In this paper, I examine how some nomadic pastoralists in Iran changed their use of the physical environment over the past thirty years and how these changes related to their economic practices. I base this paper on my anthropological research among Qashqa’i nomadic pastoralists in southwestern Iran in the 1970s and 1990s, including eight visits since the revolution in 1978-1979 and the Islamic Republic’s formation. I draw on my observations of the varying ecological adaptations and diversifying economic strategies of these tribal people as they exploited a vast section of the southern Zagros Mountains. Their practices included use and protection of pastureland, investment in arable land and agricultural techniques, construction of water-control systems, hunting, gathering, construction of shelters for people and animals, increased reliance on roads and motorized transportation, and closer ties with the national government and the market. Although much of the land these nomadic pastoralists used was not suitable for productive activities other than seasonal pastoralism, hunting, and gathering, they were increasingly forced to compete with settled agrarian communities for the available cultivable land and for access to water and rights of passage. They, did enjoy, however, the competitive advantage of a continuing reliance on migration, and the primary products of pastoralism (meat, dairy goods, wool, weavings) were in market demand.

This paper may inspire other scholars to take fuller consideration of the people actually making use of a specific territory. However land is used, it is obviously more than just physical features. Studies of the environment too often ignore or neglect the people who make a livelihood there and whose use of land is a major part of their vital social and cultural systems.
Mobile residents of the plateaus and valleys of the Zagros Mountains of southwestern Iran, the Qashqa’i are members of a tribal confederacy of some 800,000 individuals. They speak a Central Asian-derived Turkish and constitute one of Iran’s many ethnic and national minorities. Until the 1960s most Qashqa’i were nomadic pastoralists who migrated semiannually hundreds of kilometers between winter pastures at low altitudes near the Persian Gulf and

![Figure 1](image-url)
summer pastures high in the mountains to the north and east (Figures 1 and 2).

Since the 1960s many Qashqa'i have settled in villages and towns, although often retaining pastoralism as one of several means of livelihood. Despite the new places and patterns of residence for many of these settlers, most remained attached to their customary seasonal pastures, visited their kin there, and continued to exploit the resources, often in cooperation with these kin.
This paper focuses on the contemporary ecological, economic, and social conditions in southwestern Iran as I have directly observed them during eight periods since the revolution in 1978-1979 and the Islamic Republic’s formation, most recently in 1998. Because of research I also conducted there in the 1970s, I am able to follow precisely the changes that individuals, families, and tribal groups have made over the past thirty years. My publications drawing on this earlier research provide comparative information about previous periods (e.g., Beck 1980, 1981a, 1981b, 1991). Other aspects of post-revolutionary conditions are covered in existing and forthcoming work (Beck 1992).

I ask the following key questions:

• How have the Qashqa’i people made the best of the inherent environmental constraints of these rugged, mountainous, and semi-arid lands?
• How and why do many of them continue with pastoralism and nomadism, despite pressures to change their livelihoods and lifestyles?
• How have these pressures changed over the years?
• Why does the current Islamic government, unlike previous Iranian governments in this century, support nomads and their livelihoods?

Despite the many changes that all Qashqa’i have undergone in the past thirty years, I am still impressed by the remarkable continuities in their society and culture. In examining my photographs to find details to add to this paper, I was struck by how many of them could have been taken at any time during the past three decades, as long ago as 1969 or as recently as 1998.


Several brief descriptions will help to demonstrate the kinds of changes that have occurred for Qashqa’i nomadic pastoralists and to establish a context for this paper’s discussion. Their winter and summer pastures are located in the valleys and on the slopes and plateaus of the southern Zagros Mountains. Mountain peaks rise above nomads’ camps, each of which is usually secluded by the rugged terrain. The ecological differences between winter and summer pastures will be apparent here and in the rest of the paper.

A typical campsite in winter pastures in 1970 contained three woven goat-hair tents with slanted roofs to deflect rain and snow. Each dwelling held an extended family of seven or so people. The black tents were pitched on flat areas on the slopes of gullies to...
protect the occupants and their possessions from flash floods while also still providing some shelter from wind. Several nearby huts built of stones, tree branches, and bundled reeds were used for cooking, storage, and refuge in inclement weather. A simple, roughly circular, open-air enclosure made of rocks heaped with dried thorny bushes protected the animals at night and helped to discourage predators. Each household owned its own sheep and goats, which were tended together in herds of from one hundred to three hundred animals. Small trees and shrubs and low-lying plants grew in the terrain surrounding the camp. Green leafy shoots appeared as the weather warmed after the winter’s rains. Several nearby shallow depressions, sometimes fortified along the sides with rocks and dried mud, held rainfall and runoff for the animals to drink. Accompanied by donkeys to carry the load, the camp’s women and children spent many hours a day traveling to and from a well in the valley below, the nearest source of clean drinking water. Newborn lambs and kids were held in reed pens inside the tents and released several times a day to be reunited with their mothers for nursing. Before dawn shepherds took the herds to graze different parts of the surrounding hills and mountainsides, while a camel herder tended his animals and collected firewood for the camp’s use. Men and boys kept periodic watch over several small fields of sown barley protected by rock walls, the crop to be used as supplemental animal feed if sufficient rain germinated the seeds and grew the plants to maturity. Birds seemed to eat as much grain as was eventually harvested.

