

1957

A Development Project and Culture Change in an Iranian Village

George J. Jennings
Northwestern College

Follow this and additional works at: <https://digitalcommons.morris.umn.edu/jmas>



Part of the [Anthropology Commons](#)

Recommended Citation

Jennings, G. J. (1957). A Development Project and Culture Change in an Iranian Village. *Journal of the Minnesota Academy of Science*, Vol. 25 No. 1, 309-325.

Retrieved from <https://digitalcommons.morris.umn.edu/jmas/vol25/iss1/43>

This Article is brought to you for free and open access by the Journals at University of Minnesota Morris Digital Well. It has been accepted for inclusion in Journal of the Minnesota Academy of Science by an authorized editor of University of Minnesota Morris Digital Well. For more information, please contact skulann@morris.umn.edu.

GEORGE J. JENNINGS

Northwestern College, Minneapolis

ANTHROPOLOGY

A Development Project and Culture Change in an Iranian Village

Americans have formulated and initiated various programs to alleviate economic and social distress in "undeveloped" countries since World War II. These efforts to aid technologically retarded peoples have created a number of culture-contact situations which are excellent laboratories for the cultural anthropologist to test hypothetical concepts in the theory of cultural dynamics. Some of these development schemes have been introduced in Iran and have brought Western culture into direct contact with rural communities where significant changes have followed.

The purpose of this study is to examine the process of acculturation in a specific community and to predict possible changes in future cultural forms and functions by employing methodological and conceptual tools of cultural anthropology. The central problems are suggested by these questions: Is it possible to confine culture change to technological and economic improvement without seriously affecting the total culture including the ideational set of values or the "themes" of the culture? Are the Western innovators aware of the ramifications and possible disintegration involved in their improvement projects? Why is it that in some culture-contact situations, Western forms prevail while traditional Iranian forms succumb? Do some of the generalizations about culture change in the Middle East, or elsewhere, hold true when tested in a specific community? The available data and the scope of this paper will permit only a few suggestions and probable answers to these questions.

THE CULTURE-CONTACT SITUATION

The Near East Foundation, a branch of the Rockefeller Foundation, selected five villages on the Veramin Plain, twenty-five miles

southeast of Tehran, to launch a pilot project to improve the peasant's welfare by education, sanitation and new agricultural methods. This multiphase scheme began in 1946 at the invitation of the Iranian government which, under influence of the West, had become increasingly aware of its peasantry's poverty, disease and illiteracy. This cognizance of rural conditions did not arise from a crisis or even a marked deterioration in village life, but it is related to the recently improved economic status of urban dwellers. Despite huge petroleum resources and production in Iran, the peasant's circumstances remained essentially unchanged, for "practically none of the financial benefits which have accrued to Iran as a result of the discovery of oil have seeped to the 80 percent of the population which ekes out an existence from agriculture" (Hadary, 1951:181).

The Veramin villages offer a number of advantages as the scene for the Foundation's first pilot project. They are owned by a charitable organization which directed revenue received from them to maintaining a girls' orphanage and thus the owners were theoretically sympathetic to bettering life for the villagers. Whatever changes and improvements to be achieved will not be identified with the traditional feudal-like system which enables wealthy landlords to exploit the peasants, and whatever economic advances to be attained will not enlarge the landlord's income but will benefit the farmer and the orphan. These villages are also strategically located near the capital where the program can be observed readily by interested national leaders and officials who, it is hoped, will encourage dissemination of the ideas and practices throughout Iran.

The Foundation's first director in Iran, L. J. Hayden, negotiated the contract with the Veramin Endowed Properties, the charitable organization holding the five villages. The contract included provisions enabling the Foundation to conduct primary schools, adult classes, clinics, and similar activities in the five villages; it permitted the introduction of sanitation features, as the building of latrines and insecticide spraying; and the agreement called for the lease of a ten-acre garden and twenty-five additional acres of land in one of the villages, Mamazan, for practical experiments in crop and animal husbandry and where the Foundation's personnel "would live among the people they were trying to serve" (Allen, 1953: 4-5).

