The thesis has attempted to apply the concept of cultural ecology, mainly the relationships of different culture groups to different ecological niches with their setting and resources to a small area of the Lower Himalaya. With a major focus on rural settlements, the core of the cultural landscape, as resulting from the relationship, the thesis aimed at an understanding of the transformation of the natural landscape into cultural landscape in an area characterised by subsistence farming and essentially rural mode of living and variegated terrain, water, soil, and vegetation constraints. The results of the transformation are best expressed in the empirical attributes of the rural settlements as cluster of folk dwellings, folk dwellings themselves, and field landscape.

The basic hypothesis of the thesis is that each culture-ecological zone is characterised by a distinctive cultural landscape which has been created by a specific culture group inhabiting the region. The landscape has evolved historically through stages and reflects an interplay of culture and ecology in small area experiencing limited external influences as also the adaptation with the new locale.

Sites, where the culture-ecological relationships are worked out and natural landscape is transformed into cultural landscape, have been analysed in great detail. The analysis
has revealed that the sites are mainly related to the availability of cultivable land, amount and aspect of slope, proximity to water points specially springs, and the British administrative policies which affected the processes of settling. Field observations and personal enquiries have established the primacy of the extent, locational setting, and accessibility of cultivable land in the selection of settlement sites. The primacy is obviously related to the dominant farming mode of living, prevailing throughout the study region and to the limited amount of cultivable land and its site-differentiated distribution. Located beyond the reach of the recurrent historical movements sweeping through the adjacent Plains, the rural settlements of the region never experienced the need for defence arrangement and the relatively less and restricted accessibility promoted the growth of a largely autonomous culture-ecological relationship on the sites. Most of the settlement sites are on the slope ensuring the survival of the terraces as the most productive cultivated lands. There is an amazing variety of sites related to geomorphic features, vegetation, and hydrographic sources, the largest number being those derived from the features of hill and mountain morphology. Thus, a majority of the sites are physiographic-topographic in character, a generalization supported amply by the evidence of place names of the settlements. The variety of
physiographic-topographic sites has become a part of the perception of the settlers of the mountain habitat. The selection and conversion of the natural potential sites into settlement sites has, however, been a cultural process and tradition that dates back to about two to three hundred years. Even though natural in occurrence and properties in initial stages their selection has been culturally and ecologically differentiated with particular sites characteristic of different ecological zones and culture groups.

The early Sanskrit texts and historical accounts suggest that the region was settled, off and on, between 1500 to 1000 B.C. However, the Gaira nasab records reveal a reliable history of continuous settlement for the last 250 years. The process of settling involving mainly the removal of forests in patches, was concentrated on the sun facing slopes where agriculture was more productive. The process was terminated during the later part of the nineteenth century when the British administration imposed the forest protection acts. The production territory, created from the removal of the forests, gradually expanded till it encountered natural landscape features, tree lines, choes, tibbis, perennial streams, and water divides. More or less universally the ownership of land was granted by the local Rajas.
Kanets, Gujars, Jats, Brahmins, and Rajputs are the principal culture groups who have settled the area. While the Kanets who came from Kangra and Bilaspur, settled the higher reaches of the Arki tahsil, the Gujars, Jats, Brahmins and Rajputs originating from the adjacent Punjab Plains, settled in the Dun and the Siwalik Hills. The place names clearly suggest the two different sources of culture groups and culture traits involved in creation of the cultural landscape of the settlements. The cultural landscape of the pahari culture, diffused from Kangra and Bilaspur and associated with the Kanets, is observed in the Lesser Himalaya. The cultural landscape expressing the Plain culture of the Gujars, Jats, Brahmins, and Rajputs characterise the Siwalik Hills and the Dun. On the basis of typical cultural landscape, the presence of the culture group, and the interplay of the culture group and ecology, two culture-ecological zones have been identified, the Kanet culture-ecological zone which covers the entire Lesser Himalaya in the study area and the Gujar ecological zone spread in the Siwalik Hills. In the Dun where we find an interspersing of different culture groups and therefore, on a large scale of mapping, an intermixture of cultural landscapes, culture ecological niches rather than zones become more characteristic.
Density, dispersion, and pattern of the rural settlements are very strongly related to the geomorphic diversity of the study area. The settlements are dispersed throughout the region except for the patches of reserved and protected forests. The most important determinant is the widely dispersed distribution of cultivable land. The settlements reveal mixed fabric of types in which small scattered clusters of four to five houses constituting individual village are common. In the Hills the fabric is related to patchy distribution of cultivated land, the presence of the minimal lineages (two to three generations), and the operation of ritual purity pollution and dominant clan principles. While small, completely agglomerate, uni-caste and uni-clan settlements (Haufendorf) characterize the Siwalik Hills, larger, multi-caste, ones are common in the Dun.