By contrast, in terms of both time and space, a typical residential site in summer pastures in 1998 contained several simple one-room houses constructed from stones gathered nearby and mortared with cement and dirt. They stood on the very spots where tents used to be erected only a few years previously. A small kitchen area walled in by cement blocks and roofed with old tent fabric stood to the side of each house, and just beyond that lay heaps of firewood and miscellaneous equipment that had not found a place in these new dwellings. Gunny sacks filled with barley, dried alfalfa, and straw leaned against the houses’ outer walls. A black goat-hair tent was pitched by one house, where a newly married son and his bride resided and where guests were entertained, as if to celebrate the past nostalgically. Holding the herds at night, pens made of metal mesh supported by wooden stakes stood behind the houses at the edge of the mountain slope. The mouth of the nearest spring had been cemented to form a small pool from which people drew water, and a cement channel led water to another pool where the animals drank. A decrepit Land Rover was parked beside one of the houses. The dirt track used by the vehicle’s owner to reach the camp was also traveled.
by Persian and Lur cultivators in the area. The dust-raising traffic annoyed everyone, especially mothers trying to watch young children. These trespassers demonstrated no concern for the campsite’s borders; they did not care that the camp was a defined territory to be used exclusively by its inhabitants. Down the hill near another water channel was a toilet, a small, open-air, cement-block structure containing a ceramic platform precariously balanced over a pit. The stumps of shade trees, planted along the channel but cut down by irate Persian cultivators who resented the nomads’ presence, stood as stark evidence of the conflict. Their trunks lay on the ground, stripped of branches. The surrounding terrain was bare compared with winter pastures. No trees or large shrubs grew here naturally, only small bushes and low-lying vegetation. The valley below, its streams blocked against the pastoralists’ animals since the 1980s, was green with walled orchards and cultivated fields. Hostile encounters between the Persian and Lur cultivators there and the pastoralists occurred almost daily.

Various topics mentioned in these two passages are discussed in the following eight sections. I focus on the post-revolutionary period (1979-1998) with comparative information provided for earlier periods. The wider context, in which many individuals and groups other than the Qashqa’i competed for the same resources, cannot be discussed in detail here.

LAND

Problems over land caused great uncertainty among Qashqa’i nomadic pastoralists and significantly affected the ongoing decisions they made concerning their livelihoods and lifestyles. No single government agency held all the information about land use and deeds for any given territory, and some offices possessed conflicting information. Such bureaucratic chaos offered the potential for great abuse. In part because the nomads were especially vulnerable due to their mobility and their only seasonal residence in winter and summer pastures, settled non-Qashqa’i individuals with influential government connections and sufficient wealth to bribe officials could determine their own land use. To support their own interests, Qashqa’i individuals held onto any documents pertaining to land. Even papers concerning disputes on other issues contained a record of people’s location at the time, necessary for proof of residence. School records also provided evidence for the presence of certain families in specific places.

The status of nationalized pastureland, a broad policy introduced by Mohammad Reza Shah in 1962 as part of his “bloodless” revolution, was unclear after his ouster in 1979 and still remained so
in 1998, in part because his programs, even exemplary ones, were tainted by their association with him. Since 1962, natural watercourses, following the pull of gravity and the contours of the often hilly if not mountainous terrain, were generally recognized by government officials as the legal division between pasture and “cultivable” land. Land above the channels was nationalized to be used as pasture; land below was subject to land reform and opened up for cultivation if not already cultivated. Most nomads were not eligible then for distribution of cultivable land. By the 1990s the dividing line between these two types of land was increasingly unclear because of the expansion of irrigation systems and new land brought under cultivation. Some changes did occur in the mid-1990s, such as new legal rights to rent, transfer, and sell pasture leases to others.

Rights over collectively used land were locally negotiated but not always formalized by legal documentation. The issue of land considered as privately owned with or without supporting legal documents was still under discussion in the national parliament in 1998, in part because of problems created by the many thousands of wealthy landowners who had fled into exile during or after the revolution and who later attempted to return and/or claim their (former) land. Although some influential members of the ruling Shi’i Muslim clergy supported a land reform that would give legal title to the cultivators who actually worked the land, others were themselves major landholders and resisted any new comprehensive reform that would jeopardize their own interests and those of their political and economic backers.

NOMADISM AND PASTORALISM

Qashqa’i nomadic pastoralists herded their sheep and goats seasonally between lowlands and highlands, distances as much as 600 km each way, and exploited the pastoral resources along the routes. They spent approximately four months in lowland winter pastures, two months migrating in the spring to highland summer pastures, three to four months residing there, and two to three months migrating in the autumn back to lowland winter pastures. These migrations were not merely passages between two regions, for the vegetation along the way, especially in spring, was a vital part of the animals’ sustenance. Also, seasonal pastures did not provide sufficient natural grazing and water to support the nomads and their animals for long periods. Once arriving in winter or summer pastures, the nomads did not stay in one location for the season. Rather, they moved periodically from place to place within these areas seeking fresh grazing, better access to water and other natural resources.
resources, clean campsites, and new neighbors.

