Let Shepherding Endure

Applied Anthropology and the Preservation of a Cultural Tradition in Israel and the Middle East

Gideon M. Kressel

Let Shepherding Endure

SUNY series in Anthropology and Judaic Studies
Walter P. Zenner, Editor

Let Shepherding Endure

Applied Anthropology and the Preservation of a Cultural Tradition in Israel and the Middle East

Gideon M. Kressel

State University of New York Press

Published by
State University of New York Press, Albany

Printed in the United States of America

For information, address State University of New York Press,
90 State Street, Suite 700, Albany, NY 12207

Production by Diane Ganeles
Marketing by Patrick Durocher

Library of Congress Cataloging-in-Publication Data

Kressel, Gideon M., 1936–
Let shepherding endure : applied anthropology and the preservation of a cultural tradition in Israel and the Middle East / Gideon M. Kressel.
p. cm. — (SUNY series in anthropology and Judaic studies)
Includes bibliographical references and index.
ISBN 0-7914-5805-9 (alk. paper) — ISBN 0-7914-5806-7 (pbk. : alk. paper)
1. Shepherds—Middle East. 2. Shepherds—Israel. 3. Pastoral systems—Middle East. 4. Pastoral systems—Israel. 5. Bedouins—Land tenure—Middle East. 6. Bedouins—Domestic animals—Middle East. 7. Desert conservation—Middle East. 10. Applied anthropology—Israel. 11. Middle East—Environmental aspects. 12. Israel—Environmental aspects. I. Title. II. Series.

GN635.N42 K74 2003
306.3'6'0956—dc21 2002030978

10 9 8 7 6 5 4 3 2 1

Contents

This page intentionally left blank.

Illustrations

This page intentionally left blank.

Acknowledgments

My thanks go first to the Jacob Blaustein Institute for Desert Research which, since my arrival in 1978, has financed numerous projects over a period of twenty-five years relating to the nature and development of Bedouin societies and, in particular, the Bedouin in the Negev and the Ramle-Lod area of Israel.

In the course of fieldwork undertaken in the 1980s, I have worked closely with Dr. Joseph Ben-David and Dr. Khalil Abu-Rabiʿa, who helped me assemble data on a century of land use by the Negev Bedouin. I am greatly in their debt for their collegial support and hard work. The results of our joint study were published in *Nomadic Peoples* (28, 1991). I here acknowledge with thanks the permission granted me by the editors of this journal and of the *Journal of Rural Cooperation* (21, 1993), to use material on the nature of contacts between nomadic pastoralists, agriculturalists and the state.

I am most grateful to my colleague Dr. Hendrik J. Bruins, who has collaborated with me in previous studies on the problems of sheep-rearing in Kibbutz Sde-Boqer and goat-rearing in Moshav Ezuz, relating problems of shepherding in the arid lands in Israel to those faced by the Massai and the Turkana in Kenya. Our joint work in Kenya was financed by the NIRP (Netherlands Israel Research Programme) which has earned our

profound gratitude for its generous support of our collective research. In this connection, we also thank Joshua Aconga of Moi University and Kenya's Ministry of Agriculture, in particular, the late Francis Ndaraya, our team member in Nairobi.

Much inspiration in my work on the development of livestock breeding in arid lands was provided by the late agronomist, Ya'acov Orev. His sagacious advice, gained from pioneering work on the amelioration of range lands, in the Negev and in the Sahara frontier of Niger greatly enriched my knowledge of the field here under study. I also benefited from numerous discussions with Dr. Harold Lemel who shared with me his profound knowledge of policy and crisis management in Turkey and Albania.

Many individuals were involved in an effort in 1985–86 to test the feasibility of renovating an old Byzantine cistern so that it could serve the Highland Bedouin. My thanks are due to my Bedouin agemates, residents of the Baqqar ridge, of the Jaladin lineage: Salem, Sliman and ʿAwdih; and of the Ziyyadin lineage: Sallam and his son Sliman. I would also like to record my gratitude to my colleague Professor Paul A. Hare, to my neighbors David Palmah, John Krivine, and Arthur Du-Mosch, and to my children, Maya, Yohanan, and Daniel, who spent many Saturdays doing the manual work, required to clean out the silt of millenia.

For assistance in fields related to my project, thanks are due to the soil and water expert, Professor Pedro Berliner, the ecologists Professor Aharon Yair of the Hebrew University, Professor Moshe Shachak, Dr. Linda Olsveg-Whittaker and Dr. Bert Boeken of the J. Blaustein Institute, B. G. U. Dr. Avraham Perevolotzki and Dr. Yan S. Landau of the Vulkani Institute and Itshack Moshe of the Keren Kayemeth L'Yisrael (Jewish National Fund) provided much moral support and advice in the field of sustainable range in arid lands.

For enriching my knowledge regarding the development of rangelands in other Middle Eastern countries, thanks go to the delegations sent by the Agricultural Ministries of the Palestinian Authority, Jordan, Egypt, and Tunisia, started by the Madrid accords in 1993. All of us who took part in these meetings shall always remember the contributions raised by the facilitators of the "Initiative to Collaborate to Combat Desertification in the Middle East"; Michael E. Norwelle (1996), Scott Christiansen (1999–2000) and Rick Tutwiler (2000–2001). The fruitful atmosphere and cordial spirit that characterized our exchanges were attained thanks to them.

I want to express my gratitude to BAIF (an NGO in India), and its director Dr. Narayan Hegde, as well as the devoted forester Prahlad Shirsath, who facilitated my testing of research hypotheses about landless herders, in this case, the Rabari of Gujarat (the Raika of Rajasthan).

For editorial work on the manuscript of the present book, I would like to thank Professors Paul Hare and Alexander Borg who helped me find appropriate formulations for my ideas and generally improved my English style.

Last but not least, I cordially thank Margo Tepper-Shotz, who has been editing my materials and preparing them for publication for over two decades.

This page intentionally left blank.

Introduction

Since my early childhood, the sight of Bedouin herds, campsites, and tents (where I was not infrequently hosted in the company of adult visitors), has been with me. The movement of the tribes in winter to their rangelands situated across the fence enclosing our kibbutz, and their departure in the summer aroused curiosity and considerable awe at their mystifying life cycle among members of my family, my teachers, and other kibbutz members, most of them immigrants from Europe, and these feelings were transmitted to us, children of the kibbutz. The Bedouin's resourcefulness in the way they eked out a living off the range imbued them in our eyes with dignity, though we could not help also noticing their hardship as their women and children rummaged through garbage dumps in search of food and clothing. They seemed always to be on the verge of hunger.

In 1951–1952, I was a young shepherd at Kibbutz Giv'at Brenner, where on returning home after school I often spent my afternoons preparing sheep pens for the return of the herd from pasture and helped with the milking. During school vacations, I was trained to take out the herd myself and I also tried my hand at shearing in the spring and at other seasonal jobs. At the end of the 1950s, Kibbutz Giv'at Brenner abandoned sheep rearing, although it was not unprofitable, mainly on

account of lack of manpower and the shrinkage of the open ranges surrounding the kibbutz.

During the years 1967–1972, my path once again crossed that of the herds in the course of field research I undertook on Bedouin settlers and their herds in the Ramle/Lod area. Within a decade, most of them had sold their herds because the older shepherds did not find a younger generation willing to take their place. To reach their forage now, the herds had to be transported by truck a considerable distance from the tents, and the occupation's status had dropped in relation to what it had been a generation earlier even though this occupation had not become less lucrative than new ways of earning a living that opened up to the young Bedouin tribesmen.

I encountered sheep breeders and their problems once again in early 1979, when I moved to live in the Negev Highlands. Since then, my shepherd neighbors have been sections of the ʿAzäzma and Ẓullām tribes, and members of Kibbutz Sde Boqer. As the kibbutz struggles to preserve this branch in the face of a manpower shortage, the Bedouin are themselves experiencing great difficulty in maintaining their herds, partly as a result of the policies of the "Minhal" (Israel Lands Administration) that restricts their movements in the open areas in an effort to settle them in the Be'er-Sheva region, but also on account of the diminishing financial return from sheep breeding, with the result that men are abandoning this occupation and leaving it to girls and women.

My interest in sheep- and goat-rearing conditions in Israel's rural sector originated in 1982 and subsequently I dealt with this topic in the context of a broader study of the Negev Bedouin herds based on the Be'er-Sheva livestock market (Kressel & Ben-David 1995a; 1995b; 1996). In my inquiries I was motivated both by a personal concern at the decline of shepherding since the 1950s and by a curiosity regarding the causes of this decline. In particular, I was motivated by the desire to see shepherding develop and gain in significance for the benefit of the breeders, the consumers, and the Israeli economy in general.

The lack of appreciation currently shown toward a potentially profitable occupation that seems, however, to bring no honor to those who work in it illustrates a shift in underlying fundamental cultural values. On the one hand, the sheep breeder's occupation traditionally evokes positive personal ideals linked with the concept of the idyllic life, traditionally extolled in prose, poetry, and song, and symbolizing metaphorical happiness. On the other hand, it is perceived as personally degrading. History shows that the shift from nomadic shepherding to an agricultural or urban lifestyle has been a constant phenomenon in this area, while a move in the opposite direction has always been rare. Thus sheep rearing

has never exercised a mass attraction in the region, and it is a wonder that the reservoir of nomadic shepherds has not dried up as they continually relinquish this occupation for a more settled lifestyle.

I experienced a further encounter with sheep breeders, herds and their problems in the context of the Jewish sector in Israel as it became engaged with the Palestinian Arabs during the troublesome years of the first *intifada* during 1988–1990. In this book I relate my main findings about this period, formulated on the basis of personal exchanges I had at the time, especially those with Yaacov Golan, the Secretary of the Sheep Breeders' Association, from September 1989 to February 1990.

Beginning in the spring of 1996 and continuing on and off until the present day, I have been engaged with shepherding problems in the Palestinian Authority, Tunis, Egypt, Jordan, and Israel. An initiative funded by the World Bank brought together teams from the aforementioned countries to jointly deal with practical measures calculated to counteract desertification in these regions, and in the Middle East at large. The initiative here was taken by the International Center for Agricultural Research in Dry Areas (ICARDA), a UN institution. A number of ongoing projects in various countries of range development were brought to delegates' attention:

- Faisaliyya, Wadi Mūgib, and Danna (Jordan);
- The Manzal Ḥabīb area and the villages of the local Sanūsi (Tunisia);
- The Awlād ʿAli development area, extending south of Marṣa Maṭrūḥ (Egypt);
- The Bani-Naʿim area of the southeastern region, on the Hebron periphery (Palestinian Authority);
- The Yatir Forest in the northeastern Negev, south of the Bani-Naʿim area (Israel).

I have also had the opportunity throughout the 1990s of discussing ideas relating to the possible evolution of pastoral societies in Egypt's northwest coast and to the sedentarization of tribes in Jordan in the above-mentioned initiative.

The "cold peace" between Egypt and Israel since 1982, made possible an intensive two-day visit in 1988, by employees of the Egyptian Agricultural Ministry to my unit at the J. Blaustein Institute of Desert Research. Further contacts also occurred with German officials employed in the Maṭrūḥ project. The first visit was initiated by Mr. Frank Hayer in 1991, and since then I have been involved in a consulting capacity with some of his students carrying out projects in that region.

Further exchange of ideas across the borders with Jordan took place in 1994 during the visit to my Institute by Dr. William Lancaster, former director of the British Institute of Amman for Archaeology and History, prior to the peace treaty with Israel.

Most recently in the autumn of 1999, I was invited to the North Western University of Xi'an, China, to present facts and findings documented in Israel. On another visit to the Far East (2001), I was a guest of the BAIF (Bharatiya Agro-Industries Foundation) headquarters in Pune, Maharashtra, India (Spring 2001). BAIF experts enabled me to meet the Rabari, landless herders in Gujarat (known as the Raika in Rajasthan). I was thus able to become acquainted with their living conditions and to discuss with them some of the problems confronting them. The Raika receive relief, but it is important that ways be found to help them progress and to close the gap between them and the local sedentaries.

Naturally, my major academic involvement as an anthropologist has been with the Bedouin in Israel. Basing myself on field materials I had assembled on the Bedouin in Ramle in the course of almost three decades, I published in 1992 my study, *Descent through Males,* where I concentrated on some of this group's social institutions, for example, marriage and kinship, against the background of ecological changes (urbanization of the Bedouin), family and kinship in the light of tribal politics, and the changing economic setup. In *Ascendancy through Aggression* (1996), I examined the logic of blood feuds in relation to the restructuring of social (agnatic) hierarchy among tribal communities in an urban context. In subsequent work, I studied the tribal judicial process displayed in disputes over land and honor, and the Bedouin economy in relation to the Bedouin market. I am currently looking into religious phenomena among urbanized Bedouin in the Negev.

The focus of the present work represents a departure from my previous research that has been primarily of a theoretical nature. Adopting the perspective of an observer of the Bedouin way of life in its very last stages, I outline a prescription for a better future for shepherding and herding societies in Israel and other countries of the Middle East. This book opens with a survey of Bedouin history, delineating the pattern of relationships that have prevailed among the Bedouin, the sedentary populations and the organs of the region's states, demonstrating that nomadic life in the Middle East represented a political adaptation as well as an ecological one. Ever dependent upon a symbiosis with the State and the sedentary population, the Bedouin had, during certain periods, attained a position of superiority over both. At other times, when they were weak, the Bedouin were constrained to find shelter in the desert (Eph'al 1982).

Since the return of the Ottomans to the Levant in 1840, and increasingly toward the end of the nineteenth century, the pattern of interdependence among these three constituents changed. States in the region can reach the nomads in their desert hiding places, and the Bedouin have had to readjust. An accelerated transition from herding to dry farming began, facilitated by an influx of peasants (mostly from Egypt) into territories of the Levant that were under Bedouin control. Creation of new national borders in the Middle East during the 1920s ended seasonal migrations across them and altered the herding tribes' system of land use. Sheikhs began to lease tribal rangeland to peasants for winter crop (cereal) cultivation. Henceforth "development" implied expansion of the arable into the pasturable, and development plans aimed at nomadic pastoral populations in the Middle East meant, as a rule, projects to settle them.

In consequence of the Arab-Jewish conflict over the land following Israel's War of Independence in 1948, the Israeli government has gradually restricted the space available for shepherding. This, in addition to new opportunities of gainful employment, accelerated the Bedouin's transition to wage labor and subcontracting at the expense of shepherding. A great deal of the livestock feed is now bought and provided *in situ*.

Decline in the supply of manpower for shepherding, and later on, women power, too, caused a reduction in the number of herds and in their size. This might have brought about an improvement in the quality of pastureland which had previously been overgrazed due to limited pasture areas, but it did not. The non-accountability of tribesmen to their former lands encouraged the approach of "each man for himself." Many Bedouin gave up herding altogether and moved to the outskirts of towns in search of better employment. However the destruction of vegetation continued through overgrazing and its use as a source of firewood.

For most of the twentieth century, Bedouin of the Middle East have been subjected to projects that deprived them of their grazing lands. Only in the past decade has there been a more supportive attitude conceding that the needs of the Bedouin should be considered in development planning and that the Bedouin themselves should play a part.

Governments of the Middle East did not become sensitive to Bedouin needs until a large number of Bedouin became squatters on the outskirts of towns, posing an urban problem. Urban solutions were then provided for the squatters, particularly in Israel, so that the quality of life in towns would not suffer. Urban residential solutions were much easier to implement than extending help to the Bedouin in their desert sites. However, if modern employment opportunities are not developed for Bedouin in the towns *pari passu*, urban life (payment of taxes, etc.) may deteriorate.

The region's states have either not provided the Bedouin with adequate help or have concentrated on urban residential solutions. The time is ripe for a third alternative: encouraging the Bedouin to maintain their traditional source of livelihood, herding, by ensuring that the range ruined by overgrazing is improved and that ways are found to sustain it through modern methods. Plans for the future based on viewing range improvement from the standpoint of the Bedouin interest are being developed in a joint workgroup of representatives from the Palestinian Authority, Jordan, Egypt, Tunisia, and Israel, financed by the UN and the World Bank, a project with which I have been involved since it began in 1996.

Three methods for range amelioration are discussed in this book. One way is to subdivide the range into family plots (privatization). An alternative method would be to deal with the range as a whole as "commons" land, a concept isomorphic with tribal structure that would facilitate the joint family's ability to meet the goal of ameliorating and sustaining the rangelands. A third method discussed in my conclusion is to place this assignment in the hands of the public-at-large, that is, governments supported by resources donated by NGOs; the projects would be run by governmental non-profit agencies. My research has shown me that the latter are the only entities capable of embarking on the large endeavor of agroforestry, with parallel earthwork projects to retain runoff. They are also, in my view, the only entities that can monitor sustainability in collaboration with the Bedouin, for the benefit of their herds. Usufruct of improved forestlands for grazing must be protected by law—as well as the provision of annual plants in the forests and perennial vegetation which could be trimmed for fodder, and the dry branches used for fuel. In the present work, my purpose is to present a program of reform vis-à-vis the social issues discussed, and to define new forums for advisers/consultants on agroforestry development, evaluated from the standpoint of the following recommendations:

1. Sustainability of development efforts to ameliorate the range must be a national priority because almost all of the current efforts are externally financed.
2. Community participation is needed in the planning, programming, and implementation of policy to precondition success in management, rehabilitation, and sustainable exploitation of rangeland.
3. Legal agreements should be reached among the NGOs, government, and communities as a tool of the management plan for each rangeland administrative area.

4. A system should be established for dividing rangeland according to environmental and rangeland conditions in order to ensure sustainability of exploitation. It should be based on objective principles of management and monitoring.
5. The role played by women merits upgrading in all rural activities and in every development project.
6. Genetic resources of plants should be preserved, replicated, and exchanged so as to safeguard existing plant material and exploit what has been collected but not utilized.
7. The regional role of NGOs in development should be upgraded to ensure the use of results through NGOs, and extension services.
8. Collaboration between herders and farmers should be enhanced with regard to clearance of stubble from the fields by grazing livestock. This would also help the farmers by enriching fields with organic manure. Also the trimming of trees and bushes would provide herders with firewood and fodder and reduce fires. This symbiosis and fostering of mutual concerns would counteract self-centered use of power by one side or the other, prevalent in the past.

This page intentionally left blank.

1 Nomadic Pastoralists, Agriculturalists, and the State

Self-Sufficiency and Dependence in the Middle East

Historical data relating to massive migrations of pastoral nomads across the fertile valleys of the Middle East and nearby deserts provide vital insights into the issue of these groups' political adaptation.

I analyze these migrations from a pan-human perspective of dominance and control, rather than specifically one of animal husbandry. This perspective embraces the tripartite relationship obtaining between nomadic pastoralists, agriculturalists, and the State throughout historic times until recent decades.

Relationships between nomadic pastoralists and agriculturalists were based on the exchange of goods and services, and the latter, being of long duration, were affected by vicissitudes of climate and fluctuations in the fertility of soils and herds. Thanks to a superior political organization that guaranteed tribal cohesion and the peculiar nature of their capital (mobile herds), it has been easier for pastoralists to amass and demonstrate power enabling them to be recipients from sedentaries, rather than the reverse syndrome.

A third party, the State, came into being which not only protected the interests of food producers, its more submissive and compliant tax-paying

clients, but also supervised deals concluded between agriculturalists and pastoralists. Through the ages, the balance of power wielded by the three parties occasionally shifted, with the pastoralists or organs of the State sometimes gaining the upper hand. Three main phases can be discerned in the varying magnitude of the State's dominance: (1) a totally weak State; (2) a middle position in which the State is neither weak nor strong; and (3) a strong State. This third and last phase has, for instance, prevailed in Egypt and most of the Levant since the nineteenth century.

The solidarity of nomadic pastoralists lasted only as long as they enjoyed security in their peripheral locations away from the centers of settlement and beyond the reach of the State's military control. Modern means of transportation and, above all, the airplane, have, in the meantime, deprived pastoralists of their traditional places of retreat. Bedouin have maintained relative sovereignty in the steppes, and on a few occasions tilted in their favor the complementary relationships with the state authorities that controlled the cultivated zones. Since the early nineteenth century, the Negev Bedouin, the focus of my attention in the present work, have depended for their subsistence on the neighboring sedentary population located along the Fertile Crescent and the Nile basin.

Nomadic migration: Elliptical or Linear?

Seen in historical perspective, mass migration of populations is an intriguing phenomenon. What is the migrants' mind-set? Do people share a clear goal when they set out on such treks? Do their leaders have a well-formulated notion of a new and better environment, of group objectives attainable elsewhere, beyond the horizon? Population migration appears to be basically motivated by two primary forces. The first, which has tended to attract more historical attention, comprises a force propelling one from behind as a *vis a tergo.* In the second, the force draws one forward, operating as a *vis a fronte.* Migrations of nomadic pastoralists forefront the significance of *vis a fronte* forces in the course of the region's history. Unlike large armies proceeding from Egypt eastward or from the Fertile Crescent toward Egypt and then returning to their home base after attaining their military objectives, pastoralist intruders were usually migrants intending to stay only momentarily at their immediate destinations and then to move on. During the time spent among sedentaries, they usually maintained distinctive characteristics pertaining to their social (i.e., tribal) organization and affecting their social fit and role; and they were always ready to retreat with their herds to their deep-desert pasturelands.

Constraints imposed by foraging livestock, more easily observed by modern scholars, influenced the elliptical annual cycles of Bedouin migra-

tion between their desert retreats in the winter and the margins of sedentary zones in the summer, as well as the length of their residence on cultivated terrain (de Planhol 1970; 1979; Lewis 1987) before these nomads resumed migration. One-way migration of herders and permanent settlement in a village or town presupposes defeat in an intertribal struggle over pasture or water resources, or a preference for the inducements of urban life over the occupation of herding livestock on arid land.

Overgrazing, deterioration of climate, or both (Kedar 1985; Issar 1990) have been the main motives for migration imputed to Middle Eastern pastoralists in the literature. However, leading herds across the Sinai (approximately 200 km of desert tract), reflects the pastoralists' paramount concern for securing benefits as the states' partners in administrative deals, rather than a wish for immediate gain accruing from their livestock. From this perspective, regimes of Middle Eastern nomadism may be accounted for in terms of the region's states, and the degree of their appeal to tribal partners. It is here claimed that the factor of overgrazed pastureland motivating the shepherds to seek new pastures has generally played a secondary role. Although we possess no definitive knowledge of why pastoralists' migrations began, circumstantial evidence, mostly from the late eighteenth century onward, points in the direction of a *vis-a-fronte* incentive.

The latest tribal migrations across the Sinai occurred before and after the Ottomans regained control over the Levant in 1840. Since they are closer in time and have often been recorded historically and recalled orally by living generations, they can reveal trends previously overlooked. Most important is the pattern emerging from the triadic rapport between the pastoral inhabitants of the steppes, the agricultural inhabitants of the fertile districts, and the institutions of the Middle Eastern states. This concluding phase in the social history of the Middle East merits our attention as it can enrich the conventional "binary model" of desert and sown. Herdsmen accommodating themselves to the life patterns of sedentary neighbors are to this day still described (Lewis 1987: 8) as being lured by the prospects of good grazing and of raiding. The same view is espoused in a number of studies published in a recent anthology on the archaeology of pastoral nomadism in the Levant (Bar-Yosef and Khazanov 1992). In fact, the latest Asia-Africa migrations across the Sinai point to a more complex situation, requiring the observer to portray the historical phenomenon with greater precision.

In the present book we maintain that the conventional view that contacts between pastoralists and agriculturalists were merely based on economic modes of exchange falls short of accounting for a complex reality. Thus Middle Eastern archaeology has revealed the existence of

pastoralist sites (Rosen 1988,1992, 1993; Rosen and Avni 1993), though it has yet to show that the artifacts and other debris discovered there were produced by the nomads themselves.

Migration Patterns and Power Dynamics

Since ancient times, long-distance migration was largely a joint tribal affair. Peoples organized themselves into communities or tribes with a wide assortment of historically different patterns and modes of subsistence as they sought safety in numbers on these treks. Human cultural heritage since the Old Stone Age reinforced the link obtaining between common descent (with the concomitant heritage of shared customs) characterizing a group of people, and its possession and control of territory. These were apparently the earliest distinctive traits of tribes (Sahlins 1968). The ethnocultural background proper to Neolithic times, especially the emerging pattern of pastoral life, emphasized the instrumentality of tribalism for maintaining rights over grazing lands and water resources.

Nomadic pastoralists, like mobile hunters and gatherers, habitually "rotated" around an axis of renewable resources; the Bedouin Arabic terms *dawwar* (to rotate), and *dīra* (territory of rotation in search of pasture), encode this situation linguistically. Unlike traditional rotation, changes of foraging grounds were gradual and usually the result of flight away from impoverished, overpopulated territories to neighboring richer and relatively vacant lands. In order to survive, herder communities had to abandon their cycle of migration during the dawn of the Holocene. The new conditions that emerged at this point rendered possible the occupation of alternative districts hitherto frozen, too wet and harsh for human existence, or both. The general trend of population migration, therefore, was from Southern Asia northward and from mainland Asia westward.

The contrast between arid and non-arid lands greatly increased in areas south of latitude 40 degrees. Devastation of the former coincided with an influx of population to alluvial valleys watered by rivers. These migrants had come from former hunting and food-gathering areas which were now turning into deserts. Beginning in the third millennium B.C., river basins cultivated by hydraulic systems became the foci of attraction for inhabitants of nearby deserts. "Hydraulic societies" emerged and resorted to new organizational regimes enhancing perceptions of statehood and of definable societal resources. Such regimes induced obligatory collaboration of farmers reminiscent of "oriental despotism" (Wittfogel 1957), and the resulting communal effort enabled rural societies to face the threat of inundating rivers.

The danger presented by ravaging nomads as well as the threat posed by overflowing rivers can be assumed to have promoted the emergence of an all-powerful state. Armed conflicts with desert peoples are mentioned in Akkadian, Assyrian, Egyptian, Hebrew, and Greek sources. Hydraulic societies defended themselves by building border garrisons and waging campaigns against the nomads in order to extend their control deep into the wastelands (Eph'al 1982). Relatively small groups of pastoralists enjoyed strategic superiority over larger rural and urban populations for a variety of reasons. Their property, being livestock rather than real estate, allowed mobility, giving the nomadic peoples a major military advantage over sedentaries: a moving Bedouin camp is difficult to find and destroy, but it is relatively easy for the latter to sack an agricultural village, especially on horseback (Lattimore 1951, part 1, chap. 4). This greater mobility usually went with another strategic advantage of a structural nature, namely, the ability to align forces ad hoc enabling aggressive confederated tribes to vanquish static strongholds manned by regular forces.

Total eradication of nomadic pastoralists was beyond the reach or aspirations of peasant states since it could be accomplished solely through a combination of sustained assaults on encampments followed up by long-range pursuit of the survivors or, alternatively, via seizure of the tribes' vital water resources or grazing lands—measures necessitating total conquest of the desert. Furthermore, Bedouin campsites constituted enticing concentrations of livestock, mostly camels (Eph'al 1982: 86, 119–23, 171) and other valuable resources: gold and spices, which the tribes accumulated by engaging in commerce and raiding along caravan trade routes. Nomadic pastoralists also proved to be efficient customs' collectors, supervisors of desert caravans, resourceful combatants for desert garrisons and, most important, irreplaceable producers in arid zones where they transformed desert shrubs into livestock products. The relative economic advantage enjoyed by nomadic livestock breeders over peasants raising animals on fodder or stubble fields was the low cost of their livestock products. Full-fledged shepherding was usually practiced in the steppes where animals browsed on shrubs, the growth of which required no human investment.

However, in situations favoring close interaction with state organs over prolonged periods of time, the circuits circumscribing the Bedouin's foraging activities became restricted to relatively short distances from sedentary centers (averaging 50–100 km in Sinai and the Negev) and rendered feasible part-time cultivation of arable land supplementing their stock-breeding economy.

As already noted above, the historical symbiosis reached by Bedouin and *fallāḥīn* formed part of a broader configuration that also included the state. This constituted a triad of complementary relationships based on mutual interaction in two domains: economic and political. On the economic plane, for instance, the Bedouin exchanged their livestock products (meat, animal furs, and dairy items) for the peasant's agricultural produce, artifacts of sedentary culture, and the service of stubble clearance before the ploughing season. Bedouin could also ensure the peasant's security from the aggression of other Bedouin groups for an appropriate payment (*khuwwa* "protection money"). Thus, in due course, a shepherd would gradually draw closer to the peasant's life pattern and change into a semi-sedentarized nomad but, usually, his transformation into a peasant occurred, if at all, at a much slower pace (Salzman 1996). The temptation of shifting to full-fledged agriculture, entailing abandonment of the herd, was at best weak. Organizational inhibitions and merits of pastoral societies helped to maintain their stock-based economy together with some winter, dry farming. The net result of this development was a marked degree of symbiosis with the agriculturalists' economy.[1]

The mutual interaction of state and peasantry is too well known to require detailed treatment here. Clearly peasants needed a well-organized social order but suffered whenever the state projected ambitious military expeditions and conscripted the menfolk; thus an overpowerful state can disrupt agricultural and commercial life.

The state also stood to benefit from the presence of Bedouin in the area by harnessing their potential military prowess in the form of a garrison against other Bedouin, and from their role as escorts for caravans and as tax collectors. This last function provided the Bedouin with rewarding financial emoluments such that the prosperity of central governments and a general state of *Ordnung* ultimately also benefited the Bedouin themselves.

Symbiotic interaction between peasants and Bedouin has been discussed time and again in the professional literature. Descriptions of the symbiotic coexistence of animal breeding and agricultural economies (Barth 1959; Cahen 1970; Khazanov 1984: 33–40) refute the assumption that constant strife must have prevailed between the two (Buber 1946: 24–32; Montagne 1947; Rosenfeld 1965; de Planhol 1970; 1979).[2] The assumption of ongoing political conflict between herdsmen and peasants over societal resources implies a zero-sum game in which the issue is the use of the same plots of land for either grazing or agriculture. We here maintain that this scenario is an unrealistic reconstruction.

Specific descriptive accounts of this symbiosis also argue convincingly against the image of the pastoralist as a self-sufficient "noble savage"

uncommitted to any patron, disdaining all authority, and looking down on sedentary luxuries. Instead, Bedouin life is more realistically portrayed as a phenomenon involving interaction with neighboring sedentaries. The shepherd constructs his network of relationships, thus finding an exchange for his products in the regional markets of the rural districts and cities. In addition, the peasant's stubble and orchards can, in times of drought, rescue the nomad's herds from annihilation.

The aspiration to draw closer to marketplaces and to the sown per se could explain the pastoralists' seasonal occupation of cultivated lands. However, after gaining full control over sown districts, it often happened that the pastoralists vacated them (Ibn Khaldun 1958: 303–305), leaving destruction in their trail. What occasioned their destructiveness in such cases as they pursued their march elsewhere?

The Near Eastern history of tribal migrations offers a rationale for the migrant's logic and his sense of destiny, as he heads for the neighboring field or city; this bears specifically upon interaction between states, agriculturalists, and pastoralists. Sociological observations in the region's records also yield some valuable insights in this regard. Thus one important objective of pastoralists' migrations was the quest for opportunities of employment in the service of the State. Since Middle Eastern states were inclined to value the pastoralist tribes for their skills in administration—at least, as long as they could be kept under control—pastoralist, for their part, were inclined to accentuate their tribalism. Tribalism was thus instrumental in the extraction from neighboring sedentaries of additional revenues or income and, because the number of available administrative positions was always smaller than the number of competing tribes, only the bigger and more cohesive qualified for consideration.

During the eighteenth and nineteenth centuries, when the power of the Ottoman administration was on the wane, the privilege of tax collection was auctioned to any person guaranteeing the Sublime Porte the largest amount of tax funds. A Bey and Bedouin sheikh employed in the administration were called *multazim* and enjoyed entitlement to a share of the taxes and of extra revenues; the system at large was called *iltizām*. As noted above, the number of posts available for *multazim*-sheikhs was small; this had the effect that conquest or reconquest of a land by regular armies opened the way for eventual restructuring of *multazim* positions, often resulting in a situation where many tribes came from afar to try to secure a portion of the controllable countryside. In Sinai, these included the Tiyāha and the Tarabīn, who, from a distance, accompanied the advancing French army led by Napoleon (1799), and the Rtaymāt and the Whaydāt, who were then the strongest tribes of southern Palestine (Oppenheim 1943: 95ff., 110ff.) and allies of the Ottomans. The last two

retreated temporarily eastward and returned after Napoleon evacuated his troops to Europe (1801). Stripped of their opportunities by the French occupation, the various Bedouin tribes now faced one another, having no central power to rely on for establishing peace and order. Inter- and intratribal struggles resulted in expulsion of the losers (Bailey 1980). A Bedouin proverb says: "*shattat al-ʿarab b-al-fasād w-ath-thāni shattat al-ʿarab b-al-maḥal*" (The dispersal of the Arab [viz., the Bedouin] is the result either of intra-tribal disputes or of drought).[3] Hence, feuds in Bedouin society occur mainly over the issue of hierarchical positions, which means that they are not inevitably or solely the corollary of competition over grazing lands (see Kressel 1992). As hierarchical positions are important for determining relationships between tribes and sedentary populations, the incidence of feuding tribes increased as they poured into inhabited areas.

Over-congestion of rapacious tribesmen was another salient cause of fighting; and the losing side was constrained to vacate. Restriction of *Lebensraum* was a sufficient reason for war or voluntary migration (note the discourse of Abraham and his cousin Lot, Gen. 13: 8–10: "If you go north, I will go south; and, if you go south, I will go north."). Concentration of herdsmen and their herds necessitated dispersal from pure grazing land and farmers' fields. Just as overgrazing could jeopardize rejuvenation of flora, so overtaxing of sedentary peoples threatened the productive infrastructure and the carrying capacity of lands for peasants and herders alike. This and not vandalism (i.e., damage for its own sake) is the explanation for Bedouin tribes having to vacate lands they had impoverished.

As long as the collection of taxes was authorized and controlled as a service to superiors (viz., the *iltizām*), it reinstituted the old Bedouin practice of raising "brotherhood" fees *(khuwwa)* on an orderly basis from sedentary peoples. However, once nomadic sheikhs levied "fees" without transferring funds to the Ottomans, they stopped being accountable to any master (Hütteroth 1985: 148–149) becoming, in due course, the cause of inter-tribal warfare. During the eighteenth century and its "rule of the sheikhs," road taxes *(ghafar)* were collected at numerous points throughout the Levant. Bedouin would stop travelers and levy per capita payment (Lewis 1987: 10–11; Cohen 1973: 258–259). Though Bedouin could not be entrusted with keeping law and order, sufficiently powerful governments saw to it that they did not oppress the settled population or wage endless internecine wars. Their merits were utilized by the regional administrations, and so long as local lords (Beys[4] or sheikhs) were responsible to Ottoman governors, they contributed to the protection of their subordinates. Wholesale bankruptcy of the Ottoman administration, however,

occurred together with renunciation of loyalties in an atmosphere of "catch as catch can." Weak central regimes sometimes altered their normal course of action and endeavored to regain power by promoting tribal dissension; thus the Ottomans encouraged the sheikhs to vie with one another for tribal leadership and the honors and financial remuneration that went with it (Lewis 1987: 8).

Theoretically, decentralization could have promoted the consolidation of local interests, as it put an end to the draining of the land's wealth to Istanbul. However, consolidation of regional interests required powers of organization, drawing on local patriotism, carrying cohesiveness beyond the confinements of the tribal (i.e., agnatic) *esprit de corps.* "The rule of the sheikhs" left no room for development as such and thereby hampered progress. Thus, as long as the Bedouin controlled Palestine and the Sinai, transportation along the *Via Maris* diminished. For a while, the sea routes became the main arteries of commerce between Egypt and the Levant. Gradually, the blighted countryside was unable to support the numerous sheikhs and their retinues. Rumors of potential gains to be made by the Bedouin, accruing from increasing international involvement in the region, lured even North African nomads to the Levant. Arab tribes from Near Eastern deserts, mostly those troubled by overpopulation and tribal conflicts, sought this source of income. The negative impact of the increasing density of tribes and of "the rule of the sheikhs" spread at a slower pace.

Reestablishment of fuller Ottoman control over the Levant in the decade following the Crimean War, paradoxically, encouraged the Bedouin's return. The Hatt-i Humayun (the Royal Decree) of 1856 committed the Ottoman administration to reorganization *(tanẓīmāt)* through reduction of local power centers and liberation of peasant communities from the burden of *iltizām* (Maoz 1968); incidentally, this favored the Bedouin tribes as well. In order to improve the climate of investment, as well as promoting pilgrimage and trade, tribal wars had to be severely suppressed, and this was accomplished by use of military force.[5]

Symbiosis between pastoralists and agriculturalists via reciprocal exchange could in principle have enhanced the welfare of both, but since the conditions conducive to stable commercial relations between them were outside their control, a third agent, the state, was needed to ensure the desired outcome, for instance, by institutionalizing and supervising the marketplace (cf. Kressel & Ben-David 1995). Also the vicissitudes of the climate and fluctuations in the fertility of the range could affect the permanence of commercial dialogue between the two parties, since it determined the duration of Bedouin presence in an area. In practice this meant that mobile Bedouin could easily renege on their commitments to farmers by absconding. In this connection, Stewart (1994, passim) has

shown that the requirement to honor contracts and commitments binds the Bedouin in his dealings with his fellow Bedouin, but largely overlooks or simply ignores obligations to others.

Another factor meriting attention in this regard is an intrinsic lack of symmetry in the commercial interaction between agriculturalists and herders (cf. Lattimore 1951). In general, the former were largely self-sufficient in the economic sphere so that the state of dependence between the two was heavily weighted in favor of the farmer. Thus nomadic pastoralists required tools and weaponry which were only produced in settled communities, whereas agriculturalists were able to do without the luxury animal products of pastoralists.

It is equally plain that farmers could do without the commodities and services of urban producers, while townsmen needed food and raw materials only attainable from agriculturalists. However, in the face of problems relating to overflowing rivers, droughts, and raiding pastoral nomads, Middle Eastern agriculturalists had no better strategy than placing their trust in the state. In other words, the maintenance of state structures was contingent, to an extent, on surplus generated by farming communities.

We have already noted that states could at certain times derive advantage from the threat to farming posed by the pastoralists. The independence of the pastoralists was, in reality, restricted to "blessed" (e.g., rainy) seasons when they pastured in remote desert areas. During other periods, pastoral life implied: (1) a rather specialized vocation, never as self-sufficient as farming, entailing greater reliance on exchange markets of goods for services, or other accessory revenues to support stock breeding, and (2) a rather precarious social structure at the level of the tribal confederation, entailing occasional dependence on external foci of arbitrating power; thus nomadic pastoralists sought opportunities for transactions with states.

Ancient Historical Records

The earliest mention of Asian pastoralists as invaders of the Nile basin is thought to refer to the Hyksos. About 1730 B.C. the Semitic Hyksos tribes from Canaan and Syria drove into Egypt. After a steady, peaceful buildup of a kingdom over a thousand years, Egypt, flanked by deserts on three sides and the sea on the fourth, was taken by surprise. The Hyksos were warriors in chariots by the time they had arrived, but the secret weapon of chariots, then a great strategic advantage, cannot explain the lasting control by their big tribe over the vast population of Egypt. They were expelled back to the east by Ah-Mose (1570–1545), founder of the Eighteenth Dynasty and the new (Imperial) Kingdom after about a century and a half.

The first major foreign challenger to storm its gates ended Egypt's Seventeenth Dynasty, ushering in the interregnum (Middle Kingdom).

Although the Hyksos were pastoralists, their arrival in Egypt was not motivated by a yearning for its rich pasture. They sought contact with its state's organs and seized control of them, taking advantage of its momentary weakness. While in control over Egypt, the Hyksos did not mingle with the local population or adopt the local agricultural way of life, for by doing so, it seems, they would have jeopardized the source of their strength, the inherent strategic advantage they enjoyed by being a pastoral tribe, in contact with acephalous peasant societies. Thus there remained a profound cultural cleavage, despite centuries of coexistence. Impermeable barriers of tradition, reinforced by the ethno-vocational division of labor that had emerged between the two peoples, hampered amalgamation.

The organizational advantages of the tribe, however, did not suffice to enable pastoralists to overcome regular forces put in the field by "hydraulic societies." When led by kings of their own kind, Egypt's peasantry succeeded in defending its interests and did not allow nomadic encroachment upon its territory. Egypt was then concerned by the tribal attacks on native populations of "Retenu" (the Egyptian name of Palestine and Syria), since they endangered its eastward caravan route along the Mediterranean coast. Egyptian punitive expeditions had to bring these unruly elements to heel. The inscription on the tomb of the army commander Uni (Keller 1956: 58) demonstrates how one of these expeditions was organized about 2350 B.C. Thus by the third millennium B.C. we see Egypt preempting ravaging activities by Asian Bedouin of Asian lands. According to Uni, Bedouin—dwellers of the desert sands as they were contemptuously designated—made their first entry into the land of the Pharaohs as prisoners of war. With the campaign of Sesostris III (about 1850 B.C.) the whole of Canaan came under the suzerainty of Egypt's Pharaoh.

The "brittleness of pastoral despotism" (Wittfogel 1957: 206) with respect to the hated Hyksos kings is seen in their ascription as "rulers of foreign countries" (Wilson 1951: 135), or "the shepherd kings" (Hitti 1961: 44) in ancient Egyptian records. Egyptian hatred for the Asiatic herders, was naturally increased when they occupied the Nile Valley. Greater respect for pastoral rulers is reflected in the document of Sinuhe the Egyptian, dated 1971–1928 B.C. (cf. Keller op. cit., 59–64), "respect them but be wary of them." From Sinuhe's document we also learn of the "Princes' Wall," a barrier built on the frontier of the kingdom of the Pharaohs as far back as 2650 B.C., approximately west of today's Suez canal, and was put up to prevent the Asians from forcing their way westward.

The next group of pastoral nomads to intrude into Egypt after the Hyksos and infiltrate, to some extent, its political power structure were

the Israelites, who were admitted into the area thanks to Joseph's intervention, despite the traditional distrust of shepherd tribes on the part of the Egyptian sedentaries: "every shepherd is an abomination upon the Egyptians" (Gen. 46: 34).

The Israelite shepherds retained their traditional patrilineal clan structure along with their pastoralism, and increased in numbers becoming a potential threat to the centers of authority. The state response was to combat their agnatic social structure through male infanticide and imposed vocational change, that is, *corvés* in construction works instead of shepherding.

Intensive contact with Egypt's sedentary culture and its power structure also altered the Israelites (cf. Freud 1955) to the extent that they imbibed a socially unifying idiom based on an older monotheistic ideology (that they tended to forget in Egypt) strong enough to motivate their mass trek to the land of Canaan associated, in their perception, with the symbolic figure of Jacob to whom the land had been promised. Thus the Israelites appear to have differed from other pastoral nomads as their prime impulse for movement was a striving for freedom and faith. They had a preconceived destiny (the "Promised Land"), and the "intent of vocational retraining" after the conclusion of their wandering. Only after arriving in Palestine, their Promised Land, did the Hebrews turn to farming.

Egypt was later conquered by Assyrians (7th century B.C.), Persians (6th century B.C.) and Greeks (4th century B.C.), but during the last millennium B.C. we read of no major mass migrations to the Near East or through it westward to Africa. Near Eastern kingdoms of the time did not seem to encourage such movements. The Persians entered Egypt after a memorable march through the desert (525). Cambyses the conqueror even intended to push westward to overrun Carthage, but the plan was frustrated by the refusal of their Phoenician allies, who were to provide the fleet, to bear arms against a daughter colony. Instead, Cambyses advanced along the Nile into the "dark continent" to add Ethiopia to his empire.

The first historical documentation of pastoral nomads on the Eurasian steppes relates to the Scythians, beginning in the second century B.C. (see Khazanov 1984). Their intermittent incursions from Inner Asia to the Near East, disrupted social orders and weakened the Parthian kingdom vis-à-vis the rising power of Rome. Although the Scythians reached the Mediterranean, they did not continue westward. The reasons for their appearance in the Near East are still unclear as are the reasons for their return to the steppes.

The wanderings of pastoral nomads were limited by the great empires of Mesopotamia, Egypt and, later on, Parthia, Greece, and finally, Rome,

when it dominated the Near East. Only such strong centralized states could extend control over the wasteland and in fact, often on each others' land, too. After the Hyksos' invasion, a thousand years elapsed before Egypt experienced another invasion from across the Sinai Desert.

Unlike the Hyksos, the Assyrians were not a pastoral tribe. Their prime objective was the subjugation of a rival; thus they did not proceed with their conquest westward beyond the Nile basin and did not prolong their hold on the land of Egypt. Memphis was their terminal, and after subduing both the Delta and Upper Egypt, the troops returned home. The route of Alexander the Great extended beyond the Nile basin westward to Cyrenaica and south of the Siwa oasis (330 B.C.). The kingdom of the Ptolemies (200 B.C.) reached Cyrenaica, but no farther west. The Roman Empire, for the first time, engulfed the entire shore of the Mediterranean Sea and, subsequently, Byzantium had control of Egypt and the shore leading to Cyrenaica.

The Greco-Roman age provided conditions favorable for population movement on the Asia-to-Africa axis. Because unity in sovereignty over the land stretched all along the *Via Maris*, there were apparently no political barriers in the way of the tribes on this route. All were subjects of the emperor. However, we do not hear of the nomadic pastoralists attempting such East-to-West migrations, and the authorities seem not to have encouraged their neighboring tribes to move for as long as their military was sufficient to exert control over the empire. Records of the last centuries of our era suggest some useful ideas as to why these historical herders retained their tribal identity and did not intermingle with neighboring peasant and urban communities.

For the Bedouin, the green valleys adjacent to their grazing territory and the standard of living in neighboring towns were objects of envy, but other, more powerful, drives must have come into play motivating them to cross the desolate Sinai Desert on their way to Egypt and to continue their migration across Egypt's western desert to Cyrenaica and Tripolitania.

The spell of Islam gave the pastoral tribesmen, otherwise dispersed and fragmented, a common idiom and a sense of mission motivating their mass migrations across the Sinai and Egypt's western desert, all the way to the Atlantic Ocean. In the early conquests of the late seventh century A.D., tribesmen constituted the rank and file of the Muslim troops while literate townsmen from Mecca and Medina provided the leadership. Both the tribal aristocracy and the "Hagarene legionaries" (Crone and Cook 1977: 125–126) disintegrated in due course, losing power to Umayyad, that is, Syrian and Mesopotamian—administrators (Donner 1981) and urban generals. Despite the presence of a literate cadre who left historical sources, depicting the internal processes of Arabization and Islamization in North

Africa, we find little mention of the vanguard's support echelons and routes of supply and reinforcement. Were they reinforced by fellow tribesmen and repatriated for recuperation after duty, or were they followed by their women and children, thus shifting their *dīra* closer to the battle fronts?

During the early days of the Arab conquest the southern littoral of the Mediterranean Sea was once again ruled by a single sovereign; however, in contrast with the situation in Roman times, the northern coast remained in different hands and tribal migrations westward were thus confined to the North African littoral.

Nomadic tribalism was thus introduced into North Africa and the agnatic family structure "untainted" by the luxuries of sedentary life and by the vices of civilization—proved to be their most precious asset and the key to Islam's overwhelming military success. Tribalism also proved an appropriate strategy for exercising control (Ibn Khaldun 1958).

There are no estimates for the size of the Asian population that emigrated to North Africa during the first centuries of Islam (650–850). Chronicles mention the combatant tribes, precursors of Islam in this region, but give no figures (cf. Ibn Khaldun op. cit.). After the formation of new sedentary communities along the North African resulting from the first wave of the Islamic invasion, the influx of tribes diminished following this first Arab invasion and was not resumed until the eleventh century with the massive intrusion into the Maghrib of Bani Sulaim and Bani Hilal from Egypt.

This diminution can probably be accounted for in two ways: the Near Eastern reservoir of tribes had probably been exhausted after the massive depletion of the preceding centuries. Second, as long as *jihād* justified mobilization of *Mashriq* tribes to *Maghrib* fronts, religious enthusiasm can account for the Bedouin's relinquishment of traditional orbits of pastoral migration and transfer of population to newer territories.[6] Third, the process of state-building in Egypt constituted a palpable obstacle to migration of Asian tribes westward along the North African shore, also after Arabization at the beginning in the ninth century A.D., as in ancient times. The establishment of the Fatimid dynasty in al-Fustat (969) put an end to the phenomenon of nomadizing herders throughout the irrigated land of the Nile Valley, incidentally attracting to itself tribes seeking collaboration deals with the state. Among the Asian pastoralists dwelling on the outskirts of the Delta which they were now forced to vacate, we find the aforementioned Bani Sulaim and Bani Hilal. Considering their peninsular (i.e., Arabian) background, the question still remains—What made them prefer the longer road westward over the relatively short way leading to their homeland? Why didn't they follow the routes of the

Hyksos and the Children of Israel fifteen centuries earlier? Were they inhibited by bitter recollection of past wars, or by hostile relationships with other peninsular tribes? Or were they drawn westerward by the rumor of wealth attainable in the Maghrib? We do not know.

Turkish tribesmen were first employed as bodyguards of the Caliph in Baghdad in 833–842 (Hitti 1961: 293). As rude nomadic herders they moved westward from Turkestan, swarmed over Persia and Iraq, spilling into Syria and finally overran Asia Minor. Two petty Turkish dynasties had ruled Egypt and southern Syria from Al Fustat. The Fatimid dynasty which orginated in al-Qairawan, Tunisia, in 909, displaced the Turkish dynasty of the Tulunids in Cairo in 973 (ibid., 302). In the years 903–906, raiders of Qarmatian and Shiite tribes from the western shore of the Persian Gulf, together with Bani Kalb Bedouins of the Syrian desert, traversed the Delta and proceeded westward. Did they want to subdue the Maghrib or was their purpose more modest: the seizure of control over parts of Egypt in the service of its rulers? Again we do not know. At any rate, they did not venture beyond the Nile's western bank and once forced out of Egypt by its Tulunid rulers, they crossed the river again, and returned east.

The Fatimid dynasty put an end to the rule of the Tulunids by invading Egypt from the Maghrib, becoming the first and last group to launch an invasion from the west. Like most of their predecessors since Pharaoh Phiops I and his army commander Uni in 2350 B.C., and like the two Turkish dynasties that preceded them in Al Fustat, the Fatimid dynasties confronted the challenge posed by pastoralist invaders from the east by preempting the attack of the Asian tribes and striking at them before they could approach the Egyptian borders. Seen from a different angle, the Fatimids sought to extend control over Greater Syria and, indeed, they were the first Egyptian rulers since the days of the Pharaohs, to effectively control the Levant (Bachrach 1984: 65). While at their peak of power, the Fatimids dispensed with the collaboration of the tribes.

Beginning in the years 1024–1030, the Banu Jarh tribes of the Tayy confederation appear on the East-to-West trail of migration and encroached upon the eastern border of the Fatimid empire, defying the Egyptian army. They were then defeated by Ali Ad-Daher, appointed by Egypt to rule Palestine, and forced to withdraw east of the Jordan River. They returned in 1042–1043, led by Sheikh Hasan Ibn Al Mufraj but were subsequently defeated by the Fatimids and retreated temporarily eastward, only to return toward the middle of the twelfth century.

The Saljuq Turks made their first appearance in the region in 1071 and marched into Sinai, but the Fatimids drove them out of Egypt into Syria. Late in the eleventh century they moved from Southern Syria (i.e.,

Palestine) northward. Unlike the Scythians, a millennium earlier, and the Mongol-Tartars of Hulagu (in the second half of the 13th century) and of Timur (in the last decades of the 14th century), the Turks concluded their migration and laid the foundations of a Near Eastern empire. At the close of the eleventh century, reinforced by further Turkic tribes which poured in and settled, the "Turkification" of Asia Minor was completed. It seems that the Saljuqs, in contrast to other historical conquerors, such as the Tartars, did not spread havoc. The Ottoman Turks who superseded the Saljuqs also restored a great deal more than they destroyed.

The Egyptian Fatimid and the following Mamluk hold on Syria was precarious and unstable most of the time, but nevertheless sufficient to prevent pastoralist invasions of mainland Egypt. Those who failed to invade the Nile Valley were often able to wrest control of Syrian villages and towns, as long as the expeditionary forces were kept out of sight. They also gained control by acting as viceroys of Egyptian dynasties.

During the Crusades there is no mention of major tribal movements. Throughout the period of their sojourn in the Holy Land and the establishment of the Latin kingdom, however, they created a situation which temporarily interfered with the customary wanderings of Bedouin between the Euphrates and the Nile. If the pastoralists of these days were roaming back and forth across Sinai, this no doubt, was not the typical orbit of wandering within a *dīra,* but rather an oscillation between the two main regional power centers. Accordingly, the Crusaders established very close relations with the dwellers of the desert. They cooperated with the great Bedouin tribe of the Ta'ālba on the Egyptian border, with the Banu Tayy, and with numerous other tribes, and this factor rendered these nomads unpopular with their fellow sedentary Muslims. The special legal formula created by the Crusaders for the Bedouin (Prawer 1972: 49–50) defined them as the "king's property." In this way, they could regard their collaboration as though it were a specific deal of exchange, according to which the Bedouin paid for pasture rights in livestock (Prawer 1980: 224).