Of the three culture-ecological zones, the Siwalik Hill zone is the smallest and has only the Gujar settlements. The settlement landscape, however, is only a bit different from that of the Dun. Therefore, the Dun and the Siwalik Hills constitute one unit differentiated from the Lesser Himalayan zone.

In general, a mauza in the region extends between sharply defined topographic features of a khed or choe on one side and a ridge crest on the other. The mauza usually has three slope segments, the lower, middle, and upper, of which...
the middle is the most productive. From here the soil fertility decreases in lower as well as upper direction. The *abadi* is situated in the middle segment. The three segments correspond to the notional divisions in the Dun and the Siwalik Hills namely the *changer, lehri*, and *talla*. Although such a division is missing in the Hills the classification of lands on the basis of soil fertility is common to all the three zones. The *awal, daum* and *saum* types of land are well recognised throughout the study area. Besides, for their easy identification, the naming of different parts of *mauza* by the farmers is popular in both the Hills and the Dun.

Morphologically, the settlements are amorphous, their shape depending mainly on terrain, agricultural suitability of land, and caste composition. They are nearly rectangular and compact in level areas, and loose and elongated on steeper slopes and in higher relief areas where the houses are situated at different levels, not necessarily related to the socio-economic status of the people.

Each settlement has a main *gali* which along with its offshoots connects all the houses situated at the same different level. The settlement can be approached from either side of the *gali* which runs across it. The *gali* is paved within the *abadi* and unpaved outside it.
Front courtyards form the most common feature of the houses throughout the area and have the same function everywhere. They are usually rectangular and the size depends upon the availability of open space and the direction of expansion of domestic space. In the Dun and the Siwalik Hills several behras are enclosed by U-shaped house blocks. In the Himalayan zone they are often spread in all but one direction. However, its open character is generally distorted by the presence of a separate kitchen in one corner.

The major culture-ecological divisions are characterised by different types of folk houses which are related to culture-ecological interactions. The distinctions are based on ground plan, number of storeys and rooms, type of roof, presence or absence of chhappar, location of kitchen and obra or gowain, and degree of ventilation. A typical Dun house is single-storeyed and consists of two rectangular rooms, located side by side in front of the obra, one of which is residential and the other used as obra. Between the house and the behra stands a chhappar in one corner of which a kandhokri encloses the kitchen. Windows are generally absent. The walls are made of stone with mud mortar as the cementing medium. The flat mud roof rests on a wooden frame of latain, karis and karungas laid on the four walls of the house. The Himalayan
house is a four-room set with two rooms on the ground and two on the upper floor. All the four are residential. The gowain is located well away from the residential house. There is no chhapper. A small room detached from the main house but located in the angan is the kitchen. Himalayan house is a two-gable and well ventilated house with windows only on the upper floor. The walls are made of mud mortar. Pandioli is another distinguishing feature of this house type.

Much of the cultivated land lies near the abadi while the banjar usually occurs farthest from it. The mauza is divided into vunddas, the vunddas into taks, and taks into khattas or pattis. Every division and sub-division is named after some prominent topographic feature and these names become permanent in course of time.

The shape and size of fields vary among the two zones depending upon the slope of land, distance from the abadi, types of crop grown, and intensity of division among the inheritors of parental property. They are large and rectangular on the gentle slopes of the Dun, but are narrow, curvilinear, extending along the contours or on the elongated terraces. The flattish rice and vegetable fields are particularly small. Also, they are small near the abadi where the incidence of division has been large.
In general, the founding clan of the settlement owns a major part of the *mauza* and maintains its initial dominance. Although the present law of inheritance provides for equal distribution of parental property following the age old traditions, the eldest son in a family usually retains the largest share in the total lineage holding.

The fields of various households in a settlement are scattered in almost all parts of the *mauza* and in all types of land. Interestingly the consolidation of landholding which was carried out in the early sixties has made practically no impact on their scattered distribution.

Finally, the thesis has been able to establish that the Outer Himalayan and the Lesser Himalayan cultural landscapes are different from each other. These differences are related to the modes of living, the origins of the culture traits, and the ecologies of the two regions. In both the landscapes there are clear evidences of adaptations of nature to culture and of culture to nature. Notwithstanding the basic differences, there are broad similarities in the settlement morphology, house types, and field patterns, flowing from the ultimate origin of the cultures in the overriding Aryan tradition of the North Indian Plain.