the mormons and the indians

conflicting ecological systems in the great basin

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When the pioneer Mormons arrived in the Great Basin in 1847, they entered into conflict with indigenous Indian groups over resources—a conflict whose outcome by 1860 was already clear defeat for the Indians. Previous accounts of Mormon-Indian relations have depended primarily upon documents produced by the Mormon Church and the Federal Government.[1] Such sources tell about ways in which Mormons and Indians reacted to the conflict, but its causes lie deeper. If it were simply a question of limited resources, then the arrival of Mormons should have made subsistence easier for Great Basin Indians, since cultivated land produces more food per acre than uncultivated land. Why, then, did Indian conditions deteriorate rather than improve after Mormon settlement?[2] To answer this question I will first describe natural resources in the Great Basin and then compare the ways Indians and Mormons used Great Basin resources as a part of their ecological systems. Finally, I will use this information to describe how the systems interacted.

An ecological approach to the study of cultures embodies more than subsistence techniques. It also includes such factors as geography, social organization, demographic patterns and cultural values, as well as relationships among these factors in a system of resource utilization.[3] Such an approach demonstrates that long term solutions to conflicts over resources must involve more than just alternative ways of providing food and shelter; they must accommodate other aspects of culture as well.

In this essay I will use the term "culture" as short for "public culture"—that is, those cultural elements which are publicly displayed and are shared by virtually every member of a community.[4] One can legitimately ascribe a public culture to pioneer Mormons, since they possessed a tightly organized, hierarchical authority structure. Great Basin Indians present more of a problem. Conventionally they have been divided into

three main groups: Paiute, Shoshoni and Ute, but in reality they were composed of many small, widely dispersed groups with few communication links between them. A consideration of the many variations within and among Indian groups would, however, obscure comparison of Mormon and Indian cultures. For this reason I have selected elements of the various public cultures which were shared by all the Indian groups.

The ecological system of any society is limited by the resources available to it. Therefore, let us examine the environmental setting in the Great Basin of the ninteenth century, an area bounded by the Rockies on the East and the Sierras on the West and extending from Southern Idaho down to Northern Arizona.

The Great Basin possessed much fertile soil; nevertheless, vegetation was generally sparse in the early part of the nineteenth century because of low annual rainfall. In the range area, scrubby sagebrush and greasewood were the most noticeable vegetation, and game was limited primarily to small animals such as jack rabbits, mice, rats, snakes and lizards.[5]

The generally arid range area gave way to rows of mountains, which divided the Great Basin into several smaller Basins. Valleys in these mountains and their foothills produced many kinds of vegetation, and their timberlands provided food and refuge for larger game. The snow-fed streams which watered these bountiful mountain regions quickly disappeared beneath the absorbent soil of the range area so that subsistence possibilities decreased as the distance from the mountains increased.[6]

Though environment limits the choice of ecological system, it does not fully determine that choice. Contrasting the Mormon and Indian ecological systems will show that cultural values greatly influence the way a group perceives and uses its environment.

A comparison between cultures must be made in terms of categories which accommodate many cultures.[7] In comparing ecological systems, three categories are useful:

1. *Self Image:* each group's image of its relationship with nature
2. *Perceived Resources:* environmental resources recognized and used by each group
3. *Ecological Techniques:* techniques by which each group manipulates perceived resources in order to provide food and shelter

These techniques must suit the group's self-image. They include not only obvious subsistence techniques, but those other aspects of culture such as social organization and settlement patterns, which help implement the food-processing techniques.[8]

the indian ecological system

The Great Basin Indians have left no record of the self image which regulated their use of perceived resources. However, their behavior offers

a clue. They hunted and gathered what nature placed at their disposal and in return observed rituals of prayer and avoidance in order to placate the spirits they associated with the things they took.[9] In short, their relationship with other forms of life was reciprocal.

What nature produced in any one area of the Great Basin was limited and subject to seasonal and annual variation. No one kind of resource could provide through all the seasons, year in and year out.[10] Thus, the Indian groups living in the Great Basin had to recognize and make use of a large range of natural resources. They understood the need for water, of course. In addition, they valued as food many varieties of grass seeds, nuts, berries, fruits and roots, as well as perhaps two dozen kinds of animal protein, including large game, rodents, reptiles and insects. They made clothing from the skins of large animals when these were available; otherwise, they wove clothes from various grasses or from ropes made of jack rabbit pelts. For shelter they erected frames of sticks or poles and covered them with whatever materials were available: animal skins, mud, brush or woven mats of grass.[11]