Hayden's policy for attacking the problems confronting the development program was made up of these basic questions: Is the innovation within the range of practical adoption by the peasants? Will the acceptance of the ideas or techniques actually improve their welfare? In contemplating the answers to these questions, the director sought to evaluate each innovation in its potential disintegration to existing cultural forms in order to avoid "doing violence to the general social pattern" (Hayden, 1949: 146).

Notwithstanding this precautionary attitude, the situation is in effect what has been called "directed culture change" wherein "one of the groups in contact interferes actively and purposefully with the culture of the other". There are at least two fundamental reasons for probable sweeping culture change in the project. First, there is a determined effort to better living conditions as these are understood and defined by the peasant's value system rather than the unintelligible and impractical ideals that had characterized schemes proposed by government officials content with existing patterns. Hayden was aware that Iran had agricultural schools, but he also noted that their efforts contributed little to rural improvement because their philosophy and curricula were oriented toward sustaining the traditional landlord-tenant system. A second reason for likely change is that the Western prestige phenomenon, which has been a principal force in effecting alterations throughout the Middle East, has been introduced into the village by the presence of its symbols, apparel, vehicles and implements. Prolonged impoverishment has not obliterated a cultural interest in human dignity among the villagers who are sensitive to their social anachronism; therefore, they, too, are attracted by the prestige symbols which they believe will improve their lot.

Before analyzing some of the significant innovations and their consequences in acculturation, it may be helpful to briefly describe the village selected by Hayden to be the focus of the development plan; for Mamazan presents the point at which the greatest effort for change is being made.

THE VILLAGE OF MAMAZAN

Located 25 miles southeast of Tehran on the fertile soil of the alluvial fan of the Jagirud (Jagi River), Mamazan is a compact settlement of rectangular, dome-roofed, mud huts enclosed within

a ten-foot mud wall. Narrow alley-like passage ways (*kuchehs*) divide and subdivide the village into a series of small compounds, each of which is characterized by three aligned rooms facing a yard set off by a four-foot mud wall. The windowless rooms are usually a "living room" furnished by bedding rolls, locally-woven rugs (not to be confused with the famous Persian rugs made by specialists), a trunk, a few dishes, a brazier (*koursi*), and commonly a samovar; a three-walled room with a mud oven for cooking and storage; and a store-room (*ambar*) which also may be used as a livestock shelter. The entire family spends most of the daylight hours outside of the rooms and even the women perform nearly all of their domestic chores in the houseyards.

A ten-acre garden (the one leased by the Foundation) enclosed by mud walls is separated from the village by a secondary road leading from the main Tehran-Meshed highway to Palisht and other Veramin villages to the south. Beyond the village and garden walls, small, unfenced, irregularly-shaped fields form a mosaic pattern outlined by the irrigation ditches. The principal crops in the order of importance are wheat, barley, legumes, and cotton; vegetables, melons and fruit are grown in the garden. The non-irrigable lands, mostly remote from the dwellings, offer limited grazing for the villagers' sheep, goats, and cattle. The site of Mamazan, together with its field and pasture pattern, clearly reflects the fundamental dependence of agriculture upon irrigation water which, before the Foundation's project, was derived solely from a diverted share of surface flow from the Jagirud. Arable land is not in short supply in Mamazan but an adequate source of water has been a perennial difficulty, for only about one third of an estimated six-hundred tillable acres could be amply irrigated to produce a crop in a given year; the other two thirds was left in fallow for one or two years.

Mamazan has no bazaar, mosque, or public buildings other than a public bath recently installed under the Foundation's direction. Villagers make their limited purchases in the bazaar of nearby Palisht, where they can also visit a small mosque. Itinerant merchants, who travel by donkey, camel, and more recently by bicycle, visit the village to trade cloth, utensils, tea, sugar, tobacco, and trinkets for grain, eggs, and other produce. A few peasants occasionally journey to

Tehran by bus on the nearby Tehran-Meshed highway to visit friends or family members who have migrated there, and they may make some purchases before returning home.

