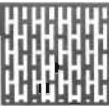
argue that if Israel were to cut back on producing water-intensive crops and switch to more sustainable water management, much more water would be available for the entire area.

Agrochemical Pollution

The lack of infrastructure, institutions and laws which control and monitor the sale and proper application of agrochemicals have left their use in Palestine virtually unregulated. (see chart on p. 6)

In a society highly dependent upon agriculture, the lack of available extension service has left farmers vulnerable to unscrupulous pesticide merchants and middlemen. Accounts of fraud, dilution, and





Homelessness in Jerusalem

(From a report issued June 7, 1994, by PHRIC-International, Jerusalem.

PHRIC's Housing Rights Campaign is compiling accurate information on the consequences of the Israeli authorities' demolition policy.

The political and religious significance of Jerusalem has received much attention. Almost forgotten is the fact that Jerusalem is a community, where people live and raise their families. The rhetoric and symbolism surrounding Jerusalem tend to overshadow the daily suffering of the city's Palestinian population -- suffering which could be alleviated given the political will and respect for basic human dignity, equality, and human rights. Real change will require an end to the building of illegal Jewish settlements on land taken from Palestinian ownership--in contravention of international law--and the cancellation of all housing-related policies which violate Palestinian human rights. Israel's building of Jewish settlements in Occupied Territory, expropriation of Palestinian land, demolition of Palestinian homes,** and other measures pre-

venting the building of new homes constitute a deliberate policy of forced eviction.

Today, an estimated 21,000 Palestinian families are homeless or inadequately housed in East Jerusalem. They are forced to find shelter in caves and tents, or double and triple-up with other families. These families would build their homes on land that they own or could purchase were these lands legally zoned for housing. But the Government of Israel, with the sophisticated use of legal planning procedures, has prevented Palestinians from using 86% of the land of East Jerusalem, leaving only 14% zoned for construction, and much of this land has already been built up. Palestinians are limited to two stories whereas buildings in Jewish neighborhoods in East Jerusalem are permitted to be as many as eight stories. Since 1967, an estimated 50,000 Palestinian Jerusalemites have been forced by these Israeli policies to move with their families outside of the municipal boundaries or outside the country.

Israeli housing, zoning and residency policies have denied the Pales-

tinian population the basic right to a home. Concerted efforts are urgently needed to counter this existing situation and to enable Palestinians to utilize their land and resources to build livable communities.

Palestinians, like all people, have the right to a place to live on their land in peace, security and dignity. These Palestinian homeless cry out:

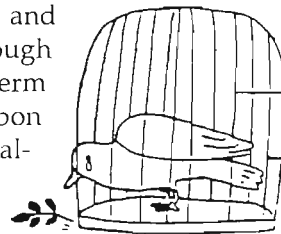
=====
**Stop destroying our homes!
Stop the theft of our land!
Stop the policy of
forced eviction!**
=====

** Daoud Kuttab in his report in the *Middle East International* issue of 10 June 1994, states that "the [Jerusalem] municipality is in the process of pushing through the demolition of some 2,000 Palestinian homes built without a license. Israeli officials rarely grant building permits to Palestinians."

Women Prisoners Update

(Reported by Mandela Institute For Political Prisoners, Jerusalem)

There are currently 44 Palestinian women political prisoners. Only four had been released following the signing of the Agreement on the Gaza Strip and Jericho Area. Another 2 were released through regular procedures (either at the end of their term or following a reduction of their sentence upon appeal). Seven of these women are held in al-Moskabiyya, while the rest are in Tel Mund Prison. One of the several difficult medical cases who remain in prison is **Rabiha Shtai'** (34) who suffers from liver cancer. Rabiha is unable to walk, has difficulty eating, suffers pain and is very weak.



She was arrested in June 1991, and sentenced to 8 years and 8 months. She needs treatment in a specialized hospital, otherwise her life is in great danger.

There are also 3 girls, **Hayyat Zaghal** (15), **Najla Abu Shousheh** (14) and **Iman al-Hayyat** (15) who were severely treated in al-Moskabiyya. They were harrassed by a police-woman and when they protested were beaten and put into isolation cells. They all lost consciousness during this abuse. When an attorney from Mandela Institute visited the following day (25 May) there was much evidence of bruises and swelling.

Is your membership up to date?

Check the lower left box on page 8.

Waste Water Pollution

Waste water drainage is also a serious problem in Palestine. Inadequate drainage systems promote the spread of disease and the pollution of water supplies. More than 60% of the households in Gaza and 45% of those in the West Bank lack any well controlled and organized sewer networks.

Israeli settlements in the West Bank and Gaza usually lack adequate sewage treatment facilities. In Nahaleen (17 kilometers SW of Bethlehem), two of the four settlements which line the hilltops dump sewage onto village lands. This unregulated sewage runoff has flooded terraced agricultural land, making sizeable areas uncultivable. And one of Nahaleen's two natural springs, used by villagers, has been contaminated by the invading sewage. Unfortunately, this scenario is repeated throughout Palestine.

Palestinian Efforts

Israel has closed all Palestinian experimental stations, converting them to commercial activities and cut the budget for applied agricultural research for the West Bank to \$1,400 per year. Similar trends have occurred

in the area of public health. Without regard to population growth, the number of hospital beds in the West Bank and Gaza have been reduced from 1127 beds in 1968 to 1001 beds in 1992. At least eleven hospitals or medical centers have been closed by Israel since 1967. During the decade of the 1980's, health expenditure per person dropped from \$30 to \$22. However, in Israel the figure increased from \$350 to \$500.