Because they were hunter-gatherers, seasonal and annual variation in natural resources influenced the techniques they used to convert their perceived resources into a livelihood. One such technique was careful choice of location for settlements. They settled in the foothills of the mountains where water and grasslands were most abundant. From there they could also easily reach either the resources of the semi-desert ranges or those of the mountains, as the season required. Consequently, the aboriginal population of the Great Basin was most dense along the mountain ranges.[12]

Another technique was mobility. In order to make use of widely spaced resources, Great Basin Indians moved camp several times a year in a seasonal round, as various animals and plants became plentiful enough to hunt and gather.[13] This form of movement was characteristic of virtually every Indian group in the Great Basin, with the difference that those with horses traveled much farther than those without. The nomadic way of life in turn placed limitations on material possessions, which had to be either portable like baskets, expendable like their easily built houses, or durable like grinding stones, which could be left and returned to the following year.[14] The number of material items was tailored to the size of the population, for when a person died, his possessions were destroyed along with his body.[15]

A final Indian technique to be mentioned is flexible social organization. Both the size and composition of groups varied depending on environmental conditions. When resources were widely scattered and also sparse in any one place, the population spread out into small, family groups in order to use the available resources most efficiently. Whenever many resources were concentrated in one place or when cooperation was needed to procure them, people assembled into larger groups. This, for example, was the case with rabbit, antelope and buffalo hunts or with

fishing festivals. The composition of groups was flexible in that families facing scarcity were free to live with more fortunate families until their condition improved.[16] (Among the Northern Utes and the Northern Shoshonis, these gatherings could be as large as several hundred people. Among the Nevada Shoshonis and the Paiutes, a group of 30 to 40 people was considered large.)

Great Basin social organization supported this flexibility in two ways. First of all, authority was delimited by context, that is by task and locale. A person particularly experienced in a project about to be undertaken became its leader. His authority covered only those matters directly related to this project at this time and place.[17] Because authority was defined by context, groups could congregate or disperse readily as required by local conditions. Secondly, social organization was built on a network of consanguineal kinship ties.[18] Such ties bound virtually all members of each society, since even the most numerous bands were comparatively small. Consanguineal ties could always be depended upon to establish quickly a working relationship between any two people since ties of this sort, in contrast to marriage ties, for example, did not change.

This system of social organization could not be depended upon to support military operations. At least among Paiutes and among unmounted Shoshonis and Utes, people tended to scatter and hide rather than face a foe with weapons.[19] The ideal person in these societies was not the brave defender, but the good provider.[20]

the mormon ecological system

Mormons made explicit the self image which governed their use of natural resources. According to their beliefs, the world of humanity is separate from the world of nature; nature, moreover, exists primarily to serve the needs of human beings. Everything in the universe, including nature, will always remain imperfect. One important human task is to make nature more perfect and cause it to produce "instead of thorns and thistles, every useful plant that is good for the food of man and to beautify." The basic motivation for human activity is "the principle of increase, of exhaltation, of adding to what we already possess."[21] In addition, the Mormons' use of natural resources was influenced by their religious mandate to gather the believing multitudes into the sparsely endowed Great Basin. The Mormons implemented their self image by a system of intensive agriculture. They replaced wild plants and animals with domesticated ones and in this way substantially increased the output per acre over that provided by nature.

Their ecological system required only a few kinds of natural resources. Although the Mormons did harvest the natural foods of the Great Basin during times of extreme scarcity, this was considered an emergency procedure, not a part of the plan for the future. Water and fertile soil were the resources of primary value in the Mormons' preferred plan of arti-

ficial cultivation. In addition, grasslands were used for livestock pasturage, and buildings were fashioned from timber, adobe bricks or stone.[22]

The distribution and scarcity of these resources affected Mormon ecological techniques. Patterns of settlement, for instance, were in some respects peculiar to the Great Basin. The Mormons had to choose the location for settlements with great care. They needed land which was fertile, near a permanent source of water for irrigation and at a lower elevation than the water source, so that water could flow down among the crops by gravity. The only area of the Great Basin where these conditions could be met was in the foothills of the various mountain ranges. Accordingly, when the Mormons began in 1847 to settle what later became the Utah Territory, they congregated primarily in the foothills of the Wasatch Mountains, located along the eastern edge of the Great Basin.[23]

Another characteristic of early Mormon settlement was its nucleated form. The settlers built their houses close to each other in a village and laid out their fields in a cluster around the village. This kind of settlement already had become distinctive of the Mormons during the years of Joseph Smith's leadership. It helped satisfy many social needs such as ecclesiastical control over community life, protection from hostile outsiders and supervision of cooperative ventures.[24] These social needs were even more pressing in Utah than they had been in Illinois. In Utah, money was scarce, and the Mormons depended more than ever on the community management of goods and labor to build their economy. This was especially true in regard to the construction, maintenance and regulation of irrigation canals. An individual might divert a small stream onto his crops by himself, but the use of larger rivers required the cooperative effort of many people.

