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LABOR FORMATIONS IN A NOMADIC TRIBE

by

Philip Carl Salzman

When people apply their talents and energies to making a living, they usually depend upon coordinating their efforts with others, for many productive tasks and activities either require or are facilitated by the application of many hands. How desirable such coordination is across the spectrum of productive activity depends upon the nature of the productive regime. How possible it is to actualize potentially valuable coordination depends primarily upon the nature of social relationships and organization in the society at large.

Nomadic tribesmen from different groups and in different regions are engaged in a wide variety of productive regimes and are emeshed in a diversity of social and political structures. As a result, the patterns of coordination and the nature of labor formations vary substantially from tribe to tribe. In the nomadic tribe described here, there is a high level of coordination in productive activity manifested in three, increasingly broad, groupings: the household, the work team, and the herding group. Coordination is seen in both joint and divided labor, and is based upon both free cooperation and specified contract.

Ethnographic Background

The nomadic tribe in question is the Yarahmadzai/Shah Nawazi Baluch of Iranian Baluchistan.¹ Dwelling in a harsh, arid environment of sand and stone, rocky outcroppings and barren mountains, of meagre and erratic rainfall and consequent sparse natural vegetation, the tribesmen now nestle close to the ground in black, goat hair tents, and now rapidly pack up their camps and migrate to another area more suitable to their present needs and concerns. For the five thousand or so souls of the Yarahmadzai, tribal affiliation provides a territorial base within which there is open access to natural resources such as pasture and streams and restricted access to constructed resources such as wells, just as the segmentary lineage system provides a framework for security and welfare and as the chief provides a unifying influence and a link with external powers.²

Wrenching a living from this inhospitable land is a continual anxiety and a focus of concentrated attention, at the same time as it is a source of pride. The economic strategy followed by almost all tribesmen is a generalized one based upon diversification, upon exploitation of multiple resources.³ Pillars of the traditional economy are goat, sheep and camel pastoralism, date palm cultivation, and dry land grain cultivation, and these continue to be primary in the contemporary economy. In earlier times, hunting and gathering was an

important supplement, and prior to effective encapsulation by the Iranian state, predatory raiding of Persian peasant villages and trade caravans was a mainstay. In recent times, tribesmen have increasingly left the tribal territory for short term sorties in the goods and labor markets of Pakistan, Iran, and the Arabian Gulf, importing and smuggling goods, building roads and driving trucks. Within the tribal territory, irrigation agriculture by ganat or by motorized pump has been expanded, and some small scale motor transport enterprise has developed. Each tribesman is involved in a number of these economic activities and depends upon the combined income for his living.

Labor Requirements

The Yarahmadzai economy is a low technology, labor intensive one. Most tasks are accomplished by prodigious application of human hand and foot, by individual assessment, judgement, and action. Assistance from nonhuman sources of energy, from animal and machine power, while often important and in a few cases essential, is limited and comprises only a small portion of the energy required. Likewise, many tasks entail considerable mental energy, necessitating, as they do, repeated evaluations of circumstances and judgements about alternative courses of action.

The Yarahmadzai tribesman is thus involved in a number of economic sectors, each of which involves a number if not a multitude of tasks, and most of these tasks demand some substantial investment of labor, of mental and physical energy. There is a total amount of labor required which must be met. In addition, the multitude of different tasks must be fit together in some way, such that providing labor for one does not conflict with providing labor for another. This problem is exacerbated by the number and diversity of economic sectors in which there is some commitment, for often tasks which coincide temporally are spatially dispersed.

A brief review of labor requirements in various sectors illustrates the challenge facing Yarahmadzai tribesmen.

Pastoralism

The herding of the livestock, moving them away from the camp to natural pasturage and to water sources, is far from a unitary phenomenon. First, the small stock, sheep and goats, make up a flock attended by a shepherd, while the camels make up a separate herd overseen by a camelherd. Second, the animals in their first months, still unable to keep up with the flock, must be seen to in the vicinity of camp. Third, young animals, active but still suckling, must be sent to pasture with a flock other than that of their dames. Thus the animals must be brought together and separated on a frequent and regular basis.

Supervision of the flock varies seasonally, as the time in

pasture increases from the short day during the winter to a more or less around the clock pasturing in the summer. Watering increases during the spring and summer, and if the source is a well, this becomes a major project. The flock must be brought back to camp once or twice during the day so that the young may suckle and the milk can be taken for household use.

Flocks tend to be small because the scanty pasturage does not comfortably support high densities and underpastured flocks are difficult to manage. A poor season exacerbates these factors. Camel herds tend to be very small, for similar reasons, although camels spend much time in the pasture unsupervised. Animals that wander away require searches. The overall consequence is a high herder/livestock ratio.

This labor intensive herding is paralleled by further nurturing and protective activities in camp. Small stock is kept in pens within the tents during winter nights, and small pits are constructed for the very young animals. Feed is provided for young or weak or otherwise vulnerable animals, which sometimes involves preparation, as in the digging of roots or the crushing and soaking of date pits. During periods of drought, fodder in the form of hay, grain, or dates is provided for the small stock according to the means of the owner. Birth has to be assisted, and sick animals must be doctored.

Along with maintenance of the animals, there is the extraction and processing of animal products. Milking and the processing of milk for clarified butter and dried milk solids is ongoing but also varies according to season and year. Wool from sheep, goats and camels is spun and woven into rugs, storage and transport bags, and animal equipment. Goat hair is spun and woven primarily into tents. For meat, animals must be slaughtered, butchered, and cooked. Animal skins are treated and made into water and milk bags.

Although most products are consumed by the tribesmen, some animals (mainly unproductive ones) and some products (clarified butter, wool and hair) are sold, requiring further time and effort for transport to markets.

Arboriculture

Date palms are cultivated in an area with a high water table, so that irrigation is not ordinarily necessary. But the planting of new palms using the suckers from adult palms requires separation of the sucker and roots, planting, and watering until the roots reach the water table. A decade passes before any substantial date crop can be expected.

The annual cycle of date production involves a number of steps. Early in the spring, the female palms must be pollinated with the flower of the male palm. By the middle of summer, the clusters of unripe dates on the palms are secured in woven palm leaf bags. As summer progresses, dates come ripe and must be

harvested. Some varieties can be packed directly into animal skins for long term storage; other varieties must be pitted before packing in woven cloth sacks. Throughout the harvest period, palms are pruned for better growth, and rope and bags are woven from palm frond leaves.