SOCIAL, ECONOMIC, AND POLITICAL FEATURES

About 25 families live in Mamazan with an approximate population of 130 people. The households range from a minimum of two persons, a newly married couple, to a maximum of seven which includes a married couple, four unmarried children, and a paternal grandparent. Most women bear from six to eight children but the high infant (up to two years of age) mortality rate reduces the maturing number to three or four. Kinship in the extended family of the father gives the society a clan structure, for the society is patriarchal, patrilineal, patrilocal, and endogamous with preferred marriages between children of male siblings. Polygyny is permitted in this Moslem community but the villagers' economic status prevents its occurrence.

Mamazan's economy is essentially subsistent in that most of life's necessities are produced locally although some items such as tea, sugar, utensils, cloth, and tools are acquired through barter. The division of labor is one in which the men and older boys engage in crop growing, animal husbandry, building and maintaining dwellings, and the heavier tasks of gardening. The women and older girls perform the common routine of domestic chores including cooking, spinning, sewing and weaving, gardening, milking, caring for infants, and assisting in the harvest fields. A task for the women is the forming of dung into cakes to be dried on walls to be used for cooking fuel in this area largely devoid of other sources. Both men and women possess private property in the form of animals, implements, household goods, and clothing but neither own land. With the exception of household utensils and women's clothing which are given to daughters, inheritance is to sons, the eldest having the priority and major proportion.

Beside the family and lineage, the *buneh*, or cooperative working unit, is a significant feature in the social structure. Four farmers band together with two yoke of oxen to cooperatively till the maximum field area possible under traditional method and technology; this area averages about forty acres of plough-land which, together with the men and oxen, is labeled the *buneh*. Endogamy, kinship, and the small

size of Mamazan causes the *buneh* to be closely interwoven and strengthened by family ties. But not all farmers possess oxen. To be members in this essential working unit, it is necessary for them to lease the draught animals from a villager who owns several head, the *govband*, a man of higher social status and greater political influence.

The *govband's* position in the social structure, and the hapless state of the peasant who owns no oxen, can best be appreciated by a brief look at the traditional tenure system. Crop production in the Veramin area involves five contributory elements: land, water, seed, draught animals and implements, and human labor. At harvest time the crop is divided into 5 parts with one part allocated to each elemental contributor; thus, if only labor is involved, as is the case of some Mamazani, only $\frac{1}{5}$ of a crop from ten acres is the amount received. If, on the other hand, the *govband*, the owner of several oxen, leases his beasts to various farmers, he has claim to $\frac{1}{5}$ of a ten-acre crop for each leased animal, or an income several times greater than the oxenless farmer. Frequently the *arbob*, or landlord, provides the seed in addition to owning the land and water, hence he has legal claim to $\frac{3}{5}$ of the total village crop! It is not difficult to understand the exploitative nature of this tenure system; however, in Mamazan, where ownership is vested in a charitable group, greater tolerance prevails.

Also of high status in the structure is the position held by the *dashtban*, or water overseer, who directs water distribution and allocates the limited supply to various fields and for domestic uses. This post with its prestige emphasizes the critical nature of water in this arid region which averages less than 10 inches of precipitation annually. To retain his prestige and political influence in the village, the *dashtban* must demonstrate his ability to predict the amount of land to be sown in a given year on the basis of his estimate of supply. Only the village headman outranks the *dashtban* in making final decisions.

The intermediary between landlord and tenant in Mamazan, as elsewhere in Iran, is the *kadkhoda*, or village headman. This is a man of greater wealth, is literate, and has general approval by leading villagers although he is legally appointed by the landlord who also compensates him for his administrative services. The *kadkhoda* arbi-

trates in minor disputes but refers serious matters as major theft or assault to provincial officials; he is considered the local constable by the government to care for the certifying of marriages, births, deaths, and verifying young men of draft age for compulsory military service. Coon aptly describes this thankless office by concluding that "In any case the landlord needs an agent or intermediary, a man of strong enough character to exist between two fires and to withstand the villagers' wrath against their fate . . . (Every *kadkhoda* I have seen has worn a permanent look or harrassment)" (1951: 183). The *kadkhoda's* tasks in Mamazan are less onerous than in the typical village because of the benevolent nature of landlordship.