Most Qashqa’i people spent the year traveling in these ways and residing in goat-hair tents wherever they set up camp. Diverse and flexible patterns had always emerged, however, as people made ongoing individual and group decisions to continue or to change their current modes of livelihood, residence, and lifestyle. For example, even by the 1970s some Qashqa’i lived in huts or small, rudimentary houses in winter or summer pastures and migrated in the spring and autumn. Some resided in tents and did not migrate at all. Others lived in villages in the winter and in tents at higher altitudes in the summer. Some Qashqa’i resided in tents and practiced only agriculture, while others lived in houses and practiced only pastoralism. Some families were divided into nomadic and settled parts and into pastoral and agricultural parts. And some Qashqa’i migrated without having any sheep and goats. All these patterns and the more standard ones could change on a yearly and even a seasonal basis. For any single local group, the specific patterns its members created during a year were never to be replicated.

By 1979 many nomads found the autumn’s trek lasting two to three months to be too strenuous and troublesome for their animals because of the increasing shortage of pasture and water along the route and the detours caused by expanding human settlements and agrarian activity. Most began to hire trucks and transport their animals in a single day, a change that put new stress on the pastoral resources of their summer and winter territories, on which they were now dependent for longer periods than before. Remaining in summer pastures longer than in the past, beyond the time when natural vegetation was nearly depleted, they became increasingly reliant on growing, buying, storing, and transporting supplemental animal feed. They also entered winter pastures well before they had gone there in the past, exploited natural vegetation that they had formerly conserved until later in the season, and grew, bought, and stored quantities of fodder there as well.

The newly growing natural vegetation along the migratory route in the spring was too lush and beneficial to bypass, and so almost all pastoralists continued to send their animals by hoof during that season. As they traveled from one point on the route to the next, each new one usually at a slightly higher altitude, they found fresh vegetation. On a slightly accelerated schedule, they entered summer pastures several weeks sooner than in the past, but natural vegetation there was usually adequate for their herds then. Their early use of this vegetation did decrease the pasturage available later in the season, when they also needed it. They enhanced methods they had used in the past to protect specific areas and to conserve vegetation,
by careful scheduling and rotation, removing rocks to encourage plant
growth, creating physical barriers, and guarding against encroachers
in protected areas.

Before 1979 most nomads had relied on camels and other pack
animals (mules, donkeys, horses) to carry their goat-hair tents and
other household possessions between winter and summer pastures.
Since then, many people have sold their camels and many of their
pack animals because of their new reliance on motorized transportation. Although increasingly expensive, the use of such vehicles did
offer many obvious benefits. Also, tending the camels during winter
and summer, when the animals’ services were not in much demand,
had become burdensome and expensive even for those able to hire
specialized herd-ers. Twice a year families contracted with truck
owners from nearby towns and cities to carry their goods to the
other seasonal pastures. Formerly, herds, pack animals, and house-
holds had followed the same schedules and routes, but now animals
were usually separated from households for part of the spring.
Changes in dairy production were one result, for the women and
girls previously present to milk and process the products did not
accompany the herds. To the detriment of people’s diets and needs
for income, dairy production was delayed until people and animals
were reunited in summer pastures. Care of lambs and kids during
the spring migration was another problem, for they could not ac-
company the adult animals without special supervision. Now com-
mitted to formal education, the children who had formerly tended
the young animals during the spring migration no longer migrated
with the herds.

The increasing availability of rapid transportation facilitated the
nomads’ further economic diversification. A family could engage in
a variety of activities simultaneously, as long as at least one person
could travel from one location to another quickly. For example, a
man could irrigate his newly planted apple orchard for the stipu-
lated twelve-hour period and then return to camp by motorcycle
in time to select sheep to be driven to market by a hired truck.
Another man could transport recently harvested fodder from sum-
mer pastures to winter ones, in anticipation of the herds’ early
arrival, while his son managed the animals during his brief absence.
Trips to town for errands and government business were no longer
as onerous and time-consuming.

The absence of camels and the decrease of other pack animals
freed up some kinds of natural pasturage for sheep and goats,
although camels had usually consumed plants that were too tall,
thorny, or tough for the other animals, especially sheep. One single-
stemmed thorny plant in particular was no longer grazed by any

Before 1979 most nomads had relied on camels and other pack animals (mules, donkeys, horses) to carry their goat-hair tents and other household possessions between winter and summer pastures. Since then, many people have sold their camels and many of their pack animals because of their new reliance on motorized transportation.
animals, and it grew to apparently unprecedented heights, two or more meters, and appeared to be taking over some areas of summer pastures to the detriment of other vegetation. With no camels to graze them, thorny bushes also proliferated, but in this case they supported the opportunistic growth of the surrounding low-lying vegetation that the sheep and goats preferred. Their populations expanding, small animals such as birds, rodents, rabbits, weasels, lizards, toads, and snakes found shelter in and around these bushes.

Slow-burning dried camel dung used to provide an important fuel for all pastoralists but was no longer available when they sold these animals. They eventually bought propane-gas cookers and lanterns and kerosene heaters when they saw that natural fuels (wood, charcoal, brush) were not nearly sufficient for their many needs (cooking, baking, milk processing, wool dyeing, lighting, heating).