Villages were soon established over a large geographical area. Within seven years the Mormons had established seventy-five settlements extending from the northeast corner of Great Salt Lake to the southern border of what is now the State of Utah. An obvious reason for this rapid expansion was the need to absorb the many converts immigrating from Eastern United States and Europe. The dispersion also provided some security from agricultural disaster: if crops failed in one area, the Mormons still had crops from others which could be distributed throughout the population.[25]

Eastern methods of dealing with natural resources were not suited to the arid environment of the Great Basin. Successful farming in arid country required a new way of thinking about cultivation; irrigation was just one part of the solution. Irrigable land was at a premium. Thus, the Mormons could not provide each family with the 200-acre farms common in humid regions. They were fortunate in that ten to twenty acres proved to be enough, since each acre of regularly irrigated land could produce better crops in greater quantity than an acre of land watered by inconsistent rainfall. Mormons also had no use for speculation in real estate. Land was granted to anyone who would culti-

vate it, even if this meant seizing it from an unproductive owner who had prior claim.[26]

Furthermore, Mormons avoided the conventional Eastern distinction between public and private waters, for water was in even shorter supply than fertile land in the Great Basin. Any stream, whether navigable or not, was potentially useful for irrigation. Therefore, all rights to water were administered by public institutions known as water districts, whose primary function was to apportion water so as to maximize its distribution. In a region with so little water, riparian rights were also unsuitable. First, in order to make the most efficient use of fertile land, owners of acreage separated from water nevertheless had to have access to it for irrigation. Secondly, since irrigation draws water from a stream, it was impossible to maintain the full and undiminished flow along its course.[27]

In an age when other American farmers increasingly specialized in one crop, Brigham Young encouraged his followers to practice diversified farming.[28] The Mormons were so isolated from other agricultural areas that self-sufficiency was required for survival. Diversification of crops made not only individual families, but the entire Mormon venture, self-sufficient, in that crop failure in one locale could not completely rob the larger Mormon community of a necessary food or raw material.

Because fertile soil and water were scarce, the health of Mormon crops and livestock was threatened by competition from native plants and animals. Consequently Mormons found it necessary to weed out wild animals as well as wild plantlife. John D. Lee tells of one early attempt to deal with such "wasters and destroyers . . . [as] wolves, wildcats, catamounts, Polecats, minks, Bear, Panthers, Eagles, Hawks, owls, crow(s) or ravens & magpies . . ." by organizing a hunting contest. At the end of three months 15,000 wild animals had been shot.[29]

These agricultural activities were administered by the tightly knit, hierarchical organization which characterizes the Mormon Church even today. The General Authorities constitute the uppermost level and include the First Presidency, the Council of Twelve and various other offices. Subordinate to this central leadership are regional governing bodies known as Stakes, with structures similar to that of the General Authorities. Stakes are further subdivided into local Wards, which form the basic units of the Church and whose average membership is about 600 people.[30]

This organizational structure had assumed its basic outlines during the years in the Midwest under the Prophet Joseph Smith. It also served well in Utah to organize the relatively scarce resources to benefit the most people. Especially during the first few decades, when most Utah inhabitants were Mormons, the Church organization directed every conceivable aspect of the Mormon enterprise in the West. Colonization efforts, for instance, were controlled by the General Authorities. They initiated preparatory exploration, chose locations for new settlements and people to pioneer them, and they decided when to disband settlements entirely.

The Church encouraged agricultural experimentation, and founded and managed industrial ventures. The Church public works program supervised the assimilation of new immigrants. The Church tithing offices facilitated the exchange of goods and money. The list of Church-governed programs can be extended almost indefinitely.[31] People at every organizational level participated in these efforts and carried some of the responsibility, but the initiative and the authority always came from the central church leadership. In this way, the Church could insure that resources were distributed equitably throughout the Mormon population and that individual profit did not endanger the Mormon enterprise as a whole.

