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GEOGRAPHY II. HUMAN GEOGRAPHY

Geography

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The primordial component of the land of Iran, since it was a sedentary world as opposed to the nomadic Tūrān, must have been situated above the level of the internal steppes and deserts, in the highland river valleys having both arable alluvial soils and plenty of water from the rainfall in the mountains. It was there, particularly in the vast Zagros chain, covered by a rather thin and easily cleared oak forest, at the level of the even sparser juniper forest of the Azarbaijan massifs, the inner edge of the Alborz, the mountains of Khorasan and those of central Afghanistan, and lastly, in the high valleys of the eastern Hindu Kush and up to the Pamirs, that there soon arose densely populated centers of population and rural life. These consisted of a fusion of semi-nomadic Iranian tribes raising cattle and horses from the second millennium B.C.E., together with earlier groups of a neolithic origin. Deep valleys and low slopes were carefully developed into leveled terraces, simply irrigated by little diversion cuts. The major rivers running down the mountains into the plains could also feed large oases of alluvial cones connected with these rainwaters, examples being Isfahan, at the north-eastern foot of the Zagros, fed by the Zāyandarūd waters; Herat, using those of the Harīrūd at the outlet of the mountains of central Afghanistan; or the numerous urban centers on the northern slopes of the Hindu Kush (Bactriana).

But a second and much more original element was soon added. At the edge of the mountain reliefs of inner Persia there developed a technique of specifically Iranian origin, namely underground draining galleries (*kārīz* or *kārēz*, an old Iranian term preserved in eastern Persia and Afghanistan, and replaced by the originally Semitic term of *qanāt* in central and western Persia). This technique consisted of catching the underground waters seeping through under the mountains and leading them, by means of canalization with a lesser slope than those of the ground water, through regularly aligned wells, to flow out above the cultivable soil of the foothills. Thus large tracts of land on the edges of the arid interior basins could be cultivated. These *qanāt* holes provide the normal sites for most of the major oases and important towns of the Iranian plateau and of the southern slopes of Afghanistan’s central mountains. The device was originally an invention of miners, used for draining mines, before being applied to farming. It probably goes back to no later than the 1st millennium B.C.E., stemming from the kingdom of Urartu, between Lake Van and Lake Urmia, where the most ancient written testimonies were found (the campaign of Sargon II in 714 B.C.E.). Promptly adopted by Iranian tribes, it became the essential instrument of their colonizing conquest of the arid plateau (Goblot). Here it was prodigiously improved, with underground tunnels today extending to up to 70 kms, and upstream wells, for excavations, more than 300 meters deep in the Yazd region. From ancient Persia this technique was later transmitted to both the western and eastern part of the ancient world, but today it is still Persia which has the highest density of *qanāt*s, with a total length calculated at 125,000 kms, and an overall output of about 480 m3/second, sufficient to irrigate a million hectares (Ehlers, 1980, pp. 91-92).

In the plateau oases as well as in the mountain valleys, there soon developed a very sophisticated system of farming, based on continual cultivation, without a fallow period, using skillful and complex rotations. Here the growing of forage, particularly alfalfa, for which Persia has certainly been the original center (Laufer, *Sino-Iranica*, pp. 208-10; Nayer-Nouri, p. 10) played an important part. A perennial lasting for several years, usually five to seven, and cut several times a year, alfalfa when watered feeds not only horses, whose strength was famous in antiquity and formed one of the foundations of Persian armies, but also domesticated livestock whose manure fertilizes the soil and ensures regular harvests. Other fertilizers of different origins and kinds are also used, so high is the demand on this intensely cultivated soil. Among them is pigeon manure, collected in the pigeon lofts that have been for centuries a familiar feature of the oases of central Persia, with references from the Mongol period (Petrushevskii, pp. 143-45). The yields thus obtained, at the price of working like meticulous gardeners and using the hoe rather than the plow, are very high. Traditionally they amounted to 30 to 40 hundredweight of cereals per hectare, in the permanently cultivated irrigated soil of mountain valleys or oases, without the use of any chemicals (figures obtained in the mid-20th century, Planhol, 1964). When there is sufficient rainfall, these irrigated nuclei are surrounded by dry-farming fields lying fallow every two years, and using sheep manure. All over the northern and northwestern parts of Persia, precipitation usually permits rainwater cultivation of cereals (Bobek, 1951), but it is in the large oases with continually irrigated crops that the real strength of the Iranian civilization has always resided, and it is in these that we find the roots of the prodigious expansion of the great Achaemenid empire.