The date harvest, of considerable bulk and weight, must be transported to areas of storage and ultimate consumption.

Cultivation

Dry cultivation of grain is as much a matter of risk as of labor, for although the labor invested is not great, returns are chancy. Usually a small makeshift dam is constructed at the base of a runoff channel, and grain sown in the enclosed area. In the event of rain, the area sown will be inundated and the necessary moisture will be absorbed for growth. Maintenance is minimal, and the harvest, if any, is transported for storage and consumption.

Wet cultivation, based upon irrigation by qanat (underground tunnels tapping the water table at a higher altitude) or motor driven well, is another matter. The water source itself requires regular and frequent attendance of a specialist, in addition to the ongoing rotation of plot watering and correlative maintenance of irrigation channels to the fields, as well as weeding and fertilization. Harvest of the grain, as well as of any vegetables and fruits, is followed by transport and storage.

For consumption, grain must be ground into flour by hand or at mills. Bread, the main staple, is made everyday in every household.

Hunting and Gathering

Although the income from hunting has in recent years become negligible, collecting and gathering remains critical. Water is drawn from natural sources, streams and pools, as well as constructed sources, wells and qanat, and brought to camp on a daily basis. The main non-animal energy source, firewood from bushes, must be gathered in quantity daily and brought back to camp. Chunks of salt are dug from natural evaporation basins. Wild vegetables are collected in small quantities, as are plants required for preparation of animal skin bags, for medical treatment, and for fodder.

The Market

Engagement with the labor and goods markets has become a major commitment of many Yarahmadzai tribesmen. Labor is sold primarily for manual tasks, such as construction both in

Baluchistan and outside, in Iranian cities and latterly in Pakistan and more recently in the Arabian Gulf. Commercial activities such as petty importing from duty free ports and smuggling across international boundaries fluctuate according to measures by state authorities. Both labor and commerce entail some capital investment and absence from the tribal territory, and both bring money as income into the tribal economy.

Sector Commitment and Labor Investment

This brief survey of Yarahmadzai economic sectors outlined in this description indicates the range and variety of tasks with which tribesmen can occupy themselves. Unmentioned and not developed below are non-economic sectors, such as local and tribal politics, which involve continual consultation, decision-making, policy formation, group organization, conflict management, and so on. Similarly unexamined is ritual life, involving individual and collective prayer, study, ceremonial occasions, healing, and the like. All of these involve investment of time and energy and are important for ongoing tribal life, some of them providing an essential basis for the economic sectors discussed above. Whether or not the tasks involved in these sectors are to be labeled 'labor' is perhaps not so important; what is important is an awareness of the substantial demands on tribesmen stemming from these sectors.

The technological limitations in most productive tasks are paralleled in the general areas of travel, transport and communication, the movement of people, goods, and messages. On the one hand, mobility is one of the defining features of a nomadic society such as the Yarahmadzai, and both the capacity for and actualization of movement among the Yarahmadzai are in fact impressive. But, on the other hand, travel, transport and communication are tied to a labor intensive and time intensive technology, based upon man and animal power. Only recently has motorized transport become available, and access to it is quite limited.

The demands of the political and ritual sectors, and the technological limitations on the movement of people, goods and messages, provide definite if not inflexible parameters for commitments in the economic sector. Furthermore, in some instances, a limited capital investment is a prerequisite for engagement. But the labor available for application is in most cases a critical determinant. Tribesmen may wish to be involved in all of the economic sectors described above, to draw income from them all, to have the variety of products and to enjoy the security of wide diversification, but commitment and investment must be tailored to the formidable labor demands of the manifold tasks involved, many of which are inevitably incompatible because of temporal conflict or spatial divergence. One response of the tribesmen to such limitations of labor availability is amelioration through association and coordination, the formation of labor units which can successfully manage the tasks necessary for effective engagement in the range of economic sectors.

Labor Formations

Tribesmen form into associations for the coordination of labor. This coordination makes possible accomplishment of tasks which would elude tribesmen working on their own. Two modes of coordination are available for the particular requirements of the task or tasks at hand: Joint labor involves a number of tribesmen working together at one place and one time to accomplish a task needing many hands in concert. Divided labor involves different tribesmen doing different tasks, perhaps at different times or in different places, which are part of a larger whole to which each of the tasks is a contribution. Both forms of coordination, joint labor and divided labor, can be engendered by various types of labor formation.

Nor is there necessarily uniformity in principles of association within particular types of labor formation. Two principles of association which are compatible in coordinated labor are contract and cooperation: A contractual relationship involves an explicit agreement about task and compensation, and is usually delimited in scope and therefore often asymmetrical. Specific reciprocity is emphasized. A cooperative relationship involves coordinated labor without explicit compensation specified, and tends to be open ended and symmetrical in the long term. Generalized reciprocity is emphasized. Both contractual and cooperative relationships, and relationships with more intermediate characteristics involving some degree of explicitness or delimitation, are found combined in different types of labor formation, which provides, as will be seen, flexibility in forming and maintaining associations.

Three main types of labor formation will be discussed here. But these three do not exhaust either association or coordination among the Yarahmadzai. Requesting and according assistance on a variety of tasks is a commonplace and everyday occurrence, and is not tightly structured or restricted exclusively to particular relationships. Among tribesmen there is general obligation to provide assistance, in labor as in other matters. And if parameters of age and sex narrow the range of appropriate action, there are a number of converging factors encouraging and supporting generalized assistance. This is evident in the collective nature of the social milieu, where in matters such as politics, welfare, and residence, each individual depends upon the support and cooperation of his fellows. Each individual is thus involved in a system of collective interest and mutual dependence, which is both a function of and reflected in the many layered multiplex relations built of overlapping descent, kinship, affinal, residential and other ties. The esteem of one's fellows is tied to one's willingness to pitch in and help, in tasks of an economic nature as well as those of a political or ritual nature. The social pressure for assistance is reinforced by the religious obligation to provide help and the religious credit that is granted unselfish deeds. So a considerable amount of association and coordination in labor tasks is generated by general pressures and considerations and is not highly structured.

None the less, most labor among Yarahmadzai tribesmen is encompassed by three formations: the household, the work team, and the herding group. These formations will now be examined.