The *mullah*, or religious leader, must be considered in the social fabric by nature of his influence and decisions. Mamazan has no "resident" divine but is visited frequently by the spiritual leader from Palisht. Some fanaticism and extreme conservatism are common characteristics of Islamic religious leaders, but, with certain exceptions, the local *mullah* has been generally favorable to technological innovations, a tolerance also detected by other development projects in Iran (Warne, 1956: 204).

To appreciate the *mullah's* influential role, one must bear in mind that all Mamazani are automatically members of the Islamic faith (the Shi'a branch) by the fact of their birth in the village. The notion of questioning this relationship, or of altering one's religious identification and allegiance, is totally foreign; and there is an accompanying subjective view of life which becomes a principal component of their ethos. This is not to imply that Islam is theologically "pure" among the villagers as it may be in seminaries; it is quite otherwise for it appears to be a curious blend of animism, animatism, and Shi'ite mysticism which Patai aptly describes as "polytheo-demonism" (1954: 239). Nevertheless, the *mullah* is the voice of authority in a culture whose main theme is the will of Allah.

WESTERNIZING INFLUENCES

It would be naive indeed to hold that culture contacts and change had not been experienced in Mamazan prior to the Near East Foundation's project. Iranian villages, though less immediately and drastically affected than the cities, have undergone change resulting from repeated contact with other peoples throughout their history. The

glib generalization that the Iranian peasant farms today precisely as he has for thousands of years is wholly inaccurate.

In Mamazan, a village a century old, after the World War I, the contacts and changes became more frequent through Reza Shah's modernization plans. True, the Shah's Westernization program was focused upon Tehran and urban life but there was a steady trickle of Western ideas and items into nearby Mamazan as well as more remote villages in consequence of new roads and communications (Beckett, 1957: 145). Before the Foundation introduced itself in the village, the peasants had devised multiple uses for empty petrol containers, the women preferred English textiles and chinaware to their traditional types, many had listened to radios found in larger villages, and some had begun to make occasional visits in Tehran by bus.

Even though there are common origins, cultural affinity, and there were some recently acquired elements of Westernization, the Foundation began without precedent to institute a program deliberately directed toward altering important aspects of the culture. Innovations were introduced on an inescapable trial-and-error basis which made it impossible to foretell what proposals would be accepted, much less to anticipate ultimate ramifications and reinterpretations that could possibly lead to cultural disintegration. It is not surprising that some unexpected turn of events have been less than desirable as evaluated by both Mamazani and Foundation leaders.

INNOVATIONS: LEADERS AND EDUCATION

Of the numerous innovations made by the Foundation, three may be selected as types for the purpose of analyzing and predicting their acculturative effects. The assumption is that the culture of Mamazan is a functioning whole with structure and integration and that each innovation will disturb in varying degrees a great segment, if not all, of the whole. The "component elements" selected in this study are leadership and education, a new water supply, and mechanization of agriculture.

Education is, of course, an imperative if technological and scientific method is to be successfully introduced into Mamazan life. Unlike some groups whose cultural orientations cause resistance to Western education, the Mamazani's attitude and aptitude is favorable

toward learning to read and write (significantly, a goal advocated in the Qur'an). Other characteristics complement their eagerness to learn to read as, for example, they are not apathetic after prolonged adversity and they demonstrate energy and capacity in acquiring new skills and techniques (Haas, 1946: 201; Coon, 1951: 184).

Patently, then the problem is not student recruitment but rather to staff the project with qualified leaders and teachers who can successfully promote innovation by demonstration and communication. The director, Hayden, insisted upon these qualifications: After adequate training, the candidate must be willing to dwell among the villagers; he must have the ability to gain their confidence; and he must be able to discover, analyze, and classify problems in the order of need as ranked by the villagers themselves.