The first military feat of Egypt's armies, at the end of prolonged anti-Crusade activity (lasting until 1291), was the checking of the great Mongol population movements. After the fall of Baghdad in 1258, the Mongol invasions reached southern Palestine and swept as far as the Gaza district. Although they did not reach the Nile Valley, the Mongols posed the greatest Asian threat to Egypt since the waning years of the thirteenth century and the early fourteenth century. The economic or social pressure in the Inner Asian steppes that unleashed these Mongol waves of migration are unclear from the way they ended. The Mongols of Hulagu and of Timur (unlike the Saljuq and the Ottoman Turks who superseded them after 1300) did not exchange pastoralism for sedentary life in the Near-

East nor did they seek collaboration with or administrative positions in the service of the region's states.

Increasing Mamluk interference in the administrative affairs of Syria (which had become their buffer zone since the Mongols' arrival, strengthened to an extent the hold of a centralized regime and facilitated Bedouin control over arable lands, villages, and towns throughout the Levant. The decline of Mamluk control in the Levant following the Mongol retreat back to the east gave rise to the phenomenon of tribal regimes and Bedouins from the Syrian Desert beginning to encroach upon the land. The most important of them seized Aleppo and held it for over half of the fourteenth century. Uncontrolled by a sovereign, the Bedouin reduced the spirit of the victorious age that defeated the Crusaders and the Mongols by causing political anarchy and social decadence (Hitti op. cit., 305). The restoration of relative order to the Levant by the Mamluk state, with pastoralist tribes acting as its agents, would seem to be a paradox. However, as the Mamluks achieved only average power (being neither weak nor too strong), they found partnership with tribal sheikhs to be advantageous.

The Ottomans were no longer nomadic pastoralists by the time they occupied Egypt (1517) and the Barbary states. Clearly, they did not desire these lands for their rural potential. Ruling their fully evolved empire from Constantinople, the Turks did not designate the southern provinces for immigration. However, by extending their control over the Hijaz, the Ottomans could have facilitated further Bedouin movement from the Syrian and the Arabian deserts westward. Regardless of ostensibly favorable environmental conditions, there were no mass migrations throughout the sixteenth and early seventeenth century. Sufficiently powerful Ottoman garrisons who needed no tribal support, prevented attempts at crossing the Sinai desert, and frustrated Bedouin migration.

Recent Historical Records

Beginning in the sixteenth century the Ottoman empire declined, losing power to the rulers of distant provinces. Along with decentralization of the Ottoman administration, the *timar* (or *ziamet*) system, though it continued in form, went into decline (Hütteroth 1985). *Timar*-holders, deputies of the Sublime Porte for the collection of taxes, were at first *sipahis,* that is, distinguished Turkish-speaking soldiers (Gibb & Bowen 1950: 47) retired from service of the Ottoman army. However the task of tax collecting was taken over by local lords and eventually, mostly by Bedouin sheikhs. The Ottoman administration must have found it nearly impossible to raise taxes from out-of-the-way communities. Also in towns,

including Cairo, *beys* (i.e., local governors who had their own troops but acknowledged Turkish suzerainty by payment of annual tribute) had a clear advantage over Turkish viceroys. Viceroys—*pashas*—who served on temporary appointment, remote from their base, were ignorant of the language and customs of the people they governed (Hitti, op. cit., 430). Later on also these viceroys' capacity to control the countryside waned, and the system called "the rule of the sheikhs" emerged.

Even when the Near East was controlled jointly by the weakened Ottoman administration and the sheikhs, this did not, interestingly enough, lead to tribal migrations toward Egypt. We begin to hear about unrest in the deserts of Syria and North Arabia in the mid-eighteenth century. Tribal insurgencies, raids, and wars were staged throughout the area. Totally ineffective Ottoman control over eyalet Damascus resulted in repeated assaults of *ḥajj* caravans by the ʿAneza Bedouin, the biggest of them in Summer 1757 (Gibb & Bowen 220; Ben-Zvi 1960: 110). By raiding the caravans, Sheikh al ʿAneza, had signaled his discontent to the Pasha of Damascus, who then also held the coveted title "Amir al Ḥajj" (op. cit., 219), with the annual payment assigned him by the Sublime Porte as "protection money" (Vilna'i 1932: 215–216). Tribal groups moving along an east-to-west migratory track during this period of further deterioration of the Ottoman administration were the Turabay, ʿArab es-Sbayeh, ʿArab as-Sardiyya, Bani-Sakher, and the biggest and most important, the Bani Zaydan (Ben-Zvi: 38). As soon as they arrived, sheikhs of these tribe were appointed commissioners or governors of provinces acting on behalf of the waning empire (op. cit., 97–98). Led by their sheikh Zaher al Umar, the Bani Zaydan, who previously had seized control over Palestine's Galilee, eventually proceeded toward Egypt.

The march westward did not bring the Bani Zaydan, who were commanded by Abu Dhahab and allied with part of Egypt's army, much further than Gaza. Egypt's ruler Ali Bey first commissioned the rebel Abu Dhahab to occupy the Levant (1771) and then defeated him, together with his Bedouin supporters. Such treaties which allied *multazim* sheikhs with beys and pashas under the apparent auspices of the Sublime Porte, precarious as they were, may have reflected the spirit of the time and are indicative of the nature of the encounter between these two elements.

The Wahhabis made the last prolonged attempt at east-west migration by pastoral tribes (1805). Brought to a halt in southern Palestine after years of sojourn in the Hebron Mountains (Ben Zvi 1976), the Wahhabis were forcibly turned back to Arabia by Egypt's expeditionary troops of Muhammad Ali, commanded by his son Ibrahim Pasha (1811–1818).

Since the late eighteenth century, and especially after the Napoleonic military expedition from Egypt into Syria (1799), a change in orientation

of tribal migrations occurred. One of the first tribal groups of Egyptian origin to favor life in the eyalet of Damascus, reaching also Damascus proper was the Hanadi tribe, led by Musa al Hasi and later by his son, Aqil Aga (Scholch 1984). Aqil and his men formed a body of irregulars in northern Palestine and took service with various masters, including Ibrahim Pasha, conqueror of the Levant (1831–1849). The Tiyaha and the Tarabin, two of the largest tribal confederations of the province east of Egypt's Delta and the Sinai, migrated on a west-to-east axis during the same period as the Hanadi. Numerous segments of these tribes entered Palestine in the wake of the French (Bailey 1980: 37, 39), while other segments retained a foothold in their traditional *dīra* and did not relinquish their former territory. In 1813, representatives of the Tiyaha and the Tarabin jointly raided the returning *ḥajj* caravan between Suez and Cairo (Rustum 1940–1943: vol. 1, p. 9). Afterward, with the strengthening of Egypt's central authority, they were forced to move their encampments eastward.

Muhammad Ali forged Egypt's army into an efficient machine and thereby gained control over the neighboring deserts, even dislodging Bedouin inhabiting lands far away from the Nile Valley. Fragments of the Qatatwa of the north-west Sinai and the Wahaydat and Tawara of southern Sinai, and the Sawarka of the eastern Sinai began a retreat toward Syria and settled farther east of the Sinai and the western Negev. The period of loose control of the periphery after Muhammad Ali's rule enabled Bedouin of Egypt's western desert, Cyrenaica (e.g., the Sa'ada) and even of Tripolitania (e.g., the Tarhuna, Wurfalla, and Musrata) to migrate into Palestine and Syria. (On "Maghariba" i.e., Westerners or descendants of Libyan immigrants now living in Israel, see Kressel 1987.)

The relative might of Egypt's regime at various times may partly account for centripetal or centrifugal trends of nomadic migration along the Nile Valley. However, it does not explain what caused tribes to turn eastward after twelve centuries of prevalently westward tribal migration. In as much as the period of the *iltizām* intimates the weakening of the states' administration, the retreat of the tribes suggests, time and again, either enhancement of power within the state administration or bankruptcy, tribal wars, and hunger.

As historical records illustrate, the most fruitful transactions were made between pastoralists and states when the latter were moderately strong. The state entrusted the tribal chiefs (sheikhs) with administrative positions controlling distant rural districts. In this situation, relatively obedient Bedouin sheikhs could secure a supplementary income. In a different setup, extremely powerful regimes could extend control deep into the deserts, man garrisons on all frontiers, and collect taxes from peasants and Bedouin alike. These regimes were not partners for deals. At the other

extreme, fragile regimes were ineffectual, incapable of exacting dues from the collectors they appointed or of settling squabbles that arose among overly independent tribes who were their deputies. Then the Bedouin tribes did as they pleased and peasants suffered under the burden of arbitrary Bedouin rule. With the ruin of the productive infrastructure, there was no way to maintain the tribes, and they began vying with one another to collect the taxes from the peasants. The losers either migrated in search of alternative favorable relationships with farming communities and city–states, snatching all possible booty before they left, or had to adjust to a full–fledged agricultural way of life, and eventually merged with Egypt's peasantry.[7] Vigorous, oppressive regimes, as well as feeble ones that failed to deter the tribes from looting or exploiting the villages, uprooted peasants from their land (note the term *fallāḥ mutasaḥḥib* in Baer 1982) and constrained them to migrate in search of a more profitable relationship with a stronger state.

Since the Red Sea and the Sinai Desert were obstacles to population movements between Asia and Africa, population transfers in the early historical periods of immigration usually occurred when small groups from one continent penetrated the other. Ever since the Holocene and the Neolithic Revolution, nomadic pastoralists were the most suited and therefore the dominant group of migrants.

Several Near Eastern kingdoms, distinguished by their capacity to employ neighboring pastoral tribes in their administration, and with vast reservoirs of semi–arid lands, that is, with ample space for livestock breeding across their immediate borders, enhanced the growth of herding populations. This optimal habitat for a grassroots outflow of pastoralists throughout the Fertile Crescent in comparison to Egypt's single state or two states[8] had affected the trend of oscillation to and from its fertile zone. The meager margins of semi–arid land along the Nile basin, could not support herding for long and it forced tribes either into the Nile's farming areas or back East, into Asia. Overemployment of the range, after excessive use of resources, sometimes hampered the gains of the state administration and pastoralism in South–West Asia; a necessary outlet of hypertrophy then was migration. The mainstream of the migration headed northward from the Arabian Peninsula, and from East to West.

One obvious reason for migration into Egypt was the prospect of co–opting positions with moderately powerful regimes. On a more practical level, there was the need to purchase corn (Gen. 42) and to graze herds on stubble fields. Migration out of Egypt of full–fledged herders living only from their livestock can be interpreted as aversion to collaboration with overly powerful regimes. Overworked and underpaid tribes may reach the decision that herding free in the steppes without the fringe benefits

from a governmental source could provide a transient revenue and guarantee their survival.

Migration further West or South of Egypt occurred only rarely and was characterized by a non-pastoral modality, that is, regular armies had to march first to pave the way for tribesmen to follow. Since migration was discouraged by the harsh geophysical conditions, that is, the empty deserts (Cyrenaica and Tripolitania) leading West or the swamp lands leading South before reaching alternative centers of authority and grazing fields, we can conclude that the state of Egypt, and its wealthy agricultural constituency (not the rest of Africa), was the herders' object of desire. Furthermore, Egypt attracted herders through its relatively stable social order which made possible the conclusion of triadic deals whereby herders were appointed to govern the frontier districts between the desert and the sown.

The dissimilarities of sown and desert cultures persisted for centuries despite their coexistence alongside one another and reciprocal exchanges between them. Intruding pastoralists could retain their socio-economic identity without becoming absorbed by the majority population. Vocational specificity and complementary relationships between agriculturalists, pastoralists, and states may explain a measure of their triadic exchange, but it obscures much because that which was exchanged between them, if measured in kind, was clearly lopsided in favor of the pastoralist. In return for low–priced luxury products (mostly meat), the herder obtained foodstuffs, clothing, and weaponry indispensable for maintaining his way of life.

In light of this basic asymmetry, Ibn Khaldun prompts us to see the "political," that is, the governing capacity of tribal sheikhs, as the Bedouins' prime asset exported to sedentary life (1958 [1383]: 282–295). Being unaware of alternative methods for towns to recruit their mayors—short of emulating tribalism—Ibn Khaldun concluded that pastoralists were better human caliber for leadership roles or, in a more general fashion, a genetically finer stock than sedentary peoples.

Consideration of the history of municipal government and social stratification in Near Eastern towns prior to and after Arabization (Jones 1964; Claude 1969; Bowman 1971; Hourani 1970) shows the overriding influence of cultural patterns, rather than the dictate of the environment. Also, comparison of institutions of urban society in Medieval Europe (see de Tocqueville 1966: 45–49), contemporaneous to Ibn Khaldun, suggests the agency of culture relativism. That is, we should not refute the idea that the nomadic sheikh provided a superior source of royal authority when acting in the capacity of a leader in an urban community. Townsmen did not, at the outset, request that tribal sheikhs and tribalism run their municipal affairs. Bedouin sheikhs, who usurped this position, bequeathed their management tactics to succeeding generations. Consolidation of the

Arab-style regime and the declining appeal of alternative administrative instruments existing elsewhere could enhance the absorption of tribesmen into settled districts, including Egypt.

When Egypt enjoyed relative prosperity, it appealed to Near Eastern migrants, first and foremost, to pastoralists. Migration in the opposite, west–east direction, beginning in the early nineteenth century was a concomitant of: (1) the emergence of an all powerful state, and the measures it took to ward off pastoralists and keep them out of the fertile Nile basin; (2) a policy mobilizing peasants to perform public works *(corvés)*,[9] and a powerful army that greatly damaged productive agriculture, unleashing *vis-a-tergo* pressures that culminated in a large-scale eastward migration of peasants; and (3) rumors of growing European investment in development projects in the Levant, by virtue of capitulatory rights.[10]

Table 1.1
Toward Africa and from Africa Back East

The Group	*Lands of Origin*	*Time of Arrival*	*Ultimate Point of Progression*	*Duration of Presence*	*Conclusion of Migrations*
Hyksos	Near East	16 c. B.C.	Egypt, Lower	150 yrs.	Levant
Israelites	Near East	15 c. B.C.	Egypt, Lower	400 yrs.	Palestine
Assyrians	Mesopotamia	7 c. B.C.	Egypt, Lower & Upper	50 yrs.	Back Home
Greeks Ptolemies	Europe	4 c. B.C.	Cyrenaica	300 yrs.	Assimilated (?) or Back Home
Scythians	Inner Asia	2 c. B.C.	Mediterranean Sea	Few Decades	Return Back North-East
Romans	Europe	1 c. A.D.	Mauritania	700 yrs.	Vacated the Region
Byzantines			Cyrenaica		
Sasanids	Persia	7 c. A.D.	Egypt	6 yrs.	Back East
Carriers of Islam	Arabian Peninsula	7 c. A.D.	Atlantic Ocean	Until the present	Sedentarization Throughout North Africa
Qarmatians Shiites Bani Kalb	West Shore of Persian Gulf	10 c. A.D.	Egypt	10 yrs.	Back East

(continued)

Table 1.1 (continued)
Toward Africa and from Africa Back East

The Group	*Lands of Origin*	*Time of Arrival*	*Ultimate Point of Progression*	*Duration of Presence*	*Conclusion of Migrations*
Bani Sulaim Bani Hilal	Arabian Peninsula	11 c. A.D.	Maghreb	Until the present	Sedentarization in the Maghrib
Bani Jarh Tayy Conf.	Syrian Desert	11 c. A.D.	Southern Palestine	Few Decades	Return Back East
Saljuq Turks	Inner Asia	11 c. A.D.	Egypt "	—	Sedentarization in Asia Minor
Crusaders	Europe	12 c. & 13 c. A.D.	Southern Palestine	150 yrs.	Back Home
Mongol—Tartars (Hulagu)	Inner Asia	13 c. A.D.	Southern Palestine	Few Decades	Back North-East
Mongol—Tartars (Timur Lane)	Inner Asia	14 c. A.D.	Syria	Few Decades	Back North-East
Ottomans Turks	Asia Minor	16 c. A.D.	Atlas Mountains	400 yrs.	Back to Mainland Turkey
Bani Zaydan Bani Ṣakher	Syrian Desert	18 c. A.D.	Southern Palestine		Sedentarization in Palestine
Wahhabis	East Arabia	1805	Southern Palestine	10 yrs.	Back East
French (Napoleon)	Europe	1799–1801 (Acre)	Lower Galilee	1 yr.	Europe
Tiyaha & Tarabin	Egypt's Eastern Desert	Begin early 19th c.	Southern Palestine	ever since	Sedentarization East Sinai, Negev
Hanadi	Eastern Desert	Early 19 c.	Syria	ever since	Northern Palestine
Qatatwa Sawarka Tawara	Egypt's Eastern Desert Western Sinai	Late 19 c.	Syria		Western Negev
Egyptian Peasants Egyptian Expedionary Force		1829	Palestine	ever since	East Sinai, all through Palestine

Conclusion

We have here adopted a significant shift in emphasis vis-à-vis the conventional explanation for the influx of nomadic pastoralists into Near Eastern settled districts and towns. We propose that greater attention be devoted to the inadequacies of livestock economy in Near Eastern deserts and to the relative dexterity of pastoralist tribes in their capacity as administrative agents, enabling them to amass supplementary income. Radical climatic change, anthropogenic pressures, or both that reduced the carrying capacity of Near Eastern deserts for herds and herders, do not explain the historical existence of long-term, mutual relationships between nomadic pastoralists, agriculturalists, and states. This setup ended toward the end of the nineteenth century, with the spread of modern means of transportation and, in most cases, with the appearance of aircraft that could expose and strike at the unsuspecting Bedouin tribes in their traditional, far-flung desert retreats.

Ever since life in the desert could no longer guarantee for the Bedouins their traditional tactical element of surprise in confrontations with coterritorial sedentaries, they have labored under a disadvantageous position. The Bedouin have, as a result, been reduced to subservience to the state administration, which is in the process of co–opting them in order to ensure peaceful coexistence. If the sheikh lives in town, this increases his chances of being co–opted by the state. When other tribal elders follow the sheikh to the town, the tribe's center of gravity also moves thereto.

Sic transit gloria mundi! already in the 1970s, an International Working Group on Indigenous Affairs (IWGIA) centered in Copenhagen, listed the Bedouin in the category of persecuted minority groups.

Notes

1. Incidentally, it was also in the state's interest to maintain ties with nomadic tribes without fully incorporating them into the peasantry, for example, for the purpose of collecting taxes.

2. For a discussion of the Marxist position vis-à-vis the nomads' surprising success in overturning the more evolved sedentary social order (see Ernest Gellner's foreword to Khazanov 1984: ix–xxv).

3. An ancient Semitic source term considers the inhabitants of steppes as "Arab." "Steppes" in Hebrew is *ʿarava.* In Negev Bedouin parlance, which retains this genuine sense of the term, an "Arab" is a Bedouin. The language of the steppes spread over large parts of the Middle East, and therefore all speakers of Arabic are referred to as Arab. Bedouin who wish to distinguish a person who follows the Bedouin way of life may say "our [kind of an] Arab"; note, for instance, the names: *ʿArab al-ʿAzāzme*, *ʿArab aẓ-Ẓullām*, and so on.

4. "Bey" denotes a local representative of the Ottoman administration, as distinguished from"Pasha," denoting a Turkish official appointed to keep the order and collect taxes in distant districts of the empire.

5. See Al Aref (1934) and Bailey (1980) regarding the execution of sheikhs of feuding tribes.

6. It is highly intriguing to figure out what allurements the Maghrib had to offer the tribes that they did not find in the east. It could certainly not have been the prospect of wealthier towns to ravage or more succulent pastures to graze upon! There was, furthermore, no guarantee that they could regain their previous *dīras* on their return from the war in the event that their westward trek proved futile. Above all, the factor of foraging has so far proved especially unconvincing in attempts to explain the *Drang nach Westen* of Arab nomads from the fertile Nile Basin.

7. This chain of events is demonstrated in the case of the Nile Valley of Egypt, see (Murray 1935; Awad 1959).

8. Biblical Hebrew calls Egypt *Mitzrayim,* which is a grammatically dual form implying a doubling and indicating that in ancient times, the Nile Valley comprised two kingdoms. Modern Hebrew still retains this name. However, Arabic uses the singular form for 'Egypt.' The Arabs arrived in Egypt in the seventh century, when it consisted of only one state.

9. For conscription of farmers by the tax authorities (*multazims*) to do unpaid work, see Bonné 1948:138.

10. In these treaties the sovereigns of Western Europe obtained from Ottoman Turkey special economic rights for citizens of Western countries residing in Near Eastern countries.

This page intentionally left blank.

2 Changes in Land Usage by the Negev Bedouin since the Mid-Nineteenth Century

The Intratribal Perspective

Introduction

Three major factors have influenced the transition of Bedouin from nomadic pastoralism to agriculture in the Middle East in the period under consideration; two of these are exogenous and have acted as catalysts for change:

1. the rising economic, political, and military power of the states in the area, which compelled the Bedouin either to settle under new conditions offering greater security to farming activities, or to vacate,[1] and
2. the ongoing trend among nomadic shepherds of purchasing holdings on the edge of settled lands, where life offers many comforts in comparison with the meager subsistence of lone shepherding.[2]

The third factor is endogenous and has tended to decelerate somewhat the transition process; this is the political commitment of tribesmen to their agnates and their *dīra* (tribal territory) ensuring the availability of

land and resources to all members of the tribe on an equal footing. Underlying this factor is a tribal ethos molding the relationships of families within a single tribe. Among the Negev Bedouin, an age-old hierarchy continues whereby camel herders, who comprised the largest section of a tribe, automatically enjoyed pride of place, while small families of *fallāḥīn* (settlers of Egyptian extraction) have been relegated to the lowest position in the hierarchy. This social order presents the scientific observer with enthralling research material offering a cultural and an anthropological admixture.

The present chapter will focus on this third factor, which in the present context tends to militate against the farming option and the nomadic shepherd's natural disposition to enhance his individual living standard by adopting elements of agricultural or urban lifestyles. In other words, we shall look into the encounter between, on the one hand, the Bedouin tribe's intrinsic social structure and its unwritten codes with regard to land use and, on the other hand, the introduction of modern agricultural methods in their ongoing shift to permanent settlement.

This section of the book brings together the findings and expertise of three scholars working in different research areas: Khalil Abū Rabī'a (Bedouin law), Joseph Ben-David (human geography in the desert), and Gideon M. Kressel (anthropology). We have also analyzed land transactions and conducted population surveys. In the course of the present inquiry we shall concentrate our attention on the following factors:

1. juridical readjustments relating to the use of land over the past hundred years, as traditional tribal rights come into conflict with the modern system of private rights, and common grazing territory is apportioned in the form of private plots for cultivation; and

2. the concomitant influx of capital, labor (mostly of *fallāḥ* origin) and agricultural know-how to the Negev; and the impact of the new entrepreneurial leadership on traditional leadership, realignment of groupings, readjustments of social hierarchy, restructured channels of social mobility, and so on.

Exogenous Demands for Land

The onset of change in land use in the Middle East emerged around a century ago with the spread of "patchwork farming" in wadis that had previously been used exclusively for herding.[3] This process was significant for a number of reasons: First, the Bedouin were not only attracted to irrigated lands, but also established permanent ties to their traditional

sites, despite the fact that these were relatively arid. Second, their self-image was undergoing transformation, and the raisers of livestock who had once looked down on the *fallāḥīn* came to resemble them.[4] Third, the Bedouin's new commitment to agriculture, albeit pursued halfheartedly concurrently with shepherding, had the inevitable effect of shortening both the cultivation seasons and the peregrination range of their herds. Fourth, and most important, the function of the tribal framework was also altered, for no longer was the tribe responsible for guaranteeing equal grazing rights for all. Cultivation was preceded by the parceling of land and the privatization of plots appropriated from tribal grazing land.

An examination of the traditional juridical practices of the Negev Bedouin with regard to land ownership and alternative uses of the land indicates that when livestock constituted the main source of livelihood, land was used exclusively for grazing. Afterward, from the mid-nineteenth century onward,[5] dry farming of grains also spread. For the nomadic Bedouin, all the grazing land was common property, that is, tribal territory. Similarly, the right of access to available water was shared by all members of the tribe on an equal basis. With the transition to the cultivation of private plots, the common grazing grounds were apportioned into small family units. During this stage the role of judges, experts on ownership rigts, and ownership laws became increasingly important, since it became crucial to establish who had rights to what land, and how the land could be used. Traditional Bedouin legislation was called into play to answer the needs of the hour. Bedouin lived in relatively remote areas, and Ottoman law were, at least initially, not binding on the Bedouin; consequently, claims to land were assessed in accordance with accepted Bedouin tradition as retained by Sheikhs called *ahl ad-diyār* specializing in ownership rights and land use.

We shall examine this far-reaching change in the attitude of the tribes toward the tribal grazing territory from sociological and juridical perspectives. The new status of the land evolved from a combination of factors: (1) the atmosphere of greater political and economic self-confidence that prevailed in the Negev following the restoration of Ottoman rule in the last decade of the nineteenth century (cf. chapter 1: 22 ff.), which helped to stabilize the tribes and encourage investments in agriculture; (2) continuous emigration of Egyptian *fallāḥīn* who had lived in wretched conditions in the Nile Valley.[6] The first stop in Palestine for these people was in the vicinity of Gaza,[7] and later some of them became land tenants, with local merchants around Be'er-Sheva acting as middlemen.

The demand for land suitable for dry farming gave market value and legal status to the arid Negev area for the first time, and it was only natural that the new legal standing of the land would be influenced by

multiple legal traditions: Bedouin customary law, Ottoman laws, and the traditional law of the *fallāḥīn* settled to the north of the Bedouin *dīra*s (i.e., in the southern Hebron Highlands and the coastal plain). These *fallāḥīn*, most of whom had themselves initially been nomads who eventually ended up settling in villages, sought to expand their cultivated areas in the Be'er-Sheva Valley, and this often led to conflicts with the Bedouin residents there.[8]

Cultivation yielded economic results, and the increasing number of people attempting to gain plots of land generated a greater appreciation for it in the eyes of Bedouin owners of livestock. The shepherds themselves did not turn to farming but hired laborers (*ḥarrāthīn* "plough hands") in their land tenancy transactions.

After the founding of Be'er-Sheva in 1903, the Ottoman government gave recognition to the autonomous arrangements unique to Bedouin society, and this recognition led to the establishment of a tribal court of justice (*maḥkamat al-ʿashāyir*). It was composed of sheikhs representing most of the Bedouin tribes—thirty-three in number—who convened in Be'er-Sheva. During regular sessions, such as those dealing with land ownership, three members would sit in judgment. One of these would plead the plaintiff's case, another that of the defendant, while the third would sit in judgment (*al-murājiḥ*), and hand down the verdict, which would be final.

Little is known about the legal standing of Negev land at the end of the Ottoman period relative to what is known about the cultivated areas of the region. The following shreds of information have been gleaned by implication from records of transactions conducted by the Zionist movement in its attempt to "redeem the lands of the Negev"[9]:

1. the Bedouin developed a financial interest in land under their control;

2. some of the sheikhs served as virtual land registry officials and accordingly issued bills of sale (*sanad*, pl. *asnād*) before government land registry records (*ṭābū* < Tk. *tapu*) came into being;

3. the administration expressed no direct interest in the Bedouin lands so long as these were sold to Arabs rather than to foreign buyers, that is, Christians and Jews.[10]

Most of the Bedouin land transactions during the Ottoman period were conducted with buyers from Gaza and Hebron, while a few of them involved representatives of the Zionist movement.[11] The scope of land

sales increased during the British Mandate period. There were a number of individuals among the Negev Bedouin whose primary occupation was land brokerage.[12] The rise in demand for dry farming plots was occasioned both by the steady influx of landless *fallāḥīn* from the Nile Valley and by heightened Jewish immigration to Palestine.

The establishment of the state of Israel put an end to immigration from Egypt and stimulated Jewish settlement in the Negev. The fledgling state incorporated Ottoman or British land laws into its legal system, but these did not define the Bedouin as legal owners of the land on which they tended their flocks. On the other hand, the two regimes that had ruled Palestine prior to 1948 did not see any "Bedouin problem" in the issue of land ownership in the Negev. Up to the time of Israel's independence, the question of land ownership in the vicinity of Be'er-Sheva had remained an open issue. An Ottoman law of 1858 defined the Bedouin territory in the Negev as *mawāt*, that is, as state land, regardless of whether it was utilized or abandoned. A land order from 1921 redefined the *mawāt* in such a way that a Bedouin could be officially granted the status of "someone possessing a tie to his land." However, most of the Bedouin failed to take advantage of this opportunity. This same order, issued by the British Government, stipulated that anyone who brought life to land defined by the 1858 Ottoman law as *mawāt* had to register the land within two months of the order's promulgation.

Years later, during the period of statehood, the Bedouin pressed for the revival of regulations allowing for land registration. However, the "Land Law, 1959" nullified the Ottoman laws and turned all the *mawāt* areas into government land. With the signing of the peace treaty with Egypt, Israeli jurists had to address themselves once more to the question relating to the legal status of certain lands in the Negev.

The "Law of Land Acquisition in the Negev, 1980" focuses on the area in and around Tel-Malhata'. Six Bedouin tribes were located in this territory: Abū-Qraynāt, Abū-Jweʿid, Abū-Rabēʿa, Zabārqa, Nasāsra and al-ʿAmr. The aforementioned law deals with the evacuation of the tribes from the area, and the compensation they were to receive. The law rekindled the controversy over the Bedouin's historical and legal rights to the lands where they resided.

In the absence of real market conditions of supply and demand for land, the main catalyst for action on the part of the Bedouin was one of urgency to evacuate land marked out for the construction of a new military airport planned at Nevatim after the Israeli-Egyptian Peace Treaty of 1982. This set the stage for a compromise between the government's decision to expropriate the land and the Bedouin's demand for sufficient compensation. The Bedouin feared that the new legislation nullified their

claims of ownership, so that they would not be offered alternative plots of land elsewhere. The negotiations were to be conducted between the government bodies and the individual land claimants.

Families of the Abu-ʿArar tribe were the first to enter into negotiations over their rights. Up to the time of the discussions, they had not yet attained the numerical strength required to establish territorial rights, but controlled parcellated land among the Ẓullām tribes, and the appointment of a *mukhtār* to the Abu-ʿArar tribe encouraged them to negotiate. Their political independence was bitterly opposed by the Ẓullām tribes, which up to then had been their patrons. Simultaneous with this first legal arrangement, heavy construction equipment was brought to the site earmarked as an airport. Tractors began to tear up the ground between the tents and the houses, which vividly demonstrated to those who were procrastinating that there was no way to avoid negotiating with the "Land Administration,"[13] and vacating the area.

The special problems that arose bore on two basic issues: (1) the amount of compensation to be paid relative to the actual value of the expropriated land, and (2) tribal authority over the various families, once the land was parceled into family plots.

The Bedouin's demand that the scale of compensation offered to the evacuees from the Israeli settlement of Yamit serve as a model for this case was rejected out of hand. (Yamit was an Israeli rural town built on the northeast shore of the Sinai in the early 1970s and demolished twelve years later when the area was returned to Egypt as part of the peace agreement.) This highlighted the inferior status of the Bedouin with regard to the actual implementation of the law. On the other hand, for the first time, the authorities had recognized the de facto right of the Bedouin to the plots where they resided. As a counter-argument against the demand for ostensibly high compensation, that is, payment commensurate with the real value of the land, it was claimed that the Zionist movement and not Bedouin had made the investments that stimulated development and generated the rise in value.

The abovementioned arrangements altered the internal social order of the tribes. The Bedouin had traditionally negotiated in the capacity of landowners, while the land tenants were the *fallāḥīn*.[14] Over the years, many of the land tenants had become de facto owners of their plots, which meant that officials dealing with questions of ownership found themselves back at the starting point. Thus, for example, tribesmen of the Abu-ʿArar lineage, descendants of immigrants from Egypt, were tenants who had leased land from all three of the Ẓullām tribes. Over time, they had acquired land from individual Bedouin unable to redeem it; as the Bedouin were unable to pay back the initial tenancy deposits (*rahn,* pl.

ruḥūn) they had received, the tenants were left with the land in lieu of the money owed them. When the Land Law of 1980 was passed, and negotiations got under way with those to be evacuated, the *fallāḥīn* tenants presented themselves as the landowners. On the other hand, the Bedouin who leased out their rangeland, also presented themselves as landowners and some of them possessed certificates issued by the Israel's Land Administration Office.[15] From the perspective of the authorities, the same land was being claimed twice.

For the first time, the practice and implications of giving *rahn* came under thorough scrutiny by the government's legislative branch, which preferred to recognize the right of the leasers, without further involvement in the issue. The unwillingness of the authorities to become enmeshed in intertribal conflict served to reinforce the traditional hierarchy that had begun to crumble, thus enabling the Bedouin to regain first claim to the land, which they had temporarily lost to their land tenants. On the other hand, the exploitation of the *fallāḥīn* laborers who had toiled, cleared the land, and cultivated it until it eventually rewarded their efforts—but who had no formal ownership rights—disturbed the Zionists, whose basic social philosophy was "settlement by the workers."[16] Moved by a sense of justice, the administration refrained from paying compensation for the expropriation of leased land (*ʾard marhūna*) to the original Bedouin owners, at least until such time as they returned the tenancy deposit and redeemed the tenancy deeds (*sanad*) from the land tenants (the *ṭiyāḥa*). At this point, the litigation was transferred to the traditional tribal courts, but this did not prevent evacuation of the population from the Nevatim area to Moed in due time.

Ḥajāra versus Ṭiyāḥa

The land tenants who acquired land with the intention of cultivating it were designated by the Negev Bedouin by the term *ṭiyāḥa* (*ṭāḥ, yṭīḥ* "to fall")—which is not to be confused with the name of the tribal confederation Tiyaha whose *dīra* was in Northern Sinai. For the Bedouin, the designation *ṭiyāḥa* has come to imply social inferiority associated with the baseness of agriculture, and it was aimed at the *fallāḥīn* who were perceived as "falling upon" Bedouin plots by requesting land tenancy and patronage. Synonyms for *ṭiyāḥa* were *lumūma* (mob) *maḥmiyyāt* (protegēs), and, in light of their origin, *Maṣārwa* (Egyptians), *Qlaʿiyya* (people from the citadel in Khan Yunis) or *ḥumrān* (of reddish, i.e., lighter skin color, in comparison with the Bedouin, who were *asmarān,* that is, of "dark" complexion). The holding of land thus became an expression of a person's background and occupation.

Until the mid-nineteenth century, the Be'er-Sheva district was sparsely populated. The great majority of the population were Bedouin, and there was constant fighting between the various tribes. Control of grazing land was achieved through force of arms, and since battles were decided on the basis of the number of sword bearers *(darrābīn sēf)* and riflemen on each side, the size of the tribal unit engaged in battle became a crucial factor in determining control.[17] Tribal coalitions changed, as did their fortunes, especially since very warm years always precipitated population movements and exchanges.[18] Sedentarization of the tribes did not take place at once. During the British Mandate period, the Bedouin tribes wandered northward with their herds for springtime grazing,[19] and they returned to the Negev at the end of the summer. Their established claims to cultivated plots prompted them to return southward, and the first expression of these claims was the demarcation of territory through the erection of rock piles.[20]

Bedouin shepherds who were quick to build these rock piles as boundary demarcations established normative ownership rights,[21] including the right to lease plots to *fallāḥīn* "protegés" who arrived late on the scene. This leasing did not imply a recognition of the landholder's "prior claim" to the land, but rather reflected the relative size of the agnatic groups concerned. In contrast to the Bedouin tribes, who retained their unity when they nomadized the *fallāḥīn* families traveled in small groups; hence they needed the tribes' "protection" or "auspices," for their farming endeavors, and remuneration (in the form of high percentages of the crop), which nonetheless raised the shepherds' standard of living. The *fallāḥīn* were reconciled to the idea of having Bedouin landowners and the Bedouin tribes contended among themselves over plots and the service of the land tenants. Consequently, the final tribal boundaries were not established until the last decade of the nineteenth century, and the validity of the stone markers was often questioned. The act of thrusting a spear into the ground symbolized a claim of ownership to the land. According to the tribal elders, stability had been achieved at an earlier stage in the vicinity of the permanent settlement in the Gaza Strip, while this development took place later in the eastern Be'er-Sheva Valley. Through the intervention of the authorities, the tribal territories were first demarcated and, at a later stage, as part of a gradual process,[22] the boundaries of the family plots were marked off.

The *ḥajāra* system in tribal territory was also based on the principle of "might is right," since the dominant groups were the first to seize property on the choicest soil. The tribes' mobility in status, which was linked to their relative size, became reduced once members of the tribe assumed the role of property owners. The fact that the tribe recognized

the ownership rights of whoever first claimed a particular piece of land as his own property—even if no official record of this "ownership" existed in the land registry, and even in cases when the "owner" was not physically present on his plot, effectively served to prevent land seizure by numerically powerful subgroups within the tribe. No guards were needed to keep interlopers out of "private" land that had been temporarily abandoned due to seasonal peregrination, or various compelling circumstances liable to last for years (e.g., eviction by the authorities, a blood feud, or elopement with a bride), since no one dared to cultivate the plot of an absentee landholder; it was as if the latter's ownership were already imprinted, although undocumented, on the land.[23] This was a significant development, as it meant the cessation of tribal warfare and a reliance upon spear and stone markers. Furthermore, social stratification which had so far been based exclusively on the agnatic principle was now also determined by financial considerations.[24] The elders of the elite groups were granted benefits and wages, and in this way became "coopted," and every administration in the Negev from the time of the Ottomans' reinstatement made payments to the sheikhs.

Agnatic Stratification and Capitalistic Stratification: Predicament of the Sheikhs

Some of the land taken over by Negev tribes for cultivation was fully privatized, while some of it was at first tilled interchangeably by different individuals, similar to the *mushāᶜ* (tribal land rotated among the members, though not on a regular basis).[25] According to the sheikhs and tribal elders, the Ottomans encouraged the *mushāᶜ* system, while the British and, later, the Israeli authorities favored privatization. However, historical research and an in-depth analysis of the sociological significance of both systems are needed to throw light on the evolution of the *mushāᶜ* system (see Baer 1972: 39–40).

The *mushāᶜ* system suited the kind of relationship that existed between the authorities and the tribes during the times when the former were weak;[26] the limitations and drawbacks of this system surfaced during the phase of governmental and economic stability. The Ottomans were aware of these limitations, and from 1880, when they had amassed sufficient strength in the Negev, they endeavored to privatize *mushāᶜ* land.[27] However, few sheikhs managed to acquire a personal title to *dīra* land and to progressively transform their fellow tribesmen into peasants and sharecroppers.[28] The British fared better on account of their greater ability to reinforce the internal stratification that was taking shape within the tribe.

The *mushāʿ* concept stemmed from that of the *dīra*, the common grazing territory of the tribe, which was left over after farming replaced herding as the main source of income. In order to maintain tribal union, the tribal farmers prevented division of the land into private plots. The system maintained reciprocal ties between families and the group's political unification. In other words, land privatization was inimical to the concept of tribalism and tribal unity, and hence the Bedouin were wary of its spread. Nevertheless, tribalism was not tantamount to social equality. The principal property of the Bedouin families was their flocks, but the size of each family's flock, a function of both luck and ability, did not necessarily determine its strength and position. Collective exploitation of the land's natural, uncultivated products symbolized the tribal spirit, and hence this system was preserved for generations. This was also true of villages on the edge of the desert, far from the centers of government (such as the southern Hebron Highlands and Qaysiyya), where residents acknowledged their Bedouin past. In the advanced stages of privatization of *dīra* land, supervision on the part of the Israeli authorities prevented the elite groups from taking control of the best tribal land. Thus a clash between the sheikhs and their rank-and-file was averted (as testified by Mr. Sasson Bar-Zvi, Israel's second military governor in Bedouin territory).[29]

The *mushāʿ* system works most smoothly among families that have settled permanently in villages. However, the Negev Bedouin families of the turn of the century heeded the needs of their flocks and lived in tents, while the "guest" *fallāḥīn* cultivated plots in their "hosts" territory. This unique situation, in which *fallāḥīn* immigrants moved onto the grazing land of the Negev before the ruling administration could assert its authority there, made it possible for the tribal elite to reap additional profits, while averting a conflict with the principles of *badāwa* (Bedouin traditional culture). So long as the proportion of grazing land given over to cultivation remained small, and the reduction of the *dīra* modest, the cohesive spirit of the tribe remained unharmed.

The spread of patchwork agriculture in the Negev in the early twentieth century widened the gap between the Bedouin families who extended their "auspices" to the *fallāḥīn*, and the majority of the Bedouin, who failed to do so.[29] Had it not been for the growing pressure by the authorities to privatize *dīra* lands (mainly by granting the sheikhs material benefits), the conflict over ownership of the *dīra* lands would have been inevitable. In its inefficiency, the Ottoman regime, which could not serve as a source of *mushāʿ* land, reinforced this system. The lack of a land registration policy and of the appropriate apparatus for the collection of taxes,[30] coupled with an inability to influence the social stratification of the tribes, rendered the *mushāʿ* system the lesser evil. Apparently, the

Bedouin's failure to officially register private lands stemmed from the sheikhs' sensitivity to the possible repercussions of the *ʾifrāz* (privatization of *mushāʿ* land in Egypt) on the spirit of the tribe and on their own position at its head.[31] In other words, privatization of plots in tribal territory was possible in an official, legal fashion, but those expected to spearhead this development (the sheikhs) preferred doing this surreptitiously.

A clear expression of the *ʾifrāz* is the growing acceptance among the tribesmen of official procedures for land inheritance and for transfer or sale of arable plots. The sociological significance of this development is that these procedures were apparently legal, influenced and recognized by the authorities, although not conducted by officials or in accordance with law, but along the lines of tribal heritage. Sheikhs and their immediate associates possessed *dīra* lands, on which Egyptian peasants lived like peasants. They themselves moved to Be'er-Sheva or Gaza.

According to our oldest informants, in the early 1940s, most of the eastern Negev sheikhs lived either in Be'er-Sheva or in its immediate vicinity.[32] This attests to the incipient phenomenon of absentee landownership, so widespread in Egypt and the Fertile Crescent.[33] In more established farming districts and stronger central states of the modern Middle East, sheikhs have been observed selling livestock and buying arable land.[34] Sheikhs of the Negev did not invest money in the lands stretching north which they, in the capacity of *multazim*s, could possess in other ways. In the growing land market, the sheikhs were ordinarily sellers and not buyers.

Institutionalization of Inheritance (Iratha) Procedures

The traditional inheritance procedures in Bedouin society apply to livestock and chattel and, *mutatis mutandis*, to real estate. The inheritance procedures obtaining among the Negev Bedouin ever since the privatization of plots, are similar in principle to those practiced in the villages of the area. Upon the death of the head of a family, the sons divide his land equally among themselves. The dictates of the *sharīʿa* (Islamic law), according to which half of this territory should be set aside for the daughters, are ignored. While the Bedouin recognize the ownership rights of women with regard to certain sheep in the family flock, and allow women to bequeath and inherit these animals, under no circumstances are they permitted to own land.[35]

The apportionment of the father's legacy does not begin during his lifetime. In fact, the Negev Bedouin often postpone the division of the father's plot for several years after his death, out of a concern, they explain, not to jeopardize their unity. When the inheritance consisted mainly of livestock and chattel, and the sons were nomadic shepherds,

they hastened to divide the entire inheritance among themselves. However, ever since the land began to constitute a major component of the inheritance, it became common to postpone the reassignment of the father's flock and chattel, especially if he died relatively young, and was survived by a wife and small children. A popular pattern that has emerged is to leave the bequest untouched until all of the sons have married and are capable of earning a livelihood on their own.[36] A likely explanation for this phenomenon is that the livelihood of the older brothers comes from other sources, that is, employment, so that they are not so eager to realize their inheritance. Another possibility is that they feel that agnatic unity is in need of additional reinforcement.

The father's property is divided meticulously, with each son receiving an equal portion. This rule, which is relatively easy to apply in the case of flocks, can become complicated and difficult when applied to real estate.[37] An additional complication is the fact that the quality of plots varies, some of them having been cleared, enriched, and so on and others not. In order to forestall complaints, the land is divided and demarcated, and the brothers often draw lots to determine who gets which plot. The results of the lottery are considered to be as binding as a "divine decree," and this system has been adopted throughout the Be'er-Sheva Valley.

Of course, brothers are entitled to exchange their plots among themselves, usually in consideration of the proximity of the plot to one's house or grazing land. An effort is made to adjoin the boundaries of plots broken up by rocks or rivulets, and so forth. So long as only land alongside the wadi rivulets was cultivated, and cattle were used for ploughing, that is, when the plots were small, the apportionment of the landed inheritance was, technically speaking, relatively easy to implement. With the introduction of mechanical means of cultivation, and the extension of the cultivated land away from the wadis and toward the mountain slopes and the plains, the plots owned by one person were often separated, rendering the division of the inheritance a complex problem.

Privatization of the Mountain Slopes

Small-scale agriculture in the Negev wadis left most of the area free for grazing, so that the *dīra* was essentially preserved, and with it the unity of the tribe. The expansion of farming upward, toward the tops of the slopes, reduced the amount of available grazing land, and enhanced the income of the landowners. This was especially true when the yield was successful, or alternatively, when in extremely warm years, the stalks of grain crops could not attain full growth and provided stubble for grazing. Thus the economic gap between the families of the tribe expanded. The

desire for additional income motivated the landowners to extend furrows to barren soil, on the slopes. This became possible once the tractor was adopted for ploughing in the early 1950s.[38]

There had been economic, demographic, and external political reasons behind the expansion of cultivated land in the Negev from the end of the Ottoman period until the end of the Mandate period:

1. the increase in investment capital that came into Bedouin hands, from (in chronological order) the Ottomans and Germans (who together built Be'er-Sheva and laid railroad tracks to Egypt), the British (who erected army camps, paved roads in the Negev and laid different railroad tracks to Egypt after the earlier ones were destroyed), and the Zionists, who allowed the Bedouin to supply themselves with seedlings and tools, and stimulated technological advancement;

2. the continued migration toward the interior and the growing population density, thanks to which a greater number of laborers were available, and pressure mounted to determine ownership of the plots;

3. the 1948 war, which led to a thinning out of the Negev tribes, a sharp drop in the Bedouin population in the desert (from around 70,000 to 12,000) and the restriction of those who remained in a fenced-in district east of the Plugot Road for the duration of the military administration (1949–1966); these processes accelerated the fragmentation of plots, including the tribal grazing land.

The political factor behind the expansion of Bedouin farming began to take on greater weight. The Bedouin themselves started to acquire machinery, and in the wake of the "political ploughing" of land (government-ordered ploughing designed to establish a claim) at the end of the 1940s, orchards were also planted.

A social gap does not in itself threaten the existence of the tribe, as does private ownership of *dīra* lands. For this reason, the trend toward privatization of plots on slopes takes place in secret. Stone piles are not erected as boundary markers, and under no circumstances is grazing by the flock of a fellow tribe member prohibited. However, if the owner of a plot on a slope has no intention of cultivating it, there is a tendency not to allow any fellow tribesmen to do so either. The logic behind this derives from ancient farming practices and norms, which inspired the development of dry farming in the Negev. The fact that the channels that

collect run-off water follow the contours of slopes and terminate on the terraced surfaces in ravines was used to support the claim that the slope and its run-off waters belong to the owners of the plots at the foot of the slope.[39] So long as the vast majority of land workers were *fallāḥīn*, the issue of run-off water from the slopes remained dormant, and the fact that it came to the fore attests to the heightened interest of the Bedouin securing an income from agriculture,[40] and their growing participation in the physical labor itself.

Related to the issue of run-off water is that of cisterns at the foot of the slopes. The right to draw upon water sources, like the right to graze in the *dīra*, belongs to all the families of the tribe. It is out of the question, even at the present time, to purchase ownership rights on wells providing year-round supplies of water in the Negev. On the other hand, installations that collect run-off water, such as the ancient cisterns that have been revealed on the hill slopes,[41] are immediately privatized, which demonstrates how sharp the socio-economic turnabout has been. The justification for privatization of the sources of run-off water is the investment required to clear the water of soil that has eroded for generations, and to repair the dams and channels used for conducting the water into the installations. Already in the Mandate period, following the institution of private ownership of the slopes, there were Bedouin who invested in quarrying reservoirs. In the framework of intra-tribal relations, it was no longer the sword, but rather labor and, symbolically, excavation, that served to justify private ownership of the water sources.[42] Nevertheless, at around the same time as the privatization of the slopes, the topographical concept of watersheds (*qizān* or *mafraq al-mayya*) and the path of the water flow (*at-tirja*) was adopted. Also the division of the cultivated strips in the wadis underwent a change after the privatization of the slopes; the elite groups, i.e., those with the greatest number of agnates, set aside for themselves the arable plots in the heights of the wadi, which are the first to receive the flood waters.[43]

Developing Norms of Land Usage and Possession

Restrictions on roving resulting from the dwindling of the area inhabited by the Bedouin, especially after the establishment of the State of Israel, prompted the tribes to increase their income from sown plots. Heightened involvement in agriculture on the part of the Bedouin, and their growing investment in the enhancement of the plots, heralded a concept of ownership as a function of the size of the investment. A variety of activities, including stone-clearing, the leveling of land, the setting up of drainage systems, the creation of *limens* (rivulets dammed up so that

rich deposits of eroded land would amass), deep ploughing, and fertilization—coupled with the contiguity of cultivated plots, which in itself enriched the soil with humus—came to be viewed, more and more, as factors that would increase the value of the plots.[44]

One sign of this trend emerged from a survey of the Be'er-Sheva Valley showing that the practice of giving land as a gift *(karam al-arḍ)*, which was prevalent in the early part of this century, waned and eventually vanished. Land could be awarded as a recompense for taking the owner's side in a dispute or battle, or for participating with the owner in prayer or in an expedition aimed at pillage *(ghazu)*. This practice was concluded on the word of honor, not any written agreement or document, and was regarded as a legal manner of acquiring ownership *(ṭarīq al-karam aqwa min as-sanad)*.[45] The awarding of land as compensation to a fighter acting in a private capacity actually derived from the earlier practice of allotting *dīra* land to allied tribes—a custom that had gone out of fashion. As mentioned, the *Ẓullām* tribes had gained possession of the Arad Valley and the eastern slopes running down from the Arad Highlands to the Dead Sea as a reward for having joined the Tiyāha tribal federation in its war against the Tarabin tribes in the mid-nineteenth century.[46] In light of the tribal lifestyle, it may be supposed that in order to include the newcomers in the tribal political union, *lumūma* (as long as they remained with the tribe), allies who were not agnates were granted the right to utilize the *dīra* and its water sources. Similarly, on the same principle, once agriculture spread throughout the *dīra*, allies were allowed to privately own cultivated plots and to reap the profits. The disappearance, then, of the *karam al-arḍ* practice is a milestone in the development of Bedouin attitudes to land usage. The custom was never institutionalized, since within a short time various legal formalities in the leasing, mortgaging, and ownership transference of land became necessary. The Bedouin, in retrospect, view the practice of awarding land as ill-advised and foolish.[47] Since then, the terms used to designate land purchased with money (*mishtra, bēᶜ* or *arḍ eb-sanad*, i.e., land transferred through a bill of sale) have preserved the honor of the original landowners more than the concept of *karam al-arḍ* has.

Institutionalization of the Bill of Sale (Sanad)

Purchased land is in principle distinguished from land acquired through force of arms. Monetary transactions, although not adopted until the end of the nineteenth century, rapidly became the most natural form of conducting business—and this phenomenon calls for an explanation. An early form of payment for ownership of cultivated land was the camel. As

the most valued and prestigious piece of property in Bedouin society, camels constituted a basis for exchanges of gifts, dowers, indemnification, and so on. A payment involving camels had the force of a word of honor (*kilmet sharaf*), and came to be required for the finalization of land transactions. This form of payment for land was widespread in the Negev from the mid-nineteenth century up to the end of the Ottoman period.

The *sanad* made its appearance in the period just prior to World War I, a time of intensive economic activity.[48] The institutionalization of land purchase through a bill of sale proceeded in parallel with the that of negotiations over the price and the form of payment. These practices were introduced to the Bedouin population by the effendis, most of whom were residents of Gaza, while a smaller number were among the first settlers of Be'er-Sheva.

The *sanad*, written on an ordinary piece of paper with no formal letterhead (see the bill of sale in the appendix, with handwritten names of the parties to a transaction), delineated the boundaries *(ḥdūd)* of the plot and provided a precise description of it, including such details as cistern, cave, oak tree, and so forth. The signatories were the seller, the buyer, and their appointed witnesses (who were dignitaries). The buyer's signature was usually in ink, while the seller's generally took the form of a fingerprint. The deed bore official revenue stamps *(irādāt)*; these appear on every document we examined. Early deeds had Ottoman stamps, and later ones Mandate stamps.