Hierarchical organization also served as an efficient medium for communication of needs from the bottom and of directives from the top, so that the problems of any local community could be met by the resources of the entire group.

the conflict between ecological systems

Two ecological systems are in conflict whenever they define mutually exclusive relationships to the same resource, that is, when the implementation of one group's plan for using a resource prevents the other group's plan from functioning. A comparison between the Mormon and Indian ecological systems shows that they were in conflict. As we have seen, they both required settlement in the foothills near key resources. The Indian system required freedom to move from site to site to follow changes in nature's production, whereas the Mormon system required permanent attachments to particular plots in order to provide the intensive care necessary to irrigation farming. The presence of natural vegetation and wildlife was essential to the Indian way of life, while the Mormons thrived on their absence. Indian hunting and gathering sites required an undiminished flow of water in order to support life adequately, and the Mormons needed to draw it off into their fields.

The comparison also suggests that many aspects of both systems served to give Mormons the advantage in the struggle for key resources. First, there was the impact of sheer numbers. Just prior to the arrival of the Mormons in 1847, the estimated Indian population was about 18,000 in the entire Great Basin area. Within a short time, the Mormons vastly outnumbered the Indians. Five years after their first settlement in Utah, the Mormon population was approximately 20,000. By 1869, it had increased to 80,000.[32]

Because Mormons occupied their sites year around, they had more control of their settlements than did the mobile Indians, who appeared to be intruders upon their annual return to what had been their traditional gathering or hunting grounds.[33] Also, Mormon technology modified the face of the land to such an extent that many resources valued by the Indians no longer existed. When the Mormons plowed land for

crops, they uprooted numerous plants which produced seeds and tubers used by the Indians as staples. Those grasses left unplowed were eaten by Mormon livestock. Much of the game disappeared, since the natural vegetation which had supplied their food and shelter was gone.[34] The surviving game animals attacked Mormon livestock and ate their crops, so that the Mormons were forced to kill them as pests.

In addition, Mormons defined the right to use land and water in ways which excluded Indians. In an effort to curb speculation, settlers were given only the amount of land they could reasonably use, but to "use" land meant to develop it agriculturally, to raise crops or livestock —not simply to gather food from it. Likewise, to avoid the monopolization of water by any small interest, the Mormons relegated control of water to community institutions, but Indians usually were not included as full-fledged members of Mormon communities; they therefore had no certain share in it.[35]

The greatest advantage the Mormons enjoyed, however, was their ability to support agricultural technology with an all-pervasive, highly authoritative organizational structure. Mormons in any locale could depend on aid from the entire Mormon organization, whereas a Great Basin Indian family could expect no enduring support from other Basin Indians. Their loose and flexible organizational structure had been well suited to unpredictable environmental variations during aboriginal times, but it was a distinct handicap when they tried to compete with the tightly organized Mormons, since it could sustain no program of unified action.

All these factors combined caused a drastic reduction in Indian resources. Reports about Indians by Federal agents and Mormon missionaries contain poignant descriptions of poverty, starvation and decimated populations. By 1860 it was clear to these men that the Indians had lost the contest.[36]

reactions and attempted solutions

The reactions of Indians to the depletion of their sources of food and water have been described in numerous Mormon journals and accounts of events in early Utah history.[37] When Indians could feed and clothe themselves by begging from the Mormons, they did so; when they could not, they stole from the Mormons what they needed. Mormons generally regarded begging Indians as nuisances, but Mormon leaders recognized to a degree their own responsibility for the troubles of the Indians, as well as the price of not complying, and they encouraged their followers to give the Indians what they could spare. The Mormons must have shared a great deal with the Indians in this manner, judging from the emphasis given this point even in the reports of otherwise unsympathetic outsiders. However, in spite of Brigham Young's well-known admonition that "it is cheaper to feed the Indians than fight them," the Mormons did react with armed force whenever Indians stole provisions or killed

livestock. Some of these confrontations resulted in heavy loss of life, especially among Indians, since many of them were unpracticed in military undertakings.[38]

Thus, it is clear that Indians and Mormons alike resorted to stopgap measures in attempting to deal with the conflict between them: the Indians to theft and the Mormons to handouts and armed reprisal. The Indians understood their thefts as recovering produce from territory which by rights was theirs. Mormons viewed their armed reprisals as just punishment for illegal Indian acts.[39] No matter what justifications there were for these measures, however, both parties seemed to realize at times that long term solutions lay in other directions.