Acculturation, of an adverse nature as viewed by the Foundation's objectives, quickly manifested itself in one of the first candidates for the key position. A young Iranian who, as an assistant to an American adviser to the Iranian Ministry of Agriculture, had traveled widely and had become thoroughly conversant with scientific methods in agriculture and was very anxious to continue his association with Americans in Iran; in his eagerness to take the position with the Foundation, he failed to appreciate the fact that he would be required to live in the village, to work with the villagers rather than for them. In the village his living was comparatively comfortable by Iranian standards and certainly superior to the peasants, but without the amenities of Westernized Tehran. The potential leader with excellent qualifications remained in the village for only a few months.

This disappointing turn of events is not unique in the Foundation's work in the Veramin villages; there are certain features that conform to a pattern of an acculturative process readily observed in a study of cultural dynamics in Iran. Likely candidates for the leadership roles are those who have considerable association with American personnel and their training is the impingement of Western values upon their lives. The prospective leaders acquired, or used, Western culture elements as language, apparel, automobiles, radios, and others which are symbols of the prestige assigned to Westerners by the Iranian upper classes. Thus these prestige symbols are in a sense obtainable to a class that economically could not attain what had already been

adopted by the Iranian upper class. Unwittingly these candidates are caught in an evolving social order which Patai identifies as the new prestige order which has developed in Tehran by Western diplomats, advisers, and officials (1955: 4).

The aspiring candidates cannot attain the status generally ascribed to the culturally dominant group but by emulating the Westerner's language and dress, they apparently elevate themselves in a changing social order on the basis of prestige symbols borrowed from the West. The Foundation neither plans nor desires to recruit members for the prestige class which traditionally has remained aloof from rural problems and desperately needed improvement, but it seems evident that any leadership program will involve the complications of class consciousness and questionable mobility.

Similarly, problems and consequences of lesser proportion may be observed in the nascent stage of village education. Mamazan had no school at the inception of the project but the director soon initiated both a day school for children and evening classes for adults (attended by men only in this Moslem community). After mastering elementary reading material in a few weeks, the men soon read simple agricultural treatises which had been especially written to translate scientific notions into the cultural idiom of the peasants. The success of education is measurable in the favorable response toward accepting new ideas for farming and for improved sanitation features as, for example, the use of disinfectants, latrines, and filtered water.

But the ability to read opens the way to the rich literature of Iranian culture and, of greater significance to potential culture change, the way for propagandistic literature already abundant in Tehran. Early evidence indicates at least two probable results from growing literacy in the village. The first is that the youth will not remain complacent about the traditional status quo which finds them without voice in provincial and national affairs, and already there is a growing awareness of social inequalities and a susceptibility to accept Soviet suggestions for social reform. The forces of opposition to Communism within Iran, the government, landowners, and the army, have for the most part been conceived as suppressive antagonists by the peasants who, now being able to read the promises of alleviation, conclude that they may have found at last an economic savior.

Whether the government will be able to counter this propaganda and the inertia of vested interests successfully does not alter the fact that literacy is sowing the seeds of dissatisfaction toward existing social patterns.

The second probable result is suggested by the trend toward secularization which removes the villagers from the religious traditions that have been fundamental to their cultural pattern and ethos. The *mullah* has joined other Shi'a divines in opposition to secular learning since it threatens the traditional monopoly of education held by the clerics. One can easily imagine that the *mullah* will attempt to control what is read in the face of growing secularization, and this has already occurred in urban centers when *mullahs* appealed to the faithful not to read newspapers, which too often represented antireligious or indifferent tendencies (Lenczowski, 1949: 240). Personal conversation with Iranian leaders in the Mamazan project offers evidence that change has advanced to the point of absorbing Western skepticism and materialism.

One other point needs comment in relation to the impact of education upon Mamazani and neighboring villages. This is to correct the inaccurate generalization that the villagers are unaware and hence undisturbed by political events and problems. The Veramin villages are becoming increasingly sensitive to the policies and enactments of the government, a development directly associated with education. Education is lifting the Mamazani's horizons from his village lands to a point where he begins to view his national relationships and to insist upon recognition.