The significance of the nomads with their horses and camels remained, on the other hand, very limited in the human geography of ancient Persia. It is true that the Iranian plateau had gone through major upheavals around the year 1000 B.C.E. The development of equestrian nomadism was marked by the correlative appearance of new fortified urban institutions (Ghirshman, 1964), while there spread all over the Iranian cultural domain the kind of fortified square-shaped building (*qalʿa*) with corner towers and surrounding walls (Rosenfeld, 1951; Planhol, 1964a, chapter 1; Turri, 1964). But the settlement of the Aryan invaders had made great headway by the time of the Achaemenids, and the picture depicted by Herodotus is one of an overwhelmingly sedentary society. In Xerxes’ army, nomads formed only a tenth of the cavalry (7.84-87). Apart from the great Sagartian tribe who lived in the climatically suitable eastern central deserts, the other nomadic tribes, the Mardians, Dropicans, and Daans (1.125) were described as backward people, essentially hunters bearing pejorative names (“the barbarians,” “the destitute”). They sheltered in caves (Quintus Curtius, 5.6), and residual enclaves scattered here and there, especially in the great Caspian forest, and appear to have been cut off from Iranian society, somewhat like today’s “tribes” of the Indian peninsula. The Zagros was at the time inhabited by semi-nomads who were well integrated into the framework of the Achaemenid state; although herdsmen in remote regions, such as the mountain Uxians (Arrian, *Anabasis* 3.18.2-5), were hardly submissive and even demanded a tribute from the Great King for his passage.

The great road from Persepolis to Ecbatana led through the heart of the mountainous region. It passed through the longitudinal valleys as the shortest route, in sharp contrast to modern times, when the main road from Shiraz to Hamadan warily follows the northern edge of the mountains, given a very different context of warlike nomadism (Gabriel, 1952, p. 9). The predominant lifestyle in these Zagros mountains was then a semi-nomadic one within valleys, with rather limited movements, like the present life of the Kurds and the Lors (well described by Feilberg, 1952). The essential means of transport in these mountain valleys was the bullock, which was still mentioned as customary in Kurdistan and Lorestān from the 16th to the 20th century. Chardin (q.v.) considered it as the customary pack animal in the Iranian mountains in the 17th century, where it was shod; and Marco Polo admiringly commented on its qualities in the 13th century, in the area between Kermān and Hormuz (all references in Planhol, 1969, pp. 306-14). This must also have been true in all the mountains of central Afghanistan.

The borderline between the predominantly sedentary world of Iran and the domain of the great nomads of Tūrān was then situated in the Khorasan and Kopet-Dag chain. Here were the last rainwater cultivations, leaving to the nomads the major part of lower Central Asia, where the sedentary centers of the great valleys irrigated by the Syr Darya, the Amu Darya and their tributaries constantly came under the law of dynasties of nomadic origin. The northern foothills of the Hindu Kush were a disputed area, where the Greek kingdoms of Bactria always faced a precarious and endangered life, despite the very Mediterranean bioclimatic affinities of the country (Rathjens, 1958) that must have facilitated their settlement. The same was true of the Atrak steppes, which sometimes produced brilliant settled civilizations and soon afterwards fell into complete decline, as they did in the 2nd millennium B.C.E., having had a period of intensive population in the 3rd millennium (Arne, 1935). The country was then abandoned until it was recolonized for a brief period in the 8th century C.E.

The changes brought to this overall geographical diagram by the Arab conquests or invasions and by Islamization have been very limited (Planhol, 1968, pp. 205-7). The Arab nomads did not penetrate into the high Iranian plateau to any appreciable extent, for it proved too cold for their dromedaries. The expansion of Arab tribes was restricted to a limited infiltration into the littoral fringe of the Fārs *garmsīr*, along the Persian Gulf. Only here were they to be found in appreciable numbers, within confederations containing a mixture of Persian-speaking and Turkish-speaking nomads, especially among the Ḵamsa. But they had previously penetrated as far as Sind in organized groups, and had no doubt largely contributed to populating Baluchistan. The artificial injection of Arab populations on the plateau and in Khorasan, especially through administrative deportations of tribes, a procedure often used by the Persian government, does not affect this basic fact. It was only in lower Central Asia, in the warmer basins, that some groups, carried along during the Muslim conquest, had really managed to adapt themselves.