The Household

The household is the locus of shelter, alimentation, and bio-reproduction. It corresponds approximately with the nuclear family. And because the head of the family holds considerable property--livestock, date palms--on behalf of the family, there is substantial correspondence between the household and the property owning unit. Thus, the household is the locus of ownership and consumption. And given that production in the tribe is oriented primarily toward subsistence, it would be the simplest arrangement for productive labor tasks drawing upon household property and directed toward products destined for household consumption to be undertaken by the household labor force. Indeed household self sufficiency is an ideal held by tribesmen, and is one of the considerations involved in the desire, universal in the tribe, for a large number of offspring.

Within the household, there is a division of labor according to both sex and age. Older people supervise and direct, and do delicate work requiring developed skill. Younger people do monotonous and arduous work, and work requiring strength and endurance. Males deal with the capital resources and females process the products into consumables. The guidelines are clear, but application is flexible, much guided by feasibility in the face of demographic constraints, circumstantial pressures, and logistical requirements. Males and females, young and old often work together, especially but not exclusively on tasks which are on the interface margins of the defined spheres. For example, men and women often milk animals in concert, but only in extreme circumstances would women herd animals or men cook.

Labor self sufficiency in the household depends upon the number of individuals in the household and the age profile. The major source of labor is children. Many children, well spaced in age, provide much labor power. While the mother cooks, weaves, and provides general direction, young daughters collect wood, run errands, and help with the lambs, kids, and chickens. Older daughters fetch water, wash clothes, and help cooking and weaving. Given that daughters marry between 12 and 16 years old, and begin a process, more or less rapid, of establishing separate households and gradually shifting their labor from their parents' household to their own, especially after the birth of their own children, so their effective labor contribution in their parents' household spans not much more than 10 years. Thus a continual supply of female labor over a 30 year period would require at least 6 daughters, well spaced.

Similarly for males, while the father consults with other household heads on camp strategy and tactics, makes husbandry decisions, does livestock and cultivation chores such as shearing wool, weaving palm leaf twine, and sowing grain seed, sons are

allocated to a variety of supplementary tasks and complementary spheres. Small boys will be put in charge of the kids and lambs. Boys of 10 or 12 years will be camelherds, with responsibility for taking out and bringing back the camels, for assuring that they are well grazed and well watered, and for seeing that they do not browse in cultivated fields or otherwise cause trouble. Sons in their teens can be put in charge of the flock of sheep and goats, with responsibility for herding, watering, protection, and assisting in births, and can assist in assessment of pasturage and decisions about migration. Agricultural activities, especially the more recently expanded irrigation sector, benefit from labor of strong young men. Sons in their later teens and early twenties are capable of moving out of the tribal area, in the past for purposes of predatory raiding, in recent times for migrant labor, petty importing, and smuggling. Until they marry in their early or middle twenties, sons can be expected to contribute heavily to their parents' household, but even after the establishment of their own households, and taking into account their new commitments to their parents-in-law, labor contribution to the parents' household tails off only gradually. Even with the longer span of sons' contributions as a household member, perhaps 20 years, the variety of task spheres and sectors to be covered, and the unlimited demand for external income, require the labor of at least four sons between ages 4 and 24. With older sons moving off and forming their own households, a total of six sons is just about adequate, and eight sons spread over thirty years would not be an oversupply.

The ideal household, from the point of view of labor supply, would thus consist of parents and fourteen children, six daughters and eight sons, born over a twenty five or thirty year period. The reality is quite different. In fifteen households in a Dadolzai camping group, the average number of children was 3.1; the average number of children in families of more than 10 years duration was 4.6. In good part, this is a result of the high infant and child mortality rates: of 83 births (including several stillborns), 31% died by the age of 5 years, and a total of 36% had died by the age of 16. The result is that most households, even long established, cannot count on the labor of more than 4 or 5 children, and most households have to make do with the labor of even fewer children for much of the households' span of existence.

Almost all households must manage without labor assistance by children for the first ten years of existence. It is usually a few years before young, newly married wives are able to give birth to a live, healthy child. Then some eight years must pass before any substantial assistance can be expected. Up to six or eight more years must pass before the most responsible or arduous types of labor can be undertaken by sons. But in due course, some households can boast a good complement of labor from sons and daughters. An example is the household of Ja'far, with 4 sons and 3 daughters, interspersed and well distributed in age, and supplemented by an older son of a deceased brother and latterly by a son-in-law whose own parents were deceased. With Ja'far's brother's son and with his son-in-law, both in their early twenties, working away from the tribal territory during the

winter and returning to assist during the increased pastoral activity of late spring and the summer date harvest season, and with two sons in their early and middle teens tending the camel herd and the flock respectively, Ja'far's major labor needs were filled by members of his household, and he was freed for planning, coordination, and consultation, and for any additional serious tasks that needed attention. Similarly, with two teenage daughters fetching water, gathering brush for firewood, and assisting with cooking and weaving, Ja'far's wife Monas was organizing and supervising a mostly self contained household labor pool.

The substantial labor self sufficiency of households such as Ja'far's provides a degree of flexibility and independence of action inaccessible to households with a more restricted labor supply. For example, during the drought of 1971-72, when smaller stockholders were committed to a policy of minimising herding activities, Ja'far was able to initiate his own more active herding policy by moving off on his own. This was possible because his sons, Bahador and Rassoul, and adopted son, Ghulam Mahmud, and his son-in-law, Id Mahmud, provided the labor necessary to make an independent course in livestock management possible, and because his wife Monas and daughters Beebee Nur and Gul Peri were able on their own to provide the labor necessary for household management.

The flexibility made possible by household labor self sufficiency can be particularly important in the face of unusual circumstances. When Ja'far was incapacitated with an ulcer, and traveled with Ghulam Mahmud to Quetta for an operation, three capable males remained in the household to carry out the necessary economic activities.

Neither the independence nor the flexibility in labor self sufficiency is available to most Yarahmadzai households, as the average of 3.1 children and the early stages of the family cycle stage indicate. Mahmud Karim, only a few years junior to Ja'far, has one daughter from his first union residing with him, but no living offspring from his second and current union. In basic productive activities, Mahmud Karim has no assistance in his household other than what his wife, Patti Hartun, can occasionally provide. Mahmud Karim's younger brother, Shams A'din, has three children under five years of age, and so is in much the same circumstances.