In the 1960s and 1970s the shah’s government had tried by various means to impede the nomads’ migrations. After 1979, by contrast, the new Islamic government adopted supportive policies. Its Ministries of Natural Resources and Rural Reconstruction seeded many areas along major migratory routes and posted signs explaining their intentions. Officials chose locations where many pastoralists camped overnight during the migration, so that herd and pack animals could fortify themselves for the next day’s journey without trespassing on anyone’s grazing lands. According to local reports, the apparently successful program resulted in decreased pressure on other pastoral resources and fewer conflicts along the routes.

Also offered by the new government at low or no cost to the nomads, modern veterinary medicine played a major role in the pastoralists’ ability to keep their animals alive and healthy and less subject to the catastrophic diseases that used to wipe out entire herds. Regional veterinary clinics were established, and government-paid specialists toured seasonal pastures to dispense drugs and treatments. One apparent result of the increasingly widespread use of modern veterinary care was the pastoralists’ decreased use of ritual and symbolic acts to attain these ends. Until the 1980s most people had conducted rituals and prayers and employed amulets (always in combination with other, supposedly more practical efforts) to protect and care for their animals. In the 1990s many of these rituals were not practiced at all or only by a limited number of individuals who still believed in their efficacy. Many prized rams in 1998 were still outfitted with carved wooden talismans decorated by braided tassels, but the nomads sometimes stated that these charms simply reminded them of old Qashqa’i customs and did not offer any real protection to the animals. Almost all pastoralists continued to abide by their notions of auspicious and inauspicious days of the week in order to avoid jeopardizing acts central to
their livelihood such as shearing the wool and transporting the sheep to market. People still talked about the rain ceremonies they used to perform and the rituals they conducted to mark and safeguard the critical stages of the seasonal round, but by 1998 most people did not actually engage in them, and children rarely knew anything about them.\(^2\)

Since 1979 the new government paid special attention to building new roads and improving existing ones in Qashqa’i territory—especially in remote places—and in surrounding areas. A mixed blessing for the pastoralists, these roads assisted them in their new or increased reliance on motorized transportation and their efforts to carry products to and from markets (including supplies for construction—see below). But the roads also brought outsiders into their territories more frequently, thereby increasing the competition over pastoral and agricultural land and other resources. New and improved roads opened previously unexploited areas to outsiders wanting to plant orchards or engage in mechanized agriculture. Urban, middle-class, Persian tourists also took advantage of the new roads—and the greater security—to invade seasonal pastures for picnics and outings on Fridays and other holidays. Anxious to flee the city’s heat, dirt, and crowds, they presumed upon the customarily offered hospitality of reluctant Qashqa’i hosts (Beck 1982).

Commercial herds and animal contracts were a significant feature of pastoralism in southwestern Iran in the 1960s and 1970s. By the early 1980s many commercial herds, owned by non-Qashqa’i urban entrepreneurs and tended by hired and often non-tribal herders, had virtually disappeared from the landscape because of newly enforced government regulations about the illegal use of nationalized pastures and because of changes in the economics of this kind of animal husbandry. Also, the Qashqa’i, disarmed by the shah but re-armed during the revolution, were now better able to guard and defend their own pastoral resources. Commercial animal contracts, under which urban moneylenders and merchants became part owners of the nomads’ herds because of the nomads’ unpaid and deepening debts, also decreased and by the 1990s were rare. This change resulted in part because new government regulations covering moneylending and interest-taking forced at least a temporary refiguring of debts according to what were said to be Islamic principles. The most abusive of the moneylenders were publicly flogged by the government’s revolutionary guards. Pastoralists were able to renegotiate their existing debts, and they took on new loans under revised terms. (They were now also eligible for loans for specific projects from government-run banks.) Interest rates declined, and debts did not escalate in the way they had done before the revolution. The absence of or significant decrease in herds belonging to

\(^2\) In Nomad (Beck 1991) I discuss how these rites and practices fit within the seasonal round.
outsiders significantly improved the quantity and quality of pastoral resources for the Qashqa’i users. The numbers of herd animals owned by the Qashqa’i as a whole did not increase and in fact may have decreased as part of the process of settlement and the adoption of new livelihoods (see below).

AGRICULTURE

The legal status of land classified as “cultivable” was not yet settled in many areas of Qashqa’i territory and the periphery in 1998. Disputes were common, and many pastoralists were insecure about their own and others’ rights and claims.

Agricultural production in Qashqa’i territory had rapidly increased since the 1960s, both by outsiders able to appropriate land in the area and by the Qashqa’i themselves. Sections of winter and summer pastures and many areas along migratory routes became cultivated. In the uplands above water courses, crops depended on moisture from seasonal rain and snow. Below water courses, crops were often irrigated. Pastoral land, never plowed before, was transformed into agricultural land and was off-limits during the growing and harvest seasons to the pastoralists’ herd and pack animals. Even where the pastoralists themselves added or enlarged their own areas of cultivation, the land became lost or diminished as a viable pastoral resource. Villagers who expanded the land they cultivated in and near seasonal pastures and along migratory routes were often aided by mechanized equipment, such as tractors and combines, and they improved their own supply of water by digging wells, installing motorized pumps, and constructing irrigation works. As villages expanded in population size and land use, the surrounding areas became denuded of viable pastoral resources. The nomads found that they increasingly had to travel circuitous or indirect routes to avoid these growing settlements and to find adequate grazing and water.