The picture of nomadic lifestyles that can be established for the 10th century according to the earliest geographers writing in Arabic is thus fairly characteristic of a predominantly sedentary society. Eṣṭaḵrī (pp. 114-15) and Ebn Ḥawqal (tr. Kramers and Wiet, pp. 266-67) still considered the Kurds as the main nomads, and mentioned their relative lack of horses and camels. In Fārs, the “nomads” occupied only four districts, centered on a permanent habitat. They were in fact semi-nomads, and in one of the “nomadic” districts, Bāzanjān northwest of Shiraz, the flocks of the governor of Isfahan (ipso facto an urban figure), who was very far from there, happened to mingle with those of the region (according to Ebn Ḵordāḏbeh; cf. Schwarz, *Iran* III, p. 139). Further east, the country south-east of Jīroft up to around Hormuz to the west and around Makrān to the east was occupied by the Qofṣ, who were brigands rather than nomads, and were said to travel more often on foot than on horseback (Eṣṭaḵrī, 164; Schwarz, *Iran* III, pp. 260-67). The Kurds, whom Eṣṭaḵrī describes as scattered all over Persia seeking both summer and winter pastures, had meanwhile started to extend their migrations, no doubt following the Arab conquest. But they already showed a proclivity for settling down (Schwarz, *Iran* VIII, p. 1249).

The medieval Turco-Mongol invasions and the establishment of new centers of population. It was, however, due to the penetration of nomads from Central Asia that the existing balance of lifestyles was totally disrupted from the 10th century on, leading to the establishment of a new map of human regions which has largely persisted to this day. The Turks and Mongols found a suitable environment on the high Iranian plateaus with their cold winters, where the technique of crossbreeding the camel and the dromedary led to very flexible adaptations. They arrived en masse. The short-range pastoral migrations of semi-nomads riding their peaceful bovines in the valleys were succeeded by the vast oscillations of a mountain nomadism sometimes extending over several hundreds of kilometers. The term “bedouinization” lends this transformation a concrete expression. For medieval sources often call the Turkish nomads “bedouins,” and besides, a large number of Middle Eastern Turks and Mongols exchanged their traditional yurts, which were warmer but heavy and cumbersome, for the much lighter and more manageable black goat-hair tents (Feilberg, 1944).

The repercussions of this vast overall nomadism on Iranian rural life were immense (Planhol, 1968, pp. 210-12). All sedentary life disappeared from vast regions. A characteristic example is Moḡān/Mūqān, south of the lower Araxes. Mūqān was known by the earliest geographers writing in Arabic as a prosperous little town; it was admired by Moqaddasī. In the 13th century, Yāqūt described it as a region mainly inhabited by Turkomans, where although there were still towns, the whole terrain was mainly pastureland. Qazvīnī, in the 15th century, mentions it purely as a winter quarter for Tatars (i.e., Mongols; all three references in Schwarz, *Iran*, VIII, pp. 1086-94). And these “Moḡān steppes” are still occupied by nomads today. This is an example of direct bedouinization. But the indirect consequences are just as important, because of the conversion of native populations to a vast warlike nomadism within a general context of ruin and devastation. This is true of the Baluch, who speak a northern Iranian language and come from regions north of the Great Kavīr (Frye, 1961). It is probably from there that the first Turkish invasion drove them into Kermān. Here the Arab geographers mention them in the 11th and 12th centuries, before the Saljuq conquest of Kermān, followed by the Mongol invasion, pushed them eastward to Sīstān and Makrān, then further into the Indus basins, where they formed nomadic tribes of pillagers devastating all of south-eastern Persia. The vast nomadism of the Pashtu tribes of southern Afghanistan’s semi-deserts, the Dorrānī and Gilzī (whose names probably derive from the primitive Turkish Kalač group), may also have been a repercussion of Turkish invasions, causing these originally semi-nomadic mountain dwellers of central Afghanistan to travel much farther afield (Schurmann, p. 45).