One attempt by Indians to deal with their frustration was the rise and spread of the Ghost Dance Religion in the 1870's and 1890's. This religious movement was based on visions of the Paiute prophets Tavibo and Wovoka, which promised that if Indians danced the Ghost Dance, they would, together with their resurrected ancestors, again control the land and its regenerated resources.[40] A religious movement such as this can become the focus of a more general and therapeutic cultural change, but the Ghost Dance failed to produce such a change. It developed no way of controlling the innovations of followers as its message spread, so it did not unify Indians in any endeavor, religious or therapeutic. Although Wovoka expressed his disapproval of some modifications of his doctrine, he had no authority over other Indians' interpretations, for, as indicated above, authority and absolute control had never been a characteristic of leadership among Indians of the Great Basin.[41] The lack of a unified organization was a handicap in developing lasting solutions, just as it had been in the confrontation with the Mormons.[42]

Moreover, the Great Basin Indian cultures had been so severely and frequently disrupted that they no longer functioned well enough to serve as bases for therapeutic cultural change.[43] Thus, the Indians were in a position only to accept whatever help might be forthcoming from outside sources—in this case, the Mormons.[44]

The Mormons' Indian policy was ambiguous. They recognized on one hand that the Indians must regain their independence, and in that spirit they urged them "to settle down and build houses . . . and cultivate the land as the white men did."[45] On the other hand, the Mormons gave this scheme little tangible support. While they established a farm program (later expanded by Federal Superintendents) for the purpose of teaching Indians to grow crops, the practice was for Mormons to raise the crops and simply give them to the Indians.[46] In general they gave Indians finished products, such as food and clothes, rather than agricultural tools with which they might have provided for themselves, a policy which only served to increase the Indians' dependence on the white settlers.[47] Furthermore, any agricultural program for Indians was really doomed from the beginning, since the Mormons left them little irrigable land. By 1861 a Federal Indian agent reported that Mormons had been

permitted to occupy all the valleys in which Indians had previously been able to subsist.[48]

Another measure the Mormons contemplated was to eliminate contact with Indians. On numerous occasions they expressed a wish that the Indians might be removed from Utah altogether. As early as 1853 Brigham Young requested that the Federal Government "extinguish the Indian title in Utah, and locate the tribes by themselves, leaving a strip of well defined neutral ground between them and the White settlements."[49]

The pioneer Mormons, who had themselves suffered agonizing displacement in the Midwest, would seem to have been in a position to empathize with and help the people whom they in turn displaced by their settlement of Utah. The reasons behind their failure to do so effectively must now be considered. For one thing, the Mormons were too optimistic about the amount of cultural change which a community can absorb. In asking Indians to become farmers they were expecting them not only to change the way they procured food, but to alter their whole concept of life. We recall that aboriginal Indian cultural ecology had required flexibility in several ways: leadership was defined by local context, groups grew in size or shrank with the availability of resources, and the number of material possessions grew and diminished with the size and needs of the community. If the Indians were to undertake a more settled existence, their culture would have to absorb basic changes. Permanence of location is complemented by permanence in other aspects of culture: in leadership, in relationships with neighbors, in attitudes towards material possessions, and so on. Such changes are not wrought easily or quickly. Agriculture might have been successful if it had been introduced by some gradual method, such as including crop tending and harvesting in the schedule imposed by the seasonal round, thus allowing a gradual adjustment.[50] Instead, the Mormons urged Indians to cease wandering immediately and settle down to the task of growing crops and building permanent houses.

Also, as Americans, the Mormons inherited an image of Indians which prevented their becoming effective agents of change for their aboriginal neighbors.[51] Important characteristics of this image are recorded in many Mormon documents, including the readily accessible *Book of Mormon* which describes the origin of the Lamanites, ancestors of American Indians in the Mormon view. According to this account, the Lamanites and their brethren, the Nephites, descended from the sons of Lehi, a Jew who traveled by ship to America in 600 B.C. God punished the evil ways of two of these sons by darkening the skin of their descendants, the Lamanites, and consigning them to a life of wandering and hunting, a way of living which contrasted with the settled agricultural existence of the light-skinned Nephites, who descended from Lehi's more faithful sons.[52] As the chronicle proceeds, the terms "Lamanite" and "Nephite" are applied to various groups defined more by virtue than ancestry. The important distinction is not between people, but between

ways of living; a nomadic life of hunting was considered morally inferior to a subsistence system based on agriculture. Hunting for food was not considered hard work, whereas raising food was, so that hunters were held to be idle and lazy. They did not earn a living by their own industry, but by preying on animals and other human beings who worked diligently. As predators, they were not only lazy but ferocious as well.[53]

The *Book of Mormon* was written early in the Saints' history, but its conception of Indians was an active part of Mormon thinking until well into the twentieth century.[54] "Idle," "ferocious," "wandering"—such terms come not from the community being described, but from the outsider's point of view. They indicate absence of the understanding required for effecting change in another culture.