The creation and expansion of fruit orchards was a major part of these changes. Trees planted in summer pastures were mostly apple, apricot, walnut, almond, and pistachio, while in winter pastures, an area of high summer heat and dryness, they were primarily date, lime, lemon, orange, and pomegranate. Many villagers also grew grapes and figs, especially in areas between winter and summer pastures. People with claims to land and access to sufficient water planted saplings and vines, constructed irrigation systems, erected containing walls, and committed themselves to a dependence on chemical fertilizers and pesticides. The sources of water they walled in, often natural springs or the mouths of qanats (man-made underground water channels; see English, Afkhami, this volume), were

\[3\] Linda Schilcher notes that this pattern of government intervention to rescue rural people from urban entrepreneurial greed was also found elsewhere, such as in Syria under the Ottoman Empire in the 1880s and 1890s (personal communication, December 1997). She offered helpful comments on an earlier draft of this paper.

\[4\] Nick Kouchoukos et al. (this volume) note certain major trends in southwest Asia: the extension of cultivation into marginal steppe lands, expansion of irrigation, and degradation of the vegetation of the steppe. Unsustainable production systems, such as many forms of agriculture in arid and semi-arid lands, also cause the rapid depletion of resources and the destruction of the natural environment (Christensen, this volume).
thereby now off-limits to pastoralists, either traveling through the area or resident in nearby seasonal pastures. When I asked pastoralists in the 1990s to tell me the single most troubling difficulty threatening their main livelihood, many answered, “orchards.”

Most pastoralists tried to increase the production of fodder crops for their animals and wheat for household use—flat bread remained the people’s staple food. During times of inadequate rain and snow, naturally growing vegetation was insufficient for the herd and pack animals, and quantities of supplemental feed were needed. This feed included barley, straw, and fresh and dried alfalfa, clover, and hay. The prices of these commodities rose rapidly during times of low moisture, because crops grew poorly under such conditions and the regional demand for them was great, especially from settled people who also owned animals and did not have much if any natural pasturage. Hence pastoralists with available land, water, labor, and time tried to produce as much fodder as possible, to avoid high and often escalating market prices, without jeopardizing other aspects of their livelihood. In recording household budgets, I noted that barley and alfalfa comprised the single largest annual expense for many pastoralists. Dried sugar-beet pulp, a by-product of sugar factories in the province and used widely in the area in the 1970s, was no longer much used by the 1980s because of its apparent lack of adequate nutrients.

The main advantage for the pastoralists in the expansion of their own and others’ cultivation was their ability to graze animals on the stubble and other crop residues after the harvests were completed. Because of the mountainous terrain and the different altitudes where cultivation was practiced, the pastoralists herded their animals from one elevation to another in order to exploit sequential harvests. Remaining in their summer territories beyond the point when natural pasturage was depleted, the pastoralists came to rely heavily on the remnants in these fields. Mechanized combines, increasingly used in wide flat areas free of large stones, left the stalks of harvested crops standing as high as fifteen centimeters, which the pastoralists used for grazing. (By contrast, cultivators who harvested grain by hand sickles cut the crop close to the ground and left little for ruminants.)

Another new advantageous factor—one related to expanded irrigation—was the lush, wild, and opportunistic vegetation growing at the edges of cultivated fields, between trees in orchards, and along water channels. Pastoralists grazed their animals on the live vegetation, cut armfuls and filled gunny sacks to bring to the animals, and dried and stored quantities for use later on. They competed for this resource with the cultivators, who also needed animal fodder or who wanted to sell it for a profit. Some crops, such as dry-farmed barley
and irrigated pulses, had spaces between plants where pastoralists could gingerly walk to collect wild vegetation.

In the 1970s and 1980s, some far-sighted pastoralists had planted poplar trees in summer pastures in order to use the trunks as roof beams and other supportive structures for the houses they expected they would ultimately build. During late autumn and early spring, unhampered by the heavy snows of winter, trespassers sometimes cut down these unguarded trees for their own use or just out of spite.

MANAGEMENT OF WATER

Many changes also occurred in the management of water. Until the 1960s and early 1970s most pastoralists in this large stretch of the southern Zagros Mountains had relied, without much human intervention, on the natural sources of water available. In winter pastures they sometimes deepened or fortified naturally occurring shallow basins to collect seasonal rainfall and runoff for the animals, while in summer pastures they dug shallow trenches to direct the flow of water from natural springs to the small pools they excavated. They always tried to find fresh spring or well water for drinking, food preparing, milk processing, and wool dyeing. Women and children aided by pack animals and goat-skin bags spent time and effort traveling to and from the nearest sources. An area of seasonal and unpredictable water, winter pastures were more troublesome than summer pastures, an area of many natural springs.

Since the early 1980s, the management of water has become more controlled and government-assisted. Through officials of the Organization for Nomadic Affairs, the Ministry of Rural Reconstruction was instrumental in transforming water use for Qashqa’i pastoralists. With aid from the Ministry of Agriculture, these officials helped some people to secure low-interest bank loans and low-cost or subsidized construction supplies (such as cement) and assisted them in acquiring land-use permits from the Ministry of Natural Resources. In many areas, pastoralists together with hired professionals and workers dug wells, repaired or improved access to qanats, and constructed cement channels and catchment basins, all of which delivered clean, reliable water. In winter pastures, where springs are not common, the government dug many wells in convenient locations and also constructed or set up large, covered or enclosed, holding tanks and periodically filled them with clean water from tankers, at either low or no cost to the pastoralists.