This unswerving official procedure is surprising in light of the fact that the plots were never recorded in the land registry. The logic behind the practice probably ran as follows: the document (foreign to Bedouin jurisprudence and the *sharīᶜa*) acquired a formal status because the parties involved were so unfamiliar with transactions that they came to rely upon the possible intervention of a government agency. The spread of the Ottoman administration eastward from Gaza restrained the forceful take-over of lands there, created an atmosphere conducive to business deals, generated a market for a commodity that at the time had few buyers, and aided in determining a standard price for the land. All this was to the mutual satisfaction of the parties involved, who ostensibly shared an esteem for the administration. However, the buyer and seller also shared a desire to finalize deals between themselves, without the involvement of a third party.

The same Bedouin who refrained from recording their *dīra* lands in the land registry due to tribal ethics had an additional reason to be cautious; his interest, in fact, was identical to that of the effendi who had purchased land. Both of them recognized the government's role in facilitating their transactions, and its demand for a share of the deal. Despite

the pressure exerted, at first, by the Turkish administration, and to an even greater extent by the Mandatory regime,[49] not even lands transferred from Bedouin to permanent laborers (*fallāḥīn*) were registered according to law. Because most transactions were not officially reported, no taxes were paid. Esteem for the authorities was reserved, but it existed. The parties to a transaction, particularly those who signed by fingerprint, entertained the hope of eventually regaining possession of the property they were selling, whether by legal or coercive means.[50] For the Bedouin, recourse to legal action entailed the pretense that, being illiterate, they had been duped. The stamps that had been affixed imparted an air of officialdom to the *sanad;* the document had the appearance of being written under government auspices, and the "law and order" represented by the administration enhanced the deed's credibility. The stern countenance of the sultan-caliph appeared on the Ottoman revenue stamps.

Indeed, the legal validity of the *sanad* before the courts was such that, during the Mandate period, a litigant would declare: "I have a *sanad!*" even before claiming, "It's my land!"[51] On the other hand, the role of the *ahl ad-diyār,* that is, the tribal elders who adjudicated in ownership disputes in accordance with precedents that they could recall was reduced. Over the years, it came to be understood that the validity of a written document outweighed that of its signatories' recollections or oral testimony.[52] The possibility of forging documents also became better known, and with it the need for expertise in detecting a forgery. Therefore, the *majlis al-ʿashāyir,* who replaced the *ahl ad-diyār,* had to be literate. This is illustrated by the following case history: In the early 1920s, a *sanad* was drawn up between a member of the an-Nasasra tribe and the Kabu'a family. The former was purchasing land, through a *rahn*, from the latter. When the Kabuʿa family elder died, one of his successors, Sulayman Kabuʿa, approached an-Nasasra with the following claim: "I have purchased the land from the other inheritors, and therefore wish to draw up a new *sanad*. I request that you return the earlier *sanad* to me." An-Nasasra, however, kept the document. Sulayman Kabuʿa then went to a third party named ed-Dada, and drew up a new *sanad rahn* for the same plot—even though he had not succeeded in nullifying the earlier one. Soon afterward, an-Nasasra and ad-Dada confronted each other in the disputed plot, each one holding a *sanad* and making the identical claim: "I have a *sanad* here. What more do you want?" The case was brought before the *majlis al-ʿashāyir* in Beʾer-Sheva, which at the time consisted of three sheikhs: Abū Rbēʿa, aṣ-Ṣūfī and ibn-Saʾid. Upon examining both documents and listening to the testimony of witnesses (signatories to the documents), they noticed that the second *sanad* contained the condition that if the mortgagee was unable to receive his land, the mortgager would

pay him a 60 lira fine. From this they deduced that the man with the second *sanad* had known about the first; he had hoped to evict the an-Nasasra family, but decided to protect himself in case they refused to cooperate. Consequently, the court ruled that the land would remain with an-Nasasra, and that ad-Dada would have no further rights or claims to the land; the second *sanad* was declared null and void. That same plot of land is in an-Nasasra's possession to this day, despite the fact that the price for leasing it has risen sharply.

Another reason for frequent recourse to the *sanad* was the need for legal evidence that the taxable land was no longer in the possession of the assessee. The tax burden was one of the primary motivations for selling property, and the *sanad* served as vital legal substantiation. For a number of decades, the Bedouin had paid tax to the government in the form of cattle, but when taxes increased, and exceptionally warm years reduced the size and value of the Bedouin's flocks, it became more necessary to use money as legal tender. Faced with the alternatives of paying their debts in cash or being expelled across the border, the Bedouin opted to sell part of their land. Thus it was the crisis in the cattle economy and the decline in the value of livestock between the two world wars that stimulated these land sales.[53] The deepening involvement in the Negev on the part of the Mandatory Government and the steadily mounting flow of *fallāḥīn* immigrants from Egypt goes back to 1926, when the first railroad track to Egypt was built, improving the climate for land transactions. Another factor contributing to this process was the Negev Bedouin's growing acculturation and dependence on the consumer products being offered for sale in Be'er-Sheva. The testimony of observers from that period make it clear that once the city was established, there was a growing dependence on its markets. Nonetheless, the former contacts of Bedouin with merchants from Gaza, where they had conducted their business before Be'er-Sheva was founded, were continued as these same merchants assumed the role of middlemen in the Bedouin's land deals and other transactions in the new capital of the Negev. Not infrequently, a Bedouin tribesman would lack the cash or merchandise to finalize his purchases in Be'er-Sheva, and would repair to a Gazan merchant for a loan of money or credit. Whenever a Bedouin accumulated debts that he was unable to honor, even by selling livestock and chattel, he was constrained to divest himself of his land.[54]

Institutionalization of Land Mortgages (Rahn)

The need for cash, which stemmed, on the one hand, from the growing recognition of the potential of sharecropping as a source of income and, on the other hand, from an unwillingness on the part of the

Bedouin to either work the land or abandon it, led to the institutionalization of mortgages. The leasing arrangements that survived from the mid-nineteenth century up to the Mandate period were based on sharecropping, and even though the produce was mostly earmarked for sale, it was some time before the flow of capital made itself felt. From the time of the expansion of a monetary economy, and mainly from the time of the Mandate, other arrangements were developed to promote the liquidity of real estate and to shorten various procedures. The land tenant in Bedouin society was replaced by the *sharīk* (partner), who provided the labor force, while the original owner provided the means of production (i.e., land and tools), with the land serving as a pledge. For an agreed-upon payment—initially in kind (wheat or barley) and later in cash—the *sharīk* became the cultivator of the land. The original owner could evict him only on condition that his money was returned. During the 1920s and 1930s, especially in extremely warm years, when the Bedouin livestock economy suffered, the number of arrangements based on a *sanad ar-rahn* multiplied. A survey of mortgage documents from that time still remaining in the possession of the tribal elders indicates that those who paid the mortgages to the Bedouin were for the most part effendis from Gaza, and that they subleased land to *fallāḥīn*, who continued to arrive from Egypt via the Gaza Strip. As it was disadvantageous to mortgage land without these documents and bills of sale, the scope of such operations decreased over the years. The following is a case history from 1944, which demonstrates how necessary and popular these papers were. Its lateness indicates how gradual the adoption of this document had been.

According to an eyewitness named ʿĪd al-Majnūn, a dispute between a buyer and a seller of land, both from the Qdeirāt tribe, was brought before a *majlis al-ʿashāyir* in Be'er-Sheva. The seller denied having sold the land and claimed to have leased it for a three-year period, while the buyer endeavored to prove that he had in fact purchased the plot in question. The latter possessed no *sanad*, and based his claim upon the seller's "word of honor." The problem had arisen when, at one point, the seller came to the buyer's house and demanded that he take back the *rahn* and vacate the premises. In the absence of documents and witnesses, no conventional solution was available. The judges' ruled that if the first party had intended to sell the land, the second party (the buyer) would not have settled for a word of honor at a time when the *sanad* had become a standard institution, and that he would have at least attempted to add a measure of validity to the transaction by executing it in the presence of witnesses. Nevertheless, because of the existing doubt, the court compelled the first party to submit to a *ḥilfet yamīn wad-dīn eb-khamsa* (solemn oath, with a verdict rendered by five judges),[55] to the effect that he had

leased the land and not sold it. Once the first party took the oath, he was allowed to return the *rahn* to the leaseholder and repossess the land. The fact that the judges resorted to a type of oath ordinarily required in resolving disputes involving women or money—but not land—attests to a perception on their part that the case was deadlocked. When no written evidence is produced, the judges fall back on tribal ethics. As a counterweight to the "word of honor" (that the second party claimed to have received from the first party), the oath was necessary, as it embodies a threat of divine retribution against the entire tribe if the person taking the oath should swear falsely. The tribal agnates, who are charged with exacting revenge should one of their members be murdered, also bear responsibility for the others' fate at the hands of Heaven, in disputes over land ownership.

The involvement of the Gazan merchants in land transactions found its expression in various ways. There were some who prolonged their status as landholders before turning the land over to *fallāḥīn*. As a rule, this was an act of faith in the ability of the indebted Bedouin client to pay back his loans and to reimburse the merchants for goods bought on credit. One of the foremost proponents of long-term credit during the 1920s was Abū Zkēk, a spice (*ʿaṭar*) merchant from Gaza who transferred his business dealings to Be'er-Sheva and as far as the Tall al-Milḥ district, where he built a *bayka* (type of storage building widespread in the northern Sinai and the Negev) as a family residence and a warehouse for his merchandise. As he wandered in and out of tent sites on a donkey, he sold on credit and amassed lands as pledges. The mortgage system in his day was named, after his own usage, *rahn ʿādī* (ordinary mortgage), and the time for paying the debt was unlimited. One of the clauses of the *sanad* prohibited charging interest, in accordance with the Koran. However, the force of the *sharīʿa* dictates weakened in the 1930s, with a surge in the need for credit, and mortgage documents were rapidly institutionalized.[56] They stressed that the holder had no rights to the land and, on the other hand, that the landowner had no right to set foot on the land without first taking the *sanad* back from the tenant (after refunding the deposit), as evidence against other potential claimants or owners. Gradually, once it became apparent that the *rahn* arrangement granted the mortgager enormous influence, which led to problems, the practice was modified in favor of the mortgagee, and two different types of *rahn* came into existence. The first allots an unlimited amount of time to repay the mortgage, and adds that *al-arḍ bidūn rōʿ w-al-maṣārī bidūn fawāyid* ("the land is without some of its produce, and the money is without interest"). The second type, *sanad al-wafāʾ*, limits the time for mortgage payment, and states that "if the money is not repaid by the end of the fourth year

[this is a typical example, but the number of years may vary], then the *sanad* for leasing becomes a *sanad* for a sale." Thus whoever is in possession of the *sanad* automatically assumes the status of owner of the plot he had been leasing. Arrangements of the latter type multiplied during the 1930s, always favoring the mortgagees (who were Gazan merchants), and they attest to a crisis in the livestock economy. The Bedouin claimed that those who suffered most from the economic slump were being exploited, and by way of protest they brought the matter before a *majlis al-ʿashāyir*, in consultation with administration officials. A new procedure grew out of these deliberations: it was decided that regardless of the circumstances the landowner would receive only a portion of the land—for example, a third or a quarter—as an absolute owner, and not the entire land.

At the end of the 1930s, the livestock economy improved somewhat, and the Bedouin regained strength. This development was largely due to preparations undertaken by the British for World War II, entailing increased investment in the construction of bases and roads in the Negev. Some of the investment capital wound up in Bedouin hands, and was used to help rehabilitate the flocks. The sheikhs continued to protest to the British about exploitation of the Bedouin landowners, and after the outbreak of World War II, the administration, being solicitous of the loyalty of the tribes, responded by nullifying the practice of transferring ownership to the mortgagee and, for a while, returned to the *rahn ʿādī*. From the 1940s, when the Bedouin landowner became aware of his own strength, and when the growing immigration of *fallāḥīn* from Egypt led to an increased demand for arable fields, a new type of *sanad* was formulated, and the price of the *rahn* was raised. This represented a sort of compromise, and the Bedouin who had leased out land and who had come to appreciate the value of cultivation developed new methods of regaining their land after repaying their debts.

On the other hand, the strengthening of the Bedouin side prompted the mortgagees to demand the addition of a sheikh's signature to the mortgager's fingerprint. The intratribal sociological relations thus became most complex. In the course of one or two generations, the privatization of *dīra* land received de facto legitimization, which the sheikhs were the first to exploit. From the 1940s, their signature was required to finalize deals between members of their tribe seeking to privatize *dīra* land and to mortgage it. This development can be seen as expressing de jure recognition of the process whereby the tribe began to divest itself of its common grazing land. With the breaking apart of the tribal territory, each member adapted himself to capitalist and individualist attitudes. The fact that the sheikhs were granted the authority to validate deals by affixing their

signature would seem to indicate that the tribal structure was alive and well, whereas the opposite was true, and the demise of the traditional framework was accelerated by court orders and administrative policy. The agnatic ties of the tribe were not, of course, entirely a function of common ownership of property or of administrative orders. They continued to exist for other reasons, structural in nature,[57] and the joint ownership of the property was simply a test of agnatic loyalty.

It is noteworthy that up to the present day, each agnate member of the *khamsa* has the right to veto a *sanad* for the sale or mortgage of land, even retroactively, and to demand that the property be returned to him. Although in terms of size the *khamsa* is smaller than the tribe, it is the nucleus of agnatic organization, and has arrested the disintegration of tribal unity. The right of a *khamsa* member to first choice over a plot that his relatives are thinking of selling is called *badāya*,[58] that is, "priority" or "I am the one preferred." This concept is also referred to as *at-tabdiy*. When a *fallāḥ* bought land from Bedouin owners, he or someone making the purchase in his name asked to be given an agreement by all those entitled to "priority" (brothers and first, second or third cousins, with their sons and grandsons), to make sure that they would not protest the sale. The buyer aimed at forestalling not only a potential veto, but also possible claims of partnership after he had enhanced the value of the land. Norms pertaining to joint ownership placed obstacles in the way of transactions and reduced the liquidity of landed property, as it was not uncommon for the agnates to keep each other in check and to thwart deals. This phenomenon was most widespread when the economic situation was relatively good and there was no threat of hunger, or when the Bedouin were embroiled in internecine strife.

One famous case in which *badāya* was exercised occurred within the al-Aʿṣam tribe during the 1930s. Jaddū' al-Aʿṣam (henceforth: Side A), the son of a sheikh who had been designated as his father's successor, became entangled in financial difficulties and offered part of his father's land for sale, despite the fact that the latter had yet to bequeath his property to the younger man. The buyer was a Gazan merchant named El Batar (Side B) who was living in Be'er-Sheva. Side B demanded that the sheikh's signature be added to the *sanad,* and Side A, aware of his father's opposition to the deal, stole the sheikh's seal and used it to affix his father's stamp to the document. Some time passed before Side B acted upon his rights to the land, and subsequently the deal became known. Side B did not cultivate the land himself, but rather sold it to an Egyptian *fallāḥ* named Abu Mahfudh (Side C), and by the time the latter turned up on the land, intending to cultivate it, Side A had become a sheikh, alongside his aged and weary father. The problem surfaced when the youngest of Jaddū'

brothers, Hasan, asked that the father's lands be divided among the brothers at once, while their father, who favored such an apportionment, was still alive.

Hasan turned to the *majlis al-ʿashāyir* in Be'er-Sheva, demanding his portion of his father's land, in accordance with the *badāya*. The court, however, rejected this plea, and because the tribal tribunal did not recognize his claim, Hasan was entitled to appeal to the Supreme Court in Jerusalem—which he did. Here he sued Side A for acting without the consent of his family, and Side B for not verifying that approval had indeed been granted, in accordance with Bedouin custom. The Supreme Court was convinced that Side A had sold the land under false pretenses, and that Side B had not made the purchase in good faith, as he failed to ascertain whether the men enjoying "priority rights" had granted their consent. Consequently, it ruled in favor of Hasan and his brothers, ordering that the land be returned to them. The defendants were obligated to compensate Side C, who had purchased the plot in good faith.

The scope of land mortgaging in the Negev has dwindled ever since the establishment of the State of Israel, but vestiges of such arrangements from the 1930s exist to this day. For example, a significant amount of leased land has remained in the hands of the leaseholders, since the owners never bothered or managed to redeem them up to the passage of the Land Acquisition in the Negev Law of 1980. One such case is that of a *fallāḥ* named el Kutnani, a protegé of one of the Ẓullām tribes, who held land in accordance with a *sanad rahn* given to him by the landowner, a Bedouin named *az-zallem* (Side A). Side A may have had the means by which to return the mortgage payment, but he lacked his agnates' backing needed to compel el Kutnani (Side B) to take his money back and move out. In other words, since power was a function of the number of agnates, and the el Kutnani clan was larger than that of aẓ-Ẓullām, the status quo was perpetuated. Exhaustive scrutiny leads us to the conclusion that in nearly all cases, the leaser belongs to a larger and more powerful agnatic group than does the leaseholder. A reversal in the relative size of the groups as a result of disparate rates of childbearing, disease, internal warfare, and so forth, tips the balance of power in the opposite direction. Land ownership remained in the hands of the strong, in conformity with the ancient tribal norm, and any appeal to the *ahl ad-diyār* or *majlis al-ʿashāyir* proved futile. Only state law allowing an individual to negotiate with an institution or organization helped to return the issue to legal instances, at a time when a plot in the area of Tall al-Milḥ was about to be expropriated in exchange for suitable financial compensation. Party A issued a decree *nisi* against the "Implementation Authority," barring it from making payment to Side B. This complex affair has yet to be resolved.

Continuation of Land Tenancy

The ties between the Bedouin and their tenant *fallāḥīn* had a clear economic dimension, while the sociopolitical dimension was less apparent. The continuation of land tenancy despite developments in leasing arrangements sheds light on the latter aspect of their relations. The Negev Bedouin did not designate as a "land tenant" or a "leaseholder" (*muzāreᶜ mistaᵓjer,* or *mistaᵓjer* for short) a person who receives land for cultivation in exchange for a part of his crop, but rather as a "partner" (*sharīk*). Unlike the procedures for selling and mortgaging, ties with the *sharīk* were established directly (without middlemen) and orally (without documents). A man finds his master (*ḥabbāboh*), and on a personal basis, hinging on loyalty, he pitches his tent beside his, joins the circle of the latter's house guests, and accepts responsibility for cultivating his plot, assisting in the service of the members of the household, and fighting alongside them in times of battle. The circle of agnates, although based on a blood relationship on the father's side, has always admitted outsiders into its ranks, especially in times of intertribal confrontation, when there is a strong incentive to increase the number of fighting men in the ranks.

Stories about land tenants stress that, unlike the mortgagees and the land buyers who turned up as family units or small groups, they arrived alone, and that their loneliness and weakness earned the pity of the sheikhs. In the past, the role of the person "annexed" to the sheikh's service was reduced to attending to the needs of those who frequented the sheikh's *shiqq* (parlor for males); he would tend the fire, prepare coffee, serve, and perform other menial tasks. From the time of sedentarization and the expansion of agriculture (i.e., at the turn of the century), these "annexed" workers (*lumūma*) also began to engage in farmwork. This partnership was limited to a single agricultural season, from the time of ploughing and sowing (November) until threshing (July). In the event that the yield was good, and there was produce for the sheikh and his partner, the venture was repeated the following year. However, it was the *sharīk*'s loyalty to his master, and not the results of the farming endeavors, that decided the fate of the partnership. This relationship, in which the worker was never granted rights to the land, was nevertheless considered fair since it embodied another principle: "feudal" service in exchange for auspices and protection.

When the State of Israel adopted a similar practice with regard to the *jiftlik* areas (state land),[59] which it leased to the Bedouin Abū Rbeᶜa tribe in the vicinity of Tel Arad, the Bedouin accepted this as a natural arrangement, one that was essentially similar to those that had evolved between them and the "annexed" *fallāḥīn* workers. The "auspices" ar-

rangements, which invariably linked a weak party to a strong one, are not easily reconciled with the concept of civil rights, and with an individualistic worldview, but they do conform with the tribal ethos. During the 1950s, the state authorities in charge of projects in the Negev spoke in terms of the "tribes," but at the same time, other government departments addressed the Bedouin as private citizens, and this was a source of semantic confusion. Gradually, the Bedouin also adjusted to being addressed directly. While some arrangements were taken care of by the sheikh, in the framework of the tribe, the tribesmen were also developing a personal reliance upon government offices and the courts. During the 1970s and 1980s, land tenancy disappeared almost completely, both on a sociopolitical plane and as a factor in the organization of agricultural work.

Although the phenomenon of land tenancy—which had been so prevalent even during the early years of the state—faded, vestiges of it are present to this day. For example, in 1982, the daughter of a former *sharīk* of the Abū Rbēʿa tribe was kidnapped. Even though the man was no longer a *sharīk*, his former master, who had for many years provided him with land, approached him and offered his help. The Bedouin considered it to be a moral obligation to aid someone who had been under his protection, and when he arrived at his former *sharīk*'s house he began by saying, "*ana kabīrak*" ("I your leader")—a phrase that they had once used regularly.

The fact that the Abū Rbēʿa tribe still preserves its custom of granting its auspices to individuals invests them with a certain place of honor in the Bedouin community. The partnership, common in the past, was called *sharīk fin-niṣṣ* (partner of half), implying an even division of the crops. Under this arrangement, the landowner also supplied the seeds and work tools, that is, a camel; a one-bladed plough (*farḍ*); donkeys for moving the sheaves (*ghmēr*) to the stacks (*halla*), and afterward to the threshing floor (*jurun*); a pitchfork (*duqrān*) for turning over the layers on the threshing floor and for sowing; containers (usually cauldrons and sacks) for the produce, and so on. During the 1950s, the Bedouin modernized their equipment, and since then the landowner has provided a tractor, disk plough, and of late also a combine. The partner and his family have invested their labor. In the past, most of the "partners" were recent arrivals via the Sinai Desert who had not brought seeds and work tools with them.

A second type of partnership is referred to as *ash-shirk fi thilth* (the third partner), in which the partner from the outside receives a high percentage of the crops—about two-thirds, for example—and the owner the remainder. In such cases, the *sharīk* pays for all the production expenses—tools, seeds, and so forth, and all the work is his responsibility:

from the ploughing and sowing until the harvesting, threshing, cleaning, and winnowing, as well as guarding the field. In both types of partnership, it was customary for the landowner to have the final say as to the times for sowing and harvesting, while the outside partner determined the types of crops to be planted.

The mechanization of the harvesting worked against the owners. According to the conventions of land tenancy, upon the completion of the threshing, four products were sorted for division. The kernels (*ḥubūb*) and straw (*tiben*) were divided in accordance with an agreed-upon percentage, while the landowner had the exclusive rights to the leafy stalks (*qaṣal*), the stem internodes and the roots (*ʿuqda*). It was also agreed that the leafy stalks would be reserved for the animal that ploughed the field; the lower-stem internodes and the roots were given to the land tenant's wife, who used them for baking bread. The Bedouin claim that the fire produced by burning the stems was the most suitable kind for baking. Naturally the harvest, even if performed manually, does not leave any *ʿuqda* (produce left behind), and when a harvest is executed by a combine whose blades are elevated to avoid hitting stones, the *qaṣal* are shortened. The Ẓullām and ʿAzāzma tribes, who have dwelt in the Negev Highlands, still uproot the corn by hand, without the use of sickles, in order to exploit the crop as fully as possible. Following the threshing (*dars*), the seeds are piled up. The landowner sets aside, at the top of the pile (*ṣaliba*), whatever seeds are necessary for the following year's sowing. Then a flinty stone marker is placed at the top of the remaining pile, to ward off mutual jealousy and the possibility that one of the partners impart an "evil eye" to the others during the division.[60]

Two different ways of dividing the harvest were acceptable:

1. The outside partner approached the landowner and invited him to divide the produce, with the words: "*biddna niqsem al-baraka*" ("let us share the blessing"). Both parties departed for the threshing floor, accompanied by members of their families, and carried out the division (*taqsīm*) with the aid of a sāʿ (a large wooden bowl). As soon as the first bowl was filled, they said: "*hadha sāʿ al-khalīl*" ("this is the bowl of Abraham"); the produce from this bowl was set aside for the first person who passed by and noticed it (a custom resembling the biblical commandment to leave for the poor any crops that are forgotten or that are on the edge of the field). The division ended with the accumulation of three piles, two of which belonged to the landowner and one to the outside partner.

2. In the second manner, the outside partner set up the piles by himself and invited the landowner to take part in a lottery (*qurʿa*).

> The partners selected three objects, such as a log, a stone, and a piece of cloth, and decided which item was to represent each side. Then they called a third party, handed him the objects, and asked him to lay them on the piles of produce. In order to allay various suspicions on the part of the landowner, such as the possibility that the outside partner might have pilfered some of the produce from the piles prior to the lottery, trenches were ploughed up around the piles, so that anyone approaching them stealthily in the dark would leave footprints that would be discovered in the morning.

The division of stubble took place in a different fashion. Usually, both partners were entitled to receive 50 percent. The landowner's grain was transferred to his grain silos (*maṭāmīr*), and his stubble to his fodder silo (*kimer*). A concentration of grain silos belonging to different landowners or relatives was called a *manṭara* (watchman's reserve), a term derived from the word *nāṭūr* (watchman of grain and fodder). The *nāṭūr* was a man from the outside, because it was percieved as being beneath the Bedouin's dignity to perform guard duty. Bedouin who did not employ a *nāṭūr* gathered their produce in a *majrana* (reserve). When a partnership continued for a number of years, the landowner tended to forfeit the right to be present during the division, which meant that no division ceremony took place. The land tenant simply transferred his portion directly to the *manṭara*.

Changes in Demarcation of Private Plots

In the Negev areas where the demand for plots was greatest, and where cultivation of farm lands became institutionalized, the methods of demarcating boundaries became more sophisticated. Stone piles were no longer sufficient, for three reasons: (1) they denoted the boundaries between tribes and not between private individuals; (2) they were appropriate for demarcation of entire areas, and not plots, where precise measurements were needed; (3) they could be moved at night, with no one being the wiser. In the desert environment, the means of demarcation were determined by the nature of the land's surface and of the kind of cultivation conducted there. For example, if the planting of orchards had yet to be begun, boundaries were not set by means of trees or stalks. The burying of the bulbs of squills (*al-baṣūl*), which blossom in the autumn, just prior to the ploughing season that prepares the fields for the winter yield, and in a few places the planting of the thorn-bush (*ʿawaj*), which can be transplanted, were used as demarcations of plots in the northern Negev. In the northern Be'er-Sheva Valley, near the hilly region, the small stone fence made its appearance as a boundary, meaning that the stones

cleared away to render the land arable were used to build terraces and to mark special rights for agricultural uses—and later on—entitlement, to the plot of land. In the hilly part of the Negev the demarcation followed the outlines of ancient agriculture, and in a few areas in the shadows of the hills, the sign of the agnatic group (*wasm*) was engraved onto a rock located on one side of the arable land.

Another type of demarcation, which evolved in the Be'er-Sheva Valley, is the concealed variety. Stones called *ḥafāyiḍh* (buried) were buried around half a meter deep into the earth. Burnt (blackened) stones (*aḥjār madʿukāt*), that is, stones charred in a portable stove, were used for this purpose, and at least three of these were needed to demarcate any boundary line. Witnesses were present during the procedure, so that if a controversy over the boundaries should break out at some future date, they could testify to the correct location of the stones. This form of demarcation was especially common when the land was bare of stones that could be used for fences, and when the buyer entertained doubts as to the seller's integrity. The act of burying the stones was therefore usually only known to one side, that is, it was not publicized unless this proved necessary.

Another type of demarcation entailed the digging or ploughing of a deep furrow, as a result of which a long, low mound called *maksar* was created. Initially the measurements were made by counting steps, and gradually the use of a rope became more popular. The latter method, used especially in the northern Negev during the 1920s and 1930s, was evidently the source of the name for the ledger in which measurements of Bedouin lands taken by means of ropes were recorded (*daftar ḥbāl* "The Ledger for Recording Possession of Land Tracts"), which had served as the basis for collecting "tithes" due on the field crops during the British Mandate period. From the 1950s, the demarcation of plots became more diverse. The new methods included the planting of trees (even only a few) and of flower beds and the construction of dams (*saddāt*) or terraces (*akwām*). Permanent domiciles are today used to mark boundaries, but those who resort to this method can be charged with trespassing in accordance with the Ottoman Land Law of 1858, in its Israeli interpretation, and also with violating the Planning and Construction Law of 1958. Thus the Bedouin's willingness to completely privatize the land on which they resided, and their ability to demarcate the private plots, reached fruition only after the State of Israel was established, and began to encroach upon their territory.

When Farming Is No Longer an Embarrassment

The spread of agriculture to the Negev was furthered by the Egyptian *fallāḥīn*. An investigation of Maṣārwa families in the area shows that they

brought with them the knowledge of cultivating the land, that they were willing to adapt their experience with irrigation farming in the Nile Valley to the conditions of dry farming, and that they were not deterred by the risk of natural disasters and the scorn of the Bedouin society that absorbed them. There is almost no documentation of their eastward migration from Egypt, or their destination points in Israel, but at present there is much evidence of other kinds relating to these developments and the impact of their presence on farming in the area. The historical processes can be reconstructed through conversations with the elders of the Maṣārwa, who recall their genealogy and stories told by their fathers from the time of their arrival in the Negev. Similarly, the Bedouin elders still remember their encounter with the newcomers, and the initial symbiotic relations that developed between the two groups. Information we elicited by concerning the underlying reasons for the Bedouin's transition to agriculture confirms the view that the migrants from Egypt exerted a profound influence. Thus the acculturation process operated in both directions. The Egyptians, villagers who had lived in adobe huts, adjusted to the lifestyle of the tribes, which entailed living in tents and sustaining themselves on a limited livestock economy alongside their labor production of dry farming. The local residents gradually adopted the newcomers' productive, thrifty approach toward working the land, and their continued occupation with livestock. Hence it is reasonable to suppose that in the areas inhabited by the *fallāḥīn* at an early stage, the Bedouin's attempts at agriculture also occurred at about the same time. We tested this hypothesis, but were unable to confirm it.

The pattern of *fallāḥīn* settlement attests to their preference for areas along the coastal plain. The initial waves of immigrants traveled northward.[61] Those who followed in their tracks flocked to uninhabited areas, or places where working hands were needed, in both the north and the south. Thus the settlers in the south were generally the last to arrive.

The limited agricultural resources of the Negev did not induce the *fallāḥīn* to return to their mother country in order to seek food and provisions. Apparently they had lived under wretched conditions in Egypt, so that the hardships they encountered in the Negev were relatively less severe. They did not spread much farther south than the Be'er-Sheva Valley, nor did they reach the Negev Highlands and the Arava—the *dīra* lands of the ʿAzāzma and Saʿidin tribes. Hence we logically assumed that agriculture was late to materialize in these areas, but we were surprised to learn that this was not the case. In fact, members of these tribes used camels for ploughing at an early stage, while in the Be'er-Sheva Valley the *fallāḥīn* still did the ploughing for the Bedouin. This paradoxical situation can be explained on the basis of various pieces of information that we have only touched upon so far.

Apart from the acculturation process, three factors contributed to the Bedouin's independent attempts in the realm of agriculture: (1) a desire to establish ownership claims to plots of land by means of farming—a phenomenon that gained momentum with the penetration of the Ottoman administration into the southern expanses; (2) the investment capital that found its way into their hands, which could effectively be used for little other than agriculture; (3) modernization of the machinery, which enhanced the image of agriculture, increased productivity and the prospects of making a living, at least during years with a high rainfall. However, these factors had only a limited effect on the ʿAzāzma tribe during the last decades of the nineteenth century. As a rule, the Ottomans did not interfere in their affairs, not wishing to get involved in the issue of determining the ownership of lands in the far south. Furthermore, they did not try to conscript the ʿAzāzma into the army or to enlist them into the service of the Empire. Not even the Gazan merchants traveled as far south as ʿAzāzma territory, with the result that the volume of livestock trade there was much smaller than in the north. Finally, farming machinery did not appear in the Negev hills until the 1950s, and even then the camel continued to be used for ploughing.

ʿAzāzma elders, residents of the Negev Highlands, testify to the fact that the development of agricultural cultivation got under way at the turn of the century. Accounts given by travelers at the end of the nineteenth century are consistent in their portrayal of the ʿAzāzma as poor and wild tribesmen who engaged primarily in raising livestock and in raiding.[62] At first agriculture consisted of growing barley on plots in wadis. Moreover, in contrast with the situation obtaining in the Be'er-Sheva Valley, in the Negev hills vestiges of ancient farming are utilized in the demarcation of private property. Another difference between north and south is that the slopes of the Negev Highlands remained tribal grazing land. Ancient reservoirs, in the south as well as the north, became the private property of families as far back as the 1930s. This was due to the remoteness of the area, the sparseness of its population, and certain constraints of the period against peregrination northward. The ʿAzāzma's attempts to break out of the Be'er-Sheva Valley were forcibly blocked by their neighbors, the Tarabin,[63] who compelled them to remain in this barren territory to eke out their livelihood.

The tribes that made their way to the Negev from the south and the east aspired to continue northward, toward the rainier and more densely populated areas of the coastal plain, or westward in the direction of the Egyptian delta. However, combat prowess was needed to fulfill this aspiration, and only the strongest of the tribes managed to achieve this goal. The distribution of the tribes in the Negev from the turn of the century

reflects their stratification, with the larger and stronger of them being located near the settled areas in the north, and the smaller and weaker ones being dispersed toward the south.[64] Accelerated urbanization, alienation from the land, and migration away from the steppes observable in most countries of the Middle East have been prevented in the Negev by Israeli policy, that is, first, the Military Administration (1949–1966), followed by the courts and the Green Patrol (established in 1976), which thwart the Bedouin attempts at unauthorized construction or orchard planting on state lands. Thus construction of housing in a Bedouin township became the safest avenue for investment. The growth of a market for desert lands in Israel has been averted thus far.[65]

The link between status and location, with the northern tribes being superior to those from the south within the Negev Bedouin community, tended to overshadow the traditional hierarchy of this society, which was based on an unequivocal preference for livestock,[66] especially camels, over agriculture. The sparseness of the population in the north, and the absence of *fallāḥīn* land tenants also meant that there were few people likely to witness and confirm the humiliation of the Bedouin shepherd who suddenly got up and hitched his camel to a plough. The fact that the tribes traveling through the Negev for around twelve hundred years had always had the option of engaging in auxiliary farming alongside the raising of livestock,[66] but did not capitalize on it until the beginning of the twentieth century, can also be explained by the inhibiting force of the Bedouin's cultural traditionalism, which apparently required such a protracted period for them to break free of it.

Synopsis and Conclusion

The spread of agriculture to the arid Negev from the turn of the century onwards marks a shift in the relative proportions of sown areas and wilderness in the area. After twelve hundred years, the region of Negev villages to the north of the Negev was no longer open on all sides to flocks, and the trend among nomadic shepherds from the south and from the east to draw nearer to the settled areas was halted. The change began with the Ottoman regime's increased involvement in the Negev, stimulated by the aspiration to draw nearer to Egypt and the Suez Canal. In contrast to ancient regimes whose policy was to subsidize and sustain an agricultural civilization in the desert for its own sake, the southern movement of farming was now an economic by-product of an overall regional and international strategy.

Some of the capital invested by the Ottomans and their allies, as well as by the British, found its way into the hands of the Bedouin, thus

encouraging the migration of additional tribes into the Negev. *Pari passu*, the strong hand taken by the authorities in putting an end to the tribal wars, which had greatly damaged the villages, generated a sense of confidence in local investments, and induced other investors, mainly Gazan merchants, to channel money into real estate in the Negev.

Ottoman troops managed to regain their hold in the Negev without the aid of traditional allies such as the Bedouin tribes because they were powerful enough to enforce discipline and order among the tribes. Deprived of the benefits of extortion and administrative perquisites, the Bedouin had to strive to make their lands more productive.

Since no professional tradition or independent capital existed in the Negev, agriculture there was shaped by outside circles. Thus from the outset barley and other cash crops were given preference over crops for local consumption. Wheat and the summer crop durra (Ar. *dhura*), designed primarily for local consumption, had only a secondary status. This development was brought about mainly by the Egyptian *fallāḥīn*, and to a smaller extent by the *fallāḥīn* from the Hebron Highlands, as these people had agricultural knowhow and performed the work themselves.

The drop in the price of livestock, especially camels, which began during the British Mandate period, reduced the Bedouin's income from this traditional source and forced them to seek alternative sources of livelihood, including agriculture. Since nomadism lost its effectiveness as a means of political adaptation, the main barrier in the way of sedentarization was removed and this, too, favored agriculture.

The burden of taxes paid to the authorities, along with commercial shifts that accompanied sedentarization, and a taste for new market products, accelerated the transition to a monetary economy. The craving for cash, coupled with a reluctance on the part of some Bedouin to devote themselves to farming, created conditions conducive to the mortgaging and sale of land. On the other hand, the Bedouin's unwillingness to lose their lands led to the spread of land tenancy, which entailed payment for the Bedouin sheikhs' auspices and the right to a portion of the yield. Once the state began to provide protection to its *fallāḥīn* citizens, their need for the protection of the sheikhs was reduced, as was the phenomenon of land tenancy.

Since from the outset dry farming in the Negev centered around winter crops (mostly cereals), which were often destroyed by frequent droughts, agriculture did not become the main source of livelihood in the area. It was, and has remained, an auxiliary branch, alongside livestock, trading, and whatever means of earning a livelihood presented themselves during the modern period. The initial investments in permanent installations, such as water reservoirs, characterize a relatively advanced stage in

the sedentarization process. The main efforts in this regard were directed toward the rehabilitation of ancient reservoirs, an endeavor aided by experts from villages in the Hebron Highlands. Unlike the agricultural civilizations in the Negev prior to the Arab conquest, Bedouin did not dig wells or quarry cisterns, at least not until recent decades.

After occupying lands along the desert frontiers of Judea and settling them,[67] the Bedouin tended to maintain their tribal unity, so that territorial disputes between them were avoided. Out of this situation, which persisted for generations in Middle Eastern districts where similar conditions prevailed, the virtual *mushāʿ* system evolved in the Negev. With the penetration of agriculture into deep-desert territories, the trend toward private ownership of plots emerged, along with an inevitable encroachment on *dīra* land. The fact that the plough hands were foreigners, while the tribesmen, themselves, all had an ostensibly equal interest in raising livestock, facilitated the circumvention of tribal norms and reliance upon the full-fledged *mushāʿ* system. Initially, plots at the bottom of wadis were privatized, while the slopes were reserved for common grazing.

The increasing interest in concentrating run-off water, accompanied by a growing awareness of the logic behind the ancient agricultural installations eventually led to the privatization of plots on the slopes. The concept of capitalist stratification was thus reconciled with that of agnatic stratification. The two could easily overlap, especially once there was a great demand among immigrant *fallāḥīn* for land, and the profits could be split by many parties. At the same time, the spirit of the tribe did not cease to exert a strong influence, and it was the guiding force in strictly sociopolitical matters that were detached from property issues. In the light of this process, we suggest viewing the sources of the *mushāʿ* as a purely endogenous process (not one imposed by external authorities for tax collection purposes) as well as a political and not an not economic one, as dictated by profit seeking.

During the earliest phase of land transactions in the Negev, the Bedouin evaluated land in different ways. By rewarding allies with gifts of land, they revealed that political alignments were still of supreme importance to them. This act, initially considered a generous gesture, came to be viewed as a folly. The change in their attitude toward the land occurred within a relatively short period.

The central authorities of Palestine during the past hundred years have striven to promote the institution of private property, being concerned with the stability of the Bedouin population, especially for tax purposes. On the other hand, the government was not interested in dismantling the tribal framework. On the contrary, co-optation was practiced to facilitate efforts to control the Bedouin. The regime, therefore,

reinforced the agnatic hierarchy by making financial emoluments available to sheikhs. In the later stages of privatization, government supervision prevented the elite groups from taking over most of the *dīra* lands, a development which could have led to disputes between the sheikhs and their rank-and-file.

In a departure from the policy set by the Ottoman and British regimes, the State of Israel has not encouraged the trend toward private ownership of land among the Bedouin, and recognizes such ownership only in the event that the Bedouin tribes are prepared to forfeit the land. Under such circumstances the government is usually willing to compensate the owners, by aiding in the construction of houses in urban neighborhoods. The *fallāḥīn*, who have been deprived of land ownership rights, are prone to consent to this sort of arrangement, and are the first to relocate in towns. The Bedouin, who refused to register land as private property until the end of the Mandate period, and who awoke to the need to do so only when they sensed the momentum of development in the Negev and its potential for enhancing the value of their land, were forced by administrative orders to hurriedly register their land whenever it was earmarked for public or military uses.

In rural districts of the Middle East, villages are abandoned as people seek a livelihood outside agriculture and leave their fields to be tilled by more prosperous neighbors.[68] Due to varying political and cultural preferences in Bedouin society, the powerful elite have been sheikhs who leased parts of the *dīra* to be tilled by *fallāḥīn* and later vacated it in favor of more lucrative pursuits among the sedentary population, leaving the deep-desert herding or farming to lesser family groups.[69] In many ways, these trends do not seem to recapitulate historical processes experienced in Europe.

One of the repercussions of Israeli policy and the Israel-Arab conflict over Eretz-Israel has been to prompt the Bedouin to establish claims to plots by planting agricultural crops, groves, and orchards, even when such ventures were unprofitable, and by building installations and structures, even when these were superfluous in terms of earning a livelihood. The concept of nationhood crystallized alongside the already existing concept of tribe, but the latter ideal, in a break with the past, became independent of the *dīra,* that is, the common grazing land. The political nature of tribalism served to determine the internal hierarchy, while the national scheme dictated arrangements with the authorities, whenever land was involved. Deliberations in Israeli courts over land issues are not usually conducted within tribal frameworks. Instead, private litigants are represented by lawyers. In the public dispute over land, political and socioethnical arguments that supposedly represent the view of the entire tribal population become dominant.

Although the broad tribal framework plays less and less of a role in issues involving land, this is not the case with the group of agnates, which in its capacity as *khamsat ad-damm* continues to pursue its role in the Bedouin economy. The traditional jurisdiction in questions of ownership and the right to enjoy the fruit of the land rests on the agnates' commitment and loyalty up to the present day. Vestiges of tribalism present obstacles in the conclusion of transactions; thus the liquidity of landed property is limited when the approval of the entire group of agnates is required for a land sale. The honor of the agnates' group is bound up with their tract of land, and a recent historical phenomenon is that they have begun to name themselves after it. Others still perceive the land as embodying their spirit, even in their absence.

Agnatic groups within each tribe are stratified on the basis of size, with the largest at the pinnacle, and this fact is reflected in the leasing of land. A survey of the conditions that applied in contractual arrangements shows that the agnate group of the land proprietor is always larger than that of the leaseholder. As a rule, the leaseholder is a single individual, an immigrant who had arrived on his own. Violation of the leasing agreement, and a refusal on the part of the leaseholder to evacuate the tract, are also resolved in accordance with the "laws" of group size. However, the leaseholder usually has a family with many sons and other male relatives, as opposed to the landowner, whose agnates might live far away and cannot be easily mobilized to lend him support. Therefore the leaseholder can set his own conditions.

Radical ecological changes have yet to significantly alter the tribal infrastructure of Bedouin society. Thus the culture associated with nomadic pastoralism is demonstrably quite separate from the political nature of tribalism, and it serves to draw the observer's attention to the prevalence of agnation in most of the Middle Eastern communities. However, the reduced size of the sedentary tribe, as compared with its nomadic counterpart, may attest to inability, or a lack of motivation, to retain the previous size of the tribal networks, with the result that the situation remains static.[70]

Notes

1. See Barth (1961), Baer (1969), Lancaster (1981), Tapper (1983), and Lewis (1987).

2. This point was already raised in the fourteenth century by Ibn Khaldun (1958 [1383]) in *The Muqaddimah: An Introduction to History* (trans. by Franz Rosenthal).

3. For evidence of early patch agriculture by the Bedouin in wadis and on ancient terraces during the first decades of the twentieth century, see Canaan (1928) and Jaussen (1948).

4. Jaussen 1948: 241.

5. With the resumption of the Sublime Porte's rule in Palestine after the Egyptian conquest (1831–1840), the administration endeavored to deepen its supervision over the tracts of land on the threshold of the desert, in order to suppress tribal wars and to encourage agriculture, while freeing the farmer from his commitment to the Multazim-Sheikh; see Maoz (1968).

6. For more detail on the beginnings of the *fallāḥīn's* trek from Egypt to the Levant, see Rustum 1936.

7. Especially Khan Yunes and its ancient fortress el Qal'a, whence the Bedouin name for the group, "Qla'iyya."

8. For example, the war between the Yata and Ḍuḷḷm tribes at the end of the nineteenth century; see Al Aref 1934.

9. See, for example, Dr. Yitzhak Levy's letter of 1903 to Dr. Theodor Herzl, specifically the part referring to the plan for settling the Negev, cited in Levontin 1924. This plan was supposed to have been implemented with the aid of Sheikh Salam Ibn ʿAid Abū Rbēʿa the leader of the Ẓullām tribe at the time. The sheikh met with Levy, who was then the director of the Jewish Colonization Association in Palestine, with the aim of entering into a pact with the Zionist settlement enterprise against the Turks. In the words of this letter: "It will not prove difficult to acquire land in these areas. The Turkish Government has not carried out a cadastral survey of Bedouin territory, and no land ownership records are to be found. The sheikhs are hardly indebted to the Turkish regime, and they are the ones who give deeds of sale (*sanad*) to the buyers." Land ownership is thus confirmed at a later time, mainly through claims based on the actual holding of the land; see Braslavski (1947).

10. Braslavski 1947: 51–52.

11. Braslavski 1947: 142–144.

12. Members of the Ẓullām tribe recall two middlemen in particular. Most of the purchases were initially made by Gazan merchants who resold at a profit to *fallāḥīn* recently arrived from Egypt and northern Sinai. Among the purchasers were: the Nasasra, who bought around 8,000 dunams in al-Buhaira; the Al-'Amor, who acquired approximately 4,000 dunams in Tall al-Milḥ; and a man named ʿAbed el Qader esh-Shtewi, who bought 700 dunams from the Shalaliyyin tribe in al-Buhaira and another 300 dunams in El Fur'a. In similar fashion, certain Bedouin sold to Jewish buyers territory belonging to other tribes. It is said that in the mid-1940s, one of the sheikhs who acted as a go-between in land transactions used to work at night, because representatives of the Supreme Arab council would scour the area during the day to make sure that no lands were being sold to Jews. Sheikhs acted as middlemen in the sale of lands that tribal federations claimed as *dīra,* including seven plots in Tel Sabʿa sold to Jews, and other plots within Be'er-Sheva itself. Arab nationalists have tended to chastise descendants of those sheikhs, hence it would be imprudent to name them here.

13. The Implementation Authority was the organization in charge of evacuating the airport area. This body was established by the 1980 law and was designed

to coordinate the activities of all the relevant ministries: Defense, Finance, Agriculture, Housing, and Justice.

14. Marx (1967).

15. In the mid-1970s the Ministry of Justice conducted a campaign to record the Negev Bedouin's claims to their holdings. The "holding" right recognizes the Bedouin as "utilizers" of the land by dint of the time spent there, by purchase or inheritance, but this is not equivalent to ownership. The territories are state lands. Any Bedouin who proved that he had been holding the land received written certification of his claim, and one can form a picture of Bedouin holdings in the Negev by piecing these documents together. Bedouin who could produce official certification from the Government Land Registry belonged to a different category.

16. This is exemplified by the regulations on land usage, and the contractual agreement with Nir, a Histadrut company, which made it compulsory for leasing arrangements with a settler to be carried out through a third party. See Y. Greenberg (1986).

17. For the significance of the agnatic group's size, see Kressel (1975).

18. According to a Bedouin saying, "*Shattat al 'arab bal-fasād, wath-thani shattat al-ʿarab bal-maḥal*" (The dispersion of the Bedouin is due to quarreling, and also to drought); see Bailey 1980, 1985.

19. West of the Negev, along the coastal plain up to the Sharon, and back; east of the Negev, along the Ghor until the Bet She'an Valley, and back. Bedouin call *magām mgarrar* 'a definite or absolute place' the "magnetic" tribal center to which they return after their short seasonal wanderings, and where they spend most of the year. The creation of the various centers coincided with the bitter fighting between tribes during the second half of the nineteenth century.

20. North of Be'er-Sheva, the first ownership demarcation for cultivated plots took the form of burying squill onions (*baṣūla*) in the ground. See Braslavski (1947), and note 9, supra.

21. Even though a *milek* is a normative right, and not a right to ownership in accordance with Ottoman law, the Bedouin used this concept to express their right. For example, a common Bedouin saying that pointed out the degradation of the tenants was: "*Illi ma lo milek byikhra bkaffo*" (He who is not a landowner defecates in his palm).

22. According to Hasan Nasasra, in 1897 a black sergeant from the Kurnub police was killed when he attempted to mark the boundary between the Ẓullām and the Qdeirat. Fearing government reaction, both sides hastened to mark the boundary, which is the one on the Turkish maps and later copied onto British maps.

23. Recently, with the establishment of Bedouin towns, the authorities have encountered refusals by residents to purchase lots expropriated from others, even if the owners were absent and the lots lay fallow.

24. Sheikh Hasan Salam Abū Rbēʿa recounted the manner of dividing lands among the conquerors, under the supervision of the authorities. During the Ẓullām-Yatta war, the Turkish government expropriated the lands in dispute in the Tel Arad vicinity, and made them *jiftlik* (lands owned by the sultan). In exchange,

the Ẓullām received an area stretching from Wadi Rahwa southward, until Wadi Faʿi (the Viper Rivulet). This territory was given as one entity to Sheikh Salam Abu ʿĪd, for all the Ẓullām, after being classified as *mushāʿ* in order to forestall disputes in the future. The elders set up a *majtamaʿ* (tent site) in the heart of this territory, as testimony to their joint ownership of the land, and announced that any Ẓullām tribesman interested in a plot would have to pay for it, in accordance with the principle, *ʾalli yidfaʿ dirham yākhodh māres* (whoever has paid shall receive a portion). But the sheikhs treated the money as if it all belonged to them, and the money that they amassed from the sale of these lands reinforced their superior status.

25. Weulersse (1946), Baer (1972).

26. In Palestine's plains and valleys, which were more susceptible to penetration of Bedouin herds, and the outskirts of towns, which were especially attractive to the Bedouin sheikhs, the *mushāʿ* system was common, especially south of Hebron, in the vicinity of Jaffa and Ramla, and around Gaza. See Abramovitch and Gelfat (1944).

27. See Abramovitch and Gelfat (1944: 70); Baer (1969: 3–16), and note 1, supra; cf. also Fernea (1970).

28. For a survey of the destructive developments to agriculture resulting from full privatization of tribal lands by Agas (leaders of Turkish tribes of herders who became landlords), see Yalman (1979) on land disputes.

29. Since the beginning of agriculture in Be'er-Sheva, the dominant crop has been barley. In 1911 barley was exported from the port of Gaza, most of it bound for the beer industry in Scotland; see Ben-Zvi (1960). Local consumption of barley was limited (it was mainly used as fodder; farming in the Negev was geared to cash crops for export from the outset, which underscores the importance of foreign capital).

30. Weulersse (1946), and note 25, supra.

31. Al Aref 1934, note 8, supra.

32. For absentee land ownership, see Warriner, D. (1962, 1966) and Baer (1962) and (1966), note 32, supra.

33. Barth 1961 (note 1, supra), Chapter V.

34. Up to the early 1930s only in Be'er-Sheva proper were all the plots registered as private; see Al Aref (1934), and note B, supra; the city was an extraterritorial entity within the tribal lands, and the population conprised mostly merchants and clerks, and permanent residents (not Bedouin).

35. The following case is known among the Negev Bedouin: Sheikh Salman al-Huzayyil married off one of his daughters to a member of the el-Asad tribe, during the British Mandate period. As a dowry, he gave her 100 head of sheep. In 1980, around forty years after her marriage, she had a serious quarrel with her husband. A tribal trial was held, in which the woman's brothers appeared, and demanded that her flock be returned, that is, the same proportion of sheep that she had brought into the marriage, relative to his sheep. The court had to determine after decades of unification between the two flocks how many of the family sheep she should get. It is customary to mark the wife's flock with a different sign from that of her husband's; the identifying mark (*wasm*) of her father's house is normally used.

36. For example, the Al-Aʿṣam tribe the father died in 1965, but not until 1982, that is, seventeen years later, did his sons divide the livestock. The land has yet to be apportioned. In the case of Ibrahim Abū Rbeʿa who died in 1980, the heirs have not divided either the land or the herds.

37. Among the *fallāḥīn* of north of Israel, disputes over the inheritance of each son ordinarily takes into account the large contribution to the land of the elder sons, whose invested labor enhanced its value, relative to the younger sons who have yet to reach working age. In polygynous households the gap between older and younger sons could be as large as thirty-some years. See Rosenfeld (1964: 26–28).