Not all Mormons devalued Indians and their culture quite so strongly. Missionaries like Jacob Hamblin and Daniel Jones, who worked closely with Indians for many years, understood Indian values and Indian ways. Their role as peacemakers between the two groups required empathy for Indians, but policy-making Mormons had responsibilities which required quite the opposite. Their primary secular responsibility was the survival of the Mormon community and the protection of that community from challenges such as those posed by desperately hungry Indians—not only from direct threats like theft but from the dangers of competition for scarce resources as well.

Limited resources were another reason for the Mormons' inability to help the Indians. By 1870 the Mormons were finding it difficult to provide enough land for Mormon immigrants, let alone for any Indians who might be willing to practice agriculture. They were keenly aware that the amount of water available was insufficient to irrigate the land they needed. Consequently, they completely reversed their former practice of guaranteeing to newcomers an equal share by enacting laws of prior rights. From the mid-1860's on, more established settlers were given a decided advantage in the use of water resources.[55] It is no accident that the Indian treaty, drafted during those same years by the Indian Superintendent and Brigham Young, was entitled *An Act to extinguish the Indian title to lands in the Territory of Utah suitable for agriculture and mineral purposes.*[56] This treaty was never ratified, but it represented Federal support of Mormon requests for Indian removal. As such it signaled the well-known outcome of the confrontation between Mormons and Indians: the Indian way of life perished, while that of the Mormons grew and prospered.

I attribute this outcome to the interaction between two ecological systems. Analysis of a variety of sources makes clear the impact of each system on the other. Thus Mormon values concerning increase, improvement and the gathering of the Saints promoted a growth in population and goods, which in turn entailed the intensive agriculture made possible by an elaborate organizational network. Mormon land use depleted many natural resources upon which Great Basin Indians had depended,

and it prevented the Indian food-gathering technology from functioning. Indian social organization was well suited to the mobile life they had previously led, but it did not meet the requirements for curative cultural change; and the Mormons, so inventive in solving problems of their own continued existence, were unable to appreciate the Indian ecological system; hence they were not in a position to supply any plan for change which grew from the concerns of Indian culture.

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footnotes

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1. See especially Dale L. Morgan, "The Administration of Indian Affairs in Utah, 1851-1858," *Pacific Historical Review*, XXVII (November 1958), 383-409; Nels Anderson, *Desert Saints* (Chicago, 1966), 105-107, 124-130, 144-147, 202-207, 237-240; Gustave O. Larson, "Brigham Young and the Indians," *The American West*, ed. Robert G. Ferris (Santa Fe, 1963), 176-187.

2. Morgan, 389; Anderson, 105; Larson, 183. The primary purpose in these accounts is to evaluate the Indian programs of the Mormons and the Federal Government, but since such programs can be judged only by reference to their success with the Indians, the perspective in the present paper suggests revisions in their conclusions about those programs.

3. See Robert McNetting, "The Ecological Approach in Cultural Study," *Addison-Wesley Modular Publications*, Anthropology Module 6, for an excellent discussion of the ecological approach.

4. "Public culture" is Ward Goodenough's term [*Cooperation in Change* (New York, 1963), 264]. The concept is based on the assumption that even though there are as many interpretations of culture as there are individuals in the community, nevertheless, in order for individuals to interact, they must attempt to conform to the generalized or public culture they attribute to those around them.

5. Henry Engelmann, "Geological Report," in J. H. Simpson, *Report of Explorations across the Great Basin . . . in 1859* (Washington, D.C., 1876), 321.

6. Capt. Howard Stansbury, *Exploration and Survey of the Valley of the Great Salt Lake of Utah* (Philadelphia, 1852), 140.

7. In terms of current anthropological terminology, a comparison of cultures is by nature not an emic study but an etic one. The categories on which the comparison is based are not derived from the cultures in question but are chosen ahead of time with reference to the topic of comparison.

8. These categories were suggested to me by Anthony Wallace's discussion of "maze-way" in *Culture and Personality* (New York, 1966), 16-20.

9. See hunting sections in the "Cultural Element Distributions," *University of California Publications, Anthropological Records*, volumes 4, 6 and 8.

10. Julian Steward, *Theory of Culture Change* (Urbana, Ill., 1955), 105-106. Recent archaeological work in the Reese River Valley has confirmed to a great extent Steward's account of Great Basin subsistence patterns. See David Hurst Thomas, "An Empirical Test for Steward's Model of Great Basin Settlement Patterns," *American Antiquity*, XXXVIII (April 1973), 155-176. For an informative textbook account of Great Basin cultural ecology see Omer C. Stewart, "The Shoshone of the Great Basin" in Robert F. Spencer, Jesse D. Jennings *et al.*, *The Native Americans* (New York, 1965), 273-282.