Some of these recent efforts to manage water caused at least a temporary and possibly a longer-term or even a permanent decrease in water in the vicinity. In some areas of summer pastures,
many natural springs dried up in the summer of 1997 following the winter’s sparse snow and rain. Whether winter snows and rains in 1997-1998 will replenish the ground water and restore the flow of these springs is not yet known, although the seasonal residents in some areas did say that they expected the water to return, perhaps at decreased levels. More pessimistic, other residents blamed the nearby non-Qashqa’i cultivators and their over-exploitation of groundwater for the death of the springs. Where orchard owners and other large-scale cultivators, mostly non-Qashqa’i outsiders, dug deep wells and installed motorized pumps, a lowered water table resulted. According to residents and observers, once the pumps began to operate, water in the vicinity never returned to its previous levels and quantities. In the summer of 1997 many orchards held dead, dying, stunted, or fruitless trees due to insufficient irrigation water, although whether this condition came about primarily because of the year’s poor supply of rain and snow or from a more long-term lowering of the water table is not yet clear.5

CONSTRUCTION OF SHELTERS

Human dwellings, accompanying structures, and animal pens and shelters also altered the landscape of areas formerly inhabited only by the seasonal, mobile tents of nomads. These developments are explained by the processes of modernization and the nomads’ insecurity about their claims to land.

The building of dwellings accompanied a general rise in the standard of living for most Qashqa’i, who also wanted to protect and shelter the new possessions they now owned. Many pastoralists, even those who were fully nomadic, chose to construct huts and houses for themselves and pens and shelters for their animals in winter and/or summer pastures. When they saw that these dwellings were likely to be vandalized during the seasons when they were absent, they cut back on their efforts and investments. For example, they bought previously used, inexpensive wooden and metal doors and window frames when the new ones they had purchased and installed were roughly pried away from the walls and stolen by trespassers. Even though they always stored miscellaneous equipment in these dwellings when they departed for their other seasonal pastures, they learned not to lock the doors, for the cost to repair the damage that thieves caused by breaking locks, doors, and windows was greater than the cost of replacing any stolen items.

Using locally available rocks for the foundations and tree branches, long reeds, and woven-reed mats for the walls and roofs, many men built simple one-room huts for their families in winter pastures, which helped to protect them from the winter’s rain, snow,

5 Many authors, including Paul English (this volume), note that deep wells in arid and semi-arid areas, which extract water beyond replacement levels, fail to increase agricultural production and are in fact an ecological threat.
mud, wind, and cold. Some men built more substantial huts by also using cement mixed with dirt for mortar and flooring, cement and plaster for the walls, and wooden beams for the roofs. They often talked about how miserable life had been in past winters when only goat-hair tents sheltered them. Their perception of the nomadic life’s rigors seemed to have changed, especially when they compared their physical comfort in the winter with that of their house-dwelling relatives.

Many nomads also built more substantial one-room or two-room houses in summer pastures. They did not need physical shelter as much in the summer, when the weather is dry and usually mild, but because they have recently chosen to arrive there earlier in the spring and to stay later in the summer, they did want more protective shelter during these two often cold and windy periods. People with increased agricultural activities, more prevalent in summer pastures than in winter ones, occupied the land for a longer duration than in the past. Those owning trees or vines bearing fruit needed to collect or oversee the autumn’s harvest.

People who improved their access to water also wanted to live nearby on a more permanent basis. Until the late 1970s the nomads had moved periodically from place to place in seasonal pastures to find fresh grazing and clean campsites, but more recently they have remained in specific locations, often to exploit the water over which they have now claimed greater rights. Needing to travel farther and farther away from camp every day to locate adequate grazing, shepherds and animals were burdened by these more stationary residential practices.

The pastoralists’ decreased reliance on hired shepherds figured in their decisions to construct animal pens and shelters, where they could temporarily leave their animals unsupervised. Herd animals in summer pastures and sometimes in winter ones used to sleep or rest in the open and were subject to predator attacks and stampeding if the owners and shepherds were not vigilant enough. Since the late 1970s, many households were forced to devise new ways of handling the actual herding and daily animal care, largely because of the scarcity of hired shepherds in the region. Reflecting the shortage, shepherds’ salaries rapidly escalated, making the hiring of herders even more problematic and forcing the nomads to rely on more protective pens and shelters.

Use of animal pens facilitated the accumulation of dung, which all pastoralists periodically collected for use as fertilizer in their orchards or to sell to other orchard owners. Mounds of dung stood beside the pens to await transport.

Many pastoralists also built huts, houses, and animal shelters in their seasonal pastures because of their insecurity about land rights.
By 1998 the government had still not passed the land-reform legislation that was promised soon after the revolution, and pastoralists claimed that the existence of permanent structures would help them to fortify their rights to the land in any eventuality. Dwellings offered “hard facts” to touring government agents assigned to handle disputes over land.

HUNTING AND GATHERING

Patterns of hunting and gathering continued in the 1990s in many of the same ways as in the 1960s and before. The major changes were in the use of firearms and the decreased exploitation of natural resources along the migratory routes.