38. In land broken up by hillocks, rocks, and rivulets, one could plough around two to three dunams a day by camel, and up to 150 dunams by tractor.

39. A rhymed saying frequently heard when confronting the *ahl ad-diyār* is: *arḍ bila gōz zayy mara bila jōz* (a plot without a ridge above it is like a woman without a husband). On the other hand, there were exhortations to disregard the convexity of the terrain: "God flattened the land (*allah basaṭ al-ʾarḍ*) so that we can live on it undivided. The people argue over the land (*an-nās byikhtalafu ʿalā l-arḍ*) while forgetting that it is Allah's."

40. During the later 1950s, through the intervention of the Vocational Education Division of the Histadrut (General Labor Union), young Bedouin were sent to kibbutzim for a training course on operating farm machinery. The trainees, mostly blacks, were selected in accordance with the preference of the heads of the tribes. For details on the standing of the blacks in the tent encampments, see Marx (1967: 76), and note 14, supra.

41. An infrastructure of installations for water collection, most of which consists of relics of ancient civilizations that ruled the desert wilderness, is scattered throughout the Negev; for further detail on the reservoirs on the slopes, see, for example: Moran and Palmah (1985). Specially skilled workers, usually Qaisiyya *fallāḥīn* from the southern Hebron Highlands, were hired to clear the reservoirs of silt and to quarry new cisterns.

42. One of the best-known cases that reached the traditional judicial bodies of the Negev Bedouin was the cistern in the plot belonging to Hasan Nasasra, a *fallāḥ* of Qlāʿiyya origins, who had purchased a tract of land from Sliman Muḥammad, a Bedouin from the Qabuʿa tribe. Approximately a year after the deal was finalized the buyer found an old cistern stuffed with silt on his property, and with great effort opened and repaired it so that it could collect water. At this point the seller complained that he had sold only a piece of land meant for cultivation, and not the said cistern, which therefore should remain his property. The arbitrator awarded Nasasra ownership of the cistern, as he was the one who restored it to working order, and also in consideration of the principle contained in the *sanad*, that "all the rights that the owners have to a tract of land and all that is on it are transferred to the buyer when it is sold"; see Ben-David (1983).

43. Various expressions that were coined reflect this new concept. For example: *at-tarji b-suhūla wa-es-sandi ḥasab al-muruwwa* (the descent [possession of

land downstream] is easy [for all] but the ascent [possession of land up the river bed] depends on manly strength).

44. Although organized agricultural instruction to the Bedouin on how to increase productivity was slow to materialize, Bedouin who worked in or alongside the Hebrew settlements adopted the more scientific approach they encountered there, and applied it in their own territory.

45. Frēḥ al-Aʿṣam, a foremost expert on traditional Bedouin jurisprudence, asserts that whoever makes a gift exclaims: "*al-arḍ lak, ma nṭāleb fiha min warah jizʾ*" (the land is yours, we will not claim anything that was on it, or even a part of it). Vestiges of the *karam al-arḍ* can be found, for example, in the story told about Sheikh Salem Ibn ʿId Abū Rbēʿa, who lived in the early part of the century. He possessed vast tracts of land, which required a fighting force to protect, during the Zallam-Yatta war. Even today an Abu ʿIyad family living among the tribe acknowledges that it received its land as a gift from Sheikh Salem in the context of that war.

A similar case is that of Hasan ʿId al-Aʿṣam, who gave 400 dunams of land between Hura and Turshan as a gift to a man named ash-Shāṭer. The latter, a Bedouin from the Abu Jad clan belonging to the Ḥuwētāt tribal federation in Jordan, was a religious man who often made pilgrimages to the al-Aqsā Mosque in Jerusalem. He died and was buried in Jerusalem, and was presented the gift of land because its owners wished to receive a blessing from Heaven. Until today, the land is known as *ard ash-Shaʿar*.

46. Al Aref 1934: 108, note 8.

47. Cf. Braslavski (1947), note 9, supra.

48. Frēḥ al-Aʿṣam testifies that the earliest *sanad* that he ever attained was from 1913. Written documents concerning land appeared in the Hebron Highlands vicinity several decades prior to that, and they reached as far south as Dhahariyya. Research by Layish and Shmueli on the Bedouin of the Judean Desert has uncovered documents concerning land, most of which date from the early twentieth century, the earliest being from 1831; see Layish and Shmueli (1976: 206) and Layish (1980–1982).

49. According to the Mandatory Land Law of 1920, a transaction that is not recorded at the Land Registry Office has no legal validity.

50. The *mejelle-i-ahkam-i-ʿadliyye,* the Ottoman civil code of 1877, enabled *beʿbal-wafāʾ* deals (p. 118), that is, sales of land pending redemption of the loan, a method used to circumvent the *sharʿī* restriction on charging interest. Through this method, the landowner could reclaim possession of a plot by paying his debts. Usufruct of the plot by the buyer constituted his interest. In the Negev, there were no such deals. However, the *sanad rahn* mentioned here is basically the equivalent of *beʿbilā wafāʾ*.

51. Cf. Abū Rbēʿa, Kh. (1982).

52. This is expressed in the admonishments expressed upon Bedouin who appealed to *maḥkamat al ʿashāyir* in those days: "*alli amḍa ʿala s-sanad māt wassanad ma māt*" (he who signed the bill has died, and the bill has not died) and "*idha kān as-sanad kāʾin, al-walad ma bikharreb, illi sawa abūh*" (so long as the bill exists, the son cannot cancel his father's deeds).

53. Braslavski (1947: 144–154), note 9, supra.

54. According to Braslavski (1947: 139), "The Bedouin sank into debt, owed to the merchants and the usurers . . . he became deeply entangled in high interest, litigation and confiscation of property. He was compelled to sell his cattle, and here and there his land."

55. The *yamīn eb-khamsa* is a vow known for its severity, which obligates the accused party who denies his guilt, as well as all his agnates through to the fifth generation. The accused says, "*wallah al-ʿazīm*" three times, and "*inni barriʾ min at-tuhma hādhi*" (I am innocent of the guilt imputed to me) three times. Afterward, five of his relatives, who are selected by the plaintiff, take the vow individually, saying, "*ashhad billāh innih ṣādaq fi mā qāl*" (I swear by God that he is right in everything he said). Confirmation that this vow has been taken is called *yiḥlef wa-khamstoh tzakīloh* ([he'll] swear and his group of agnates guarantee the truth of his words).

56. One finds injunctions in the Koran to arbitrate justly. Contracts are safeguarded by commands to put them in writing, to call witnesses and to give securities (*rahn*) and material proof when no scribe is available. Resorting to the use of a *sharʿī* formula in Negev land transactions stemmed from concern lest contracts to return a trust or deposit (*amāna*), or a mortgaged piece of land, to its owner not be fulfilled. Recounting to the parties the prohibitions against taking interest (*riba*) accompanied the use of the *sharʿī* formula. See Schacht (1964).

57. Cf. Kressel (1975), and note 17, supra.

58. This same term also applies to the issue of the right of the *ibn ʿamm* (father's brother's son) to the hand of his *bint ʿamm* (father's brother's daughter), for he takes precedence (*abda*), and is entitled to claim his female cousin for his bride, if she had been given to someone else without his consent.

59. Cf. Baer 1972: 39–40.

60. The agricultural terminology that emerged in the Negev during these years essentially resembles that currently used by the *fallāḥīn* living in the northern part of the country. See ʿArraf, S. 1982.

61. The flight of the *fallāḥīn* in 1829 from the forced labor demanded of them by the regime of Muhammad Ali, and the auspices granted to them by Abdalla Pasha, the ruler of Acre, served as a pretext for the Egyptian invasion into the Levant in 1831; see Ben-Zvi (1960: 448–449), note 27, supra and Rustum (1936), note 6, supra.

62. Palmer 1871: 291; Musil 1907: 168 ff.

63. On the engagements of the ʿAzāzma in the War of Zari, 1875–1879 and 1882–1887, and the ʿAzāzma Tarabin War, 1877–1890, see Bailey (1980: 67 ff.), note 18, supra.

64. A popular saying indicative of the relations of the Negev tribes was: "*shammel sana wala tiqbel yōm*" (travel northward for a year and don't travel southward for even a day); Braslavski 1947: 144, note 9, supra.

65. On widespread speculation in land, associated with rural migration outward, see Richards (1982).

66. In contrast to the notion that the Arab conquest put an end to Nabatean-Roman-Byzantine agriculture in the center of the Negev, archaeological finds

dating from the dawn of the Arab-Muslim period in the Negev attest to the fact that the conquerors maintained the cultivation and the irrigation of their predecessors for at least another hundred years. In other words, during the Umayyah dynasty, agriculture was still widespread in the Negev. See Y. D. Nevo 1985, Sde Boqer, and the Central Negev in the seventeenth–eighteenth centuries A.D.

67. Cf. Sharon, M. 1977, "The Bedouin of the Hebron Hills," in A. Shmueli et al. (eds.), pp. 548–557 and Shmueli, A. 1980 (Hebrew).

68. A primary objective of the Sublime Porte from 1831 was to regain possession of Egypt. Cf. J. C. Hurewitz, 1984, "Egypt's Eastern Boundary: The Diplomatic Background of the 1906 Demarcation"; cf., for example, F. Kazemi, 1980, "Urban Migrants and the Revolution."

69. The trend of the social elite among Middle Eastern Bedouin to settle in towns, leaving lower social strata of their tribes the "burden" of subsistence from the depleted resources is discussed frequently in recent literature; for example: D. P. Cole (1975), also see Lancaster (1981), and note 1 supra.

70. Cf. Bates, D. and A. Rassam (1983: 194–195).

3 Applied Anthropology, Cultural Survival, and New Directions for the Future of the Negev Bedouin

Basic research is distinguished from applied research by the nature of their respective goals: the former establishes the existence and interrelatedness of social facts, while the latter examines ways of reconstituting or changing the way things are.

The present exposé presents in a nutshell current practical knowledge concerning methods calculated to improve the economy of the Negev Bedouin; it is based on work carried out during the period 1980–1999 at the Social Studies Center of the Jacob Blaustein Institute for Desert Research in relation to:

1. setting up settlements for pastoralists (rural Bedouin hamlets) to solve their pressing problems;
2. amelioration of the desert flora intended for use as forage for the Bedouin herds;
3. the development of Bedouin townships in the Negev—the main alternative for the Bedouin currently housed in dispersed dwellings (such as tents and shacks);

4. existing guidelines and alternative plans for the future of the Negev Bedouin community, incorporating directions proposed by the Bedouin themselves;

5. currents of change in Israeli governmental policy pursued during the last decade vis-à-vis the Negev Bedouin, beginning with Yitzhak Rabin's government in 1992.

A general viewpoint implicit in the attitudes of Middle Eastern governments toward pastoral nomadism is that the way of life is for all practical purposes obsolete. The obsolesence of pastoral nomadism in Israel is exacerbated in part by the smallness of the country and its speed of development vis-à-vis land uses. Furthermore, there is an ethnic factor whereby some Bedouin endorse the Arab cause by presenting land claims that would not occur in an Arab country. These attitudes have tended to evoke indifference and skepticism on the part of state authorities responsible for settling the Bedouin.

The following paragraphs outline some specifically bureaucratic difficulties standing in the way of certain necessary changes to current government policy relating to the Negev Bedouin—changes which, in our view, could ensure smooth progress in their integration into Israeli society. As will be shown below, the aforementioned difficulties derive in large part, from the type of relationships existing between policymakers, executors (the state civil service networks), and the Bedouin community itself.

Land Ownership

The Israel Lands Authority (*Minhal Mekarka'ey Yisrael,* hence referred to as the "*Minhal*") determines the policy of land use in the country, including the right to lease or buy land, to transfer it to public or private agents, and to use it for agriculture, construction, or speculation. Throughout the period 1948–1980, the *Minhal* came under the Ministry of Agriculture, and a special committee set up by the *Minhal* acted to prevent the privatization of state lands or illegal transactions such as the unauthorized transfer of land from agricultural uses to building developments.

In June 1990, it was decided to affiliate the *Minhal* to the Ministry of Housing for the following reasons:

1. there was a shortage of land available for building purposes and a concomitant rise in the cost of housing with the resulting upward pressure on the cost-of-living index from the housing component;

2. farming had become much less profitable resulting in a notable erosion of the political influence wielded by the agricultural sector (principally members of moshavim and kibbutzim);
3. beginning in the late 1980s, capitalist entrepreneurs including real estate agents and building contractors, started to "invest in politics," with the result that political parties became increasingly dependent on private financial contributions, which began to exercise a growing influence upon the political system precisely at a time when Israeli politics adopted American "rules of the game," such as the introduction of primaries.

Though the change in the status of the *Minhal* had ostensibly occurred overnight with its transfer to the Housing Ministry and its new accent on the land's monetary rather than agricultural value, in actual fact, it had been the outcome of a gradual process. The *Minhal* had also suffered a weakening of its position to the point of departing from the ideology of retaining the most fertile lands for Jewish agriculturalists. Thus, over an extended period of several years, there had transpired a reassignment of a significant portion of land to the building sector. On the face of it, this had been principally the result of the massive wave of immigration in the 1990s, and of the need to provide housing for thousands of families. In effect, the policy of preserving land reserves as a public (national) asset had been violated and partially replaced by a capitalist ideology promoting privatization, in accord with the spirit of the times. This represented a notable retreat from the ideals of socialism following the collapse of the former Soviet bloc. Yet, it was not a capitalism that "let money speak" irrespective of its immediate source: "others" (non-Jews) were not authorized to buy land.

Prior to the 1990s, landowners wishing to alter the designation of their agricultural land (i.e., to allow the construction of apartments, etc.) had to justify the change. In the 1990s, however, it became the task of the *Minhal* to provide a *rationale* for rejecting applications from Jews for the privatization of land, since this implied trading in a national asset. It was the task of the state organs to determine the designation of land use, and to represent and defend all public concerns in this domain. Decisions were made behind closed doors, and persons outside the *Minhal* had no access to meetings at which policy decisions were taken.

Official Policy Toward the Negev Bedouin

Since the foundation of the State of Israel, there had never been a concrete and explicitly formulated government policy concerning the Bedouin.

In the absence of such a policy, the power of decision making regarding Bedouin affairs has been in the hands of the *Minhal* and of the security forces. The task of mediating between the *Minhal* and the Bedouin population is performed by the Office of the Prime Minister's Adviser on Arab Affairs, which is also entrusted with the translation of applications presented by the Bedouin to the authorities and the interpretation of the government's position on the Bedouin question. Furthermore, at all times, it has endeavored to soften attitudes on both sides.

An important Jewish perception enjoying wide public consensus, and preempting any "interference" in the actions of the *Minhal* in regard to the Bedouin, favored the earmarking of Negev land for Jewish settlement and a delay in implementing plans for cultivation until such time as the pipeline of the National Water Carrier could be extended southward. Thus the Bedouin were seen as living, or even trespassing, on State land. The *Minhal* would have preferred an urban solution entailing complete sedentarization of the Bedouin and provision of the infrastructure required for Bedouin townships, along with the necessary legal arrangements for implementing citizens' rights, such as entitlement to construction plots. This viewpoint represents, in essence, the perusal of a policy that had guided the government since the mid-sixties culminating in the establishment of two towns: Tell Sheva (1966) and Rahat (1972) and five townships: Kseyfih and ʿAroʿer (1982), and Segev Shalom (1984), Hura (1989), Lagiyya (1990) over a period of about thirty years and catering for about 56 percent of the Negev Bedouins.

A solution for the remaining 44 percent has yet to be created. A section of the Negev Bedouin population still claims private entitlement to parts of their traditional *dīra*s, while other groups located farther away from the existing townships have declined offers to move to distant pastures.

Ongoing expansion of the Bedouin settlement program by means of five new townships has rendered necessary the identification of suitable additional locations for new Bedouin settlements, the construction of roads, the measurement and parcelation of plots, the leveling of ground for building, connection of the area to the electricity grid, laying of water pipes and sewage, and the building of schools, clinics, and mosques. Bedouin choosing the urban alternative will be assisted with building loans and grants.

The urbanized Bedouin in the aforementioned settlements are largely descendants of settlers of Egyptian peasant extraction, that is, not genuine nomadic pastoralists, and therefore lack the perception of a *dīra*. Hence their greater receptivity to an urban solution.

Families refusing to settle in urban areas are usually descendants of Bedouin tribesmen who retain a strong link to their traditional *dīra*s. They

consequently arrogate to themselves entitlement to private ownership of land. One possible solution elaborated by the present author is the establishment of villages for shepherds with enhanced and legally guaranteed usufruct rights for the Bedouin herds provided by the public at large through the organs of the state (e.g., *the Keren Kayemet le-Yisrael*).

Reflections on a Jewish Problem

Discussions of the future of Israel's Bedouin citizens rarely touch upon the present situation of the Bedouin themselves, and instead tend to focus on the land factor and the unrealistic project of planning rural occupations for Jews. The concept of the redemption of the Land of Israel was the bedrock of the activities of the Jewish National Fund up to the foundation of the State and the War of Independence. It was inspired by the vision of normalizing employment patterns among the Jewish population by promoting an expansion of the social sector employed in "first"-level professions on behalf of those of the "second" or "third" levels.[1] The planners' dream was to move away from the *shtetl*[2] existence of the Diaspora, where Jews were forbidden to own land or to engage in agriculture, which constitutes the base of the employment pyramid.[3] It was thus perceived as legitimate to reserve most of the land for Jewish agriculture and to promote the people's ownership of the land, thus enabling more people to earn their living from infrastructure work.

Optimism concerning the absorption of fresh waves of immigration into the agricultural sector promoted the concentration of land reserves in the state's hands, since future farmers were eagerly expected. The agricultural settlements in the northern region of Israel were well developed, and most of the reserves had already been allocated. On the other hand, there was a dearth of applicants wanting to settle in the Negev. Furthermore, many Jews who owned plots of land had actually abandoned farming altogether and moved to the towns, especially during the 1970s and 1980s, when the profitability of agriculture declined. The socioeconomic reality had dampened the dreams of the 1950s and, from then on, there was greater readiness on the part of the government to condone settlers who had ceased to be farmers, but who continued to live in their "moshavim" (small rural cooperatives). It was important, for a balanced "population distribution," that they remained where they were. Generous aid was offered for home improvements, for those who only lived in the moshav, but did not earn their living as farmers.[4] Many changed their professions, while transferring their farms to companies or to other workers. In some cases, they shut down their farms and left the fields fallow. Only a small number of moshav farmers remained to cultivate their fields and those of

their neighbors who had abandoned them (mostly with rain-fed crops). A major growth in winter yields, including those from previously irrigated lands, provided plenty of unused "stubble" fields when the rain was plentiful, paving the way for grazing agreements with the Bedouin.

This fading vision of future Jewish agriculture in the Negev had the effect of softening the policy vis-à-vis the Bedouin. Areas where Jewish settlement did not materialize, such as the Negev Highlands, were, to some extent, opened up to the Bedouin for pastureland. Families from the ʿAzāzma and Ẓullām tribes, principally the al-Kiskhar and al-Wajj families, who had grazed the Highlands until their removal under emergency regulations to the *sayig* region in the northeast of Be'er-Sheva in 1949, returned to these traditional pasture lands, unhindered until the beginning of the 1970s although permission had not been explicitly granted. With the return of the Sinai peninsula to Egypt after its peace treaty with Israel in 1982, the attitude changed again and bureaucratic eyes that had been shut to "illegal" activity were now opened. The "Green Patrol," a governmental, quasi-policing unit operating in the rural south, acted to restrict the freedom of Bedouin grazing in the Highlands and to ensure that wandering herds did not stray into nature reserves, lands own by the Kibbutzim, or areas ordinarily reserved for military exercises. It was, however, difficult to transfer families from the Negev Highlands to townships in the valley, especially when they had relatives serving in the army or police. Moreover, it was made clear that the IDF (Israel Defense Forces) actually preferred the Bedouin to remain in the open spaces of the south in order to observe any activity in the unoccupied territory along the Egyptian border. As a result, the government's Bedouin policy remained opaque and the courts were unable to help the Bedouin move to their preferred herding locations. The families that were transferred to the vicinity of Be'er-Sheva returned to the Highlands, often after paying fines to recover the herds that had been taken into quarantine. The principal upshot of such altercations between the authorities and the Bedouin was the damage suffered by the State's image in the realm of politics and public relations, since the *Naturvolk* enjoyed broad support in the press and among the public-at-large.

Issues regarding the future of the Bedouin could have been expected to arouse controversy between right-wing groups who adhered to a hard nationalistic line regarding the retention of land reserves for Jewish owners—and the left, who displayed greater flexibility about the social standing and future of the Bedouin. Paradoxically, the divide between the camps was not absolute; the socialist-imbued kibbutzim and moshavim, as well as the Labor Party, were sometimes more rigid and dogmatic regarding the policy of urbanizing the Bedouin than were city-dwelling rightists, who had been among the first to relinquish the vision of Jewish agriculture.

The Green Patrol

The name "Green Patrol" refers to the inception of this government agency. It first operated in the guise of the guardian of Israel's arable lands, in order to ensure its use exclusively for cultivation purposes. The Green Patrol was founded by Mr. Aharon Uzan, Minister of Agriculture, in 1976, when the *Minhal* operated within the framework of the Ministry of Agriculture and pursued two aims: (1) preventing the seizure of parcels of state land in open, unbuilt areas; and (2) preventing the conversion of agricultural land to any other use.

The pressure to privatize agricultural land owned by the state was naturally greater in the more densely populated north with its more plentiful rainfall. Market forces promoting such transfers of land use were particularly strong near the cities; the activities of the Green Patrol were thus required in those areas. It would have been natural for the Green Patrol to concentrate most of its efforts in Northern and Central Israel, rather than in the Negev, where the Bedouin were still not fully sedentarized and continued to utilize the wastelands mainly for grazing as well as for some agriculture. Most of the Negev Bedouin lived in tents and only rarely did they put up permanent buildings in their encampments.

This paradoxical nature pertaining to the focus of the Green Patrol's activities may derive intrinsically from the work of controlling and policing. In order to prevent illegal use of land or to expose and counter any infringement of the law, expensive measures are needed, such as periodic aerial photographs. To prevent building contraventions in urban areas (which are not clearly revealed by aerial inspection), a combination of measures is required, such as those operated by the income tax authorities, including civilian intelligence investigators (listening to tittle-tattle, neighbor informants), swift trial courts, police engineering units for the demolition of illegal constructions, and so on. Therefore it would not be easy for a Green Patrol to operate in a city. Moreover, the municipal authorities would be likely to welcome, not prevent, enlargement of the area under their control, and thus give covert support to "creeping construction" beyond the city limits.

Dealing with shepherds using lands prohibited for pasture is, in comparison, relatively easy and cheap since, in open territory, it is easy to observe and surprise trespassers and to confiscate their herds. Opposition to confiscation of herds would not be massive in contrast to the reaction expected in urban areas, where an attempt to raze an illegal building can result in violent scenes. Furthermore, such actions against Bedouin offenders could be coordinated with the IDF and the police. Confiscated herds of trespassers can be transported by independent small truckers to the

quarantine station in Be'er-Sheva (the main city of the Negev), where the animals are sold cheaply to wholesalers who, in their turn, sell them to local butchers at a profit. The net profit of selling the herd, after deducting costs of transport and quarantine, are passed on to the owner of the herd when he comes to collect it. Owners usually hurry to ransom their herds and thus evade the extra quarantine costs. However, if their home site is far from town, they may forfeit both herds and payment since renting a truck to transport the herd is costly and negotiating with the Green Patrol is usually an unpleasant experience.

In order to further vindicate deterrents of this type by the Green Patrol in relation to what is, in effect, a legally ill-defined area, the state authorities merged the Green Patrol with the Israel Nature Protection Authority, thus enlarging the Patrol's operational framework and supplying further justification for their actions. The pretext of protecting wild plant species in danger of extinction through overgrazing quickly became symbolic capital legitimizing the Green Patrol's activities in the eyes of the ecologically concerned public.

Patrolling rural areas is a tough undertaking. Ideologically committed young men dedicated to nature protection are mobilized for jeep patrols in open areas. However, their high-school education and military skills do not yet include professional knowledge of pastureland science or an elementary acquaintance with the anthropology of the Bedouin, and only few Green Patrol personnel can speak Arabic.

Service in the Green Patrol is voluntary, and the sincerity of the patrollers' intentions is evidenced in their encounter with those who encroach upon state lands. The Green Patrol is, however, also required to exercise its function against the Bedouin shepherdesses and their small herds, even through they feel it is unjustified. The period of service in the Green Patrol tends to be relatively short since most scouts become embittered and resign.

The Judicial Authorities

Court cases in which the State presents its claims concerning land on which the Bedouin are living, have a predictable outcome: the prosecution invariably wins. When, as a last resort, the Bedouin bring suit for recognition of ownership to a plot of land, a suit against the treatment they received from the *Minhal* and the Green Patrol—under the law, or both the defendants are cleared of the charges. In the court procedures there is a systematic difference between the two sides. The officials of state organs, wearing the cloak of the civil services, have the law on their side and have the means at their disposal to detect delinquent citizens. Al-

though Bedouin who have been harmed by the actions of the Green Patrol have the right to apply to the courts, they lack the investigative means to locate and sue policemen who deviate from the strictures of the law. Moreover, Bedouin claimants generally lack legal documentation to prove their case, because they are often illiterate. Their Hebrew is inadequate and they are unaccustomed to using modern technology (cameras, photocopiers, or tape recorders), and so cannot adequately present their case. Moreover, the guardians of the law who ambush individual shepherds—mostly shepherdesses—in the field and confiscate their herds leave no traces. Since they initiate the actions and have the advantage of surprise, it is difficult to accumulate evidence against them. When the scouts exceed their mandate (and my diary contains many such instances), this is hard to prove in court. Unlike the shepherds, the State has archival services at its disposal indicating any previous charges against their claimant, thereby yielding the impression that he is the transgressor. Bedouin can, at great cost, engage lawyers to represent them, while the State has the services of legal advisors and attorneys, paid for by the Treasury.

The courts proclaim the rectitude of the guardians of the law and find them innocent, while the Bedouin claim for the justice of their elementary needs, obvious to any rational mind, has no chance in the courts of law.

Notes

1. "First" (the bottom) would imply farming, mining, construction works, and so on. "Second" is mainly trading at all levels. "Third" refers to the professions.

2. Yiddish diminutive for *shtot* "town" (< German *Stadt*), a term used for a relatively small Jewish community. In Eastern Europe and the former Soviet Union, *shtetl* implies a special sociocultural communal pattern.

3. The "pyramid" is a diagrammatic expression of statistical data on the professional cross-section of the nation.

4. On the moshavim, their development in recent decades and their retreat from agriculture, see M. Schwartz et al., 1995.

This page intentionally left blank.

4 Governmental Policies Toward the Bedouin

A modernized version of Bedouin settlement in the depths of desert areas which have constituted their traditional habitat during their nomadic existence is, for several reasons emerging from this study, in the interest of the Middle Eastern states, including Israel. Regrettably, however, the countries involved fail to recognize the validity of the viewpoint[1] and most of their governments prefer simply to leave the Bedouin to their own devices and "to let them live as in the past." Little effort is expended on rendering attractive for the Bedouin the option of staying in their desert habitats by providing them with modern facilities for coping with their environment; nor is any serious attempt made to replace or replenish depleted or destroyed pastures so that Bedouin can pursue pastoralism under more favorable conditions. Furthermore, no adequate assistance is offered those residing in encampments on the margins of the sown districts, working as farmers or farmhands, or to those settled on the outskirts of towns.

The states of the region, including Israel, fail to engage the Bedouin in serious efforts to participate in the few existing projects designed to enrich desert vegetation. Land constituting part of agroforestry projects is,

by and large, fenced off to prevent Bedouin herds from grazing on it and to invalidate Bedouin claims to the land.

Consequently, the most reasonable option available to the Bedouin at present is to give up herding, abandon the desert heartlands, and settle in tents or shacks on the periphery of towns. Owners of herds intending to abandon herding will tend to overgraze the available vegetation[2] to the point that no regrowth can occur.

Urbanization of the Bedouin usually begins haphazardly and increases as the feasibility of stock-breeding decreases for those living in the deeper desert regions. Bedouin who move to town seek modern ways of earning a living, and when these are unavailable, they tend to engage in whatever occupations are available to them—including smuggling and illicit trade.

The reasons for this predicament are partly historical, but mainly sociological, and are not the same for the Arab countries and for the State of Israel. Indifference or downright callousness to the hardship of the Bedouin on the part of governments throughout the Middle East seems to be the outcome of:

1. the Bedouins' declining power and inability to obtain what they need by force, as in the past;
2. their continued capacity to harm sedentaries through illegal activities, such as grazing their herds in fields and orchards, trafficking in contraband, conducting tribal feuds which can endanger others, and demanding *khuwwa*;[3]
3. The peoples of the Middle East are unable to free themselves of their historical fear of them—even a century after their threat has evaporated. For the People of Israel renewing itself in its homeland, "the Rule of the Sheikhs"[4] is a dim memory. Rather, their attitude to the Bedouin claim to lands is influenced by the outcomes of the Arab-Israel conflict and the struggle over the entire territory;
4. their inability, because of long-standing tribal divisions, to organize a lobby demanding their rights and better living conditions. The notion of lobbying and joining together of parliamentary forces in favor of common interests transcending the bonds of agnatic loyalties has not yet reached this culture area.[5]
5. The Bedouin are known for their repeated ability to topple the social order of settled communities—which is the corollary of remaining tribal and retaining their feuding stance no matter where they reside[6]—and this deprives them of potential sympathy for their just cause.

In Israel, the dialogue between the *Minhal* and the Negev Bedouin is particularly complex, especially in the implementation and interpretation of legal norms, on account of the fact that the two parties belong to different ethnocultural groups with different cultural perceptions of the day-to-day realities relating to land, ecology, and so on, and not a few incompatible features resulting from these perceptions (cf. for instance, the issue of *dīra* dealt with in chapters 2 and 6). One should here note that Bedouin dialogue with the central authorities in the land (for instance, under Ottoman and British rule) has always been difficult, since they never experienced the need for full social integration, for instance, in the matter of taxation and conscription.[7] Furthermore, the Bedouin have to cope with three legal systems: *ʿurf*, *sharīʿa*, and Israeli civil law.[8] The resulting blurred nature of legal issues (e.g., relating to land rights), and the lack of shared cultural symbols conducive to a fruitful dialogue between the Bedouin and the *Minhal* is in large part responsible for the very imperfect relationship between the two. These complexities weighing down the *Minhal*'s dialogue with the Bedouin is probably responsible in large part for its continued perception that land in the Negev should be cultivated mainly by Jewish agriculturalists.

Due to the separation between the state ownership of the land and the private right to lease a plot (from the *Minhal,* usually for 49 years),[9] the rural sector of the Jewish settlements is protected by law and is not regarded as problematic. The *temporary* leasing of state lands to non-Jews via these legal arrangements obtaining for the cultivation of seasonal crops or for grazing is viewed as "problematic," and is not readily allowed. "Whoever works the land shall eventually inherit it," was a Zionist mantra addressed to new immigrants during the period of the *Yishuv* (from the 1890s to 1948) and the first decades of the life of the State (after 1948). Most of these immigrants had to abandon their old professions and take up agricultural employment. The right to sublease a plot of land was denied, under the special regulations, such as those of "Nir-Shituffi,"[10] implying that a Jew leasing land from the *Minhal* could not sublease to a non-Jew. Although these regulations lacked judicial validity, they accorded with the normative setup and the guiding ideology of the pre-State days. State lands were given to the Jewish settlers by the authorities with the understanding that they would cultivate and maintain them by themselves and would not sublet the fields to others, that is, usually Arabs.

What about desert areas of rocky ground and sand unsuitable for farming? The predominant approach was to retain them as reserves pending the development of new irrigation technologies, the acquisition of the required finances, and the arrival of new Jewish immigrants from the Diaspora, who would set up communities on such land.

From Redemption of the Land to Redemption from It

Over time, the numbers of full-fledged farmers declined and Jewish farmers turned to "gentleman" farming or ceased to "cultivate and preserve" their land.[11] Rising input costs, together with falling prices for agricultural produce and a change in the socioeconomic political environment beginning in the 1980s, caused many to leave their fields and find alternative jobs.

The policy of land privatization, beginning in 1986, allowed Jewish farmers to treat their plots as private property, entailing also the right to sell it. This was influenced by the financial crisis of the cooperative settlements and by the Zeitgeist emanating from the U. S. Cooperative socialist restrictions were ignored, but not the national ethos of homecoming nor the limitations on transfer of plots by Jews to others, or on their designated uses. It is conceivable that the entry of cheap labor into agriculture broke the spirit of Jewish agriculturalists and their sons did not feel obligated to continue farming.[12]

Erstwhile Israeli agriculturalists who stopped farming were not asked to return their "deposit"—the land—to the nation. The regulations formulated in the 1930s regarding land use had, by the 1990s, been relegated to the background. This infringement of the "rules of the game" was not always committed in overt fashion; rather it was gradual and occurred, by and large, unnoticed. The state representatives, it seems, relaxed their concentration, giving their attention to other concerns (better salaries, perks, etc.) and, in the meantime, condoned the subleasing of plots to other cultivators, or the use of land for nonagricultural uses, including construction.

The attitude of the Jews to cultivation of the land has been slowly changing. Since the start of the century until the 1970s, they would "redeem" the land (i.e., buy it from non-Jews) and "conquer" it from the wilderness ("make it bloom"). But now, in accordance with the spirit of the times, many of them ignore its value as a means of production and increasingly tend to value land as real estate. Gradually a parallel, though different, change has taken place among the Bedouin who formerly bred their herds on the land, disregarding its worth, if cultivated. Later they leased the land to others for cultivation and today they use it to build their homes.

The Bedouin's involvement with the leasing of grazing lands to farmers evolved in an opposite manner. At first, tribal sheikhs rented plots in their tribal pastures *(dīra)* to migrant peasants for cultivation. Even though the sheikhs only had grazing rights, not full entitlement, their tribesmen did not object to this unprecedented deed. However, after

people ploughed the land on behalf of the sheikhs, without objection from within the tribe, some sheikhs sold land outright. At this point, the question of joint possession of the land and the prerogative of the sheikhs to rent it was raised for the first time. This concept is referred to as *at-tabdi*.[13] It was mostly humble peasants coming from Egypt who mortgaged plots from the Bedouin for cultivation[14] and were able in due course to purchase the plots. This alerted the Bedouin attitude to the virtues of farming and inculcated the idea that it was not an embarrassment.[15]

Later on, the arrival of the Jewish settlers reinforced this incipient positive attitude toward manual labor. When respect for legal rights to land evolved and when these were ratified by the Ottoman and, subsequently, by the British courts, this growing political power of the state and its control over the desert domains dispelled any illusions that may have been entertained by Bedouin considering the option of "recapturing" through the use of force the land they had sold. Although the courts were not willing to recognize Bedouin entitlement to the vast grazing lands, they *were* willing to grant legal possession of farmland to Bedouin, once they relinquished pastoral nomadism. Deprived (disenfranchised) of private rights over the wastelands *(mawāt),* more and more Bedouin started to cultivate these lands, if only for minimal profit.

Monitoring the Land—between Adviser, Consultant, and Counselor

The *Minhal*'s handling of Bedouin issues over the years has unfortunately left much to be desired; it has been marred by a lack of sensitivity on its part to the Bedouin's situation in Israel, and to their traditional *Weltanschauung*.

The State's policy for monitoring its land has been determined by the following functionaries: advisers, consultants, and counselors. An *adviser* is an expert in an area important to the *Minhal*, who will offer his/her best advice free of charge, if the matter is close to her/his heart, or involves a friend of the officials. A *consultant* is also an expert in an area important to the *Minhal*, who, as a "licensed businessperson," offers his/her recommendations for a fee, according to the *Minhal*'s means or willingness to pay. A *counselor* is considered to be an expert in a particular domain who, as part of the state civil service apparatus, makes recommendations to his department in return for a salary, indirect benefits, or both.

Where counselors outnumber advisers and consultants, as in the case of the Israeli State bureaucracy, the chances for policy readjustments are slim. Since it is in the counselor's interest to survive within the system, her/his approach contrasts with the consultant's, since the latter is quick to make suggestions, receive payment and then leave. The counselor delays

his/her recommendations, keeps his cards close to his chest, sees herself/himself as a fountain of superior information, and keeps back suggestions until the "right" moment. The consultant's involvement with the civil service has a specific objective and is limited in duration. Once he/she is paid, she/he is no longer on the scene. The state apparatus, however, cannot easily dispense with the counselor, who has developed a diffuse network of contacts within its institutions.

In contrast to the counselor, the consultant hires, solicits, or both, the aid of subcontractors in professional fields. If the counselor were to seek outside professional help, his/her job would be at risk since a specialist might well impress her/his immediate superior better than he/she. The consultant focuses on the problem under review and endeavors to remain up-to-date. In his capacity as "one in the know," the counselor's expertise is based on present need and aims at satisfying the "strong men" of the organization. At the same time, his proximity to the powerful people in the bureaucracy enables the counselor to tap the main arteries of the budgeting ministries for additional fringe benefits.

Another difference is that the verifiability of the consultant's analysis, the projection/prognosis, and conclusions reached prove the consultant's worth and uphold his/her good reputation. If her/his recommendations are on the mark, they can bring further commissions. On the other hand, the counselor's proposals are tailored to accommodate his/her superiors. She/he is able to retain his/her influence by adopting her/his superiors' voice and giving them his/her support. Much "flexibility" is demanded of her/him, and professional assertiveness or demonstration of moral backbone is liable to be detrimental to his/her interests!

The upshot of the foregoing remarks is that implementing a more enlightened state policy than the present one vis-à-vis the Bedouin is difficult if not impossible given this bureaucratic bottleneck. The simplest and most effective strategy may be simply to approach the Green Patrol directly since they are in constant contact with the Bedouin.

A parallel situation exists in the other governmental ministries. While the selection of a particular person to act as minister is determined by politics, the civil service fills the positions of office directors. The managers of the *Minhal* and the Authority for Nature Reserves might assume office together with their minister, but their subordinates are usually in office by the time the minister and the director-general move in. This structural trait, of course, stabilizes office policy. However, it discourages change in office tradition, such as attempts to modify its line of action—in our case, to meet the needs of the Bedouin. Moreover, the *Minhal* considers it its prime concern to protect the land itself, not the people living on it.

Briefly, the executive team of the *Minhal* is entrusted with two main tasks: (1) safeguarding state lands from squatters; and (2) preventing state lands leased for cultivation from being turned over to other uses: construction for private homes, businesses, quarrying, and so forth.

Whereas in Israel's central region (Heb. *Gush Dan* and Jerusalem), where the demand for building plots is very great and prices high, infractions of the law by individual citizens are a potential problem, and the preventive laws are more easily enforced, the situation is different in the Negev. In the first place, the area is not so carefully monitored as the center, so that Bedouin often put up illegal constructions on range land. In the Negev, the policing activities of the *Minhal* are focused upon the nature reserves. War has been launched against the Bedouin's easily dismantled black tents instead of "battling" the concrete buildings. The state organs do not readjust policy with regard to the ever-changing real estate situation, but seem to let decisions "come from below" (i.e., from the Green Patrol).

My exchanges with the Green Patrol hinged upon the question, "Why don't you collaborate with the herders instead of carrying out unilateral operations to protect the Negev vegetation?" The following answers of these young patrollers can be considered as a summary of the rationale of the Green Patrol.

The first guiding principle of bureaucratic organizations is to let instructions percolate down to the lowest level. The Patrol admit that they represent the "lower ranks," and therefore have no wish to overtly "run up against a brick wall" (i.e., tackle the power structure). The Green Patroller is supposed to protect State lands; however, most illegal privatization of land occurs on the outskirts of towns, and the Green Patrol is not equipped to deal with this because it requires a different set of skills, such as up-to-date knowledge of the official real-estate market and of the "gray" real estate market, familiarity with economics and land valuation, and surveillance of agricultural land and its uses. Moreover, the Patrol tends to turn a blind eye to infractions of the law committed in cultivated districts of Israel because in those locations, the plantation owner and the building contractor, who scheme to turn orchards into plots for apartment houses, have the support of well-placed partners: lawyers, people in local political circles, and officials in the civil service. Their best way to steer clear of "trouble" is to transfer attention to the Negev in the southern part of the country.

The second guiding principle affecting the proper functioning of the *Minhal* and that of the Green Patrol, is the wish to be respected and promoted for distinguished service in tackling the goals set for them. However, members of the Green Patrol find that their ability to excel in

their tasks is best served by fulfilling limited roles—on missions that they like, that is, scouring open country in their jeeps and coming in contact with the *Naturvolk* (the Bedouin). Young men in the Green Patrol experience this as a form of adventure that gives meaning to their lives after their release from army service. Underlying these youths' commitment to their professional activities are primary emotions tinged with patriotism, that often cause them to push the law to its limits. Under the guise of "obeying orders,"[16] under the supervision of counselors wishing to remain out of the limelight, recommendations not approved by either counselors or consultants are implemented. Understandably, consultants do not require that their recommendations be followed to the letter since they wish to be hired again by the government agencies.

Once the consultant is out of the picture, the media report the Green Patrol's account of a story, usually a simplified version, as opposed to the consultant's more complex and multidimensional analysis. The public tends to endorse the Green Patrol's version because the consultant is often unable to stand up for his version. This would seem to suggest that a way should be found for the Green Patrol to stay longer on the scene and to serve the interests of the population rather than those of the bureaucracy: teaching the Bedouin how to enrich the vegetation so as to improve the quality of the vegetation for livestock grazing. Arrangements should be made for firewood to be gathered, for the erection of constructions affording the Bedouin and their herds shade in the hot summer months, and providing, at the same time, a pleasant tourist venue.

An alternative way of breaking out of the vicious circle of Green Patrol-*Minhal*-counselor-land/building contractors would be for the *Minhal* to fire its counselors. The *Minhal* should ideally also throw out the "rule book" developed by the Green Patrol and, in its stead, submit issues to consultants and advisers for study and recommendations. With no "inside" counselors left, the government might listen to what the consultants say about the Bedouin situation. Doing so would almost certainly require ratification of new agreements and mobilization of the means to construct a brighter and more solid future for all.

Beginning in November 1994, amidst Rabin's peace negotiations with the Palestinians, the Negev Bedouin put pressure on his administration to be included in all future arrangements. A group of approximately 100 families left their shanty dwellings near Beer-Sheva and squatted near the orchards of Kibbutz Revivim. Taken by surprise, the Ministry of Housing and the *Minhal* convened a consultation meeting in January 1995, including five Knesset members of whom two were Arab vice-ministers in

Rabin's cabinet. The meeting was open to the concerned public with the result that the counselors' input had less weight. A new agenda was born, which was sensitive to the comments and calls for justice, and better calculated to rectify wrongs done to the Bedouin since 1948; from a thoroughly civil and nonmilitary perspective.

Notes

1. For a review of arid land development in the Middle East, see Bocco et al. 1993: 327–357. Bocco holds governments in the region (in his view able to expedite development work) accountable for lagging behind in development work and lacking concern for their Bedouin subjects.

2. Tribes inhabiting desert pasturelands are careful not to overgraze these winter pastures before migrating to their summer location near cultivated areas and deep wells.

3. Payment of *khuwwa* is demanded to this day of certain Jewish settlers in new Negev settlements.

4. The period of "the Rule of the Sheikhs" ended with the conquest of the Levant by Egypt (1831–1840) and the return of powerful Ottoman Turkish administration in the second half of the nineteenth century.

5. See Kressel 1998 regarding agnation which determines economic ties and political relationships.

6. History attests to the superiority of primitive societies over civilized peoples, as exemplified by the vigor and violence with which pastoral nomads gained hegemony over sedentary populations in the Middle East. See Ibn Khaldun 1958: 282ff.

7. To this day, Bedouin herders in the Negev do not ordinarily pay taxes, though they are given full access to free social services (including running water near their tents, medical treatment, primary education, etc.).

8. See Shahar (1996), and Kressel (1993).

9. So for irrigated land. Rain-fed land is leased for three years. Pasture is leased for ten months (to prevent the lessee from obtaining permanent rights) and this is constantly renewed.

10. A legal arrangement for leasing national lands for cultivation requires the farmer to till it himself. The Israel Central Bureau of Statistics (vol. 47, 1996) states that in 1995, there were 73,000 farmers (1.6% of the total workforce), as compared to 64,000 in 1991 (vol. 41, 1992) and 88,000 (2.4%) in 1987 (vol. 39, 1998). The number of full-fledged agriculturalists and their rates of production were often not in the best economic interest of the agriculturalists, themselves, or of the state. The monthly salary for an Israeli worker, including employer's contributions (mainly social security) reached $800 in 1988. A monthly wage for a "farmhand" from Gaza reached $500. A monthly salary of one from Thailand or China came to $300 in 1998. However, as labor became cheaper and increased the chance of profit, the willingness of the more ambitious moshav youth to engage in farming diminished.

11. The Israel Central Bureau of Statistics shows that in 1995, there were 73,000 full-fledged farmers (1.6% of the work force), as compared to 64,000 in 1991 and 88,000 in 1987 (2.4%).

12. Regarding the influence on the moshav of cheap Arab labor, see Kressel, 1994.

13. See Kressel, Ben-David and Abu-Rabia 1991: 40–41.

14. As regards the peasant *(fallāḥīn)* among the Negev Bedouin, see Marx 1967.

15. On the changing attitude of the Bedouin to the forging of papers (to show possession of arable land) that they never bothered to correct, see Kressel et al. 1991: 44–45 and Ben-David 1996.

16. In Hebrew, the expression "*rosh katan*" ("small head") refers to someone who obeys orders or rules, deliberately choosing not to question anything or use one's own initiative.

5 Enhancing the Attractiveness of Shepherding

Several thousand Bedouin in the Negev continue to reside in tents and temporary structures in the open areas (Alternative A), where they lack the most elementary comforts available to settlers in townships. This factor has been at the basis of the Bedouins' demand to be granted state recognition and financial aid toward the improvement of social services at their illegal, that is, unrecognized, settlements.

On the other hand, the option of allowing "spontaneous" permanent settlement of families who would assume full responsibility for improving their living conditions in the open areas, has always been rejected by the Israel's governments. At the end of the 1990s, government ministries have preferred the strategy of moving Bedouin squatters from their former places of residence and helping them to build homes in urban areas (Alternative B). Despite its obvious shortcomings, this is acceptable to over half of the Negev Bedouin population but, at the present juncture, the remaining Bedouin have shown no enthusiasm for this option.

The Ministry of the Interior and Urbanization of the Bedouin

The Ministry of the Interior in Yitzhak Rabin's government was more committed to alleviating social problems than its predecessors; this commitment was part of a firm resolve to deal with the persisting social conflicts in the Arab-Jewish sphere. One major component of the political tension among the Bedouin is a perception that the state should ratify their claims to parts of their traditional *dīras,* though they can hardly be unaware that their "brothers" across Israel's borders have no such aspirations since Arab countries would not countenance Bedouin claims to range land. Israeli politicians and intellectuals—oddly, not excluding orientalists and civil servants stemming from other Middle Eastern countries—tend to forget or overlook this idea.

Motivated by implicit socialist principles and terms of class struggle, the housing ministries of successive Israeli governments have tended to adopt a broad ideological perspective vis-à-vis the task of providing housing for the Bedouin in the Negev. (See Figure 5.1.) In December 1994, a committee was set up to study all aspects of the townships in the areas of the regional councils of Shoqet and Massos with the aim of formulating a prognosis for their future development. To obtain the necessary information, three tasks had to be attended to:

1. Data collection on Bedouin groups at various transitional stages in the sedentarization process; some of these owned new houses they had built for themselves; others awaited completion of the construction work, and lived temporarily in overcrowded, nonpermanent structures located on the outskirts of urban settlements. Since about 43 percent of the Negev Bedouin still await a solution of their housing problems, this situation persists until the present time. This group is currently scattered in various locations on the outskirts of the townships, and receives social services, such as primary medical treatment and schooling for their children in town, but has yet to define its plans for the future.
2. Consultation with officials in charge of the Southern District: the district planner, the office staff of the director at the National Planning Administration in Jerusalem, and with the heads of the regional councils of Massos and Shoqet and their employees, who administered the Bedouin townships, except for Tel Sheva and Rahat, which had already developed into towns with their own municipalities.
3. Collation of socioeconomic and demographic data from the files of the councils, and completion of documentation as yet unrecorded

Present Urban Centers and Proposed Centers for the Negev Bedouin 1999

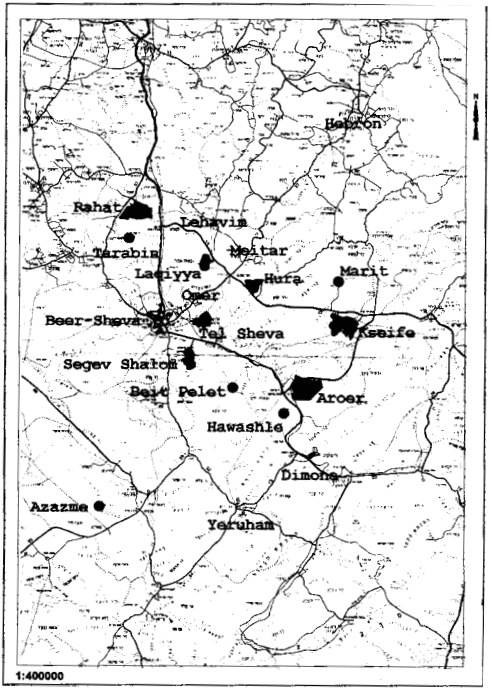

Figure 5.1 Present proposed urban centers for the Negev Bedouin (1999). Circles represent proposed centers. (Courtesy of E. Atsmon)

> in the councils' files relating to concrete factors determining development. The composition of the aforementioned committee, its timetable, and *modus operandi* testified to the nature of the task confronting it. Officials appointed to serve on it were the chairman of the Bedouin Administration in the Negev, the head of the Minorities Division in the Prime Minister's Office, the Southern District Officer in the Ministry of the Interior, the coordinator of committees of inquiry in the Ministry of the Interior, and myself, at the time, head of the Center for Social Studies at the Blaustein Institute for Desert Research and faculty member in the Department of Behavioral Sciences at Ben-Gurion University of the Negev. Thus, the viewpoint of senior executive ranks and the academic perspective concerning Bedouin society were both represented. The counselors and public relations officers, who formerly dominated policymaking (see chapter 4) in Bedouin affairs, were conspicuous by their absence.

The committee was convened on account of the Interior Ministry's dissatisfaction with the way Bedouin affairs were being conducted and a desire for radical change. The committee began its work early in January 1995 with visits to the five newest townships, though not to the older and more established settlements of Tel-Sheva and Rahat. A call was also issued in the press inviting suggestions from settlers in the five townships interested in forwarding an opinion relating to development of the townships. Special invitations were also sent to family heads, tribal elders, and public office-holders.

In the spring of 1995, the committee interviewed hundreds of people individually and in groups, and recorded in detail critical comments and suggestions for improvements, several of which were received in writing. Other Bedouin families were represented by attorneys, mostly with the intention of initiating a quasi-legal inquiry into unresolved land disputes between them and the *Minhal* (Land Administration Ministry). The questions addressed by the committee revolved around the Bedouin families' expectations over the coming two decades. Discussion of *sub judice* claims and reenactment of past events was, therefore, restricted and the committee devoted most of the time to assessing the present situation with an eye on optimal development of the townships.

The Significance of Demographic Data

In 1995, approximately 47 percent of the Bedouin population in the Negev was distributed over five townships and two towns. Although the majority of the population (53%) continues to live in tents and temporary structures, the trend currently taking shape is to gradually replace the

temporary structures by solid buildings of concrete and stone. Additional families have entered into contracts with the Israel Lands Administration for the prospective construction of their homes in the townships. The distribution, among the Bedouin population, of permanent settlements in the Negev as of January 1995, according to the Authority for the Advancement of the Negev Bedouin (AANB), was as follows:

Table 5.1
Bedouin Townships and Towns in the Negev, Israel

Township and and towns, year established	*People in townships*		*People living the outskirts of townships*		*Regional council*	*Municipality (town)*
	1995	1999	1995	1999		
Rahat 1972	23,572	28,000	1,937			✔
ʿAroʿer 1982	5,729	6,200	7,115		Massos	
Kseifeh 1982	4,941	5,500	6,279		Massos	
Tel Sheva 1966	6,200	7,000	11,835			✔
Segev-Shalom 1984	2,022	2,000	7,886		Massos	
Hura 1989	1,253	2,400	6,465		Shoqet	
Laqiyyeh 1990	689	1,460	5,788		Shoqet	
Total	44,406	53,160	47,305	59,000		

* Small urban entities run by local councils were defined as townships (*ʿAyarot,* sing. *ʿAyara*). Urban settlements are those that elect their town officials (mayor, etc.). They are know as *ʿArim,* sing. *ʿIr.*

In 1996, according to the Statistical Yearbook of the Negev Bedouin (no. 1, p. 29), the inhabitants of the officially recognized townships numbered 61,000. In 1998, Bedouin residing in unrecognized localities (ibid., p. 30) comprised 48,975; the total Bedouin population was then over 110,000. The proportion of town residents increased to approximately 56 percent of the Negev Bedouin, but this rate eventually declined for a number of reasons, for example, increasing expectations of favorable outcomes in land disputes with the state; and the worsening economic plight and work prospects for settled Bedouin which rendered difficult the task of coping with their financial obligations. Toward the end of the 1990s, the estimated number of the Negev Bedouin was 120,000, with 59,000 living in sites not recognized by the authorities (Atzmon 1999: 5, 10–11).