The crucial episode was the Mongol invasion and the devastation it caused, followed by a spectacular regression of sedentary life in many regions where even peasants were forced to adopt a nomadic life. Marco Polo, who was traveling at the time, left a valuable testimony about the villages abandoned in the highlands south of Kermān, where there were merely shepherds left, much like today (Marco Polo, p. 40). Understandably, the Turkish terms for winter and summer quarters, *qešlāq* and *yaylāq*, were used by Persians all over northern and central Persia (Doerfer, *Elemente*, III, pp. 479-81; IV, pp. 252-54) in lieu of the native terms *sardsīr* and *garmsīr* (q. v.). Proofs of this decline of settled life are plentiful all over Persia. Ruined villages and remains of abandoned fields can be seen here and there, particularly in the Zagros (Herzfeld, 1907, p. 60; Feilberg, 1952, p. 85; etc.), where the spread of weeds such as *Phlomispersica* over vast areas at an altitude of 1,500 to 2,000 m points to extensive cultivation in the past (Pabot). The study of certain forms of black tents in Baluchistan has also shown that they are directly derived from the arched huts of semi-nomadic peasants, witnessing the transition from a limited semi-nomadism to a vast warlike nomadism (Ferdinand, 1959). The ravages caused by nomads have continued until recently. In the early 20th century, the oases of Nīh and Dehsalm, in the Lūt desert, were destroyed by Baluchi raids (Stratil-Sauer, pp. 11 and 20).

One region, however, remained on the whole intact. The humid and wooded areas of the Caspian district, Māzandarān and Gīlān, presented these camel-driving nomads with an insurmountable bio-geographical obstacle. Their camels could not adapt to this warm and humid climate. The only nomads who infiltrated these regions belonged to a detribalized category, often reduced to the status of poor itinerant craftsmen (Melgunof, 1868, p. 212; Planhol, p. 56). Thus sheltered from medieval bedouinization, this Caspian fringe, which had long remained insalubrious and depressed, came to enjoy an exceptional human continuity in Persia. In modern times, the distribution of the population thus changed in favor of these forested regions, which had only rarely been cleared in antiquity, and which are today marked by the densest rural population in Persia (1,600,000 inhabitants for Gīlān alone, the delta and lower Safīdrūd basin, on 13,000 km2, in the 1960s). In this secure context, there developed a type of loosely ordered or even clearly dispersed habitat.

Outside this unique large-scale regional exception, there were sedentary cells here and there, but they were close-knit, hanging on to their particularly favorable sites and situations. There thus survived a certain number of large oases of an urban type (Isfahan, Yazd, Kermān, Shiraz, etc.,) which did not escape devastation (almost the entire population of Isfahan was massacred by Tīmūr) but were saved by their sheer mass. This prevented the total destruction of the infrastructure and provided permanent bases for reoccupation. Yet many of those that were smaller or had inadequate water resources disappeared completely when their water conveyance was destroyed. In addition, irrigated areas went through a drastic decline, which has been mapped for Ḵᵛārazm (Tolstov, 1948a and 1948b).

Cells of this kind have mainly managed to subsist in deep mountain valleys and in gorges that were of difficult access to nomads. These centers of resistance are quite numerous in the chains of northern Persia, in the Alborz or the massifs of Azarbaijan. In the Alborz, the great volcanic massif of Damāvand has been abandoned to nomads in its southern and western parts, even though these show numerous traces of ancient farming. This was a favorite *yaylāq* for Tatars wintering on the inner edge of the Alborz, and it was here that in 1404, Clavijo, the Spanish ambassador at the Timurid court, paid a visit to Tīmūr, whom he found in the midst of his horde estimated at 3,000 tents. The same grassy slopes were to become the favorite summer resorts of the Qajar monarchs in the mid-19th century, and are even now devoid of permanent settlements.

On the other hand, Lārījān, a small region with settled villages, survives on the northern and eastern slopes of the volcano, on the high shelves cut up into terraces in the tuffs above the breathtaking gorge of the Harāz. It controls an important road connecting the Iranian plateau with the Caspian, and was the base of a small principality which was almost independent from the Tehran government up to the mid 19th century (Planhol, 1964a, pp. 17-36; 1966, pp. 294-98).

In Azarbaijan the great volcanic massif of Sahand, south of Tabrīz, with its large villages resembling cave-dwellings, its irrigated terraces and its pastures with their short grazing season on the neighboring slopes, presents, despite its Turkish-speaking population, a rural countryside typical of old Iranian mountain life. These Turks have become Iranians as regards material culture. They have almost completely discarded the tents which are so common among the peasants of neighboring Turkey. The toponymy of the mountain, which is still largely pre-Turkish, provides an explanatory element by showing that there was no discontinuity in the occupation of the soil. The old Iranian agrarian civilization was strong enough to put down its roots and survive the ethnic transformation. This was due to its incomparable technique in dealing with the mountains, so that the newcomers, simple shepherds without any equivalent tradition, quite naturally adopted the ways of their predecessors. The linguistic assimilation took place without any brutal revolution, and the landscape has shown remarkable rural continuity (Planhol, 1958; 1960; 1966, pp. 303-6.)