11. See sections on subsistence, housing and tools in the *Cultural Element Distributions*.

12. Steward, *Basin-Plateau Aboriginal Sociopolitical Groups* (Washington, D.C., 1938), 48.

13. Steward, *Theory of Culture Change*, 105-107.

14. Those groups with horses usually transported their shelters or at least the poles which formed the frame. See sections on housing and tools in *Cultural Element Distributions*.

15. See sections on death customs in *Cultural Element Distributions*.

16. Steward, *Theory of Culture Change*, 107, 117. The freedom to group and regroup also applied to marriage partners among many of the Great Basin Indian groups. Stewart, 282.

17. Steward, *Basin-Plateau . . . Groups*, 246-247; see Beatrice Whiting, *Paiute Sorcery* (New York, 1950), a study in control of deviance among the Harney Valley Paiute, for an indication of one way Great Basin Indians may have managed the problem of social control without benefit of a superordinate authority system.

18. Steward, *Theory of Culture Change*, 116-117.

19. Explorers to the area from 1776 to the mid-nineteenth century document this fear and scatter reaction among the unmounted Great Basin Indians. Fray . . . Escalante, "Father Escalante and the Utah Indians," *Utah Historical Quarterly*, II (January 1929), 22-23; Simpson, 38. Most accounts of Mormon-Indian relations assume an aboriginal penchant for warfare. However, the sections on warfare in the *Cultural Element Distributions* for the Paiutes and the Nevada Shoshonis indicate a de-emphasis of warfare. In addition the *Cultural Element Distributions* for the various Ute bands suggest that warfare was much less a part of the culture of Utah Utes than of Colorado Utes.

20. Steward, "The Paiute Autobiographies," *University of California Publications in Archeology and Ethnology*, XXXIII, 424.

21. Brigham Young, *Discourses of Brigham Young*, ed. James A. Widtsoe (Salt Lake City, 1925), 679; *Journal of Discourses*, vol. 2 (London, 1855), 91.

22. Parley P. Pratt, *Autobiography of Parley P. Pratt* (Salt Lake City, 1970), 363; see Pratt, 371-378 for an indication of the resources valued by the Mormons for settlement purposes.

23. Stansbury, 140-141. See also D. W. Meinig, "The Mormon Culture Region," *Annals of the Association of American Geographers*, LV (June 1965), 191-220.

24. Lowry Nelson, *The Mormon Village* (Salt Lake City, 1952). See also a letter by John Taylor, cited in Leland Hargrave Creer, *Mormon Towns in the Region of the Colorado*, University of Utah Anthropological Papers, No. 32, 2-3.

25. Milton Hunter, *Brigham Young, the Colonizer* (Salt Lake City, 1973), 377-379; see Leonard Arrington, *Great Basin Kingdom* (Lincoln, 1966), 152-156, for ways in which the available goods could be distributed among the population after agricultural disasters.

26. See Walter P. Webb, *The Great Plains* (New York, 1931), chapters 5-9, for a discussion of the challenge posed by the arid West to traditional agricultural techniques; William E. Smythe, *The Conquest of Arid America* (Seattle, 1970), 44; Arrington, 90-91; Charles H. Brough, *Irrigation in Utah* (Baltimore, 1898), 18-19.

27. Brough, 36-41; Webb, 432-437.

28. Brough, 18-20.

29. John D. Lee, *A Mormon Chronicle: The Diaries of John D. Lee, 1848-1876* (San Marino, Calif., 1955), vol. 1, December 9, 1848, and March 5, 1849.

30. See Thomas O'Dea, *The Mormons* (Chicago, 1957), 177-181 for a detailed account of the Mormon organizational structure.

31. See Arrington, Chapters 1-7 for an excellent and detailed account of these church-directed activities.

32. Jacob Forney, *Annual Report of the Commissioner of Indian Affairs*, 36th Congress, 1st Session, Senate Executive Documents, Vol. 1, 733; Arrington, 97, 206.

33. Daniel Jones, *Forty Years Among the Indians* (Los Angeles, 1960), 184-185.

34. Forney, 733; George Armstrong, *Annual Report of the Commissioner of Indian Affairs*, 34th Congress, 1st Session, Senate Executive Documents, Vol. 1, 522-523.

35. Arrington, 90-91; Daniel Jones, 295, reports of his attempt to build an integrated community, whereupon virtually all the Mormons left the community saying they didn't wish to raise their children in the company of "dirty Indians." Juanita Brooks' study, "Indian Relations on the Mormon Frontier," *Utah Historical Quarterly*, VII (1939), 27-47, indicates that intermarriage was in general socially unacceptable. It seems that the only role consistently allowed to Indians in a Mormon community was that of servants. See Brigham Young, *Governor's Message*, Dec. 11, 1854, for an example of this sort of Indian-White relationship in the Weber Valley.