INNOVATIONS: THE NEW WATER SUPPLY

A second major contribution to culture change in Mamazan is the purification and supplementation of critical water resources. The role of water in the villagers' welfare is made clear by the cultural institutions woven into its control and use as well as the symbolism associated with it. Thus the concept of purification (probably diffused as an Islamic trait) is related to the belief that "either running water or standing water in excess of about fifteen gallons purifies itself" (Overseas Consultants, 1949: 14); therefore the Mamazani housewife has no hesitation in washing her dishes in flowing water of an irrigation channel even though the water has passed through livestock

quarters, nor does she hesitate in drawing domestic supplies from a cistern which has been filled from a similar source.

Paradoxically, water was not an unmixed blessing in Mamazan because it was a leading contributor to disease as a result of its contamination. For domestic uses when the irrigation ditches were dry, the village had a typical underground cistern (*umbar*) which was filled periodically from the Jagirud through open surface channels. Hayden instructed and encouraged the villagers to construct a simple yet effective sand filter which, when completed and used, provided safe supplies for human consumption. This relatively easy innovation was not without effect in acculturation. It became necessary for the *dashthan* to exercise greater foresight in maintaining an adequate supply since the filtering process required additional time for filling. The *umbar* could not be allowed to become empty for the periodic flow of Mamazan's share could not be sustained long enough to permit filling through the filter. This may seem inconsequential, but the villagers actually destroyed the first filter because it did not allow rapid filling with the result that there was short supplies.

The chronic scarcity of overall water supply remained to impede development plans, therefore the Foundation gave its attention to finding supplementary sources. After successfully drilling for water in another village, Hayden was encouraged to make an attempt in Mamazan. The drama of this effort including its financing, the despair over a faulty pump, peasant skepticism, and ultimate success, cannot be discussed here; but Allen gives us something of its critical nature when he concludes an interesting sketch of the installation: "My visit to the demonstration happened to coincide with this experiment . . . I felt the tenseness of the situation. The gamble had to be won, for the reputation of the entire demonstration was at stake . . . The new machine was installed, water was soon flowing, and the reputation of the demonstration was saved" (1953:15).

For the first time in the village's history, a potable supply of water for domestic use was assured, and considerable supplementary amounts were now available for irrigation in seasons of shortage. To be more precise, the new source enabled the villagers to increase their annual acreage for crops by 20 percent to say nothing of greater yield from each cropped acre. The economic benefits to

all concerned is obvious. The well itself, as a novel feature in Mamazan life, was not a troublesome cultural bridge for the villagers to cross, for, apart from the obvious benefits suggested, the notion of finding and utilizing underground sources is a cultural feature that has affinity with the West. The ancient and ingenious *qanats*, or gravity flow wells, are common to Iran and are more or less elaborations of the simple well shaft.

At least two acculturative inferences may be drawn as a result of the new water supply. The first is in regard to the *dashtban* whose official capacity gives him considerable authority and prestige in the social and political structure. His entire orientation to the needs and distribution is based upon traditional experience and ability to predict probable supplies from the capricious flow of the Jagirud. Now, with the advent of a mechanical and controllable source, a lowering of his responsibility, status, and prestige seems inevitable, especially with the rise of a competing water-supply specialist, the mechanic who operates and maintains the complicated pumping equipment. The decisive voice of the *dashtban's* office will likely be shared by another who will become a new unit in the social structure with the prestige that has already been accorded to those having acquired Western technological skills. It may well be that in time both offices will be combined if continuing acculturation will encourage younger members of the *dashtban's* family to acquire mechanical skills. However, early evidence suggests that there will evolve distinct tasks with close cooperation between the man at the pumphouse and the man at the head of the irrigation ditch. This duality in turn may reflect itself in a broader influence in village decisions, for a "water commission" of two voices will conceivably have greater weight than that of a single official.