From this viewpoint, particular attention must be paid to the remarkable pivot of sedentary resistance formed by the median chains of Afghanistan. Here, from the Hindu Kush to the Pamir and down to the neighborhood of Herat, we can recognize the entire range of transitional forms, from the permanence of ancient rural traditions to the already very advanced submergence in nomadic lifestyles. Between the migratory regions of the steppes of Central Asia and Bactriana on the one hand, and the Helmand and Baluchistan basins on the other, these mountains clearly form a realm of persistent residual ethnic groups and their lifestyles. But the north-eastern and eastern sectors, which are higher, wetter, and particularly inaccessible, present the most favorable conditions for their stability. It was here, east of Kabul, in the deep valleys of the southern slope of the mountain, above the Jalālābād basin, that some tens of thousands of Kafirs ("pagans") who had resisted Islam until the late 19th century, were able to subsist. Their social structure was not hierarchical and they spoke mutually unintelligible languages from one valley to the other, waged ceaseless internecine wars and lived in an atmosphere of constant insecurity. This was reflected in their big, densely populated villages which were difficult to get to and surrounded by obstacles, laid out as they were on dizzying slopes. Yet by carefully developing the bottom of their valleys into irrigated terraces, the high slopes into rainwater cultivation and the mountain tops into pastures, they managed to lead a basically balanced life (Robertson, 1896; Voigt, 1933; Scheibe, 1937; Snoy, 1962). Indeed in their common attachment to the ancient Iranian rural tradition, they hardly differed from the earlier settled, Islamised, populations, such as the Tajiks, who occupied the entire north-eastern sector of the Afghan mountains and neighboring Tajikistan (Snoy, 1965; Grötzbach, 1972; Kussmaul, 1965 and 1965a; Senarclens de Grancy and Kotska, 1978). These were settled in big, densely populated villages and exploited their valleys with care and efficiency, having chosen them in places that were usually easy to defend and impervious to any nomadic invasions. The fact that the latter, unlike the inhabitants of the Pamir valleys, who still use the archaic Iranian languages of the north-eastern group, all speak neo-Persian dialects in which they could communicate with speakers of the literary language of Persia, reflects their early integration within the great currents of cultural relations going through Muslim Persia. The only nomadic group that could penetrate into this strictly impervious mountain world were small groups of Kirghizes coming from western Tien-Shan, which they had occupied since the 17th century. They had spread on the Pamir heights above the village communities in the valleys, at least until their recent exodus, after the 1979 revolution, towards Pakistan, whence most of them re-settled in eastern Turkey (Shahrani, 1979; Dor, 1979).

But the part played by elements of recent nomadic origin acquires much greater importance in the highlands of central Afghanistan, where a more complex mixture has developed (Bacon, 1951; Ferdinand, 1959a, 1964; Schurmann, 1962). Populations known under the name of “Hazāra” here speak a neo-Persian dialect which indeed differs little from that of their Tajik neighbors, although it contains a particularly large number of words of Mongol and Turkish origin (Dulling, pp. 43-45). However, their anthropological type shows a strong presence of Mongoloid elements, much of which could go back to the armies of Čengīz Khan, who more or less infiltrated into this region (the name Hazāra, “the thousand,” is itself an obvious allusion to the grouping of a thousand soldiers which formed a basic military unit of Mongol society). And the fact that there exist even today, within these central mountains southwest of the Hazāra country as such, several thousand Mongolian speaking people, tends to confirm it. These have indeed spread since the late 19th century over several parts of the northern slopes, carried along by the great northward expansion of the Pashtus (see below). However, there have been attempts to trace back their physical features to a much earlier period than that of the medieval invasions, and to consider them as proof of an ancient Mongoloid anthropological unit going from Hazārajāt to Tibet, and having preceded the penetration of Indo-Aryan elements by which they were supplanted. Comp-arative lexico-statistic studies support this theory and point to the absence of any proof of a common origin between the languages of the Hazāra and those of the present Mongols of Afghanistan. The name “Hazāra,” they claim, is merely a late popular term for populations already known to Ptolemy under the term “Ozola” and by Hsüan-Tsang under the term “Ho-sa-lo,” which is probably of Turco-Mongol origin, but was Iranicized long before Čengīz Khan (Foucher, 1942-47, I, pp. 179, 189; Weiers, 1975).