36. Forney, 733; Armstrong, 523; Jones, 185; Jacob Hamblin, letter to J. W. Powell in 1880, cited in Don D. Fowler and Catherine S. Fowler, eds., *Anthropology of the Numa: John Wesley Powell's Manuscripts . . . 1868-1880* (Washington, D.C., 1971).

37. See especially Daniel Jones, *Forty Years Among the Indians;* Peter Gottfredson, *Indian Depredations in Utah* (Salt Lake City, 1969); Clarissa Young Spencer, *One Who Was Valiant* (Caldwell, Idaho, 1940).

38. Brigham Young, *Discourses of Brigham Young*, 189; Forney, 733; Hosea Stout, *On the Mormon Frontier: The Diary of Hosea Stout, 1844-1861* (Salt Lake City, 1964), vol. 2, 344-347; Stansbury, 149; Jacob Hamblin, *Jacob Hamblin, A Narrative of his Personal Experience . . .* , as told to James A. Little (Freeport, N.Y., 1971), 28.

39. Jones, 185; Brigham Young, *Journal of Discourses*, vol. 1 (London, 1854), 108-109.

40. James Mooney, *The Ghost Dance Religion . . .* (Chicago, 1965), 19.

41. Anthony Wallace, "Revitalization Movements," *American Anthropologist*, LVIII (April 1956), 264-281; Mooney, 14-15.

42. See Joseph G. Jorgensen, *Sun Dance Religion* (Chicago, 1972), 280-295, for an indication of an Indian way in which intergroup relationships can develop without the sacrifice of local autonomy.

43. It is my assumption that if any new cultural system is to be successful it must include a much greater portion of old ways of doing things than new ones, for the creativity and energy necessary to cultural change require a broad base of old culture which can act as the frame for the process of change. From this point of view, so-called revolutionary changes can be

revolutionary only in that even a slight amount of change seems great to participants. If the change were not in fact comparatively slight, it could not be absorbed successfully.

44. Many of the ensuing remarks could be shown to apply to the Indian policies of the Federal Government as well, but since the task of the present paper is to discuss the relationship between the Mormons and the Indians, the case of the Federal Government will not be considered.

45. James S. Brown, *Life of a Pioneer* (Salt Lake City, 1900), 355.

46. See Dale Morgan for a detailed discussion of the Indian farm program in Utah; *Deseret News,* June 22, 1854, cited in Robert Euler, *Southern Paiute Ethnohistory,* University of Utah Anthropological Papers, No. 78, 62.

47. In 1852 Brigham Young's estimates of expenses as Indian Superintendent show $12,000 in presents, not including any agricultural tools: see 32th Congress, 2nd Session, Senate Executive Documents, vol. 1, 349. Also the accounts of Brigham Young for the years 1856-1858 (37th Congress, 2nd Session, House Executive Documents, vol. 2, Document No. 29) show that only a few shovels were presented to a few groups of Indians on only two occasions. There is no evidence that the Mormons obtained a plough for any Indians. The bulk of gifts during those years was beef, flour, tobacco and clothes.

48. Humphreys, Utah Report in the *Report of the Commissioner of Indian Affairs,* 1861, 140.

49. Brigham Young, *Governor's Message,* December 1853.

50. See Gottfried Lang, *The Whiterock Utes in Transition,* University of Utah Anthropological Papers, No. 15, for an indication of the difficulties met by a food gathering culture in attempting to become an agricultural one.

51. Ward Goodenough has discussed the relationship between a community to be changed and a catalyst or agent of change in his book *Cooperation in Change.* He argues that a successful agent of change must encourage and carry out the proposed change in ways acceptable to the community undergoing the change. The Mormons' image of the Indians was not their own invention but a part of their general American inheritance. See particularly Roy Harvey Pearce, *The Savages of America* (Baltimore, 1953), for a discussion of American attitudes towards Indians.

52. *Book of Mormon,* 2 Nephi 5:21-24; Enos 20, 21.

53. *Ibid.,* Mosiah 9:12; Alma 22:28.

54. See Brigham Young, *Governor's Messages,* Sept. 22, 1851 and Dec. 11, 1854; Gottfredson, 6; Anderson, 105.

55. Meinig, 203; Brough, 41.

56. 39th Congress, 1st Session, House Executive Documents, vol. 2, 316-320.