The Yarahmadzai residence principle that each nuclear family should have its own tent and form a separate household, and the corresponding inheritance principle that at marriage each son (except perhaps the youngest) takes his share of productive wealth in a form of pre-inheritance, combined with high infant and child mortality rates, virtually guarantee that few Yarahmadzai households will be self sufficient in labor, despite the advantages in being so. It is almost inevitable that household fall short of the ideal, an ideal none the less upheld in theory and reenforced by the occasional successful example.

But even the successful example of Ja'far's household,

mentioned above, is a bit suspect. It would be justified to view, by 1972, Ja'far's cooperation with Ghulam Mahmud, now married to his daughter Gul Peri, and Id Mahmud, earlier married to Ja'far's eldest daughter, Beebee Nur, as the cooperation of three affinally allied but in principle independent households. The existence in this case of three independent households is obscured by the tendency for recently married daughters to reside close to or in their natal households and to be apparently reabsorbed into their natal households when their husbands are away from the tribal territory. (With the husbands away, separate tents are often maintained continuously only after children are born.) However, with the marriages and the formal establishment of separate households, Ja'far's household lost an adult male, Ghulam Mahmud, and two adult females, Beebee Nur and Gul Peri. What resulted was an association of households, connected by kinship and affinal ties, and unified by customary obligations and commitments, and by sentiments favoring continued association and mutual support.

Work Teams

The alliance of independent households, reflecting kinship ties and associated sentiment, is also a critical instrumental arrangement for providing labor in the demanding, diversified, Yarahmadzai multi-resource economy. It is quite common for several households to be associated over time and to coordinate their activities for both joint and divided labor, using both cooperation and contract to organize their association. These informal and somewhat amorphous associations, I propose to call 'work teams.'

The work team is informal in that there is no constitution, either in the form of a contract specifying membership and duties or in the form of a customary conceptualization identifying the group and its activities. Rather, work teams are an emergent social form resulting from de facto association and coordination in labor over time by a number of individuals whose ongoing participation over time defines membership. The operation of a work team is evident in a series of coordinated tasks undertaken by a particular set of individuals. But there is no clear cut membership boundary, and some individuals are more marginal than others and might be associated with more than one group. The work team as a group is based primarily upon generalized reciprocity, people helping out others with the implicit understanding that they will be helped out by others later.

Certain kinds of tasks are characteristic of those undertaken by work teams. Examples of joint labor, usually done by a number of individuals on behalf of a fellow, are camel searches, weaving, and hut construction. Examples of divided labor, often done by one individual on behalf of a number of others, are transporting and milling of grain, pollinating, bagging, and harvesting date palms, and migrating with camels to the date groves. Patterns of alternation and rotation of task allocation over time are common, as are allocations of different

tasks to different individuals during a particular period. Camel herding groups also tend to correspond to work teams.

Taking as an example the Goolapzai work team (as I shall label it, for a number of the team are children and grandchildren, or their affines, of the deceased Goolap), some six household heads--Mahmud Karim, Shams A'din, Jon Mahmud, Esau, Abdulla, and Abas--can be identified as frequent and ongoing participants in coordinated labor. These men were in their twenties and thirties, and most of their children were only a few years old, so there was virtually no labor power in the household beyond husband and wife. None of these households began to approach labor self sufficiency. The households compensated by labor coordination. These household heads joined together for, or divided up, many tasks in the course of productive activities. Sometimes one or two worked for the others. Shams A'din and Esau transported bags of grain from the households of Mahmud Karim, Ido Mahmud, Walli Mahmud and Jon Mahmud, as well as their own, to the mill, assisted in the milling, and brought the flour back to camp. Sometimes all worked for one. On an occasion when one of Mahmud Karim's camels was missing, Shams A'din, Abdulla, Abas, Jon Mahmud, and Esau Rahim joined Mahmud Karim in the search. When one of Esau's camels was missing a few days later, Mahmud Karim, Shams A'din, Abdulla, Abas, and Jon Mahmud formed a search party, Esau himself being away from camp. There are two tasks in the yearly round which require extensive and difficult travel, and a great deal of work. These are iwari, the pollination of the date palms at Mashkel, and the migration to and from Mashkel during and after the date harvest. In the spring of 1972, Shams A'din made the trip at iwari, and pollinated the palms of Mahmud Karim, Abdulla, Jon Mahmud, Esau, Abas, Walli Mahmud, and two others. In the summer of 1972, Mahmud Karim made the migration with his camels and those of Shams A'din, Abdulla, Jon Mahmud and Esau, these individuals making the trip by truck. In the spring of 1973, Mahmud Karim made the trip at iwari, pollinating for Shams A'din, Abdulla, Abas, Walli Mahmud, and one other; Jon Mahmud also went, pollinating for himself and Ido. Each of these arrangements of coordination either helped an individual to do a task he could not do himself, or freed a number of individuals not engaged in the task to engage in other productive activities. (See Table 1 for examples involving the male household heads.)

While kinship and affinal ties do not automatically generate work teams, such ties tend to underpin work team membership, as they underpin co-residence, and there is a strong relationship between co-residence and work team membership. Of the Goolapzai work team members listed above, Mahmud Karim and Shams A'din are sons of Goolap, Abdulla is the son of Goolap's daughter, Jon Mahmud is Mahmud Karim's wife's brother and is married to Shams A'din's wife's sister, Esau is married to Mahmud Karim's daughter, and Abas is Shams A'din's wife's mother's brother. Two other sometime participants are Ido Mahmud, Shams A'din's father-in-law, and Esau Rassoul, Mahmud Karim's and Shams A'din's brother-in-law. And there are many additional and overlapping matrilineal and affinal ties, a function of preferential bilateral endogamy. (See Chart 1 for kinship and affinal ties.) The six core members and their wives, and most others, are

Table 1: A Sample of Coordinated Activities of the "Goolapzai Work Team" during 1972-73.