This means that the number of tent dwellers located alongside the townships (see Figures 5.2 (a–d)), which had decreased until 1995 in relation to the number of those living in stone or concrete homes, showed

Figure 5.2(a–d) Phases in the Emergence of a New Bedouin Town. (Photos by E. Atsmon)

Figure 5.2a. A spontaneous settlement.

Figure 5.2b. Building the home, while dwelling in the tent.

Figure 5.1c. Shacks of families who are constructing homes.

Figure 5.1d. Spontaneous settlement on the outskirts of a township (which can be seen in the distance).

an increase during the later years with the result that although the trend of settlement in towns continued, it did not keep pace with the massive demographic growth. The slowdown in the country's economy following Rabin's death and the new elections which brought the Netanyahu administration to power occasioned severe unemployment in the Bedouin sector and this diminished the settlers' ability to repay loans received for constructing their homes. Moreover, city taxes, in addition to income and

property taxes, were an extra burden upon town-dwellers—tent-dwellers were not required to pay these taxes. The constant rise of the cost of living diminished the ability of newly settled Bedouin to make ends meet on a monthly salary.

A crucial issue meriting consideration in relation to the Bedouin economy is the factor of reproduction. How can one explain the higher rates of Bedouin reproduction observed in the desert, outstripping those of Bedouin living in towns? The answer lies in the conservative trend of maximizing the number of male offspring and in simple economic considerations. First, the preoccupation to produce a large number of male offspring accords with the tradition that assigns a higher status in the power hierarchy to larger agnatic groups (Kressel 1992: chapter 9).

Second, in 1998 the social security allowances in Israel amounted to as much as IS 3,801 (approximately $1,000) a month for eight children in a family,[1] which spurred the trend to have more children.

Polygyny is the measure taken to expedite multiplication of offspring, and it is more easily attainable for those living in shanty quarters than for those owning concrete homes since expansion of the latter is difficult and costly, whereas light constructions such as tents and shacks are more easily amenable to enlargement when new wives and their offspring appear. The practice of polygyny is, therefore, more widespread in the open areas than in the towns (Ben David 1998; Al-Qrināwi 1999).[2] The relative shortage of marriageable girls to satisfy the growing demand for additional wives is reflected in the importation of brides across the Israeli-Palestinian borders to the Negev. This practice, restricted by law,[3] is more prevalent in the squatting areas outside the towns, where it is also less noticeable.

The figures for townships, each separately, show the construction of agnatic combs or clusters of households that make up quarters. That is to say, there are no shared buildings or a residential admixture of neighbors from different patrilineages. The agnatic divide and the traditional fabric of life are retained in such a way that the tribal ascription of the residents and the sets of relationships between them are impacted by their relative size. Stratification of the groups is determined with the largest of them, assessed according to the number of its men, being placed at the top and producing from within it the chief sheikh. Structural traits such as this naturally spur the race for numerical growth.[4] A picture of the setup according to tribal size takes shape in the files of the councils. But attention is only aroused by the "AANB" and its significant implications are only noticed ad hoc, at times of fierce disputes that stir up the intratribal *status quo ante*, when arbitration is needed.

The Committee's Findings

On the basis of an analysis of the recordings and notes of conversations conducted by the committee over the eight months of its work, the officials of the Ministry of the Interior and the planning bodies (regional development councils) were told the following:

- Government investments in development of the townships had been tripled in the period of the Rabin Government, but were still not sufficient to augment the attractiveness of alternative B for Bedouin families living outside the urban settlements. Most of those doing the work of facilitating the development of Bedouin townships—heads of the regional councils of Shoqet and Massos and the personnel of the AANB—met with obstacles and they did not invest sufficient effort to overcome them. For example, ownership claims over plots of land that had been earmarked for public buildings and road systems resulted in delaying the development at Laqiyyeh. The head of the Shoqet Council, who was supposed to discuss the matter with the claimants and to find a solution so that they could be evacuated, did not make sufficient effort to attain this end. Ownership claims were no obstacle at Segev Shalom (Ar. *Shqēb*); at ʿAroʿer, too, development continued even though claims existed. The head of the Massos Council found solutions through persuasion, compensatory payments, and the construction momentum. He enlisted the residents in concern for public areas. The development rate of the Massos Council townships and their attractiveness for the inhabitants of the surrounding areas was quicker than the growth rate of the Shoqet Council townships. "Leadership" was the name of the game.
- The committee concluded that the head of the local government needs more resources, primarily for the development of public buildings: town halls, educational institutions, representation of the government ministries, for example, the Ministry of the Interior (for updating identity certificates), mosques, and youth and sport centers, which determine the quality of life in the townships and it is they that accelerate the rate of their occupation. There is also a need for orderly treatment of sewage in all the towns, including Rahat and Tel-Sheva, the older Bedouin townships of the Negev.

  Indecisive Bedouin families tend to purchase a plot of land while delaying building their home. Their vacillation often stems from anxiety associated with a sharp and complete break with their traditional way of life, for example, a relinquishment of their pastoral activities and tribal loyalties for an insecure future.

Thus, in effect, the Bedouins' "exodus" from the desert into an urban context entails the resolution of an internal cultural conflict at several levels. A central issue is the authority crisis whereby the dominance of the agnatic group *(waṭan)* is challenged and partly replaced by the power of the state *(dawla)*. The opposition in linguistic gender of these Arabic concepts here corresponds to a metaphorical one between the image of paternal authority and the mother image which, in the Bedouin's terms, attaches to the welfare state.

- Another important inducement that changes attitudes in favor of living in the townships the establishment of industrial zones near the residential areas. These provide new opportunities for nontraditional employment, for men and for women. Encouragement of local or outside entrepreneurs prepared to operate workshops and factories on the basis of the local workforce and aid for those who develop the commercial life of the townships can ameliorate the normalization of life in them.

- Betterment of the growing townships can be promoted by creation of municipal organs, unconstrained by the national government. Weaned of appointees at the level of mayors and municipal councils, they should be guided to approach the coming general elections, that is, the Regional Councils should first be gradually dismantled.

- The family tie to the organizational patterns and the tribal leadership tradition of Bedouin society persists. Members of the committee were asked if they would prefer to see an elected council, which would work alongside a mayor, or an appointed council, and most of them preferred the appointment of sheikhs. Members of the larger lineages, confident in their numerical superiority, recommended the appointment of the council straightaway. The others, as a rule, were happy with the possibility that there should first be a mayor (a Jew, from the outside) and that then, in consultation with him, the composition of the town council would be determined. The preference for this possibility characterized the elders of the small tribal groups. In townships where the power game between the large tribes was balanced and it was unclear which tribe would take precedence and produce the first head of council, the small groups fear elections lest they erroneously bet on the wrong sheikh (who loses).

- The prospects that the future municipality, when it is 100 percent local and is elected once every four years, will succeed in retaining the necessary areas for public purposes and develop them, seems

small, since the notion of the public sphere has yet to be integrated into the Bedouin *Weltanschauung* (Hoexter, Eisenstadt, and Levtzion 2002). Significantly, concerning the public sphere, interviewees explained to the committee that it would be preferable for the head of the council to be appointed by the Minister of the Interior since an appointee from one of the clans would be bound primarily by loyalty to his own agnatic group. Roles of mediation or arbitration are invariably often performed on behalf of Bedouin by outsiders, since these are presumed to have no vested interest. Thus despite their aspirations to develop over time into an independent public, at the first stage, they requested the appointment of an outside head (an Israeli) who is proficient, tactful, and familiar with their culture. If such an appointee also secures the backing of the Treasury and compensation for those with claims to land earmarked for development as public areas—so much the better!

Incidentally, the State is expected to undertake certain laborious functions entailed in the transition to townships, such as mediating in intratribal disputes and drawing the boundaries between the tribal quarters.

- The laws of the State of Israel require that, during the first four years of its existence, a local council should not be elected but appointed. Being aware of the provision of the law, the Committee (in June 1995) was of the opinion that the timing of the country-wide elections for the heads of the local government, including Rahat (< Ar. *raḥṭ* "group") and Tel-Sheva (held in November 1998) would be a suitable time for the first elections in the five Bedouin townships. Until then—in the intervening three and a half years—there would be enough time for the appointed council to act and to make all the necessary preparations for the municipal elections.

- The Committee recommended that two-thirds of the provisional councils be appointed from the heads of Bedouin families who had acquired experience in civil administration, and that one-third (4 out of 11) of the representatives be appointed by government ministries who would guide the local officeholders, teach them how to work with the government ministries, train people for every administrative function in the township, so as to cope successfully with bureaucratic hurdles in the State administration.

  Twinning of towns arranged between the Bedouin municipalities and parallel departments in veteran towns of the Southern Region was also considered. The training of a cadre of public servants, in

the absence of a tradition of local administration, was required for the Bedouin township, at least in the first years of its term.

- Priority in staffing posts taking shape in the service of the municipalities should, the Committee recommended, be given to their citizens. It would enhance the job situation there and, simultaneously, encourage civic culture, that is, heightening officeholders' sense of responsibility to the public and that of Bedouin citizens to property, and so on. The task of serving all the citizens of the town, irrespective of their agnatic ascription, or public servants whose agnatic ascription does not erode their commitment to all the inhabitants, is a complex problem here, as it is in other parts of the Middle East. The impact of agnatic ascription in the composition of local government arrangements in the Arab sector, where it provides much of the logic of the social order, contrasts notably with the trends of Western democracy.[5] A striking example is provided by the municipal elections of Rahat and Tel Sheva in November 1998 (cf. Parizot 2001) and illustrates the incompatibility of the two systems.[6]

- After considering this question, the Committee deemed it best to recognize that the largest tribal group had the right to select the mayor from its midst. In other words, rather than promote competition between political platforms or a confrontation between private individuals vying with each other to secure citizens' votes—they opted to let the clans fight it out between themselves. The Israeli Elections Law will, therefore, adapt to the social norm customary in Bedouin society (in which agnation is the organizing principle), and Bedouin society will become accustomed to a periodic census of those with voting rights in each lineage. In this way, it will be possible to eliminate negative developments that the election campaign brings to the intertribal relationships; an orderly census of voters adduces proof as to who has the numerical superiority, without the need for exchange of blows. When women's votes are included in the census, the sting in the principle of the male (agnatic) power, traditionally established with the ability to strike blows, will expire.

- So long as the clan's numerical size is what determines its hierarchical position, reproduction becomes a race track, and the rate of natural reproduction—maximal,[7] and the age of the candidates—rather high. Fortunately, the Negev Bedouin have produced a fair number of highly qualified individuals in various academic fields (medicine, law, etc.) rendering possible competition in meritocracy

spurring those running for office to aspire to academic degrees and to gain the necessary professional experience for filling positions responsibly in the municipal service. When meritocracy replaces the traditional prestige accorded to sheikhs, the quality of the service will improve for the benefit of the citizen. Clans competing against each other on the basis of their offspring's achievements will have to invest more in their education.

This will subsequently be expressed in the spacing of births to the point of devoting more attention to the development of each child's talents. They will thus, gradually, abandon the reproduction race, and opt for competition over their sons' achievements rather than over their numbers.

- The matter of transferring the emphasis from ascription to personal merits through recruitment of the candidates for a position in the municipal service engaged the Committee at both theoretical and practical levels; those who respond to tenders and those who "run" for elections to the position of a mayor in Israel can boast of *qualifications,* of professional experience, practical experience and achievements. Their counterparts in other countries of the Middle East boast of *honors,* deriving from family power stemming from closeness to the ruling circles in the country. The term "elected" rather than "notables" (Arabic *wajīh,* pl. *wujahā*) testifies to this conceptual difference; the "Western" model of the new era is foreign to the spirit of the "East."

- As an interim solution, an alternative type of candidate for municipal roles in the new towns of the Negev, and perhaps for the entire Middle East, is the "gentry model" that was common in the ranks of the bureaucracy of the civil service in imperial China, where candidates were elected for their technocratic-pragmatic talents. This recalls a meritocracy "in the West" but, nevertheless, differs from both the democratic model and the Middle Eastern model.

- The Committee found in the townships shows growing signs of competition between the families over the material achievements of their sons as a result of performance in the fields of economic entrepreneurism. Most of those who, when talking to the Committee, demanded the immediate transfer of their town management to local hands were successful individuals, such as the large construction and earthworks contractors of the Qlaʿiyyah groups.[8] Their claim for the position relied on a correct intermingling in business life in the

Negev, organizational ability, connections with people and economic institutions, which will be of benefit to all the residents of their town if they are appointed to the position. However, so long as ascription (rather than achievement) is the first priority in the appointment or election of the officeholders, and the stratification of the tribes in the townships is on the basis of the relative size, it is not the talented contractor but the sheikh with many relatives who will be the natural candidate for the position. Surveying the sociological merits of entrepreneurs in the Qlaʿiyyah group, Marx finds them to be better suited to the requirements of Israel's modern economy than the "pure" Bedouin. In fact, faced by the challenge presented by the talented and energetic "youngsters" of the Qlaʿiyyah, elite ("pure" Bedouin) tribes are now prone to back their young meritocrats and, in the near future, they (rather than their older fathers) will fill the key positions vis-à-vis the Center for Local Government.

- The internal distribution, the committee's report shows, reveals of a new strata relationship according to which, neither the newly rich nor the meritocrats are taking the lead. The elders of those tribal groups which have a larger number of men are still setting the tone, but the relationships of size, which are the determinants of the social climate, are giving in to some measure of a modern fusion. Thus, official head counts of the men and women (the vote potential) do constitute an alternative response to strife over positions of power in the township and apparently have the capacity to reduce friction.
- The Committee gave some thought to another essential component upon which the success of urbanization depends. This is the acceptance of municipal taxation, in turn associated with cultivating concepts of civic culture.[9] Without such a change, the municipality will be dependent upon outside grants. The residents will not insist on caring for their joint assets and will only harm themselves, and even if the damage can be repaired,[10] it will cost much money. The Control Committee of the Ministry of the Interior determined that the Bedouin towns will need sympathetic accompaniment and the "offer of a shoulder" from the Center for Local Government for achieving targets they have not sought. If the authorities support the new tenants and maintain a dialogue with them about what can benefit them in the future, the attractiveness of Alternative B will be enhanced.

Epilogue

The Committee was established during Mr. Uzi Barʿam's term of office as Minister of the Interior, but it operated and submitted its report to the ministry during Mr. Ehud Barak's term. It advanced proposals which were discussed and accepted for implementation when the ministry was later headed by Mr. Haim Ramon. However, Ramon was not able to put them into effect before the elections of Spring 1996, when he was replaced by Mr. Eli Suissa.

The first three ministers were members of Rabin's government and were amenable to the idea of preparing the townships for the elections of their mayors in the 1998 local council elections. Mr. Suissa, a member of Netanyahu's government, made no declaration of intent regarding the Bedouin townships but acted to preserve the policy as it had been until then, doing so for narrow factional reasons. To the position of mayor in Laqiyyeh, Hura, ʿAroʿer and Kseifeh, five altogether, and to the positions of their deputies, also five in number, the minister appointed nine loyalists of the Shas party and one NRP member, all belonging to the Sephardi-Oriental community. They were all appointed for four years, to avoid the possibility of their replacement upon the local government elections in 1998. The spokesperson of the Ministry of the Interior, when called upon to defend the nature of these appointments, had to have recourse to the psychological argument—as though the appointees, being members of communities from the Arab countries, were spiritually attuned to the Bedouin.[11]

As a rule, towns of the Middle East are largely headed by ex-army officers loyal to the central government and they operate with the support of a council comprising local notables *(wujahā),* themselves elders of the large tribal groups in the town. The Shas-style interpretation with respect to mayors is, therefore, "Middle Eastern," and runs contrary to the spirit of the Municipal Authorities Law in the State of Israel. The intermixing of the two models has created loopholes and permitted their misuse to the detriment of the public interest. The normal practice is that the salary of a mayor (who is considered to be a civil servant) is determined in Israel according to the relative size of his town, such that it is not lower than 85 percent of the salary of a minister. The above five mayors and the five deputies were, therefore, assigned salaries almost equivalent to those paid to ministers, but they did not exert themselves unduly! A current follow-up shows that they rarely visited their offices in Beer-Sheva and hardly ever went to the townships they "served."

The party battle in Israel is stained by community strife and tolerates too easily deviations from proper procedure when ethnic ascription is

involved. The representatives of the "oriental communities" respond to criticism (such as in the case of the Bedouin townships) with countercriticism, which discounts lack of qualifications and lack of action in fulfilling the positions. In this way, the Civil Service loses the "gentry" criteria for performance control which it needs to become more efficient. The leaders of Shas exemplify this process. Thus ethnic strife among the Jews extracts a price from the minority communities, and further weakens their position in the Israeli social fabric.

Alternative B for the solution of the problem of the Bedouin was not dealt with, and certainly not enhanced, in the four years that have since elapsed.

What Remains to Be Done? What Would We Like to Happen?

With the change of government in Israel in the spring of 1996, the report of the Committee on Urbanization of the Bedouin was forgotten. Its recommendations were not implemented because the heads of Shas and their associates, who had won convenient bargaining positions, picked the mayoralties for themselves.

At the end of the American Civil War, when those who were hungry for public office from among the victorious northerners rushed to gain mayoralties of southern cities, they were termed "carpetbaggers." The case of giving the municipality of the Bedouin townships to ultra-orthodox Jews from Arab countries, the "natural representatives," as it was put, of the Bedouin, is similar to that of those carpetbaggers, even if not associated with the use of the systems in an immediate postwar situation. The "distortions" of Shas are of the sort of the two models discussed above in that they exemplify the weighting of the scales in favor of the "Middle Eastern" model. It is true that nepotism is never missing in our society but, until recently, attempts were made to camouflage it and when it became publicly known, it faced sharp ("Western") criticism. Now it is becoming institutionalized and those who are institutionalizing it aim at establishing the "Middle Eastern" norm. This is now becoming part of the "natural and permissible" which has taken root in Israeli society, as normative and proper. Unintentional it may be, but is it desired and is it, therefore, advisable to allow it take root? Should it continue to exist? These are questions that applied anthropology could formulate and to which it could call the attention of the Israeli public-at-large.

Conclusions

- It is sometimes difficult to determine what interests dictate the policy of the Israeli government in its various sectors. In the State's dealings with the Negev Bedouin, three types of ministry officials

handle Bedouin affairs: the bureaucrat, the party man, and, the opportunist.

All these are extraneous additions to the components of Jewish nationalism, now responding to the challenges of Arab nationalism; and they diminish the required perception of a societal whole to be tested in the years to come. Proper administration in dealing with a seminomadic population, which does not move from place to place in the open areas as in the past, requires the preparation of new civil agenda.

- Settlement of the Bedouin is intended to keep the open areas they had formerly occupied in the hands of the State—this being an Israeli Jewish public interest. The Arab interest, on the other hand, is to retain in the Bedouin's possession all former tent sites. The State's response is to demand restriction of the dispersal of the tents. The law, however, does not permit restriction of housing in tents or coercion of urbanization on anyone. Nonsanctioned construction in the open areas is then the Arab response, which results in action in the court, the demolition of their homes, culminating in open conflict.
- It is in the public interest to raise the standard of living and the quality of life of Bedouin citizens of the State of Israel, by enabling them to move to modern houses. Moving the Bedouin to townships must then be a live issue for the Bedouin as much as it is for the Israel Lands Administration. But if the move to townships causes a decline in the Bedouins' standard of living and quality of life in comparison with their previous situation, particularly because of lack of jobs, then it clearly diminishes the Bedouin desire to collaborate. To render the move to the towns an attractive proposition for the Bedouin the government must invest more of its budget than it has done in the past, and propose employment alternatives and quality public services for those undergoing urbanization.
- An overall public consideration regarding distribution of the State budget, were there to be such consideration, would improve Alternative B for the Bedouin, as well as that of Alternative C, which I discuss in the next chapter. Narrow intransigent bargaining in Jewish circles relegates to the margins what concerns other inhabitants of the country. Pressure groups fight for a larger slice of the budgetary cake, while the Bedouin "sector," which has never been a "squeaky wheel" in the Israeli vehicle, has not benefited from a generous greasing. On the contrary, it has always been possible to save at its expense in favor of appropriations to more demanding social groups.

- The Jewish-Arab dispute over the land tends to subdue the protesting voices of the Bedouin, lest they be judged defiant, for example, against the Shas carpetbaggers and be called to order with the argument of disloyalty to the State and its laws.

Notes

1. The first child brought in the monthly payment of IS 171; with the second child the amount reached IS 342. Allowances for further children are as follows: for three children—IS 684, four—IS 1377, five—IS 1959, six—IS 2601, after which every additional child added IS 599 to the family income.

2. Research on Kseifeh (Ben-David 1998) established that, in town, 27 percent of all marriages were polygynous. In the unrecognized campsites around Kseifeh, polygyny accounted for 35 percent of all marriages. Similar results were attained by Al-Qrināwi in different parts of Rahat.

3. Polygyny is restricted by marriage laws in Israel and the importation of brides across the State borders is controlled by immigration laws, none of which is strictly upheld due to a permissive approach among civil servants in their handling of Bedouin concerns.

4. For the reproduction race among former Bedouins now neighboring one another in an urban setting, see Kressel 1992: chapter 9.

5. The pattern by which the municipality of a town is awarded to a person winning free elections, which are held every few years, is rare in the Arab world. Mayors and heads of regions (*muḥāfaẓāt*) are commonly appointment by the central governmental body. See Ben-David 1999.

6. See Ben-David 1999.

7. Statistical data testify to the incessant reproduction race obtaining among tribes, notwithstanding urbanization, see the *Statistical Yearbook of the Negev Bedouin,* no. 1.

8. A term for members of lineages of Egyptian peasant origin among the Negev Bedouin. See Marx 1974 about the relationships between the two groups: the pure Bedouin and the descendants of Egyptian peasants living in their midst.

9. By the end of 1999, the Rahat municipality's deficit was IS 20,000,000, while unpaid municipal taxes of the residents totalled IS 22,000,000. See *Qol Ha-Negev,* March 24, 2000, p. 54.

10. During the few protest demonstrations staged in Rahat and Tel Sheva, the first Bedouin townships, rioters damaged the city institutions, broke windows and items of furniture, and even uprooted saplings planted along the roadsides, acts the likes of which are unknown in the Jewish towns.

11. For a response to the spokesperson's statement, see Meir Shalev (*Yedioth Acharonoth* Supplement, Shabbat May 30, 1997), who criticizes the strangeness of this interpretation.

6 Are Shepherds' Villages Viable?

The two alternatives currently available to the Negev Bedouin, that is, continuation of their traditional way of life in the desert regions (Alternative A), and urbanization (Alternative B), are both inadequate. "B" ultimately condemns them to settlement in cinderblock structures, and to the necessity of mastering new survival skills. The acquisition of modern skills and amenities comes at the cost of losing their traditional expertise and an elementary means of subsistence—herding. Although those moving to townships will enjoy long-term ownership of property—a plot of land and a house—they are not guaranteed employment. Besides, no plot of desert land, unless developed, can compensate for the loss of a steady income from a herd. In other words, there is no guarantee that a shepherd will not be constrained to abandon his new home in a ceaseless search for other sources of income. While alternative A allows pastoralists to keep their herds, and the meager source of income they provide, it prevents them from attaining the standard of living accessible to town dwellers, and ultimately fails to safeguard their rights of access to pastureland when their population and the number of animals grow.

Changing the Situation

The presentation of two inadequate options necessitates the creation of a third alternative ("C") without the flaws inherent in "A" and, ideally, merging the advantages of "A" with those of "B."

Alternative C entails, on the part of the Bedouin, the endeavor of learning to nurture the pasturelands (something quite new for them) so as to be able to herd permanently on the same grazing lands. The disappearance of desert vegetation, which is a cause of concern to both the Bedouin and to those responsible for nature preservation, is the outcome of overgrazing, itself the result of restricting Bedouin to marginal desert plots that are too poor to support them and their herds. Unrestricted roving of pastoral nomads is no longer tolerated in the modern Middle East since reckless overutilization of vegetation and trees for fuel inevitably leads to desertification of the landscape, yielding a vicious circle of decreasing vegetation with increased demands on the little that is left. This problem often constitutes the source of friction between families, individuals, and tribes in densely populated areas.[1]

Herding and the preservation of vegetation are conflicting concerns, and the question of how to reconcile the two is a vital issue deserving serious study. Enlightened intervention aimed at *development* of desert plant species adaptable to arid lands, rather than mere conservation of existing species, will hopefully become more acceptable to nature protectors who object as a matter of principle to plant introduction.

The present study visualizes the ultimate objective of Bedouin settlement projects as comprising three basic elements:

- coordinating shepherding activities in permanent pasture plots, privately entitled, with appropriate provision being made for feeding animals during the dry seasons and in drought years.
- designing rural settlements with an eye to neutralizing the potential for intralineage conflicts.
- modification of traditional Bedouin habits (such as moving one's dwelling, the tent, once its immediate vicinity becomes polluted) to accommodate life in permanent settlements.

Years of drought, such as the present one (1999), have had a tragic impact on the Negev and adjacent arid lands and on the population of this region, causing chronic problems for human survival and development in the desert margins currently undergoing an apparent intensification of desert conditions.

These problems are amenable to study with the methods of applied anthropology insofar as researchers are given the mandate to do so. The Ministry of Science (and not the *Minhal*) has placed at my disposal the means required for studying ways of enhancing Alternative B. My aim was to ascertain the conditions required to effectuate a smooth urbanization of the Negev Bedouin. Research on Alternative C is essentially a task for an anthropologist; no agency in Israel has ever commissioned a study with the aim of looking into its economic or sociological viability.

Few anthropologists entertain the illusion that pure research can "get things moving," since no substantive change is likely to win the state's approval—no matter how vital for certain people or groups—if the anthropologists' findings contradict the views of government offices or if they make individual bureaucrats uncomfortable. In applied anthropology, however, we can reach out beyond the bounds of basic research to assess the chances of attaining the objectives of what I have called Alternative C.

Assuming that the relevant circles (the Bedouin, the *Minhal* and the public-at-large) can be motivated to cooperate in the implementation and monitoring of this idea, I took the initial step of developing a framework of research assumptions focusing on an attainable change liable to enhance the Bedouin's forseeable future.

Initiating the Research

Applied research, in contrast to basic research, does not propose study for its own sake as its principal goal. Its purpose is rather to replace one given reality with another. Thus the researcher wishing to effectuate societal change begins by defining his specific constellation of values, the proposed changes, their likely benefits, and the beneficiaries for whom the changes are intended.

The issue of benefit needs clarification. For instance, when questions of land ownership and utilization rights on improved land require to be settled, a distinction should be made between improving the landscape to benefit tourism, and increasing the potential pastureland for Bedouin herds and their provisions of firewood.

Furthermore, it is reasonable to ask whether Bedouin, who traditionally follow their flock, roving from one meadow to another, will easily accept the restriction of living on the same meadow forever? Or again, what benefits will accrue to other parties involved in the efforts for change? How can the State be persuaded to employ its research staff, while allowing scholars to exercise unfettered creativity in setting up their own objectives? Ideally, the planner should feel free to make completely new suggestions and endeavor to keep politics out of the picture.

Anthropology of the Bedouin has largely concerned itself with cultural translation, and that was also the orientation in my own work until 1990, when a growing awareness of moral responsibilities toward the community that had been the object of my field inquiries, led me to embark upon and fully advocate (cf. Paine 1985) a track that will hopefully yield an enhancement of Bedouin life in the area.

In November 1990, the Social Studies Center of the Blaustein Institute for Desert Research, with the encouragement and financial support of the Ministry of Science started to collect information pertaining to the implementation of Alternative C. This entailed the integration of ongoing research in several areas, for example, the following:

1. Arid lands projects aimed at improving pasturelands referring particularly to the Negev and, more generally, to other parts of the world.[2]
2. New ways of enriching natural vegetation (agroforestry or savannization), currently being employed. In our work, we had inputs from the research projects of A. Yair (1983, 1986), M. Shachak (1990, 1997), and B. Boeken, who work with the Jewish National Fund on the topic of arid land afforestation.
3. Data on the pressures of grazing (or "anthropogenic" pressures) on perennial and annual vegetation in the Negev. The findings of Dr. L. Olsvig-Whittaker, a researcher into the sand dunes to the east of Ashalim, were utilized.
4. The results obtained by a team from the Volcani Institute, led by A. Perevolotzki (1988, 1995) responsible for the Lehavim Farm, in the improvement and development of Bedouin herds in the Northern Negev through monitoring a certain area of pastureland.
5. Inquiries into the potential for growing vegetation on the terraced slopes (a major part of the Negev Highlands) on the basis of ancient models as reconstructed in M. Evenari (1971, 1987), A. Yair (1983, 1986), M. Shachak (1990), H. Bruins (1986), and Y. D. Nevo (1994).
6. A. Abu-Rabia's 1994 survey of Bedouin preferences in the use of wild vegetation, in the Be'er-Sheva valley; this researcher's fieldwork included interviews around both anthropological and botanical questions.
7. Available solutions to the problem of settling Bedouin in their traditional grazing grounds in arid areas of neighboring countries. Harry Lemel lent his assistance in the survey of the relevant literature.

8. Interviews and questionnaires assessing the readiness of Bedouin accustomed to employing existing installations, such as cisterns and wells dug by ancient inhabitants of the desert, about their willingness to follow their example, that is, to invest their own energy and resources in projects of runoff agriculture which were new to them.

Contacts were established with a group of Bedouin families headed by T. Farḥān Shlaibi of the Al-ʿAzāzma tribe, which registered eighty families as an *amuta* (Hebrew term for nonprofit organization) to create a "shepherds' village." We established a conduit for consultation, the exchange of information and views, and consideration of new proposals. During the Winter of 1982, we began, together with men of the 'Azāzma tribe living alongside the Boqer ridge, to clear out ancient Byzantine cisterns of generations' old silt. Thus the cisterns have been reopened for use.

Another option, whose potential we have also examined, is one whereby the better educated new generation of Bedouin encourage families to modernize the breeding and rearing of herds. Expanding their traditional skills could enable them find additional sources of income and promote advanced breeding technologies. The activities of breeders in Israel often reported in the periodical *Ha-Noked*, became an additional object of our attention. The point which engaged us most was advocating new methods, showing the members (mainly Jewish farmers) more modern effective methods. The question of how the appeal of renovations to enterprising Bedouins can be increased also comprised the branch of camel rearing. Prof. R. Yagil of Ben-Gurion University and A. Degen of our Institute have both worked for several years to improve the reproduction and yield of camel's milk. Bedouin in our immediate vicinity raise camels by using, more and more, the high-producing breed; these animals are then sold for meat, instead of being kept in the grazing herd.

Master plans for shepherds' villages built of concrete and stone, include an arid area around them designated for the development of natural pastureland. In order to test the acceptability of new ideas pertaining to Alternative C, we consulted the architects Y. Meir and R. Khamaisi, through the Society for the Protection of Bedouin Rights, in Be'er-Sheva. Dr. Meir, the architect at the J. Blaustein Institute designed with us the prototype for a shepherd's village.

Improving the Pastureland: Government Initiative and Private Action

From the 1950s, policies already launched by the institutions responsible for Jewish settlement before the creation of the State were pursued to implement experiments aimed at improving natural pastures. The idea

captured the imagination of several people holding key positions, and both the Ministry of Agriculture and the JNF (Jewish National Fund) initiated procedures to secure the means for establishing research institutes and nurseries.[3]

However, from an historical perspective, the process suffered from a degree of periodic discontinuity: either conclusions were not drawn from the research, or they were not applied. Perceptions of the feasibility of capital-intensive pasture development tended to fluctuate, and much depended on perseverance and drive to keep up the momentum.

Attainments reached in the field of pasture development in Israel were monitored by the central authority and the only way to foil discriminatory actions (such as preferential treatment on political grounds of one region over another, or the arbitrary movement of resources from one region to another) was to appeal directly to the Prime Minister's Office. As a result, private initiatives could not come to fruition except through lobbying or under government patronage.

The basic approach underlying efforts to improve pastureland resorted to two strategies applied simultaneously. The first studied the archaeological infrastructure of runoff agriculture and the exploitation of ancient methods of water storage for irrigation in the Negev. The second applied new methods, such as enrichment of underground water by slowing down its flow into streams and through the digging of wells, as in arid areas of the USA. On both fronts, there was much to accept and much to reject.

One of the most active pioneers promoting the enhancement of pastureland in Israel was the late Yaacov Orev, an agronomist with Israel's Ministry of Agriculture. Orev was engaged in initiatives to improve natural pastures in the Negev, but also in Niger, where he spent three years working to enhance the foraging capacity of arid lands.[4] Orev's work in this domain spanned the period from the early 1950s to 1980 and reflects fairly well the range and ramifications of development in this area attained in Israel over the last fifty years or so. It has also provided the inspiration of the present work, since Mr. Orev was a keen collaborator with the Social Studies Center at the Jacob Blaustein Institute for Desert Research where the present author is employed.

Much time and effort was invested by our team in reopening Byzantine cisterns. Although undertaken for the sake of the neighboring Bedouin, their participation was limited, usually to men in their forties, not younger. Government support, we felt, could change Bedouin attitudes in favor of greater input, creating a momentum by joint effort. However, as of yet, the governmental resources we have advocated, such those needed for the augmentation of underground water have not been forthcoming.

Mr. Orev led this campaign on both fronts (Bedouin and governmental) maintaining that entitlement to the land promoted by the State, together with legal fencing, would change Bedouin attitudes. To make the government invest in lands earmarked for Bedouin development, as it does in the neighboring kibbutzim, also requires the central authorities to understand that this action is in its own best interest.

From the outset in 1950, the emphasis was, generally speaking, on the enrichment of vegetation, and special attention was given to annual cereals and pulses. Then, on the basis of local experience and private initiatives, perennials were tried out, starting with the Artiplex. Growing seedlings in a nursery—to be transplanted—was the method chosen for distribution of perennials. Planting seedlings by hand in the open areas required choice of appropriate locations and of the proper botanical approach. Later on, a simple contraption for sowing was developed by Mr. Orev, which dispensed with the need for sowing in nurseries, thus economizing and also doubling the output. This work was carried out in Kibbutz Sde Boqer.

The "taking" and growing of the seedlings was found to be affected by the variability of good with poor rainy seasons. The viability of the reinforced pasture in subsequent years was affected by the uses of the vegetation and by monitoring to ensure optimal exploitation. Plants that grew wild and were not utilized by the herds or trimmed by the Bedouin for whom they had been selected and planted, eventually withered. Some grazing of older growth by larger animals (camels) proved necessary for stimulation of fresh growth that could be utilized by smaller animals. Preservation of essential vegetation was thus found to require active control, that is, preventing overgrazing and undergrazing alike. Settling Bedouin, who underwent a change of lifestyle away from herding, began to feed the herds in sheepfolds or open pens and did not utilize the pastureland. Their failure to maintain or improve them negatively affected sustainability. Bedouin families allowed to graze on ameliorated pastures, without a share in the responsibility for the work entailed tend not to respect the government's efforts to improve the land. This, of course, has led to overgrazing and the destruction of the pasturelands.

An early, private experiment relating to the creation of infrastructure to divert rainwater runoff to flood the pasturelands had proved significantly helpful in preserving and developing vegetation. However, the modest reliance on run-off water as a future strategy for stockbreeding, as well as the use of runoff mainly to irrigate orchards,[5] meant that only negligible attention was given to this early success.

A parallel experiment to prevent underground water from escaping and to increase the quantity of water percolating downward and sideways into the earth was a promising field for investigation. Rivulets and wadis

were dammed (partially or wholly) and polythylene sheets were buried underneath the dams to hold back the water. This water would then percolate downward and laterally into the underground aquifers. Experts in agronomy were required to continue the project further, but the research languished because the research authorities under the auspices of the Ministry of Agriculture did not adopt the projects.

Orev's report listed important ideas worth looking into that had remained untested or ignored. These included the sowing of seeds of perennial bushes along roads in arid areas in order to exploit the run-off water from the roads or, alternatively, sowing seeds under the layer of gravel deposited during road building. Shifting of priorities at the Ministry of Agriculture and among farmers to high-tech crops has led to the cessation of interest in "low-income" farming.

Israel's Ministry of Agriculture, which develops pastureland infrastructure for settlements, began to realize in the late 1950s that Bedouin rural settlements would be slow to evolve. The Ministry could not guarantee the protection and nurturing of its installations. Development of dikes and artificial lakes required maintenance and, indeed, "gifts" (investment in capital and work) from the public treasury are frequently not taken seriously. The idea of making such gifts contingent upon the degree of participation by the recipients has not proved fruitful. This indicates that the Ministry's willingness to tender aid is often greater than the recipients' interest in utilizing it.

On the whole, government action undertaken to improve natural pastureland was supposed to benefit the herds of Jewish settlements, such as the kibbutzim and moshavim, not ordinarily those of the Bedouin. The authorities decided that "rangeland development" also included agroforestry projects. With the concern to respond to ecological plans of attracting tourists, the willingness to attend to needs of the Bedouin also increased, for instance, in relation to the firewood that they habitually used (Haloxylon and Persicum). Yet actions that specifically served the Bedouin's herding needs were haphazard. For example, only when fields available to Jewish cultivators were neglected were Bedouin herds were allowed to graze on them.

Agroforestry = Savannization

Joint applied research by the Mitrani Center of the Blaustein Institute and the Jewish National Fund is currently being carried out in three locations: Sde Boqer, Lehavim and the "Sayeret Shaked" site near Ofakim. The primary aim of the Institute's staff is basic research itself and, only secondarily, application of research results. The goal of the JNF is applied science, mainly the rejuvenation of desert vegetation to protect the ground

(against erosion), to improve the landscape and encourage internal tourism. Researchers at the Blaustein Institute make prognostications regarding ecological response to the development of "green spots"—parklike islands in the surrounding yellowish brown landscape. Their declaration of intent also includes improvement in economic conditions for the rural Bedouin and their pasturelands. So far, however, there is no investigation regarding the usage of prunings for firewood or animal feed. A team lead by Y. Gutterman is testing ways of encouraging local vegetation, as well as the introduction of species from other world deserts into the Negev Highlands. The use of shallow craters, fencing, earthen dikes, and artificial collection "bays" (limens)[6] and holes for run-off water to irrigate trees on mountain slopes in microcatchments, are all expected to improve the desert landscape. A. Yair, M. Shachak, and their teams have succeeded in proving the viability of savanna flora on as little as 90 milimeters of annual average rainfall. This gathers in the shallow craters and provides their vegetation with four to five times the long-term annual rainfall.

An important conclusion emerging from this research (Shachak 1983) is that preparation of the land, including digging holes, construction of limens, and so on, is likely to encourage the spread of grassy annuals, as well as providing protection for germinating perennials, thus improving their chances of seeding and propagation. Under conditions of intensive herding (Perevolotsky 1987, 1995) when, year after year, the greenery is grazed by the animals before seed is produced, the renewal of the vegetation is severely prejudiced to the point of extinction. Relatively small fenced-in holes (up to 5 m in diameter) distributed around the area increase the availability of cache water and act as a trap for airborne seeds, providing opportunities for the seedlings to develop. Acting as "greenhouses" for seed production, the craters contribute to seed distribution and renewal of the pastureland and help alleviate the pressures of overgrazing. On the other hand, new problems arise pertaining to preparation of land and continuous maintenance of the surface, such as the need for clearing away silt, mending earthen dikes, repairing fences, and so forth. All this requires the endeavor of all interested parties to act wisely, for the common benefit. Since few Jewish farms still practice animal husbandry (most of them pen their animals and feed them specially purchased feeding formulas)—the question arises: Who are the beneficiaries of these laudable efforts at improving the pastures, if not the Bedouin herd? The JNF (a farsighted initiator financing the research) has not yet, however, adopted the concept of "greening" the desert for the Bedouin, as part of the overall plan for the Negev. To the degree that they include the Bedouin as a target population for their developmental efforts, the integration of the Bedouin in the work may become possible—and

without great outlays—since they will work for their own advantage, effectuating great savings in manpower costs.

Once it adopts the program to improve vegetation for the benefit of the Bedouin and their herds, experts at Israel's Ministry of Agriculture must choose suitable plants to be distributed among the Bedouin, who will need instruction in using these scientific innovations enabling them to exploit them effectively. One of the solutions we are discussing is the possibility of putting tracts of savanna—after developing them as tourist sites—under the care (maintenance, planting, pruning, replanting) of Bedouin families, who will produce animal feed and heating fuel from the available desert plants.

The Pressures of Grazing on Annual Vegetation

For a number of years, Dr. L. Olsvig-Whittaker has investigated the mechanisms of plant response to grazing in sandy soils west of Bir Asluj (Olsvig-Whittaker et al. 1993). According to her definition, grazing is an intervention that affects competition between the pastureland plants, due to preferences and the selective feeding of the herds. In an area given over to Bedouin herding (mainly sheep, goats, donkeys, and a few camels) repeated surveys of the vegetation were carried out. Here is a statistical analysis of some of her findings:

- The type and quality of the soil has a decisive influence on plant development, no less than anthropogenic pressures. When the effect of the soil texture on the variety of species is only moderate, there is no correlation between wealth of variety and exposure to grazing. When the grazing is intensive, there is a higher prevalence of varieties of grasses. That is, when the pressure of grazing intensifies, annual vegetation disappears more quickly.
- In the sandy soil of the Negev Highlands, as in the Mediterranean areas of vegetation in the north, the difference in variety of plants is greatest when the period between grazings is longest. Grazing pressures in themselves, if moderate, are effective in increasing the variety of plant species. Grazing interferes with advantages enjoyed by "adaptive" plants, that usually spread quickly at the expense of more "recalcitrant" ones. It offers fresh opportunities for the latter to propagate.

The first conclusion that can be drawn from the above is that Bedouin presence over thousands of years did not result in the extinction of the less hardy vegetation unless, for long periods, a large concentration

of tribes and their herds used the same pasture tracts. Historical research is needed to discover if, when, and how such conditions occurred. The chances of significant findings are modest, since the progress of nomads and their herds leave only scant archeological traces (however, see Rosen 1988, 1992, 1993; Avni 1996).

A second conclusion relating to the future of the region and its development, and the desire to increase the variety of its vegetation, can be stated thus: it would be well to adopt the strategy of introducing grazing to locations which have not been grazed, while restricting it in those areas where there is great competition and the pasturage resources are limited. To this end, therefore, agreements, as well as suitable legal arrangements to ensure cooperation, must be concluded among the owners of the herds. The quality of the negotiations will affect the level of success. Methods of enforcement or self-control will be needed. Can monitoring of anthropogenic pressures and deterrents—until now administered by the Nature Preservation Authority and executed by the "Green Patrol" with the aid of the courts—be placed in the hands of the herd owners? Perhaps after instruction is made available! These programs would have to inculcate the principles of the new approach, provide the tools and manual guidance that preconditions amelioration of forage in deep desert lands.

The Lehavim Farm for Enhanced Bedouin Herding

A team from the Volcani Institute, headed by Dr. A. Perevolotzki, which runs the Lehavim farm, summarized its achievements in a report (1988). We have studied this report and also paid working visits to the farm in 1991 and 1992.

The concept of a farm to demonstrate advanced herding methods—with the aim of disseminating the knowledge among the Bedouin herders—began operations in 1980. One Bedouin family with herds was chosen, and later on a second family with its herds was included. These families were allocated sole grazing on the pasturelands to the east of the Lehavim township. The area was legally fenced-in to prevent incursions by other herds, and thus reduce grazing pressure and render measurements more accurate. The purpose was to simultaneously investigate (1) the level of anthropogenic pressure on the various species of plants; (2) controlled improvement of the pastureland; (3) the combination of natural grazing and provision of artificially concentrated feed; (4) the possibility of speeding up the fertility of the Bedouin herds by hormonal treatment and use of enclosures, in comparison with sheep and lambs taken from the Ein Harod herd.[7]

An interim report showed the following: The fencing helped to improve the grassy pasturage, by restricting access, thus preventing overgrazing. Although the Volcani team did not have the means for repeated surveying of the vegetation (as had Dr. Olsvig-Whittaker), the improvement was conspicuous to the naked eye. Grassy plants were enriched in locations where there was a constant, but moderate, level of grazing. In rainy years, it was found desirable to increase the number of sheep; in other words, the herds of only two families were unable to crop all the plentiful greenery.

The suggestion that more families with their herds be added to the research was rejected by the two families, even though there was more than enough pasturage. The team's request that all the corners of the reserve should be grazed was not heeded. As a result of underuse of the grassy plants, the shrubs spread and took over part of the area of annual growth cover.

Another clearly discernible phenomenon was the ability of the herders to adopt new feeding methods offered to them, including alternative feed that included organic refuse, that is, waste from food industries, citrus peels, and so on; this was foreign to their traditional practice. A mixing machine was attached to the sheep pen for preparation of the feed; this was given to the herd even when there was plenty of grazing available—in violation of the research plan.

An unforeseen aspect of the situation has been the families' tendency to calculate the labor costs of herding. Prior to their participation in the experiment by coming to the farm in the early 1980s, herding was shared by both men and children, whereas now it is carried out exclusively by the women, an arrangement that allows the children to go to school and the men to go out to work. Thus, the men's wages are added to the income from herding. Once the standard of living rises, however, the Bedouin families play down preoccupation with shepherding which diminishes comforts because it takes time away from household activities and chores.

In the new farms, there is a novel tendency to give concentrated feed to the sheep—now kept in sheep pens. This allows the women to focus on the household without the need to "run around" outside. Our personal interviews revealed that during the past two years, Bedouin in the Be'er-Sheva valley did not bother taking their herds out to the fields of the neighboring kibbutzim and moshavim, which constitute the favored pasturage under normal conditions. Although these fields are available to them from the end of May, that is, before the start of the school summer holidays—when children do the shepherding—most Bedouin families declined the offer of virtually free, rich stubble in the fields. Instead, they

feed the animals on hay and straw until July, when the schoolchildren on summer vacation can take the herd to graze on what is left of the stubble.

The provision of prepared feed for the herds in situ reduces dependence on variations in the pasturage and is widespread among all the Bedouin tents in the Negev, especially in dry years when the pasture is meager and the price of hay still affordable. In the distant past, during times of drought, the Negev Bedouin led their herds to the north of the country or westward to the Nile basin. Today, thanks to industrial farming in the neighborhood, straw, hay, and cereals—plus leftovers from the food canning industry, such as the pulp and pith of vegetables and citrus fruits—can offset the chore of herding in the fields, and the harm can be minimized. In rainy years, when the supply of reasonably priced animal feed is good, the Bedouin does not sense the lack of pasture. In years of drought, when the corn does not mature, farmers allow the Bedouin to herd in their fields, and thus derive some benefit from the ruined harvest.

The families chosen for the experimental farm near the town of Lehavim can exemplify this new trend. They have quickly absorbed every innovation, and their Bedouin preferences now resemble those of Jewish breeders before them, who economize on manpower to the extent of depreciating the provision of forage that has been created for them. As a result, we can conclude that a guarantee of return on the investment in developing natural pasture lands depends upon a constant exchange of beneficiaries, with a new stream of meager families and herds replacing those who found alternative subsistence elsewhere. When concentrated feed is cheap and simple to use, it is easy to manage without grazing. Exploitation of the ecological advantages of ameliorated natural pasturage offers an alternative solution. Moderate nomadism saves on man and (mainly) woman power. Parcellization of plots, reserved for shepherding by fencing them in, will confine grazing and prevent dispersion of the animals. This could answer the needs of modern Bedouin.

Sociological developments in Bedouin society, however, create another change in their willingness to practice shepherding. Of the two herd owners of the Lehavim farm, one, for example, began a business of earth works (Ronen 1993: 69), to which he diverted most of his investments.

The stimulation of lambing through the use of hormones has been successful for the families on the Lehavim Farm—record numbers of lambs were born. On the other hand, the attempt to introduce the improved Awassi sheep, distinguished for their milk production, from the Ein Harod herd has not worked out well. The Negev Awassi (nonimproved stock) designated for mating were not enthusiastically brought forward by their owners for trials. An explanation for this reserve can be found in traditionalism and the unwillingness to alter the herd's face. There was

also the fear of jeopardizing the herd's quality to a greater extent than they stood to gain.

The families' ability to adopt modern farming advances is remarkable. This is particularly true for sheep milk products; the Bedouin have started selling the fresh sheep milk to cheese producers and to feed the lambs powdered milk instead, by means of a "suckling machine" commonly found in the Jewish sheep-pens.

The stated intentions of the Ministry of Agriculture, at the start of the Lehavim Farm experiment, were unconvincing. The absence of a second phase, that would have shown where the Ministry was headed and how far it had progressed, suggests that there was no hope for any momentum. Although the conclusions point to practical applications, they were not implemented. Without the support of a government entity, large-scale operation of the project has no future prospects. At some considerable expense, the profitability of Bedouin herds has been proven possible, without the need for nomadism. The Bedouin ability to adopt a measure of modern technology and skillfully maintain their herds (although the sophisticated improvement of the sheep breed failed) has been confirmed. The advantages of fencing and controlled grazing on natural pastures have been demonstrated—but the entire project has been discontinued.

The Lehavim experiment calls for a renewal, to investigate the botanical conditions resulting from the fencing of tracts, the effects of intervention in improving pastures, and the acclimatization of new species. No attention has yet been paid to the pulse of the Bedouin society and its response to the opportunities opening up. No start has yet been made to apply the knowledge accumulated and the methods developed. Since the Lehavim Farm's innovations have not been disseminated to the public, despite many requests for this to be done and the willingness of many individuals to raise sheep under such excellent conditions, there arises the question as to "what exactly the Ministry of Agriculture really wants."

The Potential for Vegetation on Terraced Slopes

Rocky limestone slopes constitute most of the terrain in the Negev Highlands, and the possibilities of introducing plant cover are being weighed. The results of the pioneering studies of Evenari, Shanan, and Tadmor (1971) and, subsequent experiments by conducted by Professor M. Shachak (1997, 1998) and Professor A. Ya'ir (1983, 1987) on the Halukim Ridge, are being evaluated. These researchers have investigated the use of microcatchment areas to assist the growth of trees and grazing shrubbery on the slopes. We have also started to assess the results of work

done by the late Mr. Y. Nevo and by Dr. H. Bruins on the subject of ancient tracts in the Negev Highlands.

The Shahak/Ya'ir team has experimented with the planting of tree seedlings and shrubs.[8] The shrubs were planted on the northern face of the wadis, after calculations of the degree of slope and a survey of the characteristics of rainwater flow and the percentage of water absorbed into the ground. As a preliminary step, they prepared hollows for the maximal absorption of runoff. It was found that, despite the arid conditions (an average 90 mm annual rainfall), trees could grow without added irrigation. We presented a proposal to widen the test (which used pines and eucalyptus) to also include local shrubbery: such as broom or retama, Persian Haloxylon and Atriplex, which are used in afforestation. Experiments such as those conducted by Ya'acov Orev were also evaluated. A large-scale program would benefit local inhabitants hiking in the area as they could enjoy the plant cover on the slopes. Moreover, the Bedouin would benefit doubly: they could be employed to plant the trees and shrubs (instead of JNF forestry workers), and they would be able to use the vegetation for grazing and firewood (See Figure 6.1 a–b).

Figure 6.1 (a–b). Firewood *(ḥaṭab)* gathered by hand.

Figure 6.1a. Indigenous vegetation gathered for firewood.

Figure 6.1b. Heaps of pine branches pruned in the Yatir Forest to be used for firewood.

A number of research papers: Bruins (1986), Evenari et al. (1971), Droppelmann et al. (2000), and Droppelmann and Berliner (2000), indicate the present-day potential of wadi areas to sustain agriculture when they benefit from run-off systems and annual flooding. This is so despite the ongoing Holocene and the diminishing precipitation rates, that were probably somewhat greater during the Byzantine era. Reconstruction of Nabatean-Byzantine systems by Prof. Evenari near Avdat, and archeological excavations in other places in the Negev Highlands and eastern Sinai, have provided the basis for measurement of the runoff water potential. The Nevo excavations (1991: p. 47 ff.), which also included plots on wadi slopes on which flood banks and stone terraces have been built, suggest that the ancient terracing method was used not only for farming, but also as part of a local tradition for the cult of spiritual entities**.** Nevo investigated the properties of the remains of these terraces from the late period of the permanent settlement in the Negev Highlands, which ended about 100 years after the Arab conquest. The upshot of the research is that the area could not provide food for a large population. The towns and villages of the Negev Highlands required massive assistance from the Byzantine central authorities and, after the latter's retreat from the Levant during the short interim from the middle of the seventh century until the last

decades of the eighth century under the rule of the Umayyad Caliphate in Damascus, they were abandoned. When the Umayyad dynasty was overthrown in 750, the center of the Arab rule was transferred from Damascus to Baghdad. This subsidy, consequently, came to an end, and the farmers apparently moved away for good. What happened to their allied shepherd tribes? Perhaps, out of necessity, they moved northward (to the coastal plain) and farther on to the Nile Basin, in the trail of the conquering Arab armies, which triggered a massive westward migration of tribes from the Arabian peninsula and the entire Near East.