The shah had forcibly disarmed the Qashqa’i in the 1960s because of his fear about their military threat to him. With his ouster in 1979, many Qashqa’i men immediately rearmed themselves and resumed game hunting in their territories. The climate of freedom also affected other Iranians who were enthusiastic about hunting. Within a year or two of the revolution, the most prized game animals in southwestern Iran were said to be exterminated. The game included wild sheep and goats, ibex, gazelles and other antelopes, and deer—in fact, any animals with horns to be displayed as trophies. Several wildlife preserves created by the shah in the southern Zagros were rapidly decimated, the few game wardens still coming to work profiting from bribes and even partaking in the slaughter themselves. Many Qashqa’i men claimed to have practiced wildlife conservation in the past, but their efforts after the revolution were pointless, given the many outsiders eager to shoot any and all wildlife. Qashqa’i men had grown up learning the mountaineering skills necessary to collect the game after they had pursued and shot it, skills many urbanites and other outsiders lacked. These outsiders often shot animals that they left dead or dying where they fell, and hence the activity was simply sport and not, as in the Qashqa’i case, also an important source of food. Qashqa’i hunters continued to track wild boars, bears, mountain lions, wolves, hyenas, and other predators preying on their flocks, and, as before, they avidly sought wild game birds (partridges, quail) to consume as food. Those living near lakes and rivers hunted water fowl and fished. At least a few men found the use of dynamite to be an effective way to capture quantities of fish with little effort.

Gathering of many natural resources was still a major part of the Qashqa’i subsistence and economy in 1998. In fact, reliance on these items allowed some families to continue with migratory pastoralism when they would not otherwise have had adequate food or income. Dairy products for home consumption were available only in the
spring and part of the summer (except for limited quantities of
dried milk solids saved for the winter), and hence all pastoralists enjoyed, if not depended on, the many foods they gathered through-
out the year. The seasonal residents of winter and summer pastures, and their settled kin who came to visit, continued to exploit their own and surrounding territories for many kinds of human foods (wild fruits, nuts, vegetables, herbs, mushrooms, truffles, bird eggs), animal fodder, medicines, salt, dyes, fuels, and raw materials (wood, reeds) for tools and other constructed objects. Most of the items were seasonal in nature, and the pastoralists sought them according to the schedules and techniques they knew in detail.

Because most people now traveled by truck between winter and summer pastures, they were no longer able to gather resources along the migratory routes. The paved roads they followed bypassed the valleys and mountainsides where most resources were located. Those who had acquaintances in villages along the migratory routes were eventually able to barter for some items, and itinerant peddlers brought others. People who visited these areas always collected the resources that were unique or special there and later shared them with others. The men who accompanied the herds on the spring migration gathered what they could, but their time was occupied by herding and safeguarding the animals, and they lacked the means to process or to transport quantities of gathered resources.

The non-Qashqa’i people who used to gather natural resources before the 1970s in Qashqa’i territory, primarily for sale but also for their own consumption, came less frequently or not at all in the 1990s. The resources included wood (for firewood, making charcoal, and construction), wild fruits and nuts, herbs and many other green plants including wild artichokes, mushrooms, truffles, garlic, and tree and shrub saps including the exported gum tragacanth. Guided by western-inspired notions of environmental protection, the Ministry of Natural Resources was supposed to control or eliminate these activities on what was usually nationalized pastureland, but it did not do so successfully under the shah’s regime. Under the Islamic government, the ministry was more effective in preventing outsiders from exploiting Qashqa’i pastures in these ways or in limiting their numbers. Collectors of gum tragacanth, for example, could buy permits from the ministry enabling them to exploit certain territories if they also obtained the approval of the resident pastoralists. Qashqa’i people, many of whom relied on selling and consuming these same resources, collected them on their own lands, especially if they held title or usufructuary deeds.

Because of the increasingly widespread use of electricity and propane and natural gas by many people in southwestern Iran, the

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For a detailed discussion of gathering by pastoralists in Morocco, see the article by Susanne Steinmann (this volume).
demand for firewood and charcoal decreased. Agents of the Ministry of Natural Resources tried to protect the environment from further deforestation and depletion of other natural resources. Until the revolution, the ministry’s forest rangers used to patrol sections of Qashqa’i territory but were susceptible to bribery and appeared to cause little change in how people actually exploited the land. Since the early 1980s their activities have focused instead on pursuing the claims that residents brought against trespassers engaged in destructive acts. Aided now by motorized vehicles, many Qashqa’i pastoralists transported quantities of firewood from winter pastures to summer ones, where wood was scarce and where camel dung, formerly used as fuel, was no longer found.

THE GOVERNMENT
The government continued to play a major role in the 1990s in determining who resided on and worked which parcels of land, but in some different ways from the government in the 1960s and 1970s. The Islamic government supported people it classified as “nomads” (ashayer) and offered them services and support that the previous two shahs (1925-1979) had not. Short-term and long-term leases for land still classified as “pastures,” as well as leases and ownership deeds for land still considered as “cultivable,” were obtained by many people through various government ministries. People who chose to settle in villages and especially in towns found it difficult to hold onto pastoral and agricultural land in their customary seasonal territories. Some families chose to divide their labor force in order to retain rights to land. As an example of an increasingly prevalent pattern found within extended families, one man migrated between winter and summer pastures with the sheep and goats and maintained the family’s pasture-use deeds, while his brother lived in a village to cultivate grain and fodder crops on land he rented or purchased, and a third brother resided in a town to work for wages in a factory or government office.