<u>Activity</u>	<u>Workers</u>	<u>Work Done For</u>	<u>Remarks</u>
1. transporting and milling grain (late spring harvest 1972)	Shams A'din with some help from Esau	Shams A'din Esau Mahmud Karim Jon Mahmud Walli Mahmud Ido Mahmud Ghulam Mahmud	
2. camel search (July 1972)	Mahmud Karim Shams A'din Abdulla Abas Jon Mahmud Esau Rassul	Mahmud Karim	Esau out of the tribal territory at this time
3. camel search (July 1972)	Mahmud Karim Shams A'din Abdulla Abas Jon Mahmud	Esau	Esau out of the tribal territory
4. work on date palms, including <u>iwari</u> (pollination), <u>sund</u> (bagging dates on the palm), and <u>boori</u> (harvest) (spring and summer 1972)	Shams A'din	Shams A'din Mahmud Karim (K) Abdulla (K) Jon Mahmud (C) Esau (C) Abas (C) Walli Mahmud (C) Pir Dad (C) Ghulam Mahmud (C)	K = kumaki, free, without return C = charki, for one quarter of the produce
5. work on date palms (1973)	Mahmud Karim	Mahmud Karim Shams A'din (K) Abdulla (K) Abas (C) Pir Dad (C) Walli Mahmud (C)	
	Jon Mahmud	Jon Mahmud Ido Mahmud (K?)	

6. trip to Mashkel, with camels (1972)	Mahmud Karim	Mahmud Karim Shams A'din Abdulla (T) Jon Mahmud (T) Esau (O)	One camel of each individual listed. T = traveled by truck O = out of tribal territory
7. camel herding at Mashkel (1972)	Mahmuduk Gemi(1) Mahmuduk Dust Mahmud(2)	Mahmud Karim Shams A'din Abdulla Esau Abas Jon Mahmud	1. residing with Shams A'din 2. residing with Mahmud Karim
8. camel herding on Sarhad (winter 1972-1973)	Mahmuduk Dust Mahmud	Mahmud Karim Shams A'din Abdulla Esau Jon Mahmud Abas Ido	Mahmuduk Gemi herding camels for Gemi, Barkat and Dadol during this period
9. transporting palm trunk for roof construction, Mashkel (1972)	Shams A'din Mahmud Karim Abdulla Abas Allah Baksh(1) and 11 others	Shams A'din	1. Brother of Esau, who was away on a trip, as was Jon Mahmud
10. hut repair, Mashkel (1972)	Shams A'din Mahmud Karim Abdulla and 5 others on the first day, and 8 others on the second day	Shams A'din	Esau and Jon Mahmud away; Abas preparing foundation of his hut
11. hut construction, Mashkel (1972)	Mahmud Karim Shams A'din Abdulla Abas and 10 others	Mahmud Karim	Esau and Jon Mahmud away
12. hut construction, Mashkel (1972)	Abas Mahmud Karim Shams A'din Abdulla Jon Mahmud and 12 others	Abas	Esau away

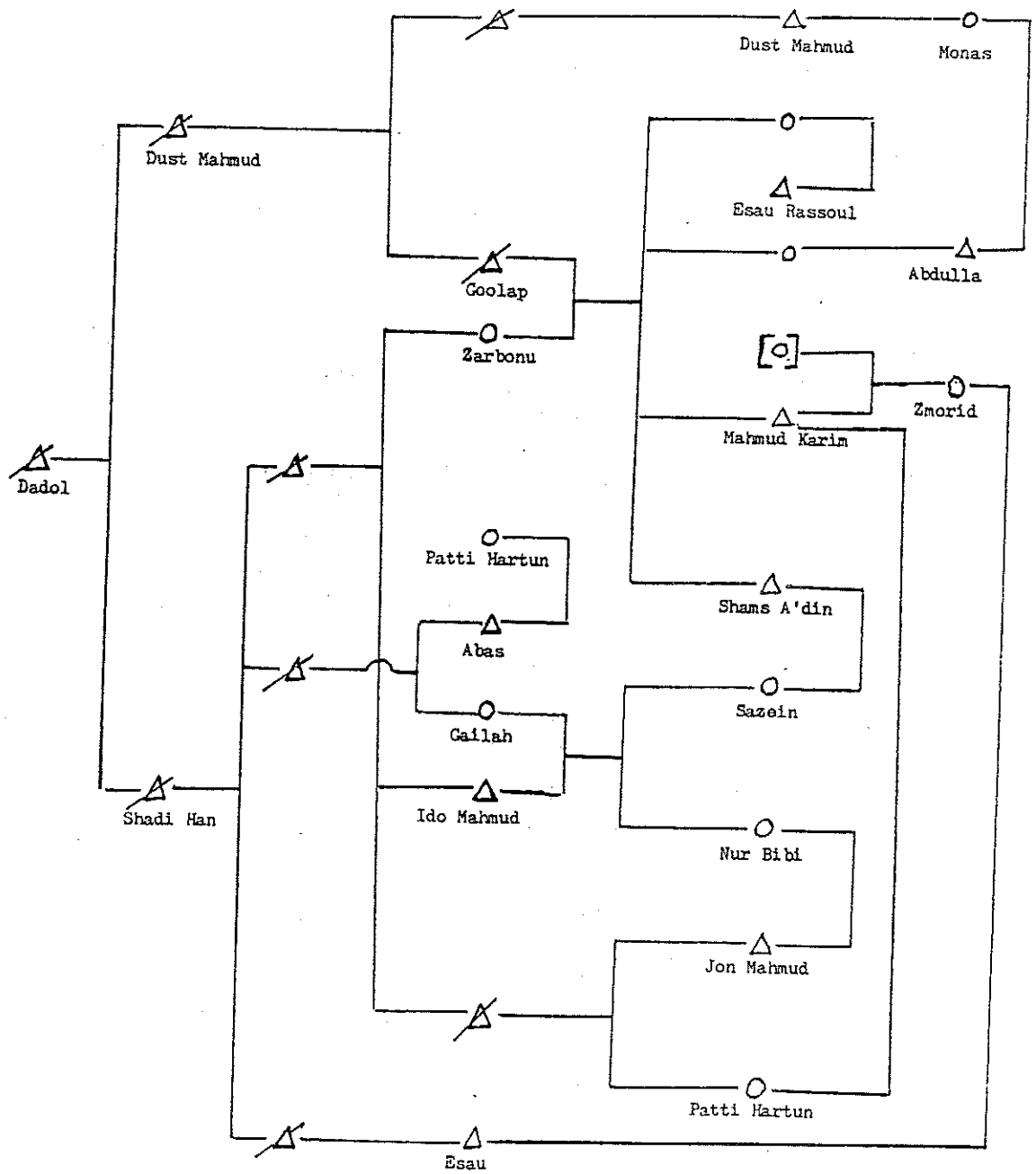


Chart 1: The 'Goolapzai' Work Team: Close Kin and Affinal Ties

patrikinsmen, and members of the Dadolzai lineage, which is vested with important collective political and welfare responsibilities.