When the towns of the Negev Highlands were ruined, only a few small tribes remained to eke out a living from herding. For some 1,200 years, up to the present century, nothing was done to restore the settlements, the structures, or the agricultural watercourses.[9] As for the Bedouin, they continued to exploit whatever remained available; some small part of the water system (cisterns and the drainage of run-off water) still stored the rainwater, and the Bedouin continue to draw on this resource to this day.[10] Until recent times, when additional water storage was needed with increasing human and animal numbers, nearly nothing, however, was invested in preservation, reconstruction, or erection of new hydraulic systems—that is, the worldview of passing through open spaces as a "shadow" and taking from nature's provision, corresponded with an approach which differed from that endorsed by sedentaries, which accentuated the accumulation of real estate. The Bedouin did not strive to leave after them any monuments of a material kind. They created by themselves nothing that was meant to last beyond immediate use.

In the course of the last century, there has been a sustained interest in Bedouin agriculture (see Kressel, Ben-David and Abu-Rabia, 1991). Because nomadic practices have declined and the Bedouin learned that pasture plots can be utilized for winter crops (as demonstrated by peasant immigrants from Egypt), they began to follow ancient practice, and to work terraced wadi tracts, (mostly) planted with winter crops. During the first decades of the twentieth century, some efforts were made to improve the stone dikes which held back run-off water, as well as to clear old cisterns and reservoirs ensuring a supply of drinking water during the dry season. However the Bedouin attitude to natural vegetation, shrubs and grasses available for their use has still not changed—they take what they can and give nothing in return. Changing their attitude will require introduction of new preferences, along with the facilities to implement them, that is, growing investment of means to enrich the foraging capacity of pasturelands on which they herd. The region's states, with the help of the international community, must take the initial steps to encourage the Bedouin and to add their own means.

Desert Vegetation: Bedouin and Governmental Preferences

An anthropological-botanical survey conducted by Dr. Aref Abu-Rabia in the Be'er-Sheva valley and the Negev Highlands investigated the use of desert vegetation by the Bedouin: what they find useful for grazing, firewood, medicines, and human consumption. Ronen (1993) and Abu-Rabia have evaluated[11] aspects of the Bedouin herd from several points of view, in light of the botanics of natural pasturage. To date, this work is the most important of its kind, in that it also probes the relationships of dependence and interaction between the region's Bedouin and the authorities as they bargain over grazing tracts in the Negev—from the viewpoint of the herders. In a more recent work, Abu-Rabia (1999) details the uses of the various plants for medicinal and nutritional human use. Still required is further research on the grazing preferences of the various types of animals. The dozens of species, annual and perennial, which could be utilized as food but are not exploited by humans, and their nutritional value, call for the attention of a researcher with a good ethnobotanical background.

The traditional Bedouin diet was poor in vitamins being based mainly on grains, a little milk and its products, and occasionally meat. A general survey of the desert vegetation consumed by Bedouin herds reveals that virtually all plants are eaten by one animal or another. Mixed herds of sheep (Awassi), goats (mostly black), donkeys, and camels are capable of stripping the entire vegetation to the ground. Between December and April, except in years of drought, the herds feed on annual plants and the withered grasses are grazed upon till June. Once harvesting is over in the Jewish farms, the herds move to those fields to graze the stubble until the middle of September, when the gleanings of Bedouin fields can be utilized. From then until December, there is a greater reliance on withered grasses, new leaves of desert shrubs (that prudent Bedouin leave untouched until late Autumn), bought feed, hay and straw, and a mixture composed mainly of barley grains.

Thorough botanical surveys of Negev range lands and their potential development were initiated during 1956–1957 by the Israeli Ministry of Agriculture, the Soil Conservation Division, the National and University Institute of Agriculture, and the Department of Field Crops. The authorities' intention was to assess the foraging capacity of the Western part of the Central Negev per livestock head, in view of a possible enlargement of the herds after amelioration of the natural flora.

The area of 2,330,000 dunams (583,000 acres) supported at that time 21,000 livestock (mainly Bedouin-owned). The surveys showed that, given extensive investment, the same area would be capable of supporting 26,000 head (Seligman, Tadmor and Raz 1962). The planning was meant

to benefit both Bedouin and Jewish enterprises, and the modernizing stock breeding has been continued ever since (Perevolotsky 1995).

Clearly, animal husbandry in the Negev, if modernized, can offer benefits never enjoyed before in the area. In the past, there were no stubble fields to glean after harvesting, and prepared feed, if available at all, was prohibitively expensive. Therefore, the shepherds would wander with the herds, especially in the autumn months and, above all, during dry years. However, the growth of the sector and the spread of farming has limited the natural pasture available. Taking into account the restrictions on the movement of Bedouin herds, one might have expected their size to decrease (Ronen ibid.), but this is not happening (Abu-Rabia ibid.). Herd size and its market value have been maintained at approximately the same level over decades. Another consequence is that the smallness of the ruminant herd benefits the breeders, buyers, and farmers (who sell their stubble, straw, etc.), the food-processing industries (which sell waste products), and the state services (which sell their services, levy direct and indirect taxes, and impose fines). According to the reports culled by the Ministry of Agriculture, the existing herds are bigger than permitted and (officially) registered; that is, a large number of sheep are maintained without any subsidy from the Ministry of Agriculture. In effect, this situation reflects a fruitful symbiotic relationship between the herding, agricultural, and industrial sectors, making partnership with state organs unnecessary (Ginguld 1994).

From 1995 on, we noted a transition in the Negev Highlands: Bedouin who had formerly raised sheep and goats have been shifting to camel breeding. Several factors are responsible for this shirt:

- Forage available for small livestock is diminishing; however, camels have a less selective diet.
- The monetary return on purchased feed, mostly hay and straw, when camels are sold for meat in Gaza and West Bank markets[12] is greater than for sheep, that is, camel meat brings in larger profit than mutton. Traditionally, Bedouin did not slaughter camels for their meat; sheep and goats have always been the most prevalent sacrificial animals in Bedouin society.
- The camel herd can be left unattended for days and can even stay out in the field at night, whereas small stock require constant care and protection against predators and rustlers. Once the men in the family hold jobs and the sons go to school, the burden of shepherding falls on the wife and daughters. Therefore, in families who do not have daughters at home, the herding of camels, instead of sheep, relieves the wife of a heavy chore.

- Inspectors on behalf of the *Minhal* and the Ministry of Agriculture strictly limit and monitor the number of goats,[13] and to a lesser extent, sheep, per household, while as yet no restrictions have been placed upon camel breeding.
- Along with the improvement in the economy in the Palestinian territories, together with the return of relative peace, the consumption of meat (which declined during the *intifada* of 1988–1993) returned to what it had been previously. Thus, the Bedouin could again earn a living from livestock.

Camel traders circulate in trucks calling at Bedouin encampments for camels to buy. In 1999, they were paying up to 1,500 Jordanian dinars (NIS 9,000; $2,200) for a female calf, 1,000 dinars ($920) for a male calf, and 2,000 dinars ($3,220) for a mature (5-year-old) male.

The attitude of the government ministries to the Bedouin herds is ambivalent. Abu-Rabia (1994) notes that the Nature Preservation Authority has taken the initiative to reduce the damage to protected vegetation. The *Minhal* (Israel Lands Authority) is concerned about encroachment on state lands, especially by the Bedouin, who then claim ownership**.** The Green Patrol acts to keep them away from state lands even if only for short seasonal foraging. On the other hand, the authorities recognize that the livestock bred on desert flora provides the population with livestock produce for almost no investment. As an official in the Be'er-Sheva Veterinary Service put it: "The best of luck to them (the Bedouin)—they produce meat out of dry thorns." There is considerable empathy toward the Bedouin among State officials who visualize a Bedouin community earning a better living with full recognition of their civil rights and their legal position as equals before the law, such that income from sheep breeding/herding would not be denied them.

Furthermore, while one can discern admiration for the resilient biblical state of the shepherding arts, the ambivalence of officials in the ministries and administrative offices, as well as at the level of individual civil servants, attests to a fear that the seemingly irresolvable problems presented by the Bedouin will grow and thus exacerbate social conflict.

Inconsistency in the actions of the government shows up on the one hand, in a desire to "green" the desert (to which end, special bodies and institutions have been set up), and on the other, in the denial of a role for the traditional desert dwellers in this enterprise. This reality can be accounted for in terms of the Arab-Israel conflict over the land, and the national ethos of the Jews. Not an inconsiderable number of officials would prefer to delay development projects which may benefit the Bedouin,

so that when they are carried out, tracts of land are not delivered into Bedouin hands. The rules of this game, however, affect the situation in unexpected and undesirable ways, with the result that neither the state nor the Bedouin attain their goals. Shortage of manpower and of the means needed for large-scale operations of agroforestry in deep desert lands could have been alleviated if the Bedouin had from the start shared in the project, but most government plans to include them have been postponed for many years.

Deep-Desert Settlements of Bedouin: A Comparative Study across the Middle East

A survey of the literature regarding interaction between the concepts of conservation, reclamation, and grazing under the conditions of semi-arid ecosystems in the Middle East reveals more contradictions than similarities. The grazing of domestic livestock is largely perceived as hostile to nature conservation. An ongoing conflict can be observed between the work done by Middle Eastern governments, supported by "green" agencies in Western states and the World Bank, on behalf of the flora, and a disregard for the Bedouin herd. Regional "environmentalists," even if comprising (co-opted) representatives of the tribes, fail to incorporate the tribes' herds and their needs in their planning.

Nature conservation projects, called in some states *ḥemā*, are concerned with restricting changes in the ecosystem and therefore endeavor to preserve germ plasma, an effort which avoids anthropogenic pressures. Biodiversity principles are easily disregarded with the transplantation of seedlings to enrich conservation areas with new species. Trimming of dry plant material to decrease the danger of fire, although an intervention in nature's course, is also usually endorsed, not to mention terracing and leveling of the ground to give the trees better access to run-off water. All that makes agroforestry impressive for visitors is accepted without problem but, at the present time, there is no serious consideration of "nature" people and their needs, and livestock grazing is viewed by the planners as a gross intervention that threatens the structure and function of natural ecosystems (Perevolotsky 1955: 38a).

In arid lands of the Middle East—where national entities do not collide, as opposed to those inhabited by the Negev in Israel—very little has been done for the Bedouin and their livestock. When deep wells are dug and dikes are built to trap and direct run-off water, it is largely for the benefit of farming, for example, horticulture (orchards, vegetable plots, fields for growing cereals), not for amelioration of forage. Why is this so?

Like many residents of forsaken regions, the modern Bedouin are dispersed over vast tracts of land and, thus, lack the needed social centers of coordination and decision making which might favor their joint interests and the formation of a pressure group representing them in the national foci of decision making.

Tribal rivalries, which are endemic in Bedouin society, militate to prevent a united effort in pursuit of a common interest. The emergence of the modern state and the multitude and magnitude of its organs, has diminished the spell of tribal unions and the might of joint armies, although the idiom and practice of agnation (which underlies the structure of the region's communities) survives until the present (Kressel 1996).

Grazing in uncultivated territories of the Middle East ceased with the exploration and mining of minerals in these lands (Chatty 1987). The value of forage as a natural resource and the pastoralists' right to herd on these lands were disregarded. After the countries of the region acquired their independence, concessions acknowledged during the colonial era, were not given to the tribes on whose lands *(dīra)* minerals were found.

As already noted in chapter 4, bitter recollections of the damage to trade and farming caused by the Bedouin and their flocks in the years that preceded the law and order of the modern state are an additional reason why the Bedouin's present troubles are being overlooked in modern Middle Eastern countries. Throughout the last millennium and above all in times, the general trend of the Bedouin transition between deserts and the settled zone has been away from the desert toward the towns. Those who squat on the outskirts of towns follow an irreversible process and rarely return to rear herds in the wilderness.[14]

Tribal chiefs, who "set the tone" and are predisposed to accept offers of co-option, often take the word of the authorities in matters that are contrary to their peoples' interests. After they build homes in towns, close to the foci of control, they also set an example to other tribesmen (those who can afford it) to do likewise. The younger, more skilled, and more ambitious generation leaves their family encampments in the deep desert in search of a more exhilarating form of employment, and the nightlife of the new urban industrial centers.

Stock breeders who take the professional challenges seriously and survive must endorse the high producing method, that is, they must feed their animals in situ with purchased feed. Roving with the herds in deep desert lands is, thereby, left to the poor herder.

The impact of local producers, such as the Bedouin, on the new national markets of the Middle East is smaller than that of large importers. This is not because traders in livestock products, such as meat, milk, leather, wool, and so on, from countries as far away as Australia and

Argentina, are necessarily more successful in advocating the quality of the foreign product, but because the state organs find it easier to tax imports rather than items being bought and sold in the local market, such as when a Bedouin sells a ewe to a peasant.

Having their economic influence finally reduced, the last of the herdsmen using traditional measures to prevent overgrazing are neglected. "Catch-as-catch-can" in the use of dry-land flora expedites the destruction of winter forage. This usually indicates the Bedouin's intention of leaving the deep desert pasture for good. From this stage onward, the undoing of desertification and the monitoring of anthropogenic pressures are in no-one's interest.

Bedouin from devastated former foraging territories lose not only a means of subsistence, but also their social standing vis-à-vis their neighbors, the sedentaries. Since the balance of power has been shifted in favor of the latter, the new initiative to halt desertification and, especially, to launch the reoccupation of desertified land by agroforestry, must come from the outside. In general terms, most of what has been achieved in preventing desertification has been the outcome of intervention on the part of the "Greens" in the West, and leaves the Bedouin herd out of account.

Will Bedouin Invest Their Own Means to Improve the Carrying Capacity of Foraging Lands?

Traditionally the Bedouin have never concerned themselves with ameliorating their pastures, for instance, improving the shrubs which serve as food for their herds by investing in run-off irrigation. A transition to agriculture and horticulture by settled Bedouin can be observed, but in desert lands, agroforestry was not practiced. Left to their own devices, the Bedouin are unlikely to change their traditional mode of conducting husbandry, or to adopt initiatives that would lead to successful agroforestry. If change were initiated and supported by governments, it is a moot point if the Bedouin would collaborate to improve their own lot.

Helping such "subaltern" peoples to improve their prospects for the future was advocated by applied anthropology in the 1980s (Paine 1985), but attempts to make people follow a path that would alter their manners and customs were not encouraged. The postmodern approach of the 1990s dismisses applied anthropology altogether on two grounds: (1) one cannot grasp the needs of any Other, and (2) it is immoral to want to change someone else's cultural pattern.[15]

Once the idea of development is posed like "a ruin on the intellectual landscape" (Sachs 1992: 1), the corollary is to do away with ideas and conclusions reached through fieldwork, regardless of the anthropologist's

intents. The knowledge-power linkage here follows the pattern decried by Michel Foucault:[16] using knowledge to take advantage of Others' weaknesses, and to exploit or even harm them in a bid for power.

Projection of wicked intents upon advocates of modernism strips applied research of its context. This illustrates the danger that can arise when the relationship between anthropological knowledge and development propositions is not straightforward, with the result that anthropological skills placed at the service of administrators and policy makers (ibid.: 135–136) are used in disregard of the people they are intended to serve, and, rather, serve the "West" and its needs. Israel's policy makers do not endorse Alternative C; the main problem is their bureaucratic immobility. Alternative C is an outgrowth of my analysis of data, together with input from the Bedouin communities of the Negev Highlands. It is my conviction that the Bedouin are willing to move in this direction with the Ministry of Agriculture's help.

We have noted the Bedouin attitudes to the future of shepherding are influenced by the spread of schooling and the new occupational aspirations of their children. Questions such as "What are your aspirations for next ten or twenty years?" or, "What would you like to happen in the years to come?" were, by and large, answered in concrete terms. These include: bettering the economic situation, having more leisure time, as well as a higher standard of living equal to that of the sedentaries. New sources of making a living are mentioned, such as a rise in wages in trades other than shepherding. The growing scarcity of professional shepherds, and the efficacy of new methods to ensure the success of livestock breeding, while lightening the workload, proved to be a general concern mentioned by all herd owners in the Negev.[17]

Since I have often discussed in public the need for initiative on the part of the Bedouin, I was put in touch with a group of families from the 'Azāzma tribe, who, led by a few entrepreneurs from the tribe, had formed an association aimed at establishing a village for shepherds. This "community of Bedouin villagers" took the first steps to get the association recognized as a nonprofit organization for the purpose of founding a new social entity (a shepherds' village). Together, as a think tank, we discussed the guideline of ideas, conventions and the tools needed to enhance the operation of the new project, before approaching the *Minhal*.

From the winter of 1990 through the spring of 1992, our team, lead by the agronomist Y. Orev, using ideas from his guidebook (1985), consulted with the neighboring Bedouin. An understanding was reached as to the following points:

- the optimal number of families—(80) per village and the optimal herd size—(50 sheep or 40 sheep plus two camels) per family;

- the location (Halukim ridge) in the Central Negev and the size of the village range lands (30,000 dunam), subdivided into range units. These units would each comprise 60 dunams before the amelioration of flora or 15 dunams afterward;
- water needs and their supply, either by the National Water Carrier—1 cubic meter monthly per person, 2 cubic meters annually per sheep) or through the systemic storage of rain water (the state would build the necessary installations);
- the methods to demarcate the usufruct units (legal fencing) and the signing of a contract with the *Minhal* (for 50 years), with the option to renew if the Bedouin settlers fulfill the agreement to maintain and develop the land's vegetation, and add matching funds to the public investments;
- the layout of the village (circular, with public institutions placed at the center) and the desirable features of the homes within it (one to two stories, the entrance facing the sheep sheds located on the concentric periphery. The team's ideas were given to architects who were requested to draw up a model and blueprints for a "shepherd's village."

Although we had planned an ideal shepherds' village, making use of our modest means, we knew we could not circumvent the State's planning apparatus. We had hoped to urge it to start the work on a village for shepherds from where we had left off. But this proved to be an illusion since our proposals were not dealt with, and the *Minhal* paid no attention to us. Faced with the *Minhal*'s reluctance to even consider our results, we summarized them and disbanded the association. Our Bedouin counterpart, for reasons we could understand, but nevertheless did not take for granted, gave up, relying on the belief that Allah sides with those who are patient!

A survey of Bedouin attitudes indicated that new initiatives in livestock breeding were unlikely to succeed since they are perceived as running contrary to tradition[18] and they would prefer, in any case, to invest in alternative money-making projects when these are possible. Thus livestock breeding is for them only a secondary source of income. As already noted, families usually live off the men's wages as hired laborers, as well as monthly stipends paid to the family head (the father) by Social Security, according to the number of children and elders. Small herds of ruminants are tended by women and girls, while camels are left to graze freely under occasional observation; alternatively, they are fed in situ with purchased food. The men load all the small and

large animals into vans and drive them back and forth to distant pastures. The men also arrange the moves, provide protection of the property and the women in distant fields, buy the feed and lead the animals to market for sale, but in contrast with the past, they do not tend the herd when it is out on the pasture since they have to manage a variety of new sources of income.

New entrepreneurial expressions that enhance the traditional skill of breeding livestock, although modest, can be seen in the Be'er-Sheva Valley (but not in the Highlands). These include the fattening of calves bought from kibbutzim. Only a few milk cows are kept for providing milk for the extended family. Horticulture provides food for the cow. Running water began to be supplied to the Bedouin encampments in the Negev Highlands in the summer of 1998, and small plots of vegetable gardens, as well as fruit trees, are already in evidence.

New patterns of breeding animals that economize on both man- and woman-power are on the rise. This obtains mostly in the Be'er-Sheva Valley, with regard to large herds (over 200 head). Fourteen percent of the households own such a herd (Abu-Rabia 1994: 120–122). Sheds to store hay, installations for mixing the feed, as well as automatic troughs, are in evidence.[19] Small herds (15–50 head) are owned by 41 percent of the households. These owners are unlikely not to accept changes in breeding methods. Middle-size herds (100–150 head) owned by 45 percent of the breeders included in the Abu-Rabia sample of seventy-two families are, however, now shepherded by hired laborers—peasant men from villages in the South Hebron mountains.

Elite families of the tribal society who have the herd tended by others set the tone, and "middle-class" families imitate them. The rough task of shepherding has, meanwhile, become a lowly occupation, and modern Bedouin do not let their children become shepherds. Ambitious parents are now often heard saying to their sons: "Study well, or you will grow up to be a shepherd *(rāʿi)*."

Possession of a large herd, therefore, still bestows social esteem, while the manual work required to care for the herd is considered degrading. In their endeavor to rise in status, the young men are today leaving the "old-fashioned" employment of their fathers, and are letting their sisters and mothers fill the gap. In the next phase along the road of accumulating wealth, the women are also brought back home, and money gained in other occupations is used to hire shepherds to tend the animals out in the pasture.

Discussion of the erosion in the status of shepherds reveals that Bedouin fathers are, themselves, aware of wanting for their sons "better careers" but, at the same time, they bemoan the consequences of losing the herd. They are often unaware of the causes for change, playing both

ends against the middle. The value assigned to time spent tending animals is low when this is viewed as an extension of women's household chores. We here suggest that tendency of assigning real (monetary) value to women's work and investing in feeding the livestock in pens to save on human labor forefronts the perception that herding is now a "business." Calculating the worth of a "woman hour" in the field seems, of course, artificial when there is no alternative salaried employment open to her. At the present time, Bedouin women[20] are not allowed to leave home to earn a living, even if they possess a skill.

A cottage industry could solve this problem, and we note that this possibility already exists in the Bedouin township of Laqiyya, where women weave carpets of dyed sheep wool, in a new initiative launched and orchestrated by a British woman married to a Bedouin. Horticulture, adjusted to the program of Alternative C, could do the same, that is, generate monetary value from women's work. This idea still strikes the men, residents of the Negev Highlands, as strange since girls continue to look after the small herds, and women care for the children. Moreover, the facilities needed to allow women to be gainfully employed at home are lacking, and electricity has to be provided by a generator.

Peasant Arab women take active part in maintaining horticultural plots and this activity is likely to increase also among settled Bedouin women. They are expected to find that their new village niche provides them with work and enhances their self-importance. Thus all interviewees endorsed the plan to ameliorate the vegetation in their immediate vicinity once their entitlement to the land is acknowledged and the grazing plots near the homes are legally fenced-in for them by the *Minhal*. Most men say they will work hand-in-hand with the Ministry of Agriculture to attain their common objectives, but do not promise to relinquish the jobs they hold in order to develop a farm. That is, they would do development work on their farms in their free time, after completing the "real" paid work. They say nothing about the women.

Private Plots versus Commons versus Reservations

Doubts about the feasibility of shepherds' villages based on the privatization of desert lands, before or after amelioration of their foraging capacity, revitalize the question of the commons model. Privatization of lands that were in common use for tribal pasture harbors potential conflicts. The transition from the property of equality and agnatic cohesion to that of individuality and capital implies resentment and unrest. Mere differences in the quality of plots for arable uses can become the source of disputes that can hinder implementation of the model of villages

for shepherds. Thus, the idea of the "commons" model seems more viable. Investigation into the ecology and the culture of the traditional *dīra*, the tribal grazing land, may appear to forestall the need to resort to the shortcoming of privatization.

Evaluation of research on the latest preservation of *dīra* plots as common (tribal) property among the Negev Bedouin indicates that the prospects of retaining lands for common uses of shepherds from all the households of the tribe are very slim (Kressel et al. 1992). Therefore, weighing the planner's option of the "commons," a pastureland which all would share for years to come, left us uncertain as to which organizational device would ensure a better chance of survival. Private family plots imply certain risks, and maintenance of the commons implies others. We believe that a measure of Bedouin readiness to invest their money in agroforestry should not be confused with a test of their readiness for this to be done collectively. The historic communal use of the *dīra* implies the right to graze on an area of wild vegetation. Careless overgrazing in traditional pasture lands has brought the forage to the verge of extinction, and there never was an obligation to invest and ameliorate the flora. New ideas, therefore, should gradually be inculcated. Agnatic homogeneity is common and is a desired quality in the best of the Bedouin tradition; it should be the rule in shepherd village communities because ancient political matrices would ensure a relatively smooth transition to the common's development mind-set and the new way of life. However, the new initiative should not be established on the *dīra* model. It does not resemble the *dīra* case and cannot use it as a model to monitor personal investments or use the common range. Collective economic efforts hardly attainable at the intratribal level are more unthinkable at the intertribal level. Privatization, which would supposedly facilitate the success of shepherds' villages might be attained more easily if agnation and the tribal pattern of chiefdom declined, but it does not seem that this will happen soon.

Notes

1. On aspects of Bedouin feuds as they are related to topography and the vicissitudes of rain and drought in the desert, see Peters 1967.

2. The late Yaacov Orev also worked on this project.

3. For pioneering studies, such as duplicating ancient systems for collecting rainwater in the Negev for irrigation, see, Evenari, Shanan, and Tadmor 1971). On a pioneering botanical survey of the wild Negev vegetation to assess its potential for grazing, see, N. Seligman, N. Tadmor, and T. Raz 1962.

4. See Orev 1986.

5. On the rediscovery and reintroduction of ancient run-off agriculture in deserts, see Evenari 1987.

6. Such small catchments along the riverbed *(wadi)*, typically surrounded by earthen dikes, fill with rainwater during the rainy season and hold enough for groves of trees to develop. These catchments are called "limens" after the Greek word *limen* meaning port.

7. A kibbutz in the Jezreel Valley, known for its quality herd of sheep and breeding stock.

8. Seedlings came from the nursery of the Jewish National Fund, that is, not from a government agency.

9. For the reconstruction of Be'er-Sheva after 1,200 years without permanent inhabitants, see Y. Ben-Arieh and S. Sapir 1979; and G. M. Kressel and Y. Ben-David 1995.

10. On the vast use of ancient water installations and the recent return to the digging of cisterns in the "Bilād ash-Shām," see Lancaster 1999: chapter 4.

11. For the latest adaptation of Bedouin animal husbandry, see A. Ronen (1993), who emphasizes the sheer economic value of the Bedouin's stock and A. Abu-Rabia (1994) who talks about the anthropological dimensions of the Bedouin economy.

12. Although camels are ruminants and ungulata, they are not cloven-footed and are therefore considered nonkosher, that is, their meat is unacceptable in most the Jewish homes in Israel.

13. The Black Goat Law enacted during the British Mandate has been enforced by the State of Israel, thus severely restricting the prevalence of goats in the Bedouin herd.

14. See Ibn-Khaldun's ancient and thorough analysis of the regularity of the Bedouin migrations to towns, 1956: 252–253.

15. Cogent arguments, although acknowledging the matters conducive to the "post-modern" dispute with applied anthropology as a postcolonial branch of the Western World, design anthropology's possible contribution to development of third world communities, see Gardner and Lewis 1996.

16. For application of Foucault's (1970, 1972) point of view of power and harmful uses of psychological knowledge in the so called 'total institutions' to the vast field of applied anthropology, see in Escobar 1988, 1991, 1995.

17. Along with the penetration of orthodox Islam into the Bedouin townships and tent encampments, during the 1990s, some endorsed an intransigent Muslim position vis-à-vis the State (of Israel), negating its right over the Negev lands. Bedouin responses to these questions would then provide the same answers as above, but the conclusion would be the necessity of the Muslim's regaining possession over the entire Negev (see Kressel 2000: chapter 11).

18. The Bedouin show a profound attachment to their traditional breeds of sheep and goats and are impervious to suggestions promoting "better" breeds.

19. For changes in the breeding patterns in Egypt among the Bedouin of the Western Desert, see Hüsken and Roenpage 1998.

20. By definition, "girls" are not married, while "women" are married females.

This page intentionally left blank.

7 Designing a Shepherd's Village

Master plans for shepherds' villages intended for Bedouin settlers and integrating into their structure features dictated by the prospective inhabitants' cultural traditions, as well as catering for the Bedouin's new needs arising from their contact with urban life are, to the present author's knowledge, nonexistent at the present time. In Israel, whereas several Bedouin towns have been planned and built, villages have not yet attracted attention as a topic for design and planning.

Plans for new settlements in arid lands are being prepared in various parts of the Middle East, but these settlements tend not to be specifically designed for accommodating pastoralists, nor are they visualized to promote the occupation of herding in particular. On the contrary, agriculture, extensive (i.e., dry farming see Bocco et al. 1993) or intensive (i.e., irrigated farming; see Altorki and Cole 1989; Chatty 1996), or tourism (Cole and Altorki 1998; Masri 1991) invariably constitute the assumed livelihoods of their future occupants. Thus the immediate objective of these projects is that of integrating the Bedouin into the national fabric and to improve the group's socioeconomic conditions by equipping them with new agricultural skills (Chatty 1996: 24).

In view of the fact that not all Bedouin are ready to make a radical break with their pastoralist traditions and to shift to an agriculturalist lifestyle, Bedouin camp-sites do not entirely disappear when this type of settlement becomes available. The campsites of the remaining tent-dwelling Bedouin[1] undergo transformation with time when their owners shift to more stable dwellings. Built on the spur of the moment, these improvised neighborhoods or villages in open spaces take root, often becoming permanent, and pave the way for further unplanned construction. The process is virtually irreversible despite settlers' complaints about the undesirable civic consequences they may be confronted with.

Also some Bedouin migrate out of range areas and settle in shacks on the margins of towns and villages; such constructions quickly turn these areas into shanty neighborhoods becoming an architect's nightmare. In Kressel (1992: chapter 9) I showed that urbanization hastens the agnatic trend of competitive reproduction with the result that demographic pressures in these settlements are increased and the initially poor living conditions are further exacerbated.

Certain newly independent Arab states and Saudi Arabia (which has never experienced colonization) began to introduce sedentarization projects in their desert territories during the 1960s. In these countries, nomads have been widely viewed as a social problem, that is, as a segment of the population that would have to undergo significant change before being fully integrated into a society with a modern economy. Since most state employees and municipal officials come from the sedentary component of Arab society (Cole and Altorki 1998: 97ff.), they are basically unfamiliar with the pastoralist way of life and mode of production; and for reasons already indicated, their readiness to learn about the Bedouin's special needs is usually very limited. Consequently, wherever they exist, agroforestry range-land reclamation projects for the rejuvenation of desert flora usually deprive herders of their traditional grazing lands and restrict their freedom to move with the herds throughout the range. The viewpoint of the 'Greens', for whom the essence of development is measured by ameliorated flora, conflicts with that of range advocates, who believe that some shepherding should be part and parcel of every development program. For all these reasons the rangeland development option has, on the whole, not been given the priority it deserves.[2]

Only in the past two decades has a more flexible attitude become prevalent which takes the herders into consideration to some extent—for example, by engaging Bedouin in horticulture but, oddly, not in herding. Fairly typical is the case of the Awlād ʿAli in the Western Desert of Egypt, where landless farmers from the Nile Valley are employed on

agricultural projects run by public sector companies (Kishk 1994) in preference to Bedouin.[3]

Similarly, rangeland reclamation schemes ordinarily entail the sale to farmers of plots that had been part of the Bedouin *dīra*, but Bedouin living in and around these projects have been excluded from the auctions in which developed plots were sold to individuals able to afford them—irrespective of whether these buyers intended to cultivate them, lease them, or sell them at a profit. The usual pretext for the exclusion of Bedouin is that they have little or no experience in agriculture (see Cole and Altorki 30-ff.).

Planning Shepherd Villages for the Negev Bedouin

The following paragraphs describe an ongoing plan for a future shepherd's village to be established in the Negev Highlands or further North in the Be'er-Sheva Valley, which takes into account the views of various Bedouin groups: families from the 'Azāzma confederation (cf. Kressel 1992), and the Association for the Protection of the Bedouin Rights. On the basis of meetings held between architects and the future occupants of this village, the following guidelines and principles have been established.

Bedouin villages will be built of concrete and of modern design ensuring standards of comfort equal to those in the existing Bedouin townships. The homes in the future village will be connected to the electricity grid and be equipped with running water. Tracks for sheep and goats should lead from each house to the nearby hill slopes, on which the development of agroforestry is projected. The layout of the village should consist of an ellipse or a circle, with the houses having a second exit door facing the hills, away from the village center. This is intended to reduce friction between individuals of different agnatic ascriptions along the paths taken by the herds to and from the pastureland.

Guidelines for planning a Bedouin village have been proposed by two architects: Y. Meir and R. Khamaisi. Y. Meir, together with the 'Azazmah Association, has elaborated a master plan of a shepherds' village for the 'Azāzmah Bedouin. R. Khamaisi has worked in Be'er-Sheva with the Association for the Protection of Bedouin Rights. According to Meir, each family home should have an assigned plot for agroforestry. A necessary precondition, of course, is parcelation and legal fencing of the development area. Help from an external source—either an organization or a governmental department specializing in developing and sustaining rangeland—is needed in order to ensure each family's right of access to ameliorated rangelands, thus avoiding disputes over plot location and quality. (See Figure 7.1)

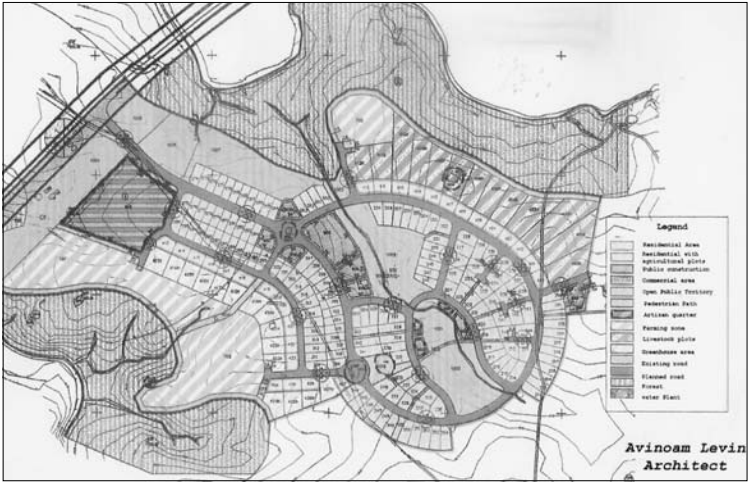

Figure 7.1 Design of a rural settlement for the Tarābīn aṣ-Ṣāneʿ (Beʾer-Sheva Valley, Israel). (Courtesy of A. Levine)

Eligibility for an Estate in the Village

When alternative settlement styles are available to the Bedouin (living in a "village for shepherds" or in a house in town), other questions arise, for instance, should eligibility for village housing be based on the criterion of raising livestock, or should this village also include families wishing to live in a rural community, but earning a living from sources other than the herd? At present, the consensus is that the village should be open to non-livestock-raising families who support themselves from other sources. Development plots for herding should not, however, be given to nonshepherds. Plots for a house, with sufficient space for a workshop at the rear, will be available to families not planning to raise livestock.

Obviously, the village will grow and include more than eighty families in due course; no strict test can be applied to predict the size of the plot or the numbers involved in various kinds of employment (shepherding, farming, workshop production) as new ways of breadwinning emerge.

Growth in the number of families must be taken into consideration, but, if the allocation or subdivision of plots and employment undergo radical changes in 10 or 20 years, alternative solutions must be found. If the planners' intentions are accepted by the Bedouin settlers and by the State, a spread of savannization can be anticipated, spreading outward from the immediate vicinity of the village to the surrounding grassland where the villagers tend their flocks.

The formative stage of the village-to-be will, we assume, be crucial for its life span, and for retention of a rural entity. Its design and that of the adjacent area should suit the shepherds' needs, and make this type of village unique and distinguishable from urban and semi-urban settlement alternatives.

Giving leadership roles in the village to devoted, resilient herders from the group of potential candidates may facilitate the group's transition to the use of in situ feed, and to grazing on ameliorated desert flora. They will also help the families chosen overcome the first years of readjustment.

In this spirit, a twenty-three-year-old Bedouin, Farḥān Shlaibi was appointed in 1992 as the first head of the nonprofit Association for the Establishment of a Shepherd's Village, that had been founded in Be'er-Sheva.

Led by Shlaibi, the 'Azāzmah Association for a Shepherds' Village, agreed to the following guidelines with Dr. Y. Meir:

1. The initial number of families in the village is not to exceed eighty;
2. Although the village will be designated for shepherds, possession of livestock should not be a precondition for acceptance into it;

3. In situ feed for livestock will be available, and the State will help out with with supplies of animal feed during seasonal deficiencies of grazing plots. Construction of the village will, of necessity, be connected with rangeland development. A scheme dealing exclusively with accommodation and totally neglecting the terrain around the village would be contrary to the planner's intentions.
4. Homes should be compactly constructed, low to the ground (with a maximum of two storeys) such as to retain the appearance of a rural community, and to allow moderate winds to blow through the village center. Every household should be allotted plots of between 1 to 1 1/2 dunams, with pens and pen doors at the rear, and the entrance of the house facing the village center, in order to protect the family's privacy while retaining the option for socializing.
5. The school, health clinic, and community center will be on a regional scale (serving several neighboring villages) to guarantee quality. Families are expected to use their own means of transportation to reach the regional center. A mosque, a kindergarten, and a meeting space for elders would form the village core.
6. The village should be situated on gentle rocky hill slopes, not on the arable flat area below, which is reserved for cultivation.
7. Plans for a sewage system, and for the collection of rainwater must be integrated into the requisite infrastructure. The water can then be directed to gardens farther down the slope.
8. Thought will be given to proper orientation, height and spacing of houses so that solar radiation can be exploited during the winter months—the sunlight will enter windows facing north.

Forming the Village Community: Ascription and Achievement

Farḥān Shlaibi assembled a group of young 'Azāzmah tribesmen, most of whom belonged to his own Shlaibi lineage. Does this mean that all shepherds' villages would be agnatically homogeneous? The answer to this question has a practical implication, quite apart from the sought-after harmony which should be paramount in a village with a unified common interest. Thus input from the community, as well as government support, is essential to ameliorate the vegetation and to guarantee its prudent use for forage. Community work toward this goal has to enhance monitoring of its members' achievements. Residents must take part in monitoring care

for the vegetation. Fulfillment of individual assignments regarding the building microcatchments and alcoves in the groves/forests, replanting of seedlings, trimming of dry branches, and so on, would be a public concern.

In preference to the idea of having elected officials, the principal village institution will, logically, take the form of a meetingplace for men, called *(shigg)* in Arabic, where the elders (*shuyūkh,* pl. of *sheikh*) and the sheikh himself assemble to discuss community affairs. Each village chief, most probably, will be the elder of its largest group of agnates.

Social Change—A Bedouin Initiative

An assumption underlying the foregoing remarks is the belief that agnatic considerations will continue to determine the form of village Bedouin communities and the management of their current affairs. In effect, this means that state authorities in the Middle Eastern countries will be confronted for some time yet with tribal structures in their societies.

Ideally, state-tribe relations should evolve in a manner that allows the adoption of modernizing changes to remain virtually an internal affair of the sedentarizing Bedouin themselves. Equally important is the participation of Bedouin in the fabric of intraregional relationships when they settle. Changes with long-term sociopolitical implications have been launched by Middle Eastern states vis-à-vis their Bedouin constituents. The state appointed officials from among the tribes to represent their people to the state and vice versa; it exempted the tribesmen from military and other national services, granting them tax-free usufruct rights to land in the steppe, but excluding the possibility of private or corporate ownership of the land. Lastly, the state recognized the tribes' *'urf* (customary law) as the legal system applicable in their range areas when dealing with internal disputes and criminal acts of Bedouin against each other.

Notes

1. Stabilization of former nomadic pastoralists, whether the consequence of administratively imposed confinements, lack of pasture alternatives, new employment, or new sources of living in the neighborhood—is reportedly a commonplace in the Middle East.

2. Most state personnel adjudge pastoralism as a throwback to an earlier stage of human existence (see Abou-Zeid 1968: 280; Cole and Altorki 1998: 97 ff.)

3. Large tracts of land were sold usually by auction to individuals and companies, and to civil associations of various sorts (see Johnson and Lintner 1985: 256–257. Marginalization of the Bedouin is strikingly exemplified in Egypt,

where Nile water flows through pipes to the new villages near Marsa Matruh, while run-off harvesting is the only method available to the nearby Awlad Ali Bedouin for obtaining water (Sherbiny et al. 1992). Installation of cisterns and of earthworks to direct runoff into the cisterns are expected to be paid for by the Bedouin, with matching grants from development agencies.

8 "Teach the Children of Judah Sheep!": The Crisis of Small Ruminants Breeding

My inquiry into the state of sheep rearing in the rural Jewish sector of Israel began in 1982[1] and was inspired by the late Yaacov Golan, then Secretary of the Sheep Breeders' Association. I was to become deeply involved in the subject in an attempt to account for the marked absence of Jewish rearers of small cattle at the weekly Bedouin livestock market in Be'er-Sheva (cf. Kressel and Ben-David 1995a, 1995b, 1996).

Rearing of sheep and goats by Jewish farmers in Palestine harks back to 1907[2] and gradually evolved into a significant branch of production on the Israeli market beyond its initial aim of providing mainly for its own needs. In due course, meat and dairy products from the kibbutzim and moshavim became increasingly popular among Israeli Arab customers and, since 1967, also in the administered territories.

Quite apart from any romantic aspirations of returning to a biblical lifestyle, the overriding incentive of sheep rearing was to forestall the effects of a possible blockade applied to the Eastern shores of the Mediterranean by the Axis powers during the Second World War, or of an embargo by the Arab sector. The latter materialized for the first time, and dramatically so, in April 1936 during the six months of the so-called Great Arab Rebellion.

Israeli products derivative of sheep rearing eventually became part and parcel of the consumption habits of the Arab population. The extent of this dependence became particularly evident following the outbreak of the first *intifada* toward the end of 1987, when the number of wholesale buyers of sheep in the country dropped sharply with the Arab embargo on Israeli goods and the economic depression suffered by the inhabitants of the administered territories. The price of meat fell and the value of the Israeli herds diminished by some 25 percent in the summer of 1990 in comparison to autumn 1987. The economic depression of the following few years also affected the consumption of sheep's milk. In 1988, Jewish sheep breeders launched an emergency advertising campaign seeking to redress the crisis resulting from the lost Arab market by expanding the Jewish one.

Highly prominent, at the time, by reason of his activities in this domain, was Yaacov Golan, who launched an aggressive advertising campaign and created the humorous slogan, "Teach the Children of Judah Sheep!" As he explained, "You've got to be direct and entertaining in the marketing strategy because sober statements on what is good for the breeder, the consumer, and the Israeli economy have no real effect. In this case, the public was amused . . . but, it's hard to change eating habits. Even in hungry countries it's complicated and, thank God, we're not yet short of a crust of bread round here."

Eating Habits and the Middleman's Cut

Golan continued: "If the Ministries of Finance and Agriculture together with the Treasury were to appeal to the consumer's pocket, the campaign would succeed. In 1970, for instance, worldwide shortage of beef occasioned a sharp rise in its price and we responded by increasing our consumption of turkey meat. At that time, Haim Gvati, the Minister of Agriculture (1965–1974) and his associates did not stop short at offering advice to the turkey breeders but actually came forward with subsidies. American immigrants to Israel, who up to then had been the traditional consumers of turkey in the country, reacted favorably to the advertising and public relations efforts and, within a few years, turkey came to account for 10 percent of Israeli meat consumption. A similar strategy can be applied in the case of the sheep industry: exploiting the depressed price to create a new consumer public. At the same time, long-term goals must be kept in view and the publicity campaign organized accordingly. After all, for the consumer, the price is not the sole consideration."

In the summer of 1987, a price limit of IS 7.00 (then $3.50) per kilogram (live) still guaranteed the Israeli breeders a decent living. By the winter of 1989, the price had plummeted to about IS 3.50, that is, less than IS 4.00 ($2.00) per kilo (live) that was the lowest price limit required for profitable trading even for Bedouin breeders. Each slaughtered lamb represented a loss of between 20 and 50 sheqels, and ewes a loss of between 70 and 150 sheqels.[3]

Golan: "A person unaccustomed to eating mutton won't buy it just because it's cheap. To promote it, you've got to sing its praises. It's not enough to remind people that there's no flavor like it, that it has no residual smell, and that it's easy to cook. For example, research has shown that the amount of cholesterol in mutton per 100 grams is 45 milligrams, about the same as in chicken and much less than in beef. With the availability of educated sources of information, one can effectively counteract the false notions of those who reject mutton on health grounds. A trust in market forces kindled hope that lowering the price of mutton would inevitably increase demand for it, eventually pushing its price up again.

"That kind of advertising takes investment and, even if it bears fruit at all, there's no guarantee that the benefit will fall to the breeders. In January 1988, the large marketing companies handling mutton were asked to take into account the breeders' economic situation and temporarily reduce their middleman's cut from 25 percent to 15 percent and even 10 percent, until the branch regained its markets in the administered territories, or until its Israeli consumer public expanded and, with it, the shopkeeper's return. Of course, it's hard to check if the profit margin required by breeders to cover their costs rests on a realistic calculation, or if they are simply exploiting our weaknesses. At all events, according to the marketing networks, the farming sector's problems ascribable to the *intifada* were referred to the government. They tried to milk the treasury! Ultimately, however, the supermarkets are neither interested in the workings of capitalism nor in changing the public's consumption habits. Show me a supermarket owner who will jeopardize his relations with a frozen chicken supplier for my sake! In order to impress him, I have to prove to his satisfaction that there's a realistic chance of lamb recipes regularly appearing on tables instead of (or alongside) chicken."

Golan seriously considered, as a long-term publicity program, conveying to the public the notion that, in the Western world, lamb has been

favored for Sunday and holiday menus, and deserves the Israeli consumer's attention. "Why not present lamb for meals on the Sabbath? Till the turn of the nineteenth century, it was customary in the England of hearty eaters to import legs of lamb or mutton from New Zealand for large family celebrations. Since in the west the size of families has shrunk, the consumer now gets the same meat prepared and sliced without the need to carve it. Here in Israel, we still have the tradition of large families, and legs of mutton could easily be sold alongside sliced meat for consumption by the nuclear family."

The advertising campaign promoted by Golan also entailed a public service broadcast. The operation boosted sales: in the winter of 1990, breeders were paid 6.30 Sheqels instead of 4.80 Sheqels as in the previous summer. The supermarkets were impressed.

Golan: "But they saw no need to 'throw us a bone'; they adamantly refused to reduce their cut! In the meantime, we [the breeders] have gained more experience in trading. If one markets on one's own, without the middleman's cut, the product becomes cheaper and traders are obliged to be more efficient. The dream of "Tnuva"[4] (i.e., direct transfer of agricultural produce from the grower to the consumer) turned sour but, before we too become tainted, we can try to achieve something in that direction. Unfortunately, a wind of rugged individualism is blowing across this country and the breeder had better conduct his business accordingly! The breeders' representative [as Golan saw himself] has to find ways to get around the marketing monopolists."

In Golan's home, located in the moshav of Be'er-Tuvia, "The Happy Lamb" was born—an agency to supply telephone orders of packaged meat direct to the consumer from the supplier. "The Happy Lamb" struck me as an odd name, so I asked him, "How can an animal led to the slaughter house be happy?" Golan's reply removed all doubt: "Happiness, yes, if not for the animal, then at least for the rabbinical and veterinarian institutions that issue a certificate of kashrut."[5]

To transform mutton and lamb from a dish eaten by gourmets and health enthusiasts into a popular dietary item, its price has to be lowered rendering it competitive vis-à-vis its alternatives. To get around the marketing chains controlling our supermarkets, one can collaborate with the butchers because many customers prefer personal contact with a butcher to the impersonal "take it and pay" manner of supermarkets. Marketing "from supplier to customer" must be built on direct contacts and a good price. Meat has to be efficiently presented as a packaged product to the customer.

The Market Price and the Kashrut Factor

The marketing of lamb and mutton in Israel yields an odd paradox: this meat is in great demand among Arab consumers, who have a lower standard of living than the Jewish sector, but continues to be a luxury item among the Jews.

Golan explained: "The differential pricing of mutton for Arab and Jewish customers stems from additional expenses entailed in veterinary and kashrut services. In the summer of 1989, rabbinically approved slaughter houses charged 96 sheqels for the slaughter of a sheep, and 18 sheqels for slicing and packaging its meat. A year-old live lamb of 40 kilogram produces, after handling, about 15 kilogram of meat. In addition to its innards, which are considered unfit for eating, the hind quarters of the animal are also put aside for religious reasons. An alternative to this is the ritual 'porging,' i.e., rendering the slaughtered animal ceremonially clean by drawing out and removing certain sinews and veins (cf. Gen. 32:32). If one takes into account all the waste and the amount of work needed to render the meat kosher, the amount remaining for consumption is reduced and its cost is tripled.

"In the summer of 1989, the cost of slaughtering a sheep and preparing its meat for sale reached $16 (then 32 sheqels), i.e., about 28 percent–30 percent of the total production cost in Israel, a staggering differential! What are we to do? Cry out that it is an absurdity? It would put them [the rabbinical establishment] on the alert. They would then turn on you calling you a *goy* [gentile, a non-Jew] and that doesn't help. Our only option, in view of this state of affairs, is to find a cogent manner of changing the rabbis' attitude. We might try to impress on them that we are now back in the Land of Israel, after having extricated ourselves out of the Diaspora, and that it's up to them to readjust the Halacha[6] adapting it to changing needs in order to revive Jewish farming. The rabbis might also consider the interests of Jews making a living in production and not only those of Jewish consumers, and see to it that food production remains at least as reasonable as it was in biblical times! They must know, for example, that in addition to the practice of porging the meat and disqualifying the back legs of slaughtered animals, new kosher restrictions have evolved augmenting the market costs of sheep products. This is a heavy burden militating against the adoption of farming in modern Israel by Jews from the diaspora, who in contrast with their biblical antecedents, rarely select this occupation. Interpretation of the Halacha in Israel tends always to adopt the more stringent line."

Kressel: "Can't you visualize the possibility of providing meat sufficiently kosher for Conservative and nonobservant Jews, although it may not satisfy the Orthodox minority?"

Golan: "While kosher slaughtering is cherished by most Jews even the less observant, porging isn't. Jewry from the Muslim countries of North Africa used to call in the ritual slaughterer to do his job, pay him a fee, and used the entire sheep for consumption (i.e., without disqualifying its hind legs). Now they tend to conform to the Ashkenazi Orthodox practice endorsing the porging business, but it's probably not too late to discuss the matter with them and persuade them to return to their more practical tradition. Let the Sephardi rabbis argue with their more stringent Ashkenazi colleagues, and open their eyes to the consequences of their strictures. These entail virtual liquidation of nearly half the quantity of the slaughtered animal's edible meat while tripling its price as so-called *bassar ḥalaq*.[7] This practice harms the economy not less than a fallow year of release and remission of debts (sabbatical year, *shmittah,* that is, it requires some further thought in the direction of the ancient *prosbul*)."[8]

Golan, acquainted with the Jewish sources, quoted the Jewish sages: "Whoever wishes to become rich should engage in [the breeding of] small cattle,"[9] and explained, "In the good old days, religious officials did not eat into the shepherds' income. But today, with the industrialization of slaughtering at just a few, central locations, they find it easier to focus in and extort a share of it. The religious officials appointed to supervise the meat business are constantly growing in number and, as they do, they increase the 'Holy Tithe.' This is to be regretted by both consumers and shepherds. The rule of the game now is that the bigger the animal—for instance, a cow—the smaller is the relative cost of its slaughtering, because it yields more kilograms of meat. The burden of the religious handling of kosher meat is heavier today on rearers of sheep than it used to be in biblical times. One kilogram of sliced lamb should not cost more than 12 sheqels! Only then can it successfully compete in the market with a kilogram of turkey priced at 10 sheqels. But the key for effectuating this change is in the hands of unscrupulous individuals. When one kilo of live meat is valued at 6 sheqels—that's what we can get for it!—12 sheqels means doubling the price! Be sensible, I tell them, utilize the tongue, brain, lungs, liver, kidneys, fat tail, and skin, in order to cover your outlay, but let us sell at least 50 percent of the mutton; that will, of necessity, include the hind legs!"

The Religious Establishment

In order to circumvent the regulations of the rabbinical establishment, Mr. Golan considered setting up an independent kosher slaughtering organization and to employ licensed slaughterers who would work under veterinary supervision, but without Chief Rabbinate control. To support his contention, he cited the custom of Oriental/Sephardi Jewish communities that kill sheep for their families without referring to the rabbinate.