The second implication related to the changed water system is that this innovation may foster the trend toward secularization in the peasant's value system, a phenomenon set in motion by education. It has already been noted that the Shi'a faith in the village is really blended with other beliefs to form a "polytheo-demonistic" complex. An analysis of these spiritual views reveals the fact that the villagers conceive of natural phenomena, including the vagaries

of water supply, as the visible theatre of supernatural beings actively engaged in human affairs, usually with threatening designs. In these interpretations, Allah is acknowledged as the one supreme being, "There is but one God (*la ilaha illa'llah*)", but *jinn*, or the "evil eye", is also an immediate supernatural force to reckon with in the minutiae of daily life. To introduce a reliable source of the life-giving water which cannot be stopped by malevolent forces or polluted by them will certainly call into court the certainty and validity of their beliefs. In short, the circle of religio-magical interpretation and observance may be contracted, and to reduce the role of this cultural focus means ultimately in this culture that "the fundamental motivating force . . . the main normative force" will be weakened with a degree of disintegration in vital segments of their culture (Patai, 1954:234).

INNOVATIONS: THE TRACTOR AND STEEL PLOW

The introduction of the tractor and steel plow represents a third major type of innovation with great potential for culture change in Mamazan. It will be remembered that the cultural antecedents to the steel plow and tractor are the crook ard plow and domesticated draught animals to pull it have been used in the Iranian Plateau since the dawn of history. In consequence of this draught animal-plow complex, plus the fact that a few tractors had previously been introduced in villages near Tehran, the new implements were readily accepted.

The probability of culture change by the introduction of new implements is not to be doubted, but it remains to be seen whether this acculturative complex will be wholly beneficial to economic improvement in the village. Hadary points out that certain agricultural methods should be retained, or modified with great caution, because some of the principles involved in some of the ancient techniques are well adapted to the particular characteristics of the country (1951:184). Among these, he cites the use of the pointed stick or iron-tipped plow which leaves a shallow irregular furrow to retard effectively wind erosion in this arid region. Another adaptive feature in traditional methods that reduces erosion is the small size of the

fields which are bordered by irrigation channels and further subdivided into shallow irrigation basins by low contour ridges—both effective in breaking surface air flow.

To mechanize the plowing operation, at least to do so for the avowed goal of efficiency, means that the small fields must be converted into large ones, the low barriers will be removed, and the steel-shared plow will completely turn the top soil to a depth of several inches. These changes have taken place in part in Mamazan without any observable adverse effects feared by Hadary, but, what if these practices are to be extended over a large area such as the Veramin Plain? The technological innovations may conceivably necessitate a whole gamut of new culture traits in the form of conservation notions and techniques to intensify total culture change.

But there are also other potential alterations to the culture by the coming of the tractor and plow. It is quite probable, in the first place, that the system of land tenure will undergo modification, for the greatly increased capacity of a single tractor-plow unit operated by a single person will obviate the basic principle of the *buneh*, the need of cooperative effort by several men on relatively small units of land. Unable to contribute his labor in the tilling scheme, or to use his oxen in the traditional pattern if he is an owner, the landless peasant cannot claim $\frac{1}{3}$ or $\frac{2}{3}$ of the crop. An entirely different system of tenure and work will have to be devised to compensate for the disturbances created by mechanization.

Then, again, in relation to this shift, the changing occupational role of the *buneh* will be correlated most likely with modifications in social and political structure. It does not seem possible that any disorganization in the *buneh* laboring pattern will not be followed by a reshuffling of status and role in most of the villages interpersonal relations as a functioning group. The question may be asked: What will be the status and role of the mechanics and machine operators be? The very nature of the new costly and efficient implements will center proportionately more influence in their operators. How great and serious will be the tensions and overt aggressions resulting from the conflict that will ensue with new or modified prestige positions?