No matter at what date they actually settled in the Hazārajat, the various Mongoloid populations bear testimony, in their lifestyles and habitat, to the importance of Mongol and Turco-Mongol elements in the make-up of the Hazāra group. They are largely semi-nomads, and their temporary summer homes on the heights more or less resemble the Mongol yurts made of felt, or the huts derived from them. Even more significant than the criterion derived from their temporary dwellings, which has to be handled with caution (Balland, 1991), is the analysis of the Hazāra’s agriculture and their rudimentary way of using the soil, which points to their recent nomadic origin. A careful comparison of the system of farming between a Mongol group who preserved their language in the Gor, southwest of the Hazāra country, and their Tajik neighbors, thus showed major differences despite the much earlier settlement of the former (Schurmann, pp. 256-301). The Mongols divided their land into two concentric zones, a central nucleus which was manually manured, but exclusively produced wheat without regular rotation, and an outer ring left fallow and fertilized by the passage of livestock which was taken there, with the summer tents, after the harvest. With the Tajiks, the central nucleus was much larger, with regular rotations of a variety of crops, while the passage of livestock played a much less important part. Despite the lack of such detailed studies in the Hazāra country properly speaking, similar conclusions may certainly apply there. The mediocrity of the irrigated nuclei and forage cultures, the almost absolute preponderance of cereal growing, which is only just being supplemented by the development of the potato as a basic element of subsistence, contrast strongly with the intensively farmed soils of the Tajiks. The Hazāra remain linguistically Iranicized Mongols, but they have hardly adopted the old farming traditions of the Iranian mountains.

In the western part of the central mountains, the originally nomadic elements in population and lifestyle definitely prevail, while ethnic divisions also assert themselves, leading to a very complex medley. It is the country of the Aymāq (q.v.; Schurmann, pp. 49-72; Janata, 1962-63; Ferdinand, 1964; Rasgidov, 1977), a word of Turko-Mongol origin meaning “tribe,” a term usually preceded in the regional language by *čār*, from the Persian *čahār* (four), an association symbolizing the diversity of the components. It appears to be a rather artificial association, for popular awareness does not agree on the exact identification of these “four” tribes (the most current enumeration consists of the Jamšīdī in the northwest, the Fīrūzkūhī in the north-east, the Tīmūrī in the southwest and west of Herat on the Persian border, and the Taymānī on the southern slope, but there exist other versions, the Tīmūrī being sometimes replaced by a group of Hazāra in the northwest). It is highly probable that this division expresses a classification imposed from above: the number “four,” which assumes a highly symbolic value in eastern culture, must represent an effort by an external power-which can only be that of the Timurids of Herat in the 15th and 16th centuries-to put some order into a tribal chaos where they found it difficult to impose their authority (Ferdinand, 1959a, p. 10). Be that as it may, these populations present common aspects despite their internal complications. They speak neo-Persian dialects and are much more mobile than the Tajiks or even the Hazāras. They are usually semi-nomads whose movements between villages and summer pastures often extend over several dozens of kilometers (Planhol, 1973). But the nomadic influences explaining this mobility have been very diverse. While Turko-Mongol and northern elements were certainly predominant in the ethnic make-up of the Jamšīdī, the Fīrūzkūhī and the Tīmūrī, whose temporary dwellings and summer huts were always more or less cylindrical and based on the yurt, the Taymānī had black tents of a very particular trapezoid shape, which definitely reveal southern influences.

The evolution of nomadism and the simultaneous repopulations. The medieval upheavals, in which large-scale nomadism in certain regions contrasted with individualized trends towards sedentary life, provided the main outlines for the Iranian world's human geography. The subsequent evolution was thus marked by a progressive tendency towards the settlement of the nomads and a renaissance of sedentary life.

However, this was a slow evolution. Further nomadic currents prolonged the process of bedouinization for several centuries. In the 14th and 15th centuries, there was a movement by groups of Turks from Anatolia to return to Persia. This movement reached its peak in the 16th century after the seizure of power by the Safavids and the subsequent Shiʿite ascendancy, which brought about a massive influx to Persia of Shiʿite nomads exposed to the hostility of the Sunni sultans of Istanbul. Thus even the Tekelü from the distant Lycian peninsula (southwestern Anatolia) returned with their 15,000 camels to Azarbaijan, which had just become completely Turkish in this period (Planhol, 1968, pp. 228-29).