The coordination of work and mutual assistance among the men is paralleled if not outstripped by that of the women. The borrowing and lending of supplies and equipment is virtually continuous, and daily visiting brings together hands for sharing work as a matter of course. Tasks such as cleaning wool or hair, spinning, and weaving call for and receive joint labor, as does drawing water from a well, or a trip to any water source. Sazein, Nur Bibi, Patti Hartun (wife of Mahmud Karim), Patti Hartun (wife of Abas), and Zmorid visited, shared, and worked together, thus providing the other half of the Goolapzai work team. This coordination among the women is facilitated by and also reflected in the configuration of tents in the camp.

The pattern illustrated by the Goolapzai work team is labor coordination among a number of households each with a minimum of labor power.

Another common pattern is illustrated, as described above, by the latest stage of Ja'far's associations: the alliance of a strong household, one with considerable labor power, with others of limited labor. In this case, the association is between Ja'far and his two sons-in-law, Ghulam Mahmud and Id Mahmud. Ja'far's wife, Monaz, coordinated work with her two married daughters, Bibi Nur and Gul Peri. The same pattern is seen in cases where a father's household coordinates with his sons' households.

While the work team as a social entity is based upon generalized reciprocity, all tasks are not undertaken on the basis of free cooperation. Many tasks are so undertaken, and said to be done kumaki, (literally: to help) without compensation; but some tasks--especially directly productive tasks of considerable, extended application--are undertaken with compensation specified, as in labor on date palms done charki, (literally: a quarter) for a one quarter share. (See Table 1.) Women are sometimes compensated for weaving. Such contractual arrangements for compensation are less usual between brothers, between father and sons, and fathers-in-law and sons-in-law, and more usual between work team members with less close kinship ties.

Specific reciprocity as reflected in contractual agreements is prominent in camel herding arrangements. Now because camels are mainly used for transport and riding rather than primary production, and are relatively few in number, arrangements for camel herding are secondary to those for herding sheep and goats. (The camping group, described below is formally constituted as a sheep and goat herding enterprise.) Within the parameters of the camping group, camel herding is organized. Usually, camels are herded in small groups by boys, and these camelherders are compensated according to set and agreed upon terms. Very often the camel herds correspond to the collected camels of work teams.

(See Table 2.)

Table 2: Collective Camel Herding in the Ja'far-i Halk
1972-73

Camel Herd (bagh)	Camel Owners	Camel Herder (baghjat)
A.	Ja'far Shirdelzai Reis Shirdelzai Dust Mahmud Shirdelzai Id Mahmud Mirgolzai	Rassuluk Ja'far
B.	Gemi Komeronzai Barkat Komeronzai Dadol Shadi Hanzai(1)	Mahmuduk Gemi
C.	Mahmud Karim Dust Mahmudzai Shams A'din Dust Mahmudzai Abdulla Dust Mahmudzai Jon Mahmud Shadi Hanzai Esau Shadi Hanzai Abas Shadi Hanzai Ido Shadi Hanzai	Mahmuduk Dust Mahmud
D.	Komeron Mirgolzai Sahib Dad Yar Mahmudzai Esau Jihan Shahzai Karam Miradzai	Walluk Komeron

(1) Dadol resident elsewhere.

Coordination involving contractual arrangements specifying compensation--such as harvesting dates for a quarter share or herding camels for payment per herd--is, by definition, specific reciprocity. But these contracts are part of a wider set of understandings and commitments within the work team. Members of teams expect to give and receive help from other team members over the long run. Those for whom a team member works on contract are expected to work on that team member's behalf, on the same terms, at a later time. And the same individuals are repeatedly involved in free cooperation on the basis of generalized reciprocity. Thus even contractual coordination takes place within a framework of mutuality and generalized reciprocity.

Work teams, informal associations of independent households coordinating joint and divided labor by means of generalized cooperation and specific contract, enable households with labor capacity inadequate for self sufficiency to engage in the wide range of productive activities characteristic of the diversified Yarahmadzai multi-resource economy. Work team associations are built upon a complex of kinship and affinal ties and correspond

to residential propinquity. The common interests of lineage affiliation and the commitments of kinship and affinal ties provide a basis for unity and generalized reciprocity.

Herding Groups

Local groups among the Yarahmadzai are constituted as herding groups and manifested residentially as herding camps. Household heads owning sheep and goats contract to form a flock and to hire a shepherd, and in doing so form, with their households, a residential group, a herding camp. Each herding group and camp has one and only one flock herding contract and one and only one associated flock. These contractual herding groups vary considerably in size in response to a variety of factors (Salzman 1975), and may encompass one, two, or several of the informal work teams.

Labor provision for the flock, the tribesmen's most important capital resource, requires coordination among livestock owners because of the rather small household flocks, the ongoing supervision and care required, and the many conflicting labor requirements of other sectors in which the tribesmen are engaged. First, household flocks range from a few head up to fifty, with an average below ten head in some camps. But flocks should for many reasons be between 200 and 300 head: The animals flock well together at this size, but stray and do not graze well if the flock is too small or too large. The pasturage of Baluchistan cannot comfortably support a higher density of small stock. There must be a large enough flock to provide adequate compensation, which is partly on a per animal basis, for the shepherd. Second, small stock are vulnerable and need close care, being mobile, delicate, and none too astute, thus requiring protection from human and animal predators, direction in finding pasturage and water, and assistance in illness and birth. The frequent austerity of the environment necessitates around the clock pasturing in spring and summer. Lactating animals must be milked regularly and young must be kept separate to avoid uncontrolled suck but provided access as necessary, whether or not owners are available for these tasks. In some seasons, notably the date harvest, owners' households are customarily separated from their flocks. Third, the demands of other economic sectors and of political and ritual activities preclude, as has been seen, full time devotion of livestock owners to the needs of their household flocks. Responsibility for care of the flock must thus be delegated to an agent who is capable of making a more or less full time commitment, who can be relied upon to carry out the complex and arduous tasks involved with flock supervision, and who is knowledgeable and shrewd enough to make delicate judgements with the welfare of the flock and thus the tribesmen at stake. For these reasons, the livestock owners contract with a shepherd to take charge of their combined household small stock and to manage them as a camp flock.