Despite these constraints and oppressive measures, Palestinians have been working to retard degradation, preserve their environment and increase public health standards. They have created grassroots organizations to provide a variety of needs, including agricultural extension, community health and education.

Today, it is still illegal to change the obsolete and at least 30 year old curriculum of government schools. Without a means to adapt and update children's educational tools, Palestinians are creating their own educational materials regarding a variety of issues, including the environment. Unfortunately, this is only accomplished "secretly" in some private schools, while the majority of school-age chil-

dren attend government schools.

One example includes an initiative taken by a group of private schools in the West Bank, called the Education for Environmental Awareness program. In Gaza, an independent Environmental Protection Center was established in 1991 to monitor and address environmental problems. However, there is much more that must be done.

Despite the urgency, **the recent Declaration of Principles does not meet any of the Palestinian environmental concerns.** Although multilateral working groups on both water and the environment continue to meet, the issues raised by Palestinians -- defining their water rights and linking the occupation with environmental degradation -- are ignored or pushed to the bottom of the negotiating agenda. Nevertheless, it is likely that in the meantime Palestinians will proceed with ecological awareness campaigns and the promotion of sustainable development. *[emphasis added by editor]*

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— Khudari, R. "Water Problems in the Gaza Strip". Presented at a conference on water in Jerusalem, September, 1991.

— Palestinian Human Rights Information Center (PHRIC), Washington D.C.

A selection of agrochemicals from among the many used without regulation in the Gaza Strip.

(Hosh, Miller, Isaac, 1992)

Trade Name	Ingredient	Long-term Effects
Acarin	dicofol	carcinogenic
Benzilan	Chlorobenzilate	male sterility, cancer
DDT	DDT	teratogenic, cancer
		brain & nerve damage
Dimetate	dimethoate	carcinogenic, mutagenic
		embryotoxic, birth defects
Folidol	parthion	embryotoxic
Maneb	maneb	birth defects, carcinogenic
		mutagenic
Paraquat	paraquat	birth defects
Thiodan	endosulfan	brain & nerve damage
Thionex	endosulfan	brain & nerve damage

Fragments of Memory: A Story of A Syrian Family

by Hanna Mina, translated from Arabic by Olive and Lorne Kenny. Center for Middle Eastern Studies, University of Texas at Austin, 180 pp., 1993. \$9.95. *

Hanna Mina, Syria's foremost novelist, has written an autobiographical novel of his boyhood in northern Syria. Born in 1924 in Latakiya, Syria's port city on the Mediterranean, he moves with his family to Suwaydiya in the Iskenderun province. Though the majority of the population are of Syrian Arab descent, the town is annexed to Turkey and the Mina family flee to the Syrian countryside. It is against such historical events of early 20th century Syria and its socio-economic conditions (including descriptions of the silkworm industry) that Hanna Mina weaves his story. The author communicates with charm and simplicity an image of Syrian society through the struggle of an impoverished family moving between city and countryside for its survival.

* Available from University of Texas Press, P.O.Box 7819, Austin, TX 78713. Tel: 512/471-3881.

Daughter of Damascus

by Siham Tergeman, translated and introduced by Andrea Rugh. Center for Middle Eastern Studies, U. of Texas at Austin, 240 pp., 1994. \$10.95. *

A Syrian woman describes her youth in the "old City" quarter of Damascus during the first half of this century. She writes of Ramadan festivities, family picnics to the orchards of the Ghuta, weekly trips to the public bath, school experiences, Damascene cooking, peddlers' calls, proverbs, and customs surrounding marriage, birth, and death. Dr. Rugh provides a fine introduction to the social customs of Syria.

Both books were translated under the aegis of PROTA (Project for the Translation of Arabic) directed by Dr. Salma Khadra Jayyusi, eminent Palestinian scholar and poet based in Cambridge, Massachusetts. Her objectives are to translate into English novels and memoirs depicting life in the Arab world in the wake of political and social change. The first book in the series was Hamza Bogary's *The Sheltered Quarter*, a semi-autobiographical novel about life in Mecca before oil. Also available from University of Texas Press.*

RAWI

(the Storyteller)



Radius of Arab-American Writers, Inc. (RAWI) is a newly formed group of Arab-American writers. Their newsletter provides information on material Arab-American writers are having published as well as announcing the recipients of awards. The report "What Are Our Writers Doing?" is useful as a guide to recent Arab-American poetry and prose.

Those interested in receiving the RAWI newsletter, contact:

Barbara Nimri Aziz
160 Sixth Ave.
New York, NY 10013.

Some Books Introduced in former Najda Newsletters appearing on the Order Form.

SITTI AND THE CATS

The Palestinian fairy tale of friendship by Sally Bahous; illustrated by Nancy Malick. This enchanting story focuses on the daily needs of village life and contains a blend of harsh reality mel-
lowed by magic.

OF CITIES AND WOMEN

(Letters to Fawwaz)

Asked to contribute a study on feminism, Etel Adnan adopted the free adventurous approach of letters to investigate cities (such as Barcelona, Beirut . . .), and their relations to women's lives as well as to the idea of woman.

PARIS, WHEN IT'S NAKED

Etel Adnan, so familiar with Paris and a well acclaimed writer in Europe, tells a story of our time, a time when simply to sit and think is to be baffled by a thousand shifting currents of social and political (and therefore personal) possibilities.

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