Meanwhile, these nomadicized areas gradually reached a state of near total saturation due to their steady demographic growth. Dispersion had made them almost immune to the epidemic diseases which had been the major cause of mortality within the traditional sanitary structure. Reaching this stage of saturation involved a spontaneous expulsion, with each generation, of the surplus nomadic population towards a sedentary society. Social and economic mechanisms drove the impoverished or defeated elements to seek their means of subsistence in more intensive agricultural production in a limited space, within the framework of the nomadic aristocracy's land seizures. In Fārs, it was estimated that with each generation, before the contemporary changes in sedentary conditions and lifetimes, half of the settled population was of nomadic origin, with the peasantry forming the main source of drainage for this regular demographic excess of tribes (Barth, 1961). Due to the growth of these settled nuclei, and in this saturated space where all available pastures are the object of fierce competition between various nomadic groups, their itineraries and routes have to be strictly organized, and politcal power exerted. This is the stage of the “large confederations” (Barth, 1961; Planhol, 1968, pp. 229-30; Idem, 1993, p. 50, 539 ff.), powerful and highly centralized structures which developed in the 17th to 19th centuries, the Baḵtīārī, Qašqāʾī, Ḵamsa in the Zagros; the Šāhsevan in Azarbaijan; the Dorrānī, Gilzī, and Kākar in southern Afghanistan; and the Čār Aymāq in western Afghanistan. These gigantic groups appear to be the ultimate and most advanced expression of the coexistence of nomadic and settled people in a state of equilibrium, within a geographic milieu of a sedentary calling, before the scales definitely tipped towards settled life. Nowhere has this regulation of space been more precise than in Fārs, where it ended up grading various groups in terms of their respective aptitudes to cope with the mountain milieu—a precise stratification which usually placed the Turks on the higher levels, the Arabs on the lower ones, and the Iranians on an intermediary one (Barth, 1959-60).

As suggested above, despite famines and epidemics, the sedentary rural population continued to grow faster than the nomadic one. This slow stabilization could be artificially put off or accelerated by the central government. It was thus that from 1935 on, Reżā Shah adopted a general policy of forced settlement which he brutally continued until his abdication in 1941. Although many of the new dwellings thus created were subsequently abandoned, this phase has left its traces all over the country, and especially in the Zagros, in the form of several hundreds of villages. This policy was resumed in 1957, when the central government felt again strong enough to intervene, while in the steppes of Mogān the Šāhsevan developed a settlement on the area irrigated by the Araxes dam (Schweizer, 1970, pp. 137-142; Tapper, 1979). In Afghanistan, however, where the emirs of Kabul had long relied on the Pashtu tribes to spread their influence over the country (see below), nomadic life was dynamically maintained. However, in both cases, the actual numbers of the nomadic groups have hardly changed during the last century, although relatively speaking, they considerably diminished compared to a steadily growing rural population. In the mid-20th century, only half of the 400,000 or so Qašqāʾī were migrants (Oberling, pp. 233-36), and in 1976, there were hardly more than one-third (Kortum, p. 76). In the 1970s the migrating fraction of the Baḵtīārī only amounted to a third or a fourth of the total number (Ehmann, p. 81; Digard, pp. 3, 18). In the same period, there were no more than 10,000 families of Afšār nomads, i. e., 8 percent of the population of the province, against 40 percent of the same population at the beginning of the century (Stöber, pp. 177-178). Meanwhile, the old sedentary nuclei grew. The mountain villages, which had long reached the limit of their capacity to extend their irrigated soils in the valleys, responded to the demographic pressure by developing summer pastures on the neighboring mountains, whence they forced back the last nomads (Planhol, 1960, for the Sahand). But the irrigated areas in the plain were considerably enlarged, especially by digging deep wells on the periphery of the big oases of central Persia, in the vast valley of Khorasan and the high basins of Fars; or by benefiting from the big dams built in Ḵūzestān, Gīlān (Safīdrūd), the lower Helmand in Afghanistan, etc. The regional contrasts inherited from centuries of nomadic life remain the basic principles for distributing the rural population, but they are clearly toned down today.

BIBLIOGRAPHY

see next section.