It is by no means easy to find a shepherd knowledgeable enough, hardy enough, and responsible enough to fully satisfy the

exacting standards of the experienced and demanding livestock owners. The demand for good shepherds is high, the compensation low, the expectations of the owners are great, and the opportunities in other sectors attractive. The low density of animals supportable on the limited pasturage in many dry years and thus the typically small flock size stunt the aggregate per animal compensation of cash payment and percentage of new offspring. In consequence, there has been in recent decades a "sellers' market" for the labor of shepherds. Livestock owners must pay more in compensation for more capable shepherds or take less in labor from less capable shepherds.

In paying less for shepherding labor, stock owners must themselves compensate by contributing labor to coordinate with that of the shepherd. Older shepherds who cannot work around the clock, young shepherds who are afraid to stay with the flock in the night, gregarious shepherds who get too lonely staying on the plateau with the flock during the date harvest season, inexperienced or slow shepherds who need close supervision and guidance, all require labor contribution on the part of stock owners, who must arrange among themselves the division and rotation of their own labor contribution to the flock.

Also part of herding strategy, as well as being part of the strategies of household maintenance, of other economic sectors, and of politics, is migration of the herding camp.⁴ Decisions about migration are made by household heads after extensive and ongoing consultation among themselves and between themselves and the shepherd and between themselves and members of their households. The collective enterprise of migration involves primarily household labor--each household packing, taking down its tent, and loading its animals, and then, after travelling to a new site, unloading the camels, setting up the tent, and unpacking--along with some coordination among work team members for arduous activities, such as loading the folded tents. The factor of labor power is an important consideration in decisions about migration; the absence of a number of camp members and a consequent diminution of labor power militates against a decision to migrate.

Migrant Labor and Petty Entrepreneurship

Other major labor formations in which Yarahmadzai tribesmen are involved exist primarily outside of the tribal arena. These labor formations are based upon short term contract, are individualized, and are fully monetized. Neither party in the contract has any long term commitment to or interest in the other party. Likewise, the parties have no long term commitment to or interest in the particular form of labor, which is usually unskilled and which is taken up and used opportunistically and left behind in much the same spirit.

Many Yarahmadzai tribesmen leave the tribal territory to work for wages in Iranian cities or in Pakistan or the Persian/Arabian Gulf, primarily as unskilled laborers on construction

projects, although Baluch are also well known in these areas as drivers and as soldiers. Yarahmadzai tribesmen almost always migrate for labor as individuals leaving their families behind in tribal territory, and work seasonally, selling their labor outside during slack times in the tribal sector and returning for busy seasons. The importance of the family cycle is evident also, for usually it is the young men, unmarried or recently married, who leave the tribe to sell their labor.

In selling their labor, tribesmen receive wages, and may gain in general experience and certain limited skills, but benefit no further from the fruits of their labor, which remains in the hands of the sponsors or owners of the projects. The single strand relationship between Yarahmadzai laborers and the managers and property owners for whom they work, the distance exacerbated by cultural, linguistic, and religious differences, is an extreme form of exchange, depersonalized far beyond any in the tribal arena.

Petty commercial activities--importing by hand duty free commodities cheaply and selling them dearly in Iran, or smuggling inexpensive but scarce goods across the border--involve less asymmetrical exchange than migrant labor, but are also monetized, short term, opportunistic, and characterized by single strand relationships. Tribesmen engaging in these activities must be able to invest capital, and to sustain the risks involved, but, if successful, can benefit from any profit that they capture.

Sale of labor in the market and petty commercial activities involve the tribesmen in purer, more extreme forms of contractual exchange and in more restricted, one dimensional work relationships, than are found in tribal labor formations. The degrees of individuation, specific reciprocity, opportunism, and monetization of labor sale and commerce lie toward the end of dimensions along which tribal labor formations are distributed.

Summary

The Yarahmadzai multi-resource economy rests upon extensive labor coordination, which is manifested in both joint and divided labor. This coordination is made possible by both generalized cooperation and specific contract. The bases upon which these are built are kin and affinal ties and collective political interests.

Labor coordination in the household rests primarily upon cooperation, in the work team upon a fairly equal mix of cooperation and contract, and in the herding group primarily upon contract. These tribal labor formations contrast with non-tribal labor which depends entirely upon contract and which involves transitory relationships with no parallel social ties or underlying collective interests.

Discussion

There is nothing obviously remarkable about Yarahmadzai labor formations. On the contrary, they seem unremarkably appropriate in the subsistent oriented, diversified economy of a nomadic tribe. Yet Yarahmadzai labor formations contrast strongly with those described in the accounts of certain other nomadic tribes. Two key characteristics of Yarahmadzai labor formations provide the points of comparison: One is the prominence of coordination in labor among the Yarahmadzai. The second is the predominance of cooperation and mutualism in Yarahmadzai labor organization.

The labor formation of overwhelming importance among the Basseri of south Persia is the household (Barth 1964). Almost all labor is carried out by the household, and the welfare of the Basseri tribesmen stands or falls by household labor. The primary supplement to the household is the small, flock herding group, which is important but highly restricted and which consists of several households within the camping group. Other than flock herding, there is very little labor coordination among the Basseri; joint and divided labor are very unusual. Households do not share tasks, supplies, or implements. The constituent households of camping groups construe their interests as similar but not common; for example, there is no common or unified policy in migration at the local level. As far as labor is concerned, Basseri tribesmen are highly fragmented in independent and separate households. This contrasts strongly with the interdependence of Yarahmadzai tribesmen and households, with the high degree of labor coordination among the Yarahmadzai. In particular, there is no labor formation among the Basseri which corresponds to the important and wide ranging work team of the Yarahmadzai.

A dominant labor formation among the Komachi, also of south Persia, is the asymmetrical labor contract between those with substantial livestock property and those without, in which labor in various forms is extracted for only a portion of the value produced (Bradburd 1980). This labor formation reflects and perpetuates economic differentiation, and thus encompasses the divergent interests of the parties to the contracts, the divergence partly obscured by a rhetoric of commonality. This contrasts with the cooperative labor and rotating contractual labor of the Yarahmadzai, which are based to a significant degree upon common interests and mutuality.