As previously indicated, governmental ministries and agencies also aided the pastoralists in many other aspects of their lives by building roads and bathhouses in remote areas and by offering veterinary care, pasture seeding, water management, bank loans, commodity pricing, economic cooperatives, and formal education.

Some high-level officials of the Islamic government were fascinated by people in Iran whom they considered to be exotic or picturesque. While the last two shahs had feared many of these same people for the military and political threat they were believed to pose, the current government appeared to be less concerned. While providing such people with many services, the Islamic government also developed programs to use them for its own purposes and by

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various means, including the media. For example, from the 1980s until 1995 a national, annual Day of the Nomad was officially celebrated in different regions by provincial dignitaries and spectators to mark the nomads’ many contributions to Iran’s history, economy, and cultural diversity. The Ayatollah Khomeini had declared that nomads were the “treasures of the revolution.” Government-sponsored or-supported publications, films, and television programs about nomads were designed to provide appealing images for a national and sometimes international audience.

Apparently unintentionally, and perhaps ironically, such official attention helped the Qashqa’i (and other similar groups) to pursue their chosen lifestyles, which for many remained a combination of pastoralism and nomadism, and to engage in customary practices that these officials considered colorful or quaint. For example, many Qashqa’i women were allowed to maintain their customary dress and head gear, despite the attire’s violating the requirements of modest “Islamic” dress imposed on almost all other Iranian women, especially in urban areas.

Many agents of the Islamic government, especially in ministries having special interests in nomads and pastoralists, were of ethnic, tribal, pastoral, and nomadic backgrounds and had often been born and raised as nomadic pastoralists themselves. They had benefited from the government’s expansion of formal education into tribal areas and had continued their education in towns and cities. They tended to be supportive of and sympathetic to the needs of people who perpetuated nomadic and pastoral lifestyles despite difficulties. When I asked Qashqa’i people about the changes in their relationship with the government after the revolution, many responded by noting that people with identities similar to their own were now government officials who supported rather than hindered or oppressed them.

THE MARKET ECONOMY

The impact of the market economy is another important factor in understanding the ways the Qashqa’i used land. They had always directed their productive activities toward market demands and not just toward household consumption. When the price of sheep and goats was considered good, they placed more attention on animal husbandry. When regional needs for agricultural products were great, they tried to produce their own and relied on the market for the purchase of more. Market demands for the pastoralists’ dairy products, other pastoral produce (woven goods, sheep wool, goat hair, skins), and gathered resources also played a role in determining the economic decisions that households made on a seasonal and yearly basis.

Since the revolution, especially during and since the Iraq-Iran
war (1980-1988), national inflation was high and rising, and all Iranians, not just Qashqa’i pastoralists, were forced to change their patterns of production and consumption. Qashqa’i and other producers of essential market commodities were especially affected by volatile and unpredictable economic trends. The pastoralists complained that the prices they received for live sheep and goats did not rise as rapidly as the costs of the goods they needed to buy. They were especially disturbed by the high mark-up in meat prices, from the amount they received per kilogram at government slaughterhouses to the amount customers paid in urban butcher shops. The government and a series of middlemen, and not the actual producers, derived the most profit from the pastoralists’ enterprise. In some years the pastoralists incurred more expenses for tending the animals than they received for their sale. Because of rapidly escalating prices in general, by 1996 most Qashqa’i people were financially unable to make major changes in the ways they exploited the land, such as adopting new mechanized agricultural equipment and installing irrigation works. Even commonplace construction materials such as bricks and cement became prohibitively expensive. The election of a new, moderate president of Iran in 1997 brought hopes that the national economy would be brought under greater control.

CONCLUSION

In this paper I have outlined a variety of factors that have influenced the ways that many Qashqa’i nomadic pastoralists used land during the past thirty years and how and why these patterns have changed. Although the subject is beyond this paper’s discussion, I will mention that certain new patterns of local social organization were in large part explained by changes in the productive activities of people during this period. Groups of families could better exploit a larger territory, engage in diversifying economic activities, and interact with the market more successfully if they cooperated with one another.

At a time when we see that some locally managed and controlled subsistence strategies appear to be more viable, sustainable, and protective of the environment than, for example, large-scale agro-pastoral corporations, the case provided by the Qashqa’i may be informative. The Qashqa’i make the best of the inherent environmental constraints of their rugged, mountainous, and semi-arid lands, in ways that have served them and their ancestors for hundreds if not thousands of years. They have also made frequent adjustments in the ways they related to the land. They do not blindly follow patterns that they had practiced in the past, nor do they ignore the consequences of the actions they do take. Outsiders can at least try not to impede them as they continue to find
solutions to the many constraints that confront them. One prevalent theme in the recent literature on the natural environment is the concern about depletion and destruction, and the solution often proposed is the removal of people. But when we compare, for example, Qashqa’i land-use strategies with the whole-scale destruction wreaked upon the environment by multinational corporations, nation-states eager for “development,” and warfare, it seems ridiculous to try to prevent people such as the Qashqa’i from living in the ways they have deemed productive for themselves and their society.

ADDITIONAL REFERENCES


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