Golan: "They just bring a *shochet* (ritual slaughterer) to their courtyard; he utters a blessing, kills the animal according to Jewish law, receives his fee, and then goes away. The animal then remains to be cooked and served to the family. What *shochet* would dare challenge the powerful rabbinical establishment that has arisen here? Look at what happened to the *shochet* Reb Leib in the story about the *shtetl,* by Yosef Haim Brenner.[10] What chance would any wretch have who agreed to work with us? What moral right do we have to demand of an Israeli Reb Leib that he throw away his job just to save our business? To ask for civil courage from a little holy vessel (Heb. *kli qodesh*)? If we're already treading that path, then first we should look for a 'cardinal,' a great rabbi who knows that civil courage is as important and noble as martyrdom, outside as well as inside the tent of the Torah. How is an establishment that has become used to easy earnings 'on the side,' going to find the cash to manage without them?"

Thus, in reality, Golan basically believed in the wisdom and morality of the rabbis in charge of the establishment, and their ability to change regulations that have not stood the test of time.

Golan: "If you challenge them with their errors, there are those among them who have enough probity to behave like self-respecting human beings and to admit their mistakes. It's not absolutely sure that they would persecute independent *shochatim* (pl. of *shochet*) operating like those they had in Morocco, just as they don't restrict Jewish *mohalim* (ritual circumcisers) who also make a living from the Arabs, for example.

"It's not just a question of giving up a source of income from now on, but also of rejecting something they have done in the past. They can't put up with a disobedient or rebellious rabbi without having to admit that they have been making unlawful profits for such a long time! Maybe they'd resort to an announcement about 'cancelation.'[11] But that's hard to imagine, even though morality is

their profession. Maybe, in order to get rid of 'the barnacles'[12] that have accumulated around the slaughterhouses, there's no option but to challenge the religious councils that run them and to demand greater efficiency and a more reliable service! Hillel, the ancient initiator of the *prosbul,* did not overlook the needs of his generation and their fear of sustaining a financial loss through remission of debts. Indirectly, Hillel undoubtedly concerned himself with the fate of his disciples ('nor bread to the wise,' Eccl., 9:11) and the livelihood of his household, because 'if there is no flour, there is no Torah' (Fathers, 3:17). He certainly had to contend with hypocrites and the self-righteous of his own generation who inveighed against sacrilege; he had to overcome the fear of curses from heaven. Obviously that takes courage. Perhaps courage comes to the fore more easily when one's pocket is threatened!

"Some people claim that the religious establishment of those days went along with the *prosbul* because of problems that plagued the Temple treasury, the biggest and strongest financial institution of the time. Profits that it lost through not granting loans from accumulated funds, because of the sabbatical laws, were the reason that persuaded them to support Hillel's proposal."

Golan: "Even the ladybug is a natural phenomenon, and what would happen if a person or an institute were to adopt it as a token symbol. To imitate it to the verge of death?[13] Is it impossible to challenge the religious councils to 'economize,' i.e., to extort but modestly? Perhaps it's worth first raising the problem in the world of Torah, first to bring together the Rabbis who make rulings regarding *Halacha* [the legal component of Jewish traditional literature] to discuss the problem of 'the sciatic nerve, of the hind leg.'

"Let them look for ways to get around prohibitions that developed the biblical injunction *mideoraita* in the Ashkenazi Diaspora, and which the founding generation in Israel was simply unable to oppose. As long as we lived among gentiles and gentiles raised the herds, there was no problem if part of the meat was forbidden to Jews. Others could buy whatever the Jews couldn't use, and so everything was sold and everyone was happy.[14] But here, where most of the breeders and buyers are Jews who are bound to a rabbinical ruling that rejects such a large proportion of the product, how can we keep going? They just don't grasp the problem!

"But maybe it is up to us to solve the problem since the rabbis are too deep in their Talmudic studies and with the *Poskim* (rabbinical religious authorities on halachic questions) to find time for current

issues. Perhaps we should try to bring a touch of free competition to the slaughterhouses and meat-processing plants and insist that contractors and subcontractors compete for the work in open tenders. Obviously, they would make loud objections. Then the State Comptroller could enter the picture, employ detectives, install contamination detectors, close supervision and sudden inspections, to make clear to them that if I—who am dependent on their services—am made bankrupt, they will also be dragged down. The whole economy is now being exposed to free competition but this protected enclave of the Civil Service remains untouched, enjoying State protection with no thought to those receiving their 'service.'

"Supposedly, there is competition within the branch, between the regional religious councils but alas, that is actually an unhealthy result of the *local* kashrut arrangements which brings no benefit to the public. The reason is that meat slaughtered in the Galilee or Netanya cannot be sold in Tel-Aviv. This is the outcome of the Religious Council by-laws, or better, arrangements, according to which

1. live animals must be transported for long distances (instead of cheaper transport of packaged meat). In this way more people are involved and, of course, the middleman's markup grows, rendering the meat more expensive for the consumer.

2. The earnings from slaughtering, quartering, processing, and packaging the meat are transferred to Israel's largest cities, and this income (locally added value) is denied to people working in the rural areas and development towns. In effect, *local* kashrut prevents the free play of market forces."

Keep Business and Politics Apart

Golan: "It would be considered a political act to remove the national monopoly of the religious councils that operate the slaughterhouses. Who in Israel has that kind of power? Power can be found on the black market, and when there's no option, one can certainly turn to it. A sizable proportion of animals in Israel are slaughtered without a rabbinical kashrut or veterinary certificate, with forged registration. The law does not forbid Muslim or Christian slaughtering, and that provides a convenient loophole. Jews who prefer meat at a reasonable price over the observance of kashrut requirements can get what they want from Arabs in Israel or in the administered territories. Herds are transferred to the territories supposedly for consumption there.

Documents are forged and the meat comes back to the central markets to be consumed by a passive public. There are many people who know what is going on but prefer to keep quiet. In the fight for survival, if it'll save the Jewish herds, perhaps it's better to look the other way. What's wrong with a 'gray market'?

"We still haven't instituted a national tradition of business ethics and of quality production in this country. If we all look for justifications and excuses for faking produce, we'll create chaos and be totally lost. What's to be done? Perhaps, instead of excusing enclaves of 'gray slaughtering,' we should take the high road and establish a standard service of kosher slaughtering, but without the backing of an orthodox certificate of kashrut? Why can't something be kosher but not *lemehadrin* [super-punctilious, indicating absolute certainty of conforming to all dietary laws]?' Why can't the hindquarters of the sheep and the 'pulkes'[15] be prepared for the consumer who while rejecting nonkosher meat is quite happy with kosher slaughtering? The conservative congregations in our diasporas will certainly take our side, and they are more numerous than the orthodox. There are nonkosher butchers but only *kosher lemehadrin* supermarkets, so let's set up a marketing network that's kosher but not *lemehadrin*.

"But what organization will stand up to the vociferous rabbinical 'Vatican,' we've allowed to develop in this country? Perhaps some courageous souls may nevertheless be found! Why not? After all, there have been some frightful priestly institutions in our history; the prophets stood up to them. In each generation a courageous individual takes his stand and displays an unusual dedication but not a compulsive zeal taking its moral stand from the Bible or from our sages; rather a judicious position based on familiarity with societal needs."

Milk Marketing and Government Interference

Golan: "One swallow does not a make summer and we can't wait for Godot to be our savior—we don't have the time! The problems besetting the branch are too serious: farms are selling herds at a loss. Perhaps a lifeline can be found in government offices? They are used to lumping climate and agricultural events together, everything that can't be foreseen but must be taken into prior account. They know that even in the developed countries there is no bank that can insure against such acts of God. The government sets up insurance funds, a credit bank for farmers, etc., to cover (subsidize) cost-benefit differences, when they are very much to the farmer's disadvantage. And everyone knows that this option is risky and should only be used for firstaid.

Okay, so let them not subsidize, just help with marketing; an energetic, active, state service that would set our embassies abroad in motion. If we know just what we [the sheep breeders] want from the ministries, and have the cooperation of the ministries of agriculture, trade and industry, and of the foreign ministry; if they coordinate their efforts, how can we fail?

"Though there are so many sheep breeders in Israel, they have yet to form an association along the lines of the cattle breeders' association, who are able to exert pressure and get the ministries to do something for them. Officialdom is more inclined to promote the cattle breeders because the majority belong to the so-called working settlement of the kibbutzim and moshavim,[16] while the sheep herders (mostly Bedouin) would not be considered to be an added pressure group [by the Ministry of Agriculture], even if they were to join our organization. As for the taciturnity of the Bedouin, one wonders if they have been muzzled! It would be interesting to see why they have not joined our [the Jewish] the Sheep Breeders' Organization, whose doors are always open to them. Truth to tell, the Bedouin wouldn't enhance our ability to exert pressure, perhaps even the opposite may be the case! Not so long ago, government officials have been known to block subsidies to the sheep sector in order to refrain from helping the Bedouin. Still, if we forget the Bedouin and concentrate on developing milk herds—principally a specialty of the Jewish sheep breeders—some progress may be possible.

"As a result of years of research and selective breeding under the supervision of government research and development institutes, we've greatly improved the milk yields of the 'Awassi'[17] breed, to the point of achieving world records, and also helped to develop the 'Assaf.'[18] It should be clear to anyone that, if the trend continues, we'll have plenty of milk both for the local market and for export. There is also a market for breeding staff of record herds,[19] to the credit of the country and the profit of the breeders.

"In the early eighties, there was no limit set to the amount of milk the breeders could produce, and they made deals with cheese manufacturers or even produced their own cheese—a few are still doing this successfully! When the number of herds and breeders grew, they amassed power as a pressure group, demanded subsidies for sheep milk, and secured results. But milk production then became subject to quotas so that production would be limited and good prices could be maintained. The present-day sheep breeder has to balance the benefits of subsidies against the drawbacks of quotas. The rules of the game call for increasing the contacts with the quota-setters, so as to increase one's own quota.

"Talking off the record, government officials prefer the present situation, with quota limits that can be enforced.[20] In other words, in this respect (though not in others!) we are meted the same treatment as the cattle sector. The state officials' power has been increased and they keep their eyes open, or close them when they will! The sheep breeder has to be constantly on the alert to avoid being penalized!

"State services in the farming sector are held to promote research and development, expand the uses of sheep milk, develop new products, and promote exports. Unfortunately, the task of monitoring seems to consume all their energy. Take the present vogue for low cholesterol cheese! We should be investing in the production of cheese from the milk of sheep rather than that of goats and cows. There's a real challenge in research and development and some income for researchers, but at the Ministry of Agriculture 'there's not enough money!' Who needs that kind of government?" (1989).

The Economic Value of the Wool

Golan: "Wool, for example, is another neglected topic calling for research to stabilize income. Though it's impossible to turn back the clock to the period of pioneer Jewish settlement (Hebrew *yishuv*) in the Land of Israel, and clothe the population in locally produced hand-woven materials, that still leaves a wide margin for potential development in this domain. Today Awassi wool is used for weaving carpets, stuffing pillows, and upholstery. Sheep must be sheared because they need it, but the breeder's income doesn't cover the cost involved in this activity and its product isn't utilized. In short, the scope of the sheep breeders' activities remains restricted in range to minor cottage industries pursued in certain villages and towns located in the administered territories and to the Bedouin economy.

If the producers of colorful cloths appreciated by the local buyers and the tourists interested in folk art and souvenirs, especially carpets, could be persuaded to make the adjustments necessary to utilize some local wool in the carpet industry (currently geared for New Zealand wool that has well-known and consistent qualities), we'd save on imported raw materials, enhance the Middle Eastern cultural value, and improve rural incomes.

"But here, too, some fresh thinking is called for, public before private, and the national system is too centralized. They wait for instructions from the minister who is supposed to goad the clerks

into action. In government offices, 'Mr. Is-It-Worth-It,' the technocrat of the dollar culture, holds sway, and he's mostly concerned with seeing that nobody upsets his petty arrangements or his routine. How can ministers addicted to the comforts of office teach morality or urge their officials to exert themselves? Zionism is dead in government offices. They play at 'let's pretend we're in America,' wait for private initiatives to solve every problem, and send us to professional investors."

Kressel: "What would it take to improve the quality of wool?"

Golan: "Selective breeding to improve the quality of wool is a slow process entailing intensive labor and, for the time being, the results achieved yield, apparently, only modest gains. To promote productivity, for example, in the realm of meat production, gene transfer promises to be a rapid method to achieve improved goals. While such a gene has not yet been isolated, in the ARO, it is known to exist. Prolificness was generally believed to reside in groups of genes until, in 1982, Australian researchers discovered patterns in the fecundity of progeny of the highly prolific Booroola Merino sheep (2.6 per lambing), which indicated the effects of only a single gene. The development of wool quality, it seems, is a simpler challenge."

Doing Business with Private Investors

Golan: "You should know that when we industrialize and endeavor to keep the Ministry of Agriculture officials at bay, they stick to us like clams. Business connections with private investors don't free us from that law of nature. The Ministry officials are just waiting for things to happen so they can catch a ride. After all, it's got to be 'kosher' and you can't evade the bear hug of the Ministry."

Kressel: "On the face of it, it's just a matter of common sense. The policy is to reduce protection on local produce but, in the short term, their main concern is to raise income for the government. Treasury income from customs dues and sales tax on imported goods are easily collected, compared to taxes levied on internal economic activity. Thus, imports serve the interests of the government bureaucracy, and operate in direct conflict with its supposed terms of reference: serving the citizen, supporting the farmer, especially when in trouble. Faced with the alternative of quick profits from imports, the treasury often becomes 'confused' in the interpretation of its *raison d'être.* Officials express this new order of priorities, according to which they reduce their responsibilities to the settlement movement, by declaring that for

them, 'there's no more Zionism.' Ask them what that means exactly, and they'll tell you that supporting the rural sector is no longer a priority for the use of national funds. Apparently it is just a matter of Zionist priorities—if it's expensive for us to grow tomatoes, the Israeli market should be open to foreign competition."

Golan: "Opening Israeli markets to foreign competition would, it is true, encourage greater efficiency in production. Artificially imposed protection harms our ability to survive in world trade. What the government cannot conceal, however, is:

1. that the collection and distribution of public funds was, and remains, its principal function. The money the government mints, when it avoids the need to return it, or cancels its debts retroactively ('cancelation'), *that* is what's destructive. And it's especially in the interest of the state bureaucracy that this should be so! How else could it give one sector or section of society preferential treatment over another? How else could it get businessmen to come crawling to its offices?

2. When you remove protection from farmers who have become used to being 'pampered,' when they're suddenly exposed to external forces, one ought to be seriously worried that they'll go bankrupt. Is it the government's intent for that to happen, or do they just not care one way or the other?

3. They don't consider the possibility that neighboring countries are subsidizing produce imported to Israel. Then, after they've killed any motivation to produce, even for just a short while, our work ethics will suffer and the professional tradition that took two generations of effort to create is undermined.

4. Even with a regional common agricultural market one day, it'll be years before reliance on imported foodstuffs cease to constitute a threat to our security."

Kressel: "It's not just a simple matter of conversion to a market without a wall of import duties. After years of successful imports and importers, the Ministry of Agriculture has banned competitive imports of sheep products for the last six years. Thus it succumbed, it seems, to local pressure and to the breeders' efforts, serving the short-term needs of the branch."

Golan: "It's a fact that despite the world and regional market forecasts, along came a minister [Mr. A. Sharon], himself a sheep breeder, who

cared, and implemented the ban. But the blessing is mixed; a short-term benefit can also inflict long-term harm. The quandary is how to mix a modicum of competitive imports, to challenge our breeders to increase efficiency and not to suppress 'gray' pacts between farmers and civil servants to favor better black deals between them [the officials] and importers of sheep and their products.[21] In order to prevent that, objective control and bookkeeping are needed with all sides represented. And we need to adjust the quantity of imports every few weeks for everyone's benefit, as is done with the 'basket of currencies.' "

Kressel: "And who should we ask to supervise state services? Who will agree to bell the cat personally when the feat is hazardous and the outcome at best doubtful?"

Golan: "Is the answer, perhaps, the Jewish Agency? In any case, they maintain a large apparatus alongside that of the government. Compared to our ministry officials, even Baron Rothchild's historical *apparatchiks*[22] can evoke feelings of nostalgia. If only there were among us a few fanatics bent on regional development, who could save us from having to learn the hard way through tangling all the time with wretches and manipulators! But to open the door to alternative investors, the government itself has to act. Dependence on government clerks discourages the genuine potential investor. The truth is that the introduction of the stock exchange is particularly dangerous for the breeders of livestock. Raising sheep is not like growing cut flowers, and neither of them is like running a hotel or a casino that can change hands without harm. In the transfer from farm to business, the farmer who feels involved in the production process is replaced by a salaried inspector on behalf of the management. It's reasonable that the overseer will then be Jewish, and the inexpensive, disciplined worker will be an Arab, and how could it be otherwise? The entry of increasingly large numbers of Arabs into agriculture is accompanied by a lowering of work costs and a resultant flight of Jews away from this domain. Because of their poverty, economic needs, and their rapid natural increase, the Arab workforce is boundless, and they will take over all the unpleasant jobs. In the spirit of capitalism, there's nothing wrong with this, but it doesn't improve our situation in this country. In the end, whoever does the work will inherit the land.

"The governing agencies encourage efficient ways to remove the temptations presented to workers' settlements *[ha-hityashvut ha-ovedet],* by cheap, non-Jewish, unorganized labor.[23] But they don't propose adding safeguards to defend Jewish self-employment. They claim that

the difficulty can be alleviated by sophisticated labor-saving techniques, using mechanization. In the field, the call is for establishing regional research and development institutes[24] and so, with the collaboration of the authorities, a highly scientific and technological state will be reached. However, the state services don't accede to decentralization, to devolving authority on regional councils. The Hebrew rural sector is a highly effective producer but, alas, inefficiently managed. We reach tremendous outputs which are offset by excessive expenditure. The Bedouin herd at the same time yields far more for a considerably lower investment and therefore can survive when we go bankrupt."

Kressel: "You mean that in the case of the Bedouin, the cost of labor is negligible?"

Golan: "Bedouin labor is cheaper but it has a price. Our Achilles heel is the production inputs, which include a tax component that doesn't equally affect the Bedouin. If the Jewish Agency, which tried to develop goat herding in the central Galilee failed, the prospects of the regional councils succeeding in this enterprise seem slim. When the government prevents decentralization, keeping authority concentrated and isolated, it perpetuates society's dependence on its good offices. The power of government institutions is measured by the national capital that flows through their hands."

Kressel: "In fact, already in the mid-1950s, at the end of the austerity period, that is, after the reparations agreement with Germany, the intervention of the United Jewish Appeal, and the grants of the U.S. government, cash began to flow in and raised the standard of living. It greatly influenced the country's productive fabric; at times, negatively, because we got used to extravagance, since the coffers could always be refilled."

Golan: "Yes, first of all the weak-spirited were tempted, and after them, the strong-willed settlers too. Energetic and talented workers insisted on managing without favors, but they too eventually got weary, especially when they saw the clever wastrel getting the same rewards without the strenuous toil."

Kressel: "In order to keep Jewish farmers cultivating outlying areas, the authorities were prepared to compensate them for what city folk in comparable situations couldn't get. These resources maintained their standard of living but overshadowed the achievements of energetic and talented farmers who created their own standard of living by their unaided efforts. Eventually, when everybody had gotten used to

'the horn of plenty,' the supply dried up. Thus, quite suddenly, in the fall of 1985, the ministry stopped refilling the coffers; if they were empty, they stayed empty. A farmer unable to recover quickly work habits relinquished since the 1970s, and practices of consumption and economy that had become normal during the difficult years of construction, found himself beset by debts."

Golan: "Because the state had bought control of the banks,[25] the government became the creditor. Since 1983 the stick of (destructive) interest in the hands of the government has turned into a dagger. The bank, which now acts as the regime's executor, doesn't come down heavily enough on the indolent. The citizen who runs debts up to five and six figures has come to be regarded as 'the one with initiative,' whereas the farmer with professional pride has something to be taken."

Kressel: "Certain actions of the treasury, when funds were copious, negatively affected the productive fabric by granting needless relief to the unproductive, and only meager support to the talented and energetic. The treasury undermines both when it is providing and when it purloins. The conclusion is that ensuring high efficiency in state services without harassing the needy is not something that the sheep breeders can achieve through their own unaided efforts. They are reduced to collaborating against the ministry to get what's coming to them—just that!"

Efficiency: Pasturing Versus Stall Feeding

Golan: "Since the breeder lacks the means of reshaping the state apparatus, he has no choice but to increase his efficiency. The *intifada* has hurt him, perhaps because he made the mistake of an extreme transfer from grazing to foddering in pens. At a time when mutton prices are rock bottom, shepherds have an advantage. Pasturing in fallow fields, stubble, and fringes saves the expense of fodder. Even Jewish farmers can get by with a price of 5–6 sheqels per kilogram of live lamb as long as they're not overburdened with the cost of hay, fodder mixtures, and the like. Moreover, raising sheep on expensive fodder is an economic absurdity[26] that grew fast in the period of 1984–1988, because of the ban on competitive imports and the high prices charged until the outbreak of the *intifada*. Such farms found themselves in much worse circumstances than those using alternative forms of feeding such as cotton-plant wastes, chaff, and the waste by-products of industrial food processing. A consequence of the mechanization

trend in sheep-breeding is the abandonment of grazing and the high price of fodder. From an almost negligible outlay on concentrated feed in 1960, the Israeli sheep breeder consumed 74,900 tons of animal feed in 1975, 112,800 in 1987, and 120,600 in 1988.[27] If we had found a way to return to partial pasturing, with mobile, foldaway, fencing—a new idea—in concert with regional councils implementing legal arrangements for the foraging on winter vegetation in fallow areas, it's quite likely that our situation would be more favorable."

Kressel: "Grazing that saves on fodder costs and for which the labor-cost is moderate will first mean a preference for shepherds from the administered territories. Wages in Israel are increasing, but there they are still low. Even among the Bedouin, who are closer (as compared with the Arabs of 'the territories') to the Israeli labor market and who are tackling a wide range of new occupations, it has become common to buy fodder, mostly hay, and to employ shepherds from the villages in the south Hebron hills. Still, they are doing this progressively less and only when they have to (i.e., in drought years) and as a way of fattening their animals for the market. Their abilities and adaptation to pasture conditions have been and remain the source of their relative advantage among the breeders. When a Bedouin is taken on in a new place of work, a shepherdess from his own family can take his place. At the present time, the advantage of the Bedouin is that the labor of his wife or daughter comes cheap. Even when they can't find (or don't look for) alternative work, they have an occupation in herding and in housework."

Golan: "The relatively high wages of the Jewish herder hurts his competitiveness in the labor market. However, it is not just the wages of the Bedouin herder that fail to attract the Jewish herder. The negative image of 'following the sheep' is usually also a bad influence on our motivation to use grazing, even when that's the best chance we have to rescue the branch. The fusion of the economy of the administered areas with that of Israel was accompanied by a reduction in manual labor costs and, one would have thought, would have encouraged the taking of herds to pasture and their growth. In the first decades of the linkage, however, we've witnessed a shrinking of the Jewish herds; from 135,000 head in 1970, to 87,000 in 1980.

"The reduced wages detracted from the prestige (in any case low) enjoyed by the herder in Arab society.[28] The better-off Negev Bedouin began to hire shepherds from the southern Hebron hills (Dura, Yatta, Dahariya, Samoa) to replace their daughters in the pastures. Bedouin tradition forbids the employment of women for wages, but, on this

occasion, the work of the shepherdesses was identified as having a marketable value. Only those of limited means, with small herds, left herding to their wives and daughters."

Kressel: "So does herding by one's own women become a symbol of limited means? It seems that Arab values were unintentionally adopted by the Jews, so when, in the 1970s, there were no volunteers to take the herds to pasture, and 'self-work' ethics bound the settlements and prevented them from employing herders from the administered areas, the herds became inevitably reduced."

Golan: "Yes, but a decent profit ought to overcome objections to grazing on pastures; the evidence for this is that when, from the beginning of the eighties, mechanized methods based on purchased fodder were developed, suddenly many people joined the sector. Money doesn't provide the answer to everything, but if we mechanize the grazing, under the eyes of the Standards Institute and the Nature Protection Society,[29] I promise there'll be no lack of herders, and we'll have the ability to challenge this traditional value of the Arab society, and prevent the opposite from occurring.

"In 1979 we had 87,000 head (sheep and goats), in 1987, 173,500, and, in 1988, 175,000. At the same time, the Arab herds, that had slightly diminished from 1960 (209,500) to 1970 (186,500), came to 315,000 in 1987, growing to 344,000 in 1988.[30] These figures are contradicted by the Annual Veterinary Abstract, 1987,[31] according to which there were 189,450 head of Jewish, and 233,400 head of non-Jewish, herds within the Green Line [by which is meant the lines that served as Israel's borders prior to 1967]. The veterinary services was thus cognizant of 15,050 more head than were reported to the Central Bureau of Statistics and of 81,600 head less than were reported in the Arab sector. The systematic inaccuracy of the reports may perhaps be explained by the fact that: (1) the Jews depend more on the veterinary services than do the Arabs, (2) the general tendency, more common among the Arabs, is to conceal any excesses above the herd quotas allowed by law. Also, keeping a small number of sheep and goats in a yard with fodder is easier to hide from the mandatory veterinary services in the Arab sector."

Kressel: "There must have been an increasing demand for mutton, isn't that so? With the rise in living standards in the administered territories during the 1970s, the consumption of meat, usually 'flexible,' grew (when the pocket's empty, you do without). The growth of meat herds in Israel therefore was a response to the growing demand. The

Arabs did the same, with a greater use of the natural pasturelands, while the Jews invested in technological know-how—in the foddering machines, a greater variety and cheapening of foodstuff constituents to the sheep in the pens, synchronization of fertile periods, installing of suctoria machines for feeding large groups of lambs, and so on. This investment was expensive but justified when the market was certain, the turnover large, and the returns greater than the investment."

Golan: "With the growing demand for mutton and lamb and with the prevention of competitive imports, the number of investors in raising sheep using mechanized methods multiplied. Some used their savings, and others took out loans. There was also pressure to increase the meat herds at the expense of the milk herds. Even the owners of small household plots found their way into the sector. They assumed that a minimal investment of an afternoon (after a workday, elsewhere) in a meat herd would be enough to bring in a profit. 'Tnuva' [the biggest national milk-and cheese-marketing concern] helped to balance this trend (1983–1986) by asking for an increase in milk herds. When the market retreated, the first to fail were the amateur investors in mechanized methods. Following them the professionals with midsize herds suffered losses. The only survivors were the big farms with large capital investment that gave them a breathing space. One might say, 'so be it!' Let the freer and more natural process (capitalism) decide who will flourish and who will fail!"

Kressel: "Perhaps we should consider whether industrial production concerns might maintain their own sheep in pens for the better exploitation of leftovers and waste (as sheep fodder)?"

Golan: "No, that's a terrible option for several reasons. (1) It's out of line with the growing trend in Western countries of supporting 'biological' or 'organic' farms, in order to maintain the quality of the food products. (2) They will forget all about the potential of stubble and the annual grasses, which benefit from moderate grazing. For the edges of the harvested fields, grazing is essential to lessen the danger of summer fires. (3) Taking the herds to graze on stubble and so on would help sheep meat compete with beef, since the beef herds can't get to these sources. (4) The availability of waste from the food-processing industry is influenced by the other production costs and by demand for the products. That's to say, when the new alternative fodder suddenly gets dearer or disappears, the returns on sheep and their prices will also fluctuate. A temporary paralysis of the industrial economy would then be likely to halt the supply of sheep products

without any real justification. From the national point of view, pure and simple, it would be right to ensure that such new fodders (from food-processing wastes) are a calculated addition, balanced with pasturing—never the sole basis of feeding. (5) To increase the rural population, it's bad to let the income from the branch fall into a few industrialists' hands. If sheep rearing were to be planned as a subsidiary branch, providing hundreds of families on the moshavim [rural agricultural communities of small holdings] with a modest additional income, instead of concentrating it all in a few large concerns, it would help to spread out the Israeli population."

Kressel: "The vision of mechanized, industrialized, breeding *sounds* wonderful, but is hard to accomplish and is opposed to the spirit of the times. You might say, as a comparison, that just as we hardly go hunting any more to supply meat, and just as controlled fish ponds and fish and lobster cages are pushing aside fishing, so too shepherding will be reduced. Indeed, everyone will agree that it should be restricted to preserve natural resources. We try to preserve rare species and ocean fish and, in exactly the same way, we'll be asked to look after special wildflowers and there will be international agreement. Almost all innovations have got to do with mechanized breeding which utilizes pens and artificial fodder, I assume. Not with old traditions of grazing upfield."

Golan: "We must take great care to maintain controlled pasturing, because it's essential for most natural vegetation. We have to improve efficiency, and not just because the branch has been unprofitable and unattractive to talented young people. Experts in grazing and pastures say so, in contrast to the traditional breeder who perhaps opposes feeding in pens, claiming that a herd without a shepherd doesn't feed properly, or that the herd needs shouts of encouragement. Feeding in fenced areas is accepted in the most prominent sheep-rearing countries; a fence prevents the dispersal of the herd and protects it from predators (both four-legged and two-legged!), and frees the breeder to do other things. Some people use dogs. In Australia, one family has 7,000 head. In Israel, a family can do very well on a meat herd of 500 head. At a rough estimate this takes 365 days of work, so the value of one day's work is about 1.5 sheep which is fine, and with the help of good organization, certainly possible."

Kressel: "Once the technical problems have been solved and the feeding has become worthwhile, the question of allocating pastures to each herd will arise."

Golan: "The parceling out of uncultivated areas, including those beside built-up and agricultural areas, is necessary. It's essential to locate all the grasslands that could be used for grazing, and to arrange this with understanding on a regional and settlement basis for the Bedouin, kibbutzim, moshavim or any other interested party. The Israel Lands Administration, that limits the allocation of pastures to short periods, rejects any change in their legal status and prevents investment in fencing or improvement of the vegetation. In contrast to the situation of the kibbutzim, which have established plots of land, before there can be any investment in plant by 'family farms'; pastures have to be allocated and this depends on contractual arrangements. To get the ministry moving and to change the situation, the breeders need to cooperate effectively. Perhaps the old cooperative institutions of the moshav movement could be revived and play a new role? Tested and seasoned 'Blue and White'[32] cooperative arrangements have already been successful for the cattle, poultry, and orchard agricultural sectors, etc."

Kressel: "Why shouldn't they succeed for the sheep breeders of the newest brand?"

Cooperatives as a Means and as an Intrinsic Value

Golan: "Cooperatives succeeded as a symbol of the most pioneering kind of settlement, when it helped Jews, tired of the Diaspora, to become laborers. The whole nation was interested and supportive; since then cooperation has gotten 'rusty.' Its performance has been generally weak and unreliable. When mastering agriculture was a basic necessity for national establishment and independence, cooperation was an essential and irrevocable means to that end. The achievements were impressive. Afterward, everyone learned how to manage, money flowed, and dependence on the cooperative institutions waned.

"In the seventies, along came cheap labor from the administered territories, a real 'bargain' for the agricultural sector which further reduced the sense of dependence felt by the average moshav member for his fellow farmers and their cooperative. The value of self-employment was eroded and groups who once valued the cooperative as a means to an end but not as an end in itself, nowadays deny its importance. They dub it an anachronism, a relic of something that was right for its time but that is now superfluous. The number of moshav members who have doubts about the infrastructure and who have ceased faithfully playing by the cooperative rules has grown. Selfish exploitation of the cooperative incurs losses, and debts hasten

its breakup. Like a vicious circle, wretched execution of cooperative agreements creates the apparent impression that cooperation is contrary to man's nature. The old spirit of socialism has been replaced by the prevailing spirit of 'Americanism,' and the (moshav) cooperatives are left without a guiding light. The generation of founding fathers is disappearing, and successors raised on cooperation and mutual obligations don't know how to halt the erosion; thus everyone is left to get along by himself as best he can."

Kressel: "A system of institutions, socialistic in principle, but capitalistic in actuality, is confusing and causes demoralization. The younger generation feels the contradiction in values and can't contend with it. When greed for money is recognized as the leading force in the national economy, and the dollar is viewed as a symbol more potent than any other, we need to train young people for material competition, rather than training them for social cooperation."

Golan: "Perhaps [bitterly], the educational system should inculcate contempt for socialism, and salute sheer capitalism, and extol the successful, the 'self-actualizing,' and those getting rich, even if they get there by exploiting the *'sucker.'*[33]

To Inculcate Self-interest

Golan: "'Rugged individualism' frees one of any social responsibility to others, in whatever country. On this principle, whoever can earn more abroad is justified in leaving. What's more, Zionism is both demanding and wasteful when compared with certain other countries offering attractive economic opportunities. So whoever returns to Israel or becomes an immigrant is automatically denigrated as somebody who wasn't good enough to make it abroad."

Kressel: "Wouldn't you agree that there is a contradiction between the principles of economic conduct set up for Israelis and those applied to Jews living in the Diaspora. Increasingly, Israelis are judged in terms of an unsentimental disregard for commitments to society and their ability to succeed. They aren't expected to make charity donations, while Diaspora Jews are graded according to their potential to contribute to needy brothers here and to 'the Zionist cause.'"

Golan: "Money from the UJA (United Jewish Appeal) has two sides to it. The cash is good, but whoever takes it is branded as poor and worthy of pity. Economic health needs no charity. The simpleminded among us play around with the notion that we are already firmly established

and that we need fewer good turns than we did some thirty years ago. Perhaps, when we get rid of our dependence on American grants, the fund-raising institutions, and the *'schnor*,'[34] we'll respect successful Israelis and judge them by the amount of income tax they pay. Until then we'll still regard public capital as a product of *'schnor*' and not of hard work or from this or that kind of rugged capitalist."

Kressel: "Should we establish 'liberal capitalism'? After we get rid of socialism, we have to free ourselves of defense costs, immigrant absorption, and all our other 'troubles,' but don't hold your breath! The *intifada* is very costly and hurts the climate of 'business as usual' without producing material gains. In a nationalistic climate where contradictory national aspirations are being actualized, things appear in a different light."

Golan: "Thanks to pressure from our enemies, even the camp of the cynics, that derides cooperative settlement, admits our importance. If cooperative settlements provide a security belt, then they agree we must survive. Lawyers and businessmen, in suits and ties, from the Dan region and Jerusalem, who are the majority in the government and the Knesset, have never done any manual work but want to appear in the guise of our paymasters as though we owe our survival to them. They distribute contributions from abroad and set themselves up as our saviors. The older among us know who *they* are and who *we* are, but the younger generation doesn't understand and isn't prepared to stay with us, who are branded as 'welfare cases.' To save the nuclei of rural settlement[35] we need to understand the professional pride that keeps the farmer and his social fabric going."

Kressel: "It would also be correct to speak of the pride that keeps the herder and *his* social fabric going."

Economics and Nationalism

Golan: "Yes. The herding business is tiny but reflects private initiative and the overall national economy. The linking of the Israeli economy with that of the administered territories allowed complementary business connections between Jews and Arabs. Each sector developed its strengths and profited. Then Arab nationalism came along and, directed from above, undermined those spontaneous arrangements which benefited the Bedouin and ourselves. Since then, an interchange of consumers and suppliers has taken place; Jewish breeders that came into the branch on the basis of high technology and capital are abandoning it in favor of Arab, mostly Bedouin, breeders using grazing and labor

intensive methods. Arab consumers who were attracted to our produce are now repelled. They boycott whatever is coming from us and prefer 'green' (an Islamic color symbol) lambs over 'blue and white.' It seems that, as a counterboycott, Jews are also beginning to appreciate our lamb, because of the struggle, now that it's a story of 'blue and white,' and national pride.

"Professors of economics may teach that market forces determine matters. There's something in that, but at present it's not the whole story. Not even in the 'new world' [the U.S.], and certainly not in the 'old world,' with its nationalistic sentiments nor, for that matter, in the Middle East. They talk of erasing national boundaries in the European economy—a new era. Let's wait and see when that happens here, too. In the meantime we're still divided over the 'theoretical' question of whether private initiative will produce more than cooperative ventures. Time is being wasted, but it's best not to make waves; we're in the middle of a Milton Friedman experiment. We're all for making changes and fast, but we don't know where to begin. Every action needs a guiding standard, and even if we rely on the Holy Bible and on the Lord our Savior, pray nicely, and He grants us all our wishes, the problem remains that we don't know what to wish for, how to choose, or how to succeed. We're still not certain what we want to do, because we still don't really know how we want to live in this country."

Notes

1. I acknowledge with thanks the help of Dr. Oded Nir and Dr. Yan Landau who read this chapter and checked the data.

2. About the desire that Jewish pioneer immigrants to Palestine return to the ancient (biblical) ways of making a living, that is, pastoral nomadism, see Y. Goldstein (1993).

3. See Ya'acov Golan, "On the State of the Branch," *Ha-Noqed (The Livestock Breeder),* vol. 5, November 1989, pp. 2–3.

4. "Tnuva" Association was founded in 1929 for the purpose of joint marketing of farm products to minimize brokers' fees, for the benefit of farmers in the cooperatives and of the general public.

5. A play on words. The Hebrew term *me'ushar* can mean both "happy" and "legally approved."

6. The legal texts of the traditional Jewish literature.

7. This Hebrew term was coined by the Sephardi religious establishment endorsing this basically Ashkenazi traditional ritual practice of "tearing" the meat apart in the process of removing the sinews. Very cautiously apportioned and by far more expensive meat, as compared to "regular meat" *(bassar ragil),* that can be bought in some of the supermarkets in Israel, which sell the thighs unportioned,

or not as cautiously portioned, that is, after a symbolic extraction of parts, not all of the the sinew.

8. An innovation of Hillel the Elder (appointed in 30 B.C., president of the Sanhedrin, the greatest Halachic authority of those days) whereby registration of a loan in court exempted it from automatic cancelation in the sabbatical year. The "prosbul" has to do with the porging subject in the sense that *heter mekhirah* (permission to use products from the *shmittah* year) has evolved in support of Jewish national home-building and its economy. An imitation of the *heter mekhirah* authorized by HaRav Kook in the twentieth century is sought here to soften the pedantic approach to porging with regard to small ruminants.

9. Talmud, Tractate Chullin 84b. "R. Johanan said: 'Whoever wishes to become rich should engage in [the breeding of] small cattle.' " R. Hisda said: "Why the expression 'the young [ashteroth] of thy flock'? Because they enrich [me'asherot' their owners." In fact, R. Hisda explains R. Johanan's wordplay as a reference to the verse of Deut. 8:13. Either way, we have here a *daat yachid* (an individual opinion) and not, as Golan claimed, the "sages" because a more frequently recurring idea is: "Our Rabbis taught: 'It is not right to breed small cattle in Eretz Yisrael' " (Baba Kama 79b).

10. See the story "Ba-Neshef" *(At the Party)* by Yosef Haim Brenner, Collected Works, vol. I Tel-Aviv, HaKibbutz Hame'uchad, 1978, pp. 47–73.

11. Cancelation of debts. This is a policy adopted by the economic ministries to ignore bad debts accruing to them from sectors of the economy such as agricultural settlements.

12. They attach themselves to the hull of a ship below the waterline, slow the ship down, and require to be scraped off.

13. Though Golan believed the rabbinical establishment's ability to evolve and modernize, they appear to be making no effort in this direction since this could eat into their source of income.

14. Paradoxically, when meat is scarce in the general market, kosher meat was cheap, and when meat was plentiful and cheap, kosher meat was dear. The reason is that when meat was scarce, they would buy hindquarters from the Jews, something they didn't do in times of plenty. When a Jewish butcher could sell the whole animal, part to Jews and part to gentiles, the price came down.

15. Here meaning legs of lamb, but usually referring to chicken legs—the idiomatic Hebrew version of "drumstick."

16. *Ha-Hityashvut ha'Ovedet,* the long-standing movement of working Jewish settlers.

17. The Awassi, an ancient sheep breed native to Israel, is prized around the world for its hardiness and high milk production—approximately 500 liters/year.

18. A cross-breed between the Awassi and South Friesland types, developed by the ARO in Israel, is larger and meatier than the Awassi, and rich in milk. In fact, the Assaf, which averages 1.6 lambs per lambing, is today the domestic industry's main milking breed.

19. Whole herds developed, from lambs or frozen embryos from Kibbutz Ein Harod in the Jezreel Valley, can be found as far afield as Southwest Asia, Australia, Europe, the Americas, as well as in the modern farms of the Middle East.

20. The Milk and Dairy Council.

21. It is easier to tax cargoes of frozen imported meat in the ports than to secure the added value of individual sheep bought and sold throughout the country.

22. The managers of his large-scale holdings during the early years of Jewish resettlement of Palestine in the late nineteenth and early twentieth centuries.

23. Cf. Kressel (1995), "He Who Stays in Agriculture Is Not a *Freier*."

24. See Moshe Schwartz et al., "Regional centers for agricultural research and development; history, structure and operation." The Center for Study and Development, Rehovot, 1991.

25. As a result of years of illegal but open manipulation, bank shares had become increasingly overvalued until a crash occurred in 1983. The government was forced to step in with an emergency action in which it purchased the shares from the thousands of holders who would otherwise have been ruined.

26. The foreign currency component in grain imports, as a consideration on the national level, is unnecessarily high when one takes into account the annual fallow vegetation available after the rains.

27. See the *Annual Israeli Statistical Abstract,* no. 40, p. 401.

28. On the status of the shepherd in villages near Hebron at the beginning of the twentieth century, see, for example, the story by Yitzhak Shemi, "Juma Al-Ahabal."

29. To establish optimal grazing standards, that is, not less and not more than the amount of vegetation needed annually for ground cover.

30. See the *Annual Israeli Statistical Abstract,* no. 40, p. 402.

31. *The Annual Veterinary Abstract,* 1987, published June, 1988.

32. The term "blue and white" is used to refer to anything produced in Israel rather than imported from abroad.

33. "*Freier*" in idiomatic Hebrew is literally, someone who does something for nothing (the freier [the sucker] works without payment for the good of the community), now one of the most dismissive epithets in the modern Israeli lexicon.

34. Hebrew idiom based on the Yiddish word for begging.

35. *Gar'inei Hahityashvut* are groups of young people who organize with the purpose of creating new, usually agricultural communities.

This page intentionally left blank.

9 Toward a Better Plan of Action

Almost all potential rangelands in Israel with less than 100 millimeters of annual rainfall and most of the steppe rangelands with 100–200 millimeters annual rainfall are under state control. Except for the small experimental Lehavim Farm, none of this land is managed as rangeland proper. The Yatir Forest, which extends across approximately 10,000 acres, began as an agroforestry project and has, however, yielded an unplanned benefit for shepherding: the provision of annual pasture for ruminants. During the period of January–April 2000, 4,500 head of sheep and goats belonging to the Negev Bedouin benefited from the forage in the forest and, during the spring of 2001, the figure rose to 7,500 head; actually, this ongoing development project also provides firewood for hundreds of Bedouin families and villagers in an area from to the Hebron suburbs. Agroforestry supplements the devastated the range during the winter and spring. During the summer, the herds graze on stubble after cereal crops have been harvested. Both of these solutions to the problem of providing food for animals are, however, improvised; there is no overall plan for the maintenance and development of the Bedouin herd. As a matter of fact,

neither is there a comprehensive plan for herds belonging to Jews. As already noted, the Jewish sector, as well as the ambitious Bedouin entrepreneurs who own the largest herds, resort more and more to feeding the animals in pens with purchased feed, even when pasture is available. Not only is it expensive to pay for the labor required to tend the grazing herd, but there is a shortage of skilled and responsible shepherds.

The retention of shepherding—a modernized version that will overcome problems through the use of technology—deserves our attention because of its particular merits. This is the assignment I embark upon in this chapter: research on ways of retaining shepherding. Although the following remarks concern the Negev Highlands, they can be applied to the entire Negev and, possibly, to other desert zones of the Middle East.

In 1950, the feasibility of developing the Negev's potential pasturelands, including the Highlands (my focal point here), was assessed by botanists appointed by Israeli's newly formed Ministry of Agriculture.[1] Despite their optimism and recommendations for projects to improve the provision of forage, not much has been achieved since that time. Moreover, although the land available for herding has increased, as has the size of the herds, this land is used less and less by the herders because: (1) the provision of forage has drastically decreased after years of droughts and overgrazing; and (2) the number of shepherds who can take the animals to pasture and tend them has declined.

Encouraging investment to ameliorate deteriorating rangelands for the benefit of shepherding requires solutions to two basic problems.

1. Long-term leasing of tenure rights over rangelands by tribal herds leads to the "tragedy of the commons."[2] In effect, this means that pastoralists are unlikely to graze their herds judiciously, since they stand to gain in the short term, and the cost is passed onto society as a whole. In such a situation, even if a few individuals were to act responsibly to restrict harm done to plants, there would be no general change in the quality of rangelands. Recognition of tribal open-access rights of grazing the *dīra* have traditionally acknowledged the right of families to share in the take but, so far, there has been no noticeable effort to share in giving, i.e., no tribal provision that all should invest equally in the effort to ameliorate their common rangeland forage.
2. The pool of potential shepherds is shrinking fast since Bedouin children are becoming more educated and other job opportunities are opening up for them. Many tribesmen are increasingly turning to in situ feeding of the herds, in other words, a static, not

nomadic, method. As already noted, food is bought for the herds, which are fed in pens, even if grazing land is available in the vicinity.[3] The future of skilled shepherding depends on bettering its image, and this will not be feasible until the methods and tools of the trade are modernized so as to improve the shepherds' living standards.

When rangelands have been destroyed and no attempt is made to rehabilitate them, the desert takes over. Arresting the spread of deserts has thus far proved an overwhelming assignment for both the tribesmen who forage on wasteland located within the common land, and for reckless entrepreneurs, acting out of personal interests. In the State of Israel, the afforestation department of the Jewish National Fund (JNF), backed by the Israeli government has been the only agent to plant forests in desert land. In other Middle Eastern countries, the situation is almost the same—only the governments, helped by nongovernmental organizations (NGOs) in the West, have exerted a visible impact on the desert landscape.

Initial development projects lead by governments, enforced by agricultural legislation throughout the Middle East,[4] usually delegate responsibility for rangelands to the State, notwithstanding tribal claims to grazing rights. By doing so, control of rangeland encroachment, and limits on degradation and soil erosion can be exercised, and negative processes reversed. The "sense of tragedy" pertaining to common rangelands has become a telling point in the argument that governments must play a stronger role in dealing with environmental problems. On the other hand, some observers have advocated laissez-faire policies that visualize a scenario whereby governments leave the role of development to individuals by encouraging privatization. Private groups, however, are often reluctant to engage in a war against desertification or to ameliorate vegetation in the fallow lands. For this reason, private investment remains negligible. Why should one strive to change the "natural" course of events, that is, land deterioration? Because this tragedy surpasses individual welfare; it impinges on the environmental, economic, and societal. However, since no specific group can be sure that it will profit in the long run if land is ameliorated, no one wants to try.

In Whose Interest? Who Will Benefit?

Areas of wasteland where, in the past, shepherds led their herds to forage, are now increasingly being taken over by agroforestry and national park development projects. Anthropologists working with the Bedouin are becoming concerned, too, by the fact that the land available for herding

is decreasing in consequence of the fencing-in of plots for agroforestry and national parks. The latter are meant to benefit tourists, mainly those from foreign countries, while the indigenous herders are kept out (cf. Chatty 1998).

Development projects are frequently funded by Western "green" concerns and local agencies and, after developing green spots within arid areas, endeavor to "preserve" them, and provide tangible evidence that the money has been well-invested, often by making them out of bounds for Bedouin herders. This attitude arouses resentment toward the development agencies among the Bedouin since frequent droughts exacerbate their need for these enclosed green areas. It regrettable that the agencies cannot bring themselves to mark out minimual tracts of land for amelioration on which the Bedouin can pasture their herds unmolested. Inevitably, in this context, conflicts arise and measures have to be enforced to prevent trespassers (people and livestock) on nature reserves so that seedlings and trees can be protected.

The worsening state of pastures and near extinction of certain types of vegetation is a cause for concern not only among herd breeders, who make a living from wilderness flora, but also among "green-minded" individuals, ideological circles, and political groups in the West, since the dwindling of species of flora indigenous to arid zones is a fact, and botanists are alarmed at the irreversible loss of germ plasma and the threat presented to biodiversity and a balanced state of nature. These bodies have launched the current campaign for the preservation of vegetation species in several Middle Eastern countries. The emphasis on germ plasma and the survival of all botanical species, however, are not necessarily compatible objectives, and at times appear to conflict with solutions offered to relieve herders' problems. Introduction of foreign, nutritive species of flora from other arid lands (outside the Middle East) to provide feed for indigenous stock is often ruled out lest the local biodiversity be altered.

Prime concern for the flora, on the one hand, and for the herders and their livestock, on the other, calls for compromise in the form of new initiatives to encourage a symbiosis of objectives. Many observers throughout the Middle East hold the Bedouin responsible for the deterioration of the region's vegetation through overgrazing. Others, who assume the ability of traditional societies to modernize, support efforts to integrate agroforestry projects into monitored grazing, aiming to reinforce forest maintenance. This could be done by training Bedouin to farm on their own or to use the pasturelands in a more judicious fashion, as has been tried in the past.[5] Moreover, shepherding, duly monitored by experts, could enrich the savanna. For example, grazing could clear away winter

(wild) annuals before they dried out in the months without rain—thus limiting the risk of fire, and the droppings from the herd could provide fertilizer for the trees. In other words, although forestry projects deny the Bedouin free access to land, Bedouin would, in the long run, be the first to benefit by improved pasture land. Grand forestry plans sponsored by states to catch run-off water by terracing slopes would in the long run also relieve the botanists' concern for wild plants since this would promote the growth of indigenous species carried by the wind alongside newly introduced nursery plants on the slopes. The JNF Negev forests exemplify this scenario in an impressive manner.[6]

By shifting attention to sustainable ecological solutions, grand forestry projects may benefit national communities in that they provide answers to ecological and human problems. Solutions must also be provided for the hearding group, so that they can make a living from their livestock; otherwise they may simply migrate to towns and squat on their outskirts. Savanna belts allow the town dwellers to enhance the quality of the air they breathe and, at the same time, provide attractive resorts for tourists.

Efficient (not old-fashioned) shepherding entails a more economic use of areas that are marginal for cultivation purposes. Rangelands are not only a cheap way to supply ruminant feed, but are also a habitat for wildlife in danger of extinction. Disappearance of the belts of savanna, wherever it is allowed to occur, paves the way for the desert. Moreover, the condition of the soil/vegetation on which scarce precipitation falls has a major influence on the amount and the quantity of water available for human uses. Above all, proper management of desert frontiers, such as meadows, helps accommodate biodiversity, thus ensuring retention of the land's significance as a natural resource.

Economics and the Sociology of Shepherding

Unless the State intervenes, Middle Eastern areas that were common property, always with open access, will continue to decrease at an alarming rate.[7] The main factor responsible for this great reduction is conversion of fallow/meadow areas to agricultural land, primarily for the cultivation of cereals. This is the consequence of privatization and of the immense population growth in the region (Firincioglu 2000; 2–3). Plowing and sowing, even if for a negligible yield, symbolize personal entitlement to land and a change in the possession patterns of territories, formerly considered to be common or tribal lands, which have now been subdivided into arable plots.[8]

Even a cursory survey of the region's history and of the present situation suffices to establish the fact that only States and their organs

(and not private concerns) have been able to implement new initiatives with any degree of success in past efforts to check the advance of the desert. For instance, state development agencies have in the past encouraged their pastoralist, tribal constituency to forsake its *dīra* tradition, and to endorse *ifrāz* that is, subdivision of their commons into private plots.[9] But those empowered to carry out dry cultivation on virgin soil in such cases, that is, the new and unskilled farmers, do not feel bound by ecological principles and social norms; rather they will try to maximize short-term gains, which will inevitably lead to overexploitation of the resource and to its depletion. Therefore, government policy has tended to shift during the last decades toward giving agroforestry a chance. Despite their importance, pasture lands, when compared to other agricultural branches, have received much less attention. This can be accounted for by the Middle East governments' attitude entertained toward areas in which farming is marginal and toward the inhabitants of these districts, the pastoralists, who are also regarded as marginal.

As a result of decades of mismanagement, overstocking, and overgrazing, the amount of edible species has been reduced, and forage provision diminished. Governments, however, initially failed to act, and when they did enter the scene, the trend throughout the region was to act alone, giving little thought to the affected population. From the examples provided by Jordan's rangeland projects of Faysaliyya and Wadi Mudjib, Egypt's development project of Matruh and Israel's Yatir forest, one can sense the wish of States, first and foremost, to bring green to the brown terrain. This is in accordance with the wishes of NGO donors, who willingly invest in such projects. Only later do they attend to the Bedouin and their herds and promote amelioration of the forage yield of fallow/meadow areas. All retain control over the improved land and, so far, hardly ever consult the Bedouin about their needs.

The Matruh authorities, MRMP,[10] allot developed plots, formerly used as common tribal areas, to individual families to develop, weakening in this way the tribes' traditional authority. In addition, MRMP is faced with the problem of army officers in command of the military bases nearby, who put pressure on lands of the Selected Range Management Area (SRMA) by plowing the best land. Facilitated by the introduction of tractors, they marginally cultivate barley and wheat[11] and, consequently, increase pressure on the remaining SRMA plots. Military personnel employ people to carry out cereal farming on their behalf on range originally meant to serve the Awlād ʿAli, the Bedouin inhabitants of the Western Desert of Egypt.