The differences in labor formation between the Yarahmadzai on one side and the Basseri and Komachi on the other are rooted in ecological, economic, organizational, and political differences between the tribes. Very briefly, the Yarahmadzai's adaptation to a very harsh environment, and their primarily subsistence orientation, militate in favor of a multi-resource economy. The tribe's distance from centers of power has militated in favor of political autonomy, independence, and decentralization. The results are a diversified economy and strong local groupings with a multitude of common interests, and

the consequence of this combination is a high level of labor coordination and mutualism. In contrast, both the Basseri and Komachi are adapted to a less harsh environment, have specialized, market oriented economies, are close to centers of power, are politically centralized in the former case and without political weight in the latter, and have weak local groupings. The results are weak common interests, social fragmentation, and household based individualization, and in consequence, a low level of labor coordination and mutualism, which reflects and reinforces differentiation and divergent interests.

The high level of labor coordination among the Yarahmadzai is in important part a function of a high level of social solidarity (*topak*) in local level lineages. This solidarity results from common interests in maintaining security. Among the Basseri security is in the hands of the chief and among the Komachi in the hands of state authorities, and thus common interests and solidarity at the local level are weaker than among the Yarahmadzai and more easily counterbalanced by differing economic interests of the constituent households. The critical factor is therefore political potency of local level groups. Yarahmadzai local lineages are invested with responsibility for defense of life and property, and are actively vigilant in fulfilling this function. Basseri and Komachi local groupings to a much greater extent depend upon others for providing security, and in consequence are not bound together by solidarity. For the Yarahmadzai, common political interests override potentially divisive economic interests, and mutual support and coordination is facilitated. For the Basseri and Komachi, divergent economic interests dominate, and independent action by households is characteristic.

The other issue that might be raised here is the significance of Yarahmadzai labor formations in the face of pressures from state integration and the penetration of the world market economy. The engagement of Yarahmadzai tribesmen with labor and goods markets outside of their tribal territory has been outlined. Also indicated has been the way in which such external market activities fit with labor demands of the tribal economy through labor formations which facilitate divided labor. It is clear from those observations that external market engagement and commitment to the tribal subsistence economy are not clear cut alternatives, that one does not necessarily preclude the other, and that the existence of one does not necessarily eliminate the other. There may even be reason to believe that the two are, in the circumstances which obtain among the Yarahmadzai, mutually supporting.

Yarahmadzai tribesmen strive to maintain an economy which provides, through the sum products of its various sectors, a total output adequate to sustain the customary standard of living, or to sustain, in periods of extreme environmental pressure, minimum welfare of the population and an economic infrastructure, including capital resources, capable of recovery when conditions change. Engagement with the market by Yarahmadzai tribesmen feeds into and supports the tribal multi-resource economy in several ways. First, market engagement

replaces extractive activities previously important but no longer a feasible source of economic input. The most notable example of such a sectoral loss among the Yarahmadzai stems from the suppression around 1930 by the Iranian state of tribal predatory raiding against Persian peasant villages and mercantile caravans. The loss of economic flow from predatory raiding into the tribal area has been balanced since the 1940s by income from migrant labor and petty commerce. Second, market engagement, by contributing to the total production of the tribesmen, supports the viability of the total tribal economic system, and thus indirectly sustains the pastoral, arboricultural, and agricultural sectors. Third, market engagement supports the other sectors of the tribal economy in more direct ways, notably by providing funds for capital investment in the other sectors. This is particularly important for young men who are able to use the proceeds of their market engagement for investment in livestock, date palms, or water rights. Fourth, market engagement provides alternative sources of income during cyclical declines or short term lapses in the productivity of other sectors. The degree of engagement can be expanded to balance exceptional losses in other sectors, which not only provides necessities for immediate consumption, but allows the capital resources of other sectors to be reserved for future expansion rather than expended to cope with current exigencies. All of these contributions of market engagement to the tribal economy are made possible by labor formations, such as the Yarahmadzai work team, which facilitate divided labor and support diversification.

The combining by tribesmen of market engagement with more traditional tribal productive activities, and the mutual support of the various sectors, is not unique to the Yarahmadzai; on the contrary, patterns similar to those described for the Yarahmadzai are found in nomadic tribes elsewhere in the Middle East. Among the tribesmen of Pakistani Baluchistan, described by Pastner (1971),

... the camp is an economically cooperative unit, containing a mixed labor pool, each segment of which is reliant on the others. Thus, for example, people who are absent for extended periods of time--scouting for new pastures or working in the villages--can only be free to pursue these activities if others remain behind to tend the animals, or, in the case of migratory married males, to watch over their women and children (175).

Thus nomads with small household herds may combine into fairly large camps

to form a large and diversified labor pool for the simultaneous exploitation of a variety of economic opportunities, both pastoral and non-pastoral, without at the same time abandoning the nucleus of animals which could provide the basis for future herd increment (179).

Wage labor as a source of capital investment for the pastoral sector is described for northern Afghanistan by Glatzer (1982) in a discussion of renomadization.

In the mid-1970s the opportunity for impoverished nomads to regain their nomad minimum (of livestock) ... had improved considerably due to wage labour in Iran.(72)

The crucial part that external income, from commerce, military service, and wage labor, has played and continues to play in Saudi Arabia in supporting the traditional Bedouin economy and way of life is strongly argued by Cole (1981). Similar observations have been made (Bujra 1973, Stein 1982) in regard to the Bedouin of the Western Desert of Egypt, among whom extended families constitute collective economic enterprises within which a division of labor enables representatives of the family, allocated partly in accordance with life cycle considerations, to engage differentially in a variety of activities in a wide range of economic sectors, both nomadic and sedentary, both traditional and modern, both customary and innovative.

Whether one wishes to stress the fact that such tribal peoples provide an unorganized pool of cheap labor for capitalist or state enterprises, or the fact that tribal peoples maintain an independent productive base by drawing on market opportunities, what is clear is that market engagement is combined in an opportunistic fashion with traditional economic pursuits and customary patterns of life. That tribesmen are able to do this is a result of the organizational efficacy of their local labor formations.

NOTES

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- ² Political patterns are discussed in Salzman 1971a, 1973, and 1983.
- ³ Further material on economic matters can be found in Salzman 1971b and 1972a.
- ⁴ Detailed accounts of nomadic migration are available in Salzman 1972a, 1972b, and 1975.

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