The mechanization of agriculture in Mamazan is, as the preceding statements indicate, but a part of a more comprehensive alteration process which is converting the village from a subsistence to a semi-commercial economy. It is impossible for Mamazan to remain isolated and self-sufficient when technological innovations make imperative such needs as specialized repairing, replacement equipment, lubricants, and fuel, all of which must be obtained with currency from urban centers. To obtain currency, the Mamazani must devote much of their lands to cash crops or farm produce which can be marketed in Tehran or other urban markets. One of the Foundation's innovations not discussed in this study is the experiment of growing vegetables not previously found in Mamazan but greatly in demand in the Tehran market (Allen, 1953:11). These and similar facets of agricultural improvements, aided by a developing motorized transportation system, is linking the villager ever closer to urban and national life. Market consciousness, specialization of labor and crop production, efficiency, and profitability are new cultural items replacing the traditional idea of production for consumption.

MAMAZAN AND PATTERNS OF CHANGE

This analysis of acculturation in Mamazan is obviously inadequate and incomplete; it may correctly be said that it is little more than some indications of change too abbreviated to have significant validity. The meagre statistical data and the brevity of elapsed time since the project's inception caution against further attempts to draw finer conclusions or to predict with greater precision the total expected change. Nevertheless, there is a reasonable degree of validity to the generalization that the pattern of change in Mamazan has positive correlates with other Iranian villages and to "undeveloped" villages elsewhere where Western culture has impinged itself upon these peoples by developmental innovations.

In a non-technical survey of the Point Four program in Iran, Warne repeatedly cites experiences in villages by that program very reminiscent to those encountered in Mamazan, and with similar effects. Were the contact situation of this country-wide improvement scheme identical with that established by the Foundation in its pilot project, it is quite probable that similar responses in patterned form

would have followed. As a matter of fact, the Foundation's success, or from the point of view in this study, their effective acculturative methods, encouraged the Point Four personnel to emulate the Veramin effort in other villages (Warne, 1956-302). Where like innovations were attempted in like situations, the pattern of change recurs with significant frequency.

The following summarized changes are clearly evident in Mamazan: First, there is an alteration in the economic system with the more or less autonomous, subsistence type giving way to a cash economy that links the village inextricably to the national system. Secondly, there is a decline in village autonomy under large land-owners or administrators to increasing integration within larger political structures. Third, there is a change from a value system focused upon family and community solidarity to one emphasizing adventurism and individualism. And finally, there is a drift from a pronounced religious orientation to a secularization with the sacred and profane assuming sharper distinctions in economic and political areas of life.

LITERATURE CITED

- ALLEN, H. B. 1953. *Rural reconstruction in action*. Ithaca, N. Y., Cornell University Press.
- BECKETT, P. H. T. 1957. Tools and crafts in south central Persia. *Man*. 57: 145-148.
- BONNE, ALFRED 1955. *State and economics in the Middle East*. London; Routledge and Kegan Paul, Ltd.
- COON, C. S. 1951. *Caravan: The story of the Middle East*. New York, Henry Holt and Company.
- HAAS, W. S. 1946. *Iran*. New York, Columbia University Press.
- HADARY, GIDEON 1951. The agrarian reform problem in Iran. *Middle East Journal* 5: 181-196.
- HAYDEN, L. J. 1949. Living standards in rural Iran. *Middle East Journal* 3: 140-150.
- LAMBTON, A. K. S. 1953. *Landlord and peasant in Persia*. New York, Oxford University Press.
- LENCZOWSKI, GEORGE 1949. *Russia and the West in Iran, 1918-1948*. Ithaca, N. Y., Cornell University Press.
- OVERSEAS CONSULTANTS, INC. 1949. *Report on the seven year development plan for the plan organization of the Imperial Government of Iran*, Volume II. New York.
- PATAI, RAPHAEL 1954. Religion in Middle Eastern, Far Eastern, and Western Culture. *Southwestern Journal of Anthropology* 10: 233-254.
- PATAI, RAPHAEL 1955. The Dynamics of Westernization in the Middle East. *Middle East Journal* 9: 1-16.
- WARNE, W. E. 1956. *Mission for peace: Point 4 in Iran*. Indianapolis, Bobbs-Merrill Company, Inc.