The Yatir Israeli authorities did not subdivide the forest for use and did not reassign land ownership.[12] They acknowledged the neighboring

Bedouin families' right of usufruct, and allowed them access to pasture on the forest's spring forage when available, and to gather trimmed branches for firewood all year long. The development authorities retain full control of the forest and monitor the Bedouin as they reap the forest's benefits, free-of-charge. As a matter of course, care for the flora must come first; only later can care of the herds follow. Preparation of rangelands takes perseverance, and years are needed for these efforts to yield substantial forage.

Jordan's two impressive range projects have not yet reached maturity and so have not provided pasture for any tribal group or private initiatives, but the development authorities are already preparing for the coming phase—in which collaboration with families of herders will follow as a matter of course. Collaboration with the tribes, however, may not work at first, because the tribes will tend to assume that this is not in their best interest. Nonetheless, collaboration will pay in the long run—for both the development agencies and for the local Bedouin communities. After a number of years, when the forest can provide fodder and firewood, the Bedouin will see that the success of these projects *are indeed* in the best interest of the majority.

Although agroforestry projects can hardly be profitable in the Middle East, the return on the effort and investment is one of future benefit—by preventing the spread of desertification. Therefore costs to rectify the situation should not be cut. Like the historic networks of canals that restrained and redirected the flood waters of the Tigris and Euphrates when their banks were overrun, or the breakwater dikes along Europe's northwest coast, which protect inland fields, the Middle Eastern States' forestry plots have the potential to prevent the desert from overrunning the tilled fields.

Everywhere in the Middle East, private concerns or tribes are vying for possession of desert territories in order to control mineral deposits or traffic routes. Rarely do people, as once in the past, fight for rangelands for their botanical potential in order to graze herds more efficiently. The simple explanation for this is that only now, for the first time, is there a possibility of ameliorating the range with the intervention of the NGOs and the States.

Rights of Usufruct of Ameliorated Range to Be Settled in the Courts: Shepherding to Be Integrated into Modern Agriculture

After conceding that governments—and not private or communal concerns—must take the initiative and lead the campaign to ameliorate the dwindling flora along desert frontiers, the question arises as to how to

implement this objective such as to encourage the inhabitants of these regions to collaborate actively and thereby guarantee success. A precondition of the first order is to secure the right of usufruct for the Bedouin, that is, to ensure their right of use of the project's provisions. The authorities in charge of development and the Bedouin users, or lawyers who are appointed representatives of the two sides, should meet in a joint advisory board which will decide upon the uses of ameliorated range plots in years of abundant rainfall, as well as in years of drought. When droughts occur, State organs would facilitate herding on stubble fields in the fertile plains (in Israel, these are located in the center and in the north of the country), the use of silage and leftover food industry waste to feed herds in districts of distress, or would import hay and concentrated feed from abroad. Herding along the desert frontier would then potentially become part of the contemporary agricultural scene and herders would be instructed and supported by experts acting on behalf of State ministries.

New efforts observed throughout the Middle East to restructure agriculture by providing for a more market-oriented policy contrast with the above-mentioned plan that would relegate the initiative exclusively to the State in the areas of agroforestry, amelioration of rangelands and the provision of alternative feed for herds, when needed. Such a plan would cost the State and the NGOs substantial sums of money. Economists influenced by the spirit of capitalism and the West encourage involvement and participation of stockholding farmers in the making of agricultural policy. They, however, would prefer not to involve herders in matters of rangeland policy and management. The Bedouin—herders cum tribesmen—are considered to be by nature unsuitable as members of a company because stockholders should be individuals and not combatant (agnatic) groups. This may explain why the trend to consult with and include Bedouin users of rangelands, among other potential beneficiaries of development projects, has been modest in the past.

Apparently, States that can protect the rangeland and its foraging herds against raiders and rustlers see little need for the participation of tribes. The tribes had been the corporate entity that guarded "walking property" before States and their police forces came into being. However, any effort to privatize shepherding lands which would eliminate the tribe would be condemned as intolerable, outside meddling in indigenous sociocultural affairs; thus such an initiative would probably have little chance of success.

What pro-active initiatives should be carried out by States of the Middle East (including the State of Israel) to combat arid environmental conditions and further the shepherding business? We suggest the following:

- Range development areas must have accountable landlords. They would be responsible for summoning the herds to pasture, notifying the herders of the boundaries of foraging, and monitoring the shepherding to allow rejuvenation of the vegetation, bushes, and trees.

- A framework for participant inspection of the forest range must be carefully formulated to include the Bedouin. First, however, the herders' mind-set has to be modified so that they will be convinced of the importance of conservation and development (environmental considerations), rather than short-term family gains and tribal considerations. This change in priority of concern depends on Management Information Systems (MIS) specifically directed toward the Bedouin and on their self-education, so that they will wish to keep pace with the general effort.

- Alternative organizational structures, patterned neither after stockholder associations of the Western kind nor after the sheikhdom and the tribal bond of the Middle East are badly needed now. Lack of a tradition of open public meetings to ensure inclusion of legitimate rangeland-user stockholders only, on the one hand, and an initially deep-rooted tradition of agnatic ascription of the council's constituents and their commitment to one's group of agnates, on the other hand (Kressel 1998), may destroy accountability that should be transferred by the rangeland authority to the association of stockholders. This calls for the participation of judicial minds, experts who can design effective straightforward modes of operation.

- Strategies to minimize the risks of interminable disputes between the foresters and the shepherds over range-management policy should entail methods that circumvent open public debates. Exchanges of opinions regarding preferred lines of action in agroforestry and its uses (free from interference of inter- and intratribal affairs) require strict confinement to joint public and individual concerns, and cost and benefit considerations. This implies that inculcation of range-management principles must come first.

If nonsustainable resource practices are condoned as, for example, allowing overgrazing in a year of drought (when insufficient rain limits the amount of available pasture), this will conflict with the principle that equal forage must be provided for all. A feasible method to let a *Naturvolk* have a share in accountability for State-managed commons implies that

the Bedouin are acquainted with the requirements for successful implementation of development policy. Other preconditions include:[13]

- Mutual owner (State) and user (mainly Bedouin) recognition of long-term lease of use tenure rights over rangelands.
- Mutual recognition of principles regarding inclusion in, and conditions for, membership in leasehold groups, regardless of group ascription.
- An improved road system to facilitate movement of animals to stubble fields and to the verge of plantations in sown districts during periods of rangeland stress. This still, however, does not resolve problems of coordination between farming and shepherding communities to the benefit of both groups. Liaison offices to receive requests of farmers seeking the aid of herds to clean out the fields or of herders in search of foraging on farm surplus could deliver a much-needed service.
- Agreement about transfer and inheritance of membership rights.
- Consent upon beneficiary/obligatory principles of allocating rights and commitment to accountability in order to sustain the resource and to collect money in a fund during years of plentiful rain to provide feed during years of drought.
- There could be conflicting interests within the community of rangeland users, and, therefore, they may not be able to reach a consensus as to the sustainable uses of the (rangeland) resources and the amounts to which each is entitled.
- Agreement upon stock ratios (destocking, if needed) and formulae for lease of pasture under various rainfall and agroecological conditions can be another stumbling block. If decision-making power about the size of herds were to be transferred to tribal leaders, then this would imply government approval of an inequitable distribution of power and opportunity in intratribal affairs. As a result, the rich and powerful may become richer while the social gap between rich and poor will widen. To prevent/solve domestic disputes some mechanism must be devised to divide up and fairly allocate pasture plots on the basis of the size of the herds, but not according to differences in power and status within tribal groups.
- State ownership of the rangelands must be unmistakably felt, seen, and reaffirmed, while secure long-term (10, 49, 98 years) user rights over pasture must be guaranteed within the legal system.

This implies that the leases of rangeland be reconfirmed by decrees. Once guaranteed by jurisprudence, the handling by the legislature will counterbalance arbitrary shifts in jurisdiction as, for instance, deprivation of access to pasture for eligible families.

Auxiliary measures that help ameliorate the state of pasture are an inadequate solution to secure the future of shepherding. Additional stewardship practices are required to keep the shepherds' community life intact and improve its quality of living. This includes medical care, both for humans and animals, and measures to reduce the fear of natural disasters, such as plagues, floods, and droughts, so that the Bedouin will not have to search for better places and will not consider leaving the desert for good. An improved road system which would connect deep desert sites with sown districts would improve access to distant pasture solutions. These roads would provide the range authorities with a vital tool to alleviate the stress occasioned by droughts and thus stabilize community life near the development projects.

- Any measure to augment security for animals grazing on public meadows should be welcomed, because it helps herd owners save on manpower. Portable, easily dismantled, fencing is needed in order to confine the herding, plot by plot, along with the clearing of forage on rangeland or at the boundary of forest development projects. Efficient herding (which will save on manpower) has the potential to encourage stock-breeders from the Jewish sector, too, to return to rangeland and forest grazing, rather than feeding livestock in pens.

  Where intruding herds would jeopardize plants, methods of "cut and carry" can offer a solution. The trimmings from trees, brought out of the forest, could serve as feed. Once the forest is viewed in its capacity as a provider of green fodder, the choice of species to be planted in arid and semi-arid zones should be reevaluated. As an example, planting pines, eucalyptus and tamarisk trees would be limited,[14] and other species which ruminants prefer to eat, such as acacia, would have a broader representation.[15] Obviously, herd owners and nutrition experts would be provided with input regarding the best mix of species to be planted in the forest. The kinds of trees required would have to be grown in the forester's tree nurseries—perhaps also including types not grown at present.

  Once monitored shepherding is accepted as an asset to afforestation efforts, as well as helping clean out stubble fields and the margins of irrigated plantations, the composition of herds

(sheep, goats, camels) could be readjusted. For example, goats—once notorious for the damage they cause to natural forests—and camels—a danger to plantations—would not present such a threat; their merits could be reconsidered, their assignments programmed anew, and their number increased (Perevolotzky 1991a, 1991b).

- The quality of the shepherds' housing must be improved in order to enhance the status and future of shepherding. Stone-age dwellings—the goat-hair tent—will appeal to foreign visitors and can be exhibited in museums, but modern housing which provides better shelter and comfort is desired by the Bedouin of the new generation.
- Accommodate the establishment of villages for herd owners near range-development projects to ensure availability of forage for consumption during the springtime.
- Enhance the variety of employment, other than herding. Supply these villages with electricity, running water, and all other modern amenities so that the younger generation will wish to stay.
- A vital organizational change in the set up of livestock markets, where small ruminants and their products are sold, is needed in order to increase the success of shepherding. Demand for sheep and goat milk and cheese will rise once people are educated about their superior value (in contrast to cow's milk). Demand for Awassi sheep wool and goat hair may exceed its present level if research and subsequent funding increase their modern uses, thus opening additional markets. Likewise, mutton consumption cannot develop without massive efforts to change the consumption patterns of Jews, who prefer chicken. The truth of the matter is that the labyrinth of rules and bureaucracy for kosher slaughtering greatly increases the price of mutton. The Palestinian Arab consumption patterns show that they favor mutton. In times of political conflict with Israel, however, they prefer to buy mutton from other Arab countries rather than from Israeli Arabs and Jews.

A period of Palestinian-Israeli peace, followed by a new Middle Eastern era of international borders open to transit of people and goods, should put an end to the Arab boycott of Israeli products. Apparently, this would act in favor of industrious breeders, mainly Arabs and Jews, who feed their livestock in stalls, and can offer a cheaper product because the animals are of heavier weight and the manpower requirements are less than for the herding of livestock. However, promises of future free trade and importation of livestock from neighboring countries where labor is

cheaper does not ensure a rise in demand for mutton in Israel.[16] In order to increase sales of mutton in the Jewish sector, the following measures need to be implemented:

1. Reduce the labor component in the price of Israeli mutton and improve its quality.
2. The advantages of mutton as compared to beef and chicken should be cogently advertised.
3. Once the popularity of mutton grows, the Treasury must be urged to subsidize mutton, as it does chicken and beef.
4. Poultry is the principal item of meat consumption in Israel though the cultural reasons for this preference are not clear. At the present time, the majority of mutton consumers in Israel are Arabs, and this makes the Jewish breeders predominantly dependent on the Arab sector.

   The breeding of poultry requires large imports of animal feed which are subsidized by the state—a factor that greatly influence its market value. Because the growing of poultry meat is more easily monitored by state control as compared to mutton grown on pastures, the tax authorities find it easier to realize their deductions and are ensured a greater turnover, since they can more easily tax imports than access natural pasture, and the record the sale of chickens than that of livestock in an open-air market.

   Since mutton's local added value is larger than that of chicken, it is in the general public interest to increase mutton consumption by enhancing the interests of the breeders; thus any effort to tax herd access to natural pasture would be futile.
5. The accrual of the religious Orthodox establishment's hegemony adds tithes to the price of beef and mutton.

Were the influence of the region's religions to be lessened, the trend of competitive reproduction might be mitigated, thus decreasing population. The race for the maximum numbers of sons, which rapidly increases the size of rural communities, is the corollary of conventions reinforced by customary law (*al-ʿurf*) among the Bedouin, and not, necessarily, of binding religious laws (Kressel 1992: chapter 9, 1995: 185–206).[17]

Conclusion

A major reason for the decline in shepherding in the Middle East and in Israel, in particular, is modern economic development (mostly

petroleum-stimulated growth). The countries of this region can now supply their needs and purchase goods abroad. Therefore, traditional branches of enterprise, such as shepherding, which only provide a modest source of income are neglected. This reason for the decline has yet to receive due attention, like range destruction due to drought and overgrazing, and the migration of herders from the desert to the towns.

As pastoral nomadic societies of the region continue to decline, Middle Eastern countries fail to attend to the particular needs of their Bedouin constituencies, such as potable water. Countries import livestock and livestock products with increasing rapidity to make up for reduced Bedouin production. Moreover, in Israel, the Arab-Jewish conflict over the land, and the impact of development projects on the Negev (mainly for the benefit of the Jewish population) have resulted in a further reduction in pastoralism.

Efforts in Israel to induce the settlement of nomads have proceeded on a much larger scale than those in other Middle Eastern countries. Nearly all the Bedouin in the Galilee and more than half of the Negev Bedouin dwell in townships, in concrete homes. Most Bedouin in the Middle East no longer wish to return to their situation of a century ago, but rather opt for the comforts of urban life.

One can contend that nomadic society is transitional—in constant evolution toward a settled existence. Bedouin can thus always be visualized as a group seeking incentives to settle. At a global level of assessment, they are in a state of dynamic equilibrium—one pole being their management of livestock, the other, choice of alternative employment opportunities or the sedentary life combined with continued raising of livestock using modern in situ methods. The crucial question is whether this balance is inevitably eliminated when sedentarization brings shepherding to an end. Can a way be found to maintain shepherding in concert with new economic factors and changing ecological conditions?

The answer could be small herd size and a smaller population of herders than in the past. Could a decline in numbers enable a new self-sustaining model—local pastoral (not nomadic) or semipastoral (shepherding plus other sources of income)? If Bedouin males look for employment elsewhere, will the traditional pastoral system become unworkable? An increase in women's labor in the herd economy does not make up for the loss of the male contribution. Moreover, as the wealth of the family increases, women, too, will quit this occupation, thus jeopardizing its existence. As the amount of stock raised on the range diminishes, the few capital-intensive, livestock-raising farms (where the animals are kept in pens and fed) will take up the slack and supply the local market's demand, competing with imported livestock, which deprives the local

breeders of their livelihood. Therefore, Alternative "C" (the essence of which is that national societies try to replenish destroyed pasture, with the aid of international associations, so that herder families can flourish) remains the last and the sole solution available to prevent unwanted developments such as the raising of animals exclusively in pens.

One must consider the advantages of monitored shepherding for Bedouin herd and for the environment and agroforestry development projects. We note that the more limited grazing patterns resulting from farm-based herds will leave wide areas of untouched rangeland. Even when animals are sometimes taken in a vehicle to the more remote areas to graze, in the long run, this will entail neglect of a major asset—the natural range. Forest terraces, designed to slow down run-off water so that it will reach the roots of plants, require large-scale infrastructure works that tribes of former herders or, especially, a single herding family cannot afford. It is up to states and NGOs to carry out this work, rendering agroforestry viable.

Small (family) herds with very limited transhumance movements will reduce erstwhile political functions of the tribes—one of which was to defend affiliated families' livestock property. On the positive side, as regards the foraging capacity and sustainability of the *dīra* range, the tribe maintains the joint concern in keeping its rejuvenation potential. Without the tribal focus of control, investments, including forage production, would be at risk. Family herds grazing locally are liable to exacerbate the problems of overgrazing. Moreover, the long-term viability of sedentary animal production based on provision of fodder increases the demand for drinking water. At present, water tables in Israel and the Middle East at large are continually being lowered.

Erstwhile nomadic families squatting in pasture areas drill for their own water and the cumulative effect is to lower the water table, with the result that the local supply may become depleted in the future. The general public, led by the State, must take the initiative to supply drinking water, thus rendering possible sustenance of village life in arid zones inhabited by herders and their herds. The State must take the initiative and supply the required drinking water, because this is an undertaking too large for individual or concerted (tribal) initiatives. The state organs are called upon to increase involvement by reclaiming ruined rangelands and lending a helping hand to communities of in situ pastoralists.

Notes

1. See Seligmann et al. 1962; Shanan 1998, 1992, 1998.

2. On "the tragedy of the commons" see Hardin 1968, Hardin and Baden 1977; McCay and Acheson 1990.

3. Calls for Bedouin herds to graze the Spring pasture of Yatir Forest are answered only to a limited extent, largely due to the preoccupation of herd owners who lack a solution as to who will take their sheep and watch them when they are grazing "up there."

4. As for example, Jordan Agricultural Law no. 20 of 1973. The project of range inventory works in Tunisia 1989, pertaining to all range area of the country, namely, 30 percent of all Tunisian lands. Building the capability for rangeland development in the North West Coast of Egypt (the Matruh Resource Management Project). Cf. First Regional Seminar on Rangeland Strategy Proceedings. Amman, Jordan, May 2–4, 2000.

5. For Bedouin movements in Syria, Jordan, Saudi Arabia, and the Gulf Emirates in the nineteenth and twentieth century, and attempts to settle them, see the anthology of Bocco et al. (1993).

6. See Landau et al. 1997.

7. In Turkey, for example, the total area estimated as rangeland amounted to 12.4 million hectares in 1991. This is about a quarter of the 44.2 million hectares of rangeland in 1940. See Firincioglu 2000. As regards the pastoral to agricultural transition in Syria since 1860, see Lewis (1987), Jaubert (1993), Khalaf and Métral (1993). For similar reports from Jordan see Lewis (ibid.), Tell (1993) and Lancaster (1993). As regards Saudi Arabia, see Fabietti (1993), Cole and Altorki (1993).

8. See Kressel et al. 1991.

9. The expectations, as seen from States' viewpoint, regarded taxation revenue from farming products as being better than from livestock products. See Kressel and Ben-David 1995; 1996.

10. "The Matrouh Resource Management Project" = MRMP.

11. Cereals (unlike plantations or forests) are annual and therefore suit the army officers for whom rotation and moving from one part of the country to another are frequent.

12. Doing that would not only harm the forest, but would imply giving in to the Arabs' demand for the entire land and a loss for the Jewish State.

13. After David J. King, in Sabet (organizer) 2000, Presentation of Jordan's papers.

14. The Bedouin of the Negev Highlands refuse to use the latter either for fodder or firewood. However, the Sannusi tribes of Manzel Ḥabīb, in Tunisia do make use of the tamarisk—an indicator of a cultural variant.

15. Government development agencies, as opposed to the agrarian community, may view the merits of pine forests differently. For an example from Asturias (North West Spain), see Fernandez 1990: 272–273.

16. On the trade in livestock in the Be'er-Sheva market and the eastern deserts of Saudi Arabia and Jordan during the Ottoman and British periods, see Kressel and Ben-David 1965, 1997.

17. The price differential of meat for the Israeli consumer is tied to ritual factors. Meat consumers in Israel, including the Arab sector, predominantly favor kosher over nonkosher meat. In essence, whereas the Jews are concerned to ensure

proper slaughtering procedures, for example, slaughtering, not strangling the animal, letting the blood flow out, and so on, the Arab sector demands principally the exclusion of pork that is automatically and strictly ensured by the Jewish Orthodox practice. The Orthodox religious establishment sends its employees to slaughterhouses to inspect a wide range of factors relating to the animals' hygiene and feeding practices. Supervision affects pricing in a variety of ways: payment of the inspector's salaries, fees payable by the meat supplier in return for the rabbinate's stamp, and the additional work entailed by the practice of porging sinews from the back legs of ruminants. As far as mutton is concerned, these constraints render it five times as expensive at mutton slaughtered without ritual observances (cf. chapter 8).

This page intentionally left blank.

Bibliography

Abdulrahman, S. 1979. "The Transformation from a Tribal Society to a Nation State." Ph.D. diss., Columbia: University of Missouri.

Abramovitch, Z. and Y. Gelfat, 1944. *The Arab Economy in Eretz Israel and in the Middle East.* Tel Aviv: Hakibbutz HaMe'uhad. (Hebrew.)

Abou Zeid, Ahmed M. 1968 "The Changing World of the Nomads." In J. G. Peristiany (ed.)

Abu Jaber, K. and F. Gharaibeh. 1981. "Bedouin Settlement: Organizational, and Administrative Structures in Jordan." *The Future of Pastoral Peoples.* Ottowa: International Development Research Center.

Abu-Rabia, 'Aref. 1999. *Traditional Bedouin Medicine.* Tel-Aviv: The Ministry of Defence.

——. 1991. *The Negev Bedouin and Livestock Rearing: Social, Economic and Political Aspects.* Oxford: Berg Publishers.

Abu Rabi'a, Kh. 1982. "Uses of Land among the Bedouin." *Notes on the Bedouin*, 13:3–8.

Al-Qrināwi, Aliyan. 1999. "Attitudes Regarding Polygyny in the Negev: Modern Youth as Compared to Their Parents." *Notes on the Bedouin* 31:16–35. (Hebrew.)

Al ʿAref, ʿA. 1934. *The History of Beersheba and Its Tribes.* Jerusalem Matba'at Bayt al-Maqdis. (Arabic.)

Altori, Soraya and Donald P. Cole 1989. *Arabian Oasis City: The Transformation of ʿUnayzah.* Austin: University of Texas Press.

ʿArrāf, Shuqri. 1982. *Al-Arḍ, Al-Insān wa-Al-Jahd.* Earth, Man and Holy War. (Arabic.)

ʿAtif, M. Kishk. 1994. "Opening Remarks." In ʿAtif, M. Kishk (ed.) *Land Reclamation and Development in Egypt.* Minia: Minia University Press.

Atzmon Eli. 1999. "The Society of the Negev Bedouin, 1999." Basic Data and Recommendations as to Further Development." Unpublished report. Be'er-Sheva. (Hebrew.)

Avni, Gideon. 1996. *Nomads, Farmers and Town-Dwellers: Pastoralist-Sedentarist Interactions in the Negev Highlands, Sixth–Eighth Centuries c.e.* Jerusalem, The Israel Antiquities Authority.

Avinoam, Meir. 1997. *As Nomadism Ends.* Boulder, CO: Westview Press.

Awad, Mohamed. 1959. "The Assimilation of Nomads in Egypt." *The Geographical Review,* vol. XLIV.

Baer, Gabriel. 1962. *Fellah and Townsman in the Middle East: Studies in Social History.* London: Frank Cass.

———. 1964. *A History of Land Ownership in Modern Egypt 1800–1950.* London: Oxford University Press.

———. 1966. "The Evolution of Private Land Ownership in Egypt and the Fertile Crescent." In Issawi C. (ed.) pp. 79–90.

———. 1969. *Studies in the Social History of Modern Egypt.* Chicago: University of Chicago Press.

———. 1972. *Introduction to the History of Agrarian Relations in the Middle East 1800–1970.* Tel Aviv: Hakibbutz Hame'uhad. (Hebrew.)

Bailey, C. 1980. "The Negev in the Nineteenth Century: Reconstructing History from Bedouin Oral Traditions," *Asian and African Studies,* 14:35–80.

———. 1985. "Dating the Arrival of the Bedouin Tribes in Sinai and the Negev." *Journal of the Economic and Social History of the Orient,* 27:20–49.

Bar-Yosef, Ofer and Anatoly Khazanov (eds.). 1992. *Pastoralism in the Levant. Archaeological Materials in Anthropological Perspectives.* Madison, WI: Prehistory Press.

Barth, Fredrik. 1959. "Segmentary Opposition and the Theory of Games." *Journal of the Royal Anthropological Institute,* 89:5–22.

———. 1961. *Nomads of South Persia; The Basseri Tribe of the Khamseh Confederacy.* Boston: Little, Brown and Co.

Bates, D. and A. Rassam. 1983. *People and Cultures of the Middle East.* Englewood Cliffs, NJ: Prentice Hall.

Ben-Aryeh, I. and Sapir, S. 1979. "The Beginnings of Beersheba at the End of the Ottoman Period." In Gradus, Y. and A. Stern (eds.) *Beersheba Volume.* Jerusalem: Keter Publishing, pp. 55–68. (Hebrew.)

Ben-David, Joseph. 1983. "Stages in the Development of the Spontaneous Bedouin Settlement in the Negev, in the Transition from Semi-nomadism to Sedentarization," Ph.D. Thesis, The Hebrew University of Jerusalem, Jerusalem. (Hebrew.)

———. 1996. *Contention in the Negev: Bedouin, Jews, Lands.* Raanana: The Bedouin Society Research Center. (Hebrew.)

———. 1998. "Changes in the Position of the Bedouin Woman in Israel." Jerusalem Institute for Israel Studies. Unpublished report. (Hebrew.)

Ben-Zvi, Y. 1960. *Journeys on the Paths of Israel and its Neighbors—Routes and Diaries.* Jerusalem: Publications Institute.

Bocco, R. 1989. "Espaces Étatiques et Espaces Tribaux dans le Sud Jordanien: Legislation Foncière et Redifinition de Liens Sociaux." *Maghreb-Machrek* 123:144–163.

———. 1990. "La sèdentarisation des pastoral Nomades: Les Experts Internationaux face à la Question Bedouine dans le Moyen Orient Arabe (1950–1970). *Cahiers des Sciences Humaines* 26:97–117.

Bocco, Riccardo, R. Jaubert and F. Métral (eds.). 1993. *Steppes d'Arabies: Etats, Pasteurs, Agriculteurs et Commerçants; le devenir des zones sèches.* Paris: Presses Universitaires de France et Genève.

Bonné, A. 1948. *State and Economics in the Middle East; A Society in Transition.* London, Kegan Paul.

Bowman, Alan K. 1971. *The Town Councils of Roman Egypt.* Toronto: American Society of Papyrologists.

Braslavski, J. 1947. *Know the Land of the Negev.* Tel Aviv.

Bruins, Hendrik J. 1986. "Desert Environment and Agriculture in the Central Negev and Kadesh-Barnea during Historical Times." Ph.D. thesis. Nijkerk, The Netherlands, Nidnar Foundation.

Bruins, Hendrik J. and Harvey Lithwick (eds). 1998. *The Arid Frontier: Interactive Management of Environment and Development.* Dordrecht/Boston/London: Kluwer Academic Publishers.

Buber, Martin Moses. 1946. *The Revelation and the Covenant.* New York: Harper Torchbooks, The Temple Library.

Canaan, T. 1928. "Die 'Azazime-Bedouinen und ihr Gebiet." *Zeitchrift des Deutschen Palestina-Vereins,* 51:89–118.

Chatty, Dawn. 1987. "The Harasiis: Pastoralism in a Petroleum Exploited Environment." *Nomadic Peoples* 24:14–22.

Chatty, Dawn. 1996. *Mobile Pastoralists: Development Planning and Social Change in Oman.* New York: Columbia University Press.

Claude, Dietrich. 1969. *Die Byzantinische Stadt im sechsten Jahrhundert.* München: Publisher

Cohen, Amnon. 1973. *Palestine in the Eighteenth Century: Patterns of Government and Administration.* Jerusalem: The Magnes Press, The Hebrew University.

Cohen, Amnon and Gavriel Baer (eds.) 1984. *Egypt and Palestine: A Millennium of Association (868–1948).* New York: St. Martin's Press.

Cole, Donald P. 1981. "Bedouin and Social Change in Saudi Arabia." In Galaty, J. G. and P. C. Salzman (eds.), pp. 129–149.

Cole, Donald P. and S. Altorki 1993. "Commerce et Production dans le Nord de l'Arabie Centrale: Changement et Développement à 'Unayzah." In Bocco et al., pp. 247–268.

Cole, Donald P. and Soraya Altorki 1998. *Bedouin Settlers and Holyday-makers.* Cairo, Egypt, American University in Cairo Press.

Crewe, E. and E. Harrison. 1998. *Whose Development: An Ethnography of Aid.* London: Zed Books.

Crone, Patricia and Michael Cook. 1977. *Hagarism: The Making of the Islamic World.* Cambridge University Press.

Draz, O. 1977. *Role of Range Management and Fodder Production.* Beirut: UNDP Regional Office for Western Asia.

Droppelmann, K. J. and P. R. Berliner. 2000. "Biometric Relationships and Growth of Pruned and Non-Pruned Acadia Saligna under Runoff Irrigation in North Kenya." *Forest Ecology and Management* 126:249–359.

Droppelmann, K. J., J. E. Ephrath, and P. R. Berliner. 2000. "Tree/Crop Complementarity in an Arid Zone Runoff Agroforestry System in Northern Kenya." *Agroforestry Systems* 50:1–16.

Dyson-Hudson, N. 1991. "Pastoral Product Systems and Livestock Development Projects: A East-African Perspective." In M. Cerea (ed.), *Putting People First: Sociological Variables in Rural Development*, 2nd ed. New York: Oxford University Press.

Eickelman, D. F. 1998. *The Middle East and Central Asia: An Anthropological Approach.* Upper Saddle River, NJ: Prentice Hall.

Eph'al, Israel, 1982. *The Ancient Arabs: Nomads on the Borders of the Fertile Crescent 9th–5th Centuries B.C.* Jerusalem: Magnes Press, The Hebrew University.

Escobar, A. 1988. "Power and Visibility: Development and the Intervention and Management of the Third World." *Cultural Anthropology* 3:428–443.

———. 1991. "Anthropology and the Development Encounter: The Making and Marketing of Development Anthropology." *American Ethnologist* 18:658–681.

———. 1995. *Encountering Development: The Making and Unmaking of the Third World*. Princeton: Princeton University Press.

Evenari, Michael. 1987. *The Awakening Desert: The Autobiography of an Israeli Scientist*. Jerusalem: The Magnes Press.

Evenari, Michael, Leslie Shanan, and Naphtali Tadmor. 1971. *The Negev: The Challenge of a Desert*. Harvard: Harvard University Press.

Fabietti, Ugo. 1993. "Politiques étatique économie et adaptations bedouines: L'Arabie du Nord." In Bocco et al., pp. 135–146.

Fernandez, J. W. 1990. "The Call to the Commons; Decline and Recommitment in Asturias, Spain." In McCay, Bonnie and James M. Acheson (eds.). 1990. *The Question of the Commons; The Culture and Ecology of Communal Resources*. Tucson; the University of Arizona Press, pp. 226–289.

Fernea, R. 1970. *Sheikh and Effendi: Changing Patterns of Authority among the El Shabana of Southern Iraq*. Cambridge, MA: Harvard University Press.

Finkelstein, I. and A. Perevolotsky. 1990. "Process of Sedentarization and Nomadization in the History of Sinai and the Negev." *Bulletin of the American Schools of Oriental Research* 279:67–80.

Firincioglu, Hüseyin Kansur. 2000. "*Range and Management in Turkey.*" In Sabet, Joseph (arranger). 2000. *First Regional Seminar on Rangeland Strategy Proceedings*. Amman. ICARDA, pp. 1–12

Foucault, Michel. 1970. *The Order of Things*. New York: Pantheon Books.

———. 1972. *The Archaeology of Knowledge*. New York: Pantheon Books.

Gardner, K. and David Lewis. 1996. *Anthropology, Development and the Post-modern Challenge*. London: Pluto Press.

Ginguld, Michael. 1994. *Managing Herbs and Households; Management Practices and Livelihood Strategies of Sheep-Owning Bedouin Households in the Negev Region of Israel*. An MA thesis presented to the Institute of Social Studies. The Hague. The Netherlands.

Goldstein, Yaakov, 1993. *The Shepherds' Fraternity*. Tel-Aviv, The Ministry of Defense.

Greenberg, Y., 1986. *The Concept of Hevrat Ha'Ovdim: From David Ben-Gurion to Pinhas Lavon*. Tel Aviv: Am Oved. (Hebrew.)

Hardin, Garret. 1968. "The Tragedy of the Commons." *Science* 162:1243–1248.

Hardin, Garret, and J. Baden (eds.). *Managing the Commons*. San Francisco: Freeman.

Hare, A. Paul and Gideon M. Kressel. 2000. *Israel as Centersstage: A Setting for Social and Religious Enactments*. Westport, CT: Bergin & Garvey.

Hitti, Phillip K., 1961. *The Near East in History; A 5000 Years Story.* Princeton: D. Van Nostrand.

Hoexter, M., S. N. Eisenstadt, N. Levtzion. 2002. *The Public Sphere in Muslim Societies.* Albany: State University of New York Press.

Hourani, A. H. 1970. "The Islamic City in Light of Recent Research," in Hourani, A. H. and Stern, S. M. (eds.), *The Islamic City: A Colloquium.* Philadelphia: University of Pennsylvania Press, pp. 9–24.

Hurewitz, J. C. 1984, "Egypt's Eastern Boundary: The Diplomatic Background of the 1906 Demarcation." In Cohen, A. and G. Baer (eds.), pp. 269–283.

Hüsken, Thomas and Olin Roenfrage. 1998. *Jenseits von Traditionalismus und Stagnation; Analyse einer beduinischen Ökonomie der Westlichen Wüste Ägyptens.* Münster: Spektrum.

Hütteroth, Wolf D. 1985. "Ottoman Administration of the Desert Frontiers in the Sixteenth Century." *Asian and African Studies,* 19:145–155.

Ibn Khaldun. 1958 [1383]. *The Muqaddima. An Introduction to History.* Princeton: Princeton University Press.

Issar, Arie. 1990. *Water Shall Flow from the Rock: Hydrology and Climate in the Lands of the Bible.* Berlin, Springer-Verlag.

Issawi, C. (ed.). 1966. *The Economic History of the Middle East.* Chicago: The University of Chicago Press.

Jaussen, A. 1948. *Coutumes des Arabes au Pays de Moab.* Paris: Librairie D'Amèrique et D'Orient Adrien-Maisonneuve.

Jewish Agency for Palestine. 1936. *The Area of Cultivable Land in Palestine.* Jerusalem: Jewish Agency.

Jaubert, Ronald. 1993. "Evolution des Système Agro-Pastoraux et Politiques de Développement des Régions Sèches de Syrie." In Bocco et al., pp. 161–177.

Jones, A. H. M. 1964. *The Later Roman Empire (284–602).* Oxford: Blackwell.

Kazemi, F. 1980. "Urban Migrants and the Revolution" *Iranian Studies* 13 (1–4): 257–277.

Kedar, Benjamin Z. 1985. "The Arab Conquests and Agriculture: A Seventh-Century Apocalypse, Satellite Imagery, and Polynology." *Asian and African Studies,* 19:1–16.

Keller, Werner. 1956. *The Bible as History: A Confirmation of the Book of the Books.* New York: William Morrow.

Khalaf, Sulyman. 1993. "Cheikhs, Paysans et Membres du Parti Ba'th; Changements Politiques en Syrie du Nord." In Bocco et al., pp. 178–194.

Khamaisi, R. 1991. "Master Plan for the Bedouin Population in the Southern Negev Region." Report. Beersheba: The Association for Aid and Protection of Bedouin Rights in Israel. (Hebrew.)

Kishk, Mohammed A. 1994. "Opening Remarks" in Mohammed Atif Kishk (ed.) *Land Reclamation and Development in Egypt*. Minia, Minia University Press, pp. 3–7.

Kressel, Gideon M. 1975. *Individuality vs. Tribality, Dynamics of a Bedouin Community Undergoing Urbanization*. Tel Aviv: Hakibbutz Hame'uhad.

———. 1985. "Villages for Shepherds: Settling Nomad Pastoralists; Bedouin Adaptation of Techniques for Amelioration of Pastureland in the Negev Highlands." Proposal for an applied anthropological study.

———. 1990. "Is the Mission Possible? Essay in Memory of Yaacov Golan." Sde Boqer: The Blaustein Institute for Desert Research. Unpublished paper. (Hebrew.)

———. 1992. *Descent Through Males*. Wiesbaden: Otto Harrasowitz.

———. 1993. *Ḥaqq akhu manshad*: Major and minor wrongs and specialized judges among the Negev Bedouin. *International Journal of Middle Eastern Studies* 25:17–31.

———. 1994. "Whoever Remains in Agriculture is a Sucker: The Performance Possible at a Family Farming Unit on a Moshav Does Not Encourage Achievement-orientation." *Megamoth* 35:386–406. (Hebrew.)

———. 1995. "Fonction structurelle latente de la reproduction chez les bédouins urbanisés d'Israël." In Centre National de Recherches Sociales (ed.) *Les Amis et les Autres: Mélanges en l'honneur de John Peristiany*. Athens: Centre National de Recherches Social (E.K.K.E.), pp. 185–206.

———. 1998. "The Desert's Burden." *Middle East Quarterly* 5(1):49–57.

———. 2000. "Let Palestine Return to Khaybar." In Hare, P. A. and G. M. Kressel (eds.) *Israel as Center Stage*, pp. 165–187.

Kressel, Gideon M. and Joseph Ben-David. 1995. "The Bedouin Market—The Axis Around Which Beersheba Developed." *Cathedra* 77:39–65. (Hebrew.)

Kressel, Gideon M., Joseph Ben-David and Khalil Abu-Rabia. 1991. "Changes in Land Ownership of the Negev Bedouin in the Past Century: The Inner Tribal Aspect." *Hamizrah Hehadash* 33:39–69. (Hebrew.)

———. 1991. "Changes in Land Usage by the Negev Bedouin Since the Mid-nineteenth Century." *Nomadic Peoples* 28: 28–56.

Lancaster, William. 1981. *The Rwala Bedouin Today*. London: Cambridge University Press.

Lancaster, William, and Fidelity Lancaster. 1991. "Sécheresse et stratégies de reconversion économique chez les bédouins de Jordanie." In Bocco et al., pp. 223–246.

———. 1999. *People, Land and Water in the Arab Middle East: Environment and Landscapes in the Bilad ash-Sham*. Amsterdam: Harvard Academic Publishers.

Lattimore, Owen. 1951. *Inner Asian Frontiers of China*. New York: Capitol Publishing Co., American Geographical Society.

Layish, A., and A. Shmueli. 1976. *Legal Documents of the Bedouin of the Judean Desert and the Negev*. Jerusalem: Document Collection of the Hebrew University. (Arabic.)

Layish, A. 1980–1982. "Challenges to Customary Law and Arbitration; The Impact of Islamic Law upon Settled Bedouin in the Judean Desert," *Tel Aviv University Studies in Law, 5.*

Lemel, Harry. 1986. "Socio-Organizational issues in Applying Run-Off Irrigation to Pastoralists with a Focus on the Negev Bedouin; A Comparative Study of Development Projects in Process in Other Middle Eastern Countries." Report. Sde Boqer: The J. Blaustein Institute for Desert Research.

Levontin, Z. D. 1924. *To the Land of Our Fathers.* Tel Aviv: Eitan and Shoshani. (Hebrew.)

Lewando-Hundt, Gillian. 1984. "The Exercise of Power by Bedouin Women in the Negev." In E. Marx, and A. Shmueli (eds.), *The Changing Bedouin*. London: Transaction Books, pp. 83–123.

Lewis, N. 1987. *Nomads and Settlers in Syria and Jordan, 1800–1950.* Cambridge: Cambridge University Press.

Lithwick, Harvy. 2000. *An Urban Development Strategy for the Negev's Bedouin Community*. Be'er-Sheva: Negev Center for Regional Development, Ben-Gurion University of the Negev.

Mabbutt, J. A. and C. Floret (eds.). 1980. *Case Studies on Desertification.* Paris: UNESCO.

Maoz, M. 1968. *Ottoman Reform in Syria and Palestine.* London: Cambridge: Cambridge University Press.

Marx, Emanuel. 1967. *Bedouin of the Negev.* Manchester: Manchester University Press

———. 1974. *Bedouin Society in the Negev.* Tel Aviv: Reshafim Publications. (Hebrew.)

Masri, A. 1991. "The Tradition of Hema as a Land Tenure Institution in Arid Land Management: The Syrian Arab Republic." Rome: Food and Agricultural Organization. FAO/ESH Working Paper of Pastoral and Agropastoral Societies, No. 12.

McCay, Bonnie J. and James M. Acheson (eds.). 1990. *The Question of the Commons: The Culture and Ecology of Communal Resources.* Tucson: The University of Arizona Press.

Métral, Françoise. 1991. "Elevage et agriculture dans l'oasis de Sukhné (Syrie): Gestion des Risques par les Commerçants-Entrepreneurs." In Bocco et al., pp. 195–222.

Moran, U., and D. Palmah. 1985. *Reservoirs in the Negev Hills.* Midreshet Sde Boker: The Nature Preservation Society. (Hebrew.)

Montagne, R. 1947. *La Civilisation du Desert: Nomades d' Orient et d'Afrique.* Paris: Hachette.

Murray, G. W. 1935. *Sons of Ishmael.* London: Routledge.

Musil, A. 1907. *Arabia Petraea* I. Moab, II, Edom 1 & Edom 2. Wien: Kaiserliche Akademie.

Nevo, Yehuda D. 1985. "Sde Boqer and the Central Negev in the seventh–eighth Century A.D." Paper presented to the Third International Colloquium "From Jahiliyya to Islam." Jerusalem: The Hebrew University.

———. 1991. *Pagans and Herders: A Re-examination of the Negev Run-off Cultivation Systems in the Byzantine and Early Arab Periods.* Midreshet Ben-Gurion: IPS Achva Press.

Olsvig-Whittaker, Linda, P. E. Hosten, I. Marcus, and E. Shochat. 1992. "Influence of Grazing on Sand Field Vegetation in the Negev Desert." *Journal of Arid Environments* 23:1–13.

Oppenheim, M. 1943. *Die Beduinen 1939–1968.* Leipzig and Wiesbaden: Harrassowitz.

Orev, Yaakov. 1986. *A Practical Handbook on Desert Range Improvement Techniques.* Geneva: Interagency Group on Agricultural Biometeorology.

———. 1987. *Manuel Pratique pour l'Amélioration des Pâturages en Zones Semi-arides.* Geneva: Centre Technique de Cooperation Agricole et Rurale.

———. 1991. "Myself and Pastureland in the Negev. Private and Office Initiatives for Development of Natural Pastureland. Report. Sde Boqer: The Blaustein Institute for Desert Research. (Hebrew.)

———. 1993, Improvement of Pastureland in Arid and Very Arid Areas of the Country: Negev, Judean Wilderness, Samarian Wilderness. Report, Beersheba. (Hebrew.)

Paine, Robert (ed.). 1985. Advocacy and Anthropology. Newfoundland: Institute of Social and Economic Research, Memorial University.

Palmer, E. H. 1871. *The Desert of the Exodus: Journeys on Foot in the Wilderness of the Forty Years' Wanderings,* Cambridge: Deighton Bell & Co.

Parizot, Cédric. 2001. *Le Mois de la Bienvenue.* Ph.D. Thesis. Paris: École des Hautes Études en Sciences Sociales.

Perevolotsky, Avi. 1987. "Territoriality and Resource Sharing Among the Bedouin of Southern Sinai: A Socio-Ecological Interpretation." *Journal of Arid Environments* 13:153–161.

———. 1991a. "Rehabilitation of the Black Goat." *Hassadeh* 71:619–622. (Hebrew with English summary.)

———. 1991b. "Goats and Scapegoats—Overgrazing Controversy in Piwra, Peru." *Small Ruminants Research* 6:199–215.

———. 1995. "Conservation, Reclamation and Grazing in the Northern Negev: Contradictory or Complementary Concepts?" *Odi: Pastoral Development Network* 38a and 38b.

Perevolotsky, A. and S. Landau. 1988. "Improving and Developing Sheep Production among the Northern Negev Bedouin: A Scientific Report on the Activities in the Bedouin Demonstration Farm (1982–1988)." Bet-Dagan, ARO, 41 pp. (Hebrew.)

Perevolotsky, A., N. Seligman, N. Yonathan, and S. Talker. 1990. "An Ecological Analysis of Fertilization Effects on the Yield of Natural Pasture in the Northern Negev." *Hassadeh* 70:957–959. (Hebrew with English summary.)

Peters, Emrys L. 1967. "Some Structural Aspects of the Feud among Camel Herding Bedouin of Cyrenaica." *Africa* 35:261–281.

Peristiany J. G. (ed.) 1968. *Contributions to Mediterranian Sociology.* Paris, Morilon.

Planhol, X. de. "The Geographical Setting," in *Cambridge History of Islam,* Vol. 2. Cambridge: Cambridge University Press, 1970, pp. 443–468.

———. "Saturation et securité: sur l'organisation des sociétés de pasteurs nomades," in *Pastoral Production and Society,* Cambridge: Cambridge University Press, 1979, pp. 29–42.

Porat, Hanina. 1997. "The Development Policy and the Issue of the Bedouin in the Negev in the First Years of the State, 1948–1953." *Studies in the Rebirth of Israel* 7:389–438. (Hebrew.)

Prawer, Joshua. 1972 *The Latin Kingdom of Jerusalem; European Colonialism in the Middle Ages.* London: Weidenfeld & Nicolson.

Richards, Alan. 1982. *Egypt's Agricultural Development, 1800–1980: Technical and Social Change.* Boulder, CO: Westview Press.

Ronen, Arnon. 1993. "The Economy of the Bedouin Stock." *Notes on the Bedouin* 24: 69–79.

Rosen, Steve A. 1988. "Finding Evidence of Ancient Nomads." *Biblical Archaeological Review* 14:47–53.

———. 1992. The Case for Seasonal Movement of Pastoral Nomads in the Late Byzantine/Early Arabic Period in the South Central Negev. In Bar-Yosef and Khazanov (eds.), pp. 153–164.

———. 1993. "A Roman Period pastoral Tent Camp in the Negev, Israel." *Journal of Field Archaeology* 20:441–451.

Rosen, Steve A. and Avni, G. 1993. "The Age of the Empire: The Archeology of Pastoral Nomads in the Southern Negev Highlands in Late Antiquity." *Biblical Archeologist* 56:189–199.

Rosenfeld, H. 1964, *They Were Fellahin.* Tel Aviv: Hakibbutz Hameuhad. (Hebrew.)

———. 1965. "The Social Composition of the Military in the Process of State Formation in the Arabian Desert." *Journal of the Royal Anthropological Institute,* 95: 75–86, 174–94.

Rustum, Asad. 1936. *The Royal Archives of Egypt and the Egyptian Expedition to Syria 1831–1841.* Beirut: Americal University of Beirut.

Sabet, Joseph (arranger). "First Regional Seminar on Rangeland Strategy; The Proceedings." Amman, Jordan, May 2–4, 2000.

Sachs, K. 1992. *Development Dictionary; A Guide to Knowledge as Power*. London: Zed.

Sahlins, Marshall D. 1968. *Tribesmen*. Englewood Cliffs, NJ: Prentice-Hall, 1968.

Salzman, Philip C. 1996. "Peasant Pastoralism." In Fabietti, U. and P. C. Salzman (eds.), pp. 149–166.

Schwartz, Moshe, S. Lees, and G. M. Kressel (eds.). 1995. *Rural Cooperatives in Social Utopia: Thirty Years of Moshav Development in Israel*. Westport CN, London: Praeger.

Seligmann, Noam, Z., N. H. Tadmor, and Z. Raz. 1962. "Survey of Natural Pasturelands in the Central Negev." Jerusalem: Volcani Center, The National and University Institute of Agriculture, the Ministry of Agriculture, Land Preservation Division. Bulletin 67. (Hebrew.)

Shachak, Moshe, and G. M. Lavett. 1998. "Atmospheric Particle Deposition to a Desert Ecosystem and Its Implications for Conservation and Management." *Ecological Application* 8:455–463.

Shachak, Moshe, and S. T. A. Pickett. 1997. "Linking Ecological Understanding and Application: Patchiness in a Dryland System." In Pickett, S. T. A., Ostfeld, Linkens, and Moshe Shachak (eds.), *Heterogeneity, Ecosystems and Biodiversity: The Ecological Basis for Conservation*. New York: Chapman & Hall, pp. 108–122.

Shachak, Moshe, Menachem Sachs and Itshak Moshe. 1990. "Ecosystem Management of Desertified Shrublands in Israel." *Ecosystems* 1:475–483.

Schacht, J. 1964. *An Introduction to Islamic Law*. Oxford: Clarendon Press, pp. l2–14.

Shanan, Leslie. 1975. "Rainfall and Runoff in Small Watersheds in the Avdat Region of the Negev Desert Highlands." Ph.D. Thesis. Jersualem; The Hebrew University.

———. 1979. *Microcatchments of Desert Development: A Handbook of Design and Construction*. Hebrew University in Jerusalem and Center for International Agricultural Cooperation, Ministry of Agriculture, Rehovot.

——. 1987. "Irrigation Development: Proactive Planning and Interactive Management." In Bruins and Lithwick (eds.) 1998, pp. 251–276.

Shahar, 'Ido. 1996. Trilemma in debates at the Shar'i court of Beer Sheva: State law, Sharia and 'urf. *Notes on the Bedouin* 28:50–67.

Sharon, Moshe. 1977, "The Bedouin of the Hebron Hills," in Shmueli, A. et al. (eds.), pp. 548–557. Shemi, Yitzhak. 1983. "Juma al' Ahabal." In Orzion, Yishai.

Shemi, Yitzhkah. 1986. *Tsror Hamor: An Anthology of Short Stories by Writers of Middle-Eastern Origin*. Beer-Sheva: The Eliashar Center for Studies in Sephardi Heritage, Ben-Gurion University of the Negev, pp. 55–76.

Shmueli, A., D. Grossman, and R. Zeevy (eds.) 1977. *Judea and Samaria: Studies in Settlement.* Jerusalem: Canaan publishing House.

Stewart, Frank H. 1994. *Horror.* Chicago: The University of Chicago Press.

Tapper, R. (ed.). 1983. *The Conflict of Tribe and State in Iran and Afghanistan.* London: Croom Helm.

Tell, Tareq. 1993. "Paysans, Nomades et Etat en Jordanie Orientale: Les Politiques de Développement Rural." In Bocco et al., pp. 87–102.

Tocqueville, Alexis de. 1966. *The Ancient Regime and the French Revolution.* Manchester: Collins/Fontana.

Vilna'i, Ze'ev. 1932. *Toldot Ha-Aravim Ve-Ha-Muslemim be Eretz-Yisrael.* Tel-Aviv: Schtibel.

Warriner, D. 1962. *Land Reform and Development in the Middle East. A Study of Egypt, Syria and Iraq.* London: Oxford University Press.

Warriner, D. 1966. "Land Tenure in Egypt and the Fertile Crescent 1800–1950." In C. Issawi (ed.) *The Economic History of the Middle East.*

Weulersse, J. 1946. *Paysans de Syrie et du Proche Orient.* Paris: Gallimard.

Wieder, M., A. Yair, and A. Arzi. 1985. Catenary soil relationships on arid hillslopes. *Catena Supplement* 6:41–57.

Wittfogel, Karl A. 1957. *Oriental Despotism: A Comparative Study of Total Power.* New Haven and London: Yale University Press.

Yair, A. 1983. "Hillslope Hydrology Water Harvesting and Areal Distribution of Some Ancient Agricultural Systems in the Northern Negev Desert." *Journal of Environments* 6:283–301.

——. 1990. "Runoff Generation in a Sandy Area—The Nizzana Sands, Western Negev, Israel." *Earth Surfaces and Landforms* 15:597–609.

Yair, A., and A. Danin. 1989. "Spatial Variations in vegetation as related to the soil moisture regime over an arid limestone hillside, Northern Negev, Israel. *Oecologia* (Berlin) 47:83–88.

Yair, A., H. Lavee, and N. Greitser. 1997. Special and temporal variability of water percolation and movement in a system of longitudinal dunes, Western Negev, Israel. *Hydrological Processes* 11:43–58.

Yair, A. and M. Shachak. 1987. Studies in watershed ecology of an arid area. In Berkofsky, L. and Wurtele, M. G. (eds.), *Progress in Desert Research.* Totowa, NJ, Rowman & Littlefield, pp. 145–193.

Yalman, N. 1979. "On Land Disputes in Eastern Turkey." *Research in Economic Anthropology,* 2:269–302.

Name Index

Subject Index