Rural settlements constitute one of the most significant elements in the study of cultural geography which principally focuses on 'what culture does to environment.' (1) The study of rural settlements becomes meaningful in areas which have some degree of cultural stability, are relatively insulated, and where culture changes the environment little influenced by external stimuli of change. The rural settlements, less prone to change, and functioning as the cultural hearths of these regions, are the most definitive landscape expressions of cultural modification of natural environment. In them can be best understood the culture-ecological interactions operating through history. According to Mikesell, 'any sign of human action in a landscape implies a culture, recalls a history and demands an ecological interpretation.' (2)

The significance of the study of rural settlements, particularly in agrarian countries, cannot be overemphasised. In these areas, they operationalize spatial organisation of life in almost all aspects. A vast majority of the world's population, particularly in the less developed realm, live in rural settlements. However, the growth of literature on rural settlements has been rather sluggish due to predominantly urban populations in the developed world. A
large number of books, journals, and research papers which have come out on rural areas relate mainly to social and economic life of people. Their cultural landscape manifestations have attracted scanty attention.

A review of the literature on rural settlement geography of India makes it amply clear that a large majority of research papers are related to methodology and various aspects of distribution of rural settlements. Very few of them deal with house types and morphology. Processes of settling and field patterns have been largely ignored. (3) There has been a conspicuous neglect of the core elements of rural landscape namely, settlements, folk houses and fields. The principal reason of such a development seems to have been the lack of a precise and widely accepted definition of rural settlement geography.

In his definition of settlement geography, Stone is exclusively concerned with the distribution of buildings, and completely ignores other features of rural landscape which culture groups create in the process of settling in an area. (4) Similarly, Jordan has excluded the processes of settling while restricting the scope to a study of the configuration of cultural landscape. (5) In fact, the lack of interest among the western geographers in formulating
a comprehensive definition of rural settlement geography seems to be associated with their non-acceptance of rural settlements as a distinct realm apart from their urban scene. This western notion is not validated by empirical realities of the developing countries including India, where over 75 per cent of the population lives in rural areas. As such, there is a need for evolving a precise definition of rural settlement geography. It may be defined as a study of (i) the processes of settling in rural areas, and (ii) their landscape results expressed through the settlements, folk houses and fields.

Both the processes and their results reveal diversities corresponding to those of ecological resources, culture groups and their technological achievements. A meaningful study of the interplay of the three factors is best conducted in an area which is endowed with large diversities. The district of Solan in the Lower Himalaya, constituting the study area, answers well to these specifications, as it contains, within a small area, a remarkable diversity of physical and cultural features. (6) (Fig. 2)
Study Area

This area* is comprised of the territories of the eight erstwhile princely states of Baghat, Kuthar, Beja, Mahlog, Baghal, Kunihar, Nalagarh and Mangal and parts of Simla district and Patiala principality. (Fig. 3) These principalities thrived as protectorates of the imperial power-umbrella radiating out from Delhi, till their merger in 1948 with the present territory of the state of Himachal Pradesh. Thus, till recently the study area had a feudal spatial organisation which has created a deep impress on the present rural cultural landscape. The administratively homogeneous district of Solan was created in 1972. It now spreads over an area of 1936 square kilometres and has a population of 301,854 persons. (7)

In the north and the east the area has common boundaries with the erstwhile feudal states and now the administrative districts of Bilsipur, Mandi, Simla, and Sirmour. It forms an integral part of a very extensive feudally organised region of the Lesser Himalayan zone. In the south and southwest its boundaries are coincident with

*In the thesis district of Solan, Solan district, study area, the area, study region and the region have been used interchangeably.
Princely states on the eve of the independence

Fig. 3
those of the districts of Ambala and Rohtak in Haryana and Punjab respectively, both forming a part of the extensive Punjab-Haryana plains (henceforth the Plains). Located at the trijunction of Himachal Pradesh, Punjab and Haryana, it has received cultural influences emanating from the hills (Himachal Himalaya), the Plains, and the khap (Punjab-Haryana piedmont plains) culture areas.

Sandwiched between the Siwalik Hills in the west and southwest, and the Lesser Himalayan ranges in the north and northeast, the district is predominantly a mountainous region characterised by steep slopes and high relief as is evident from the contour patterns. (Fig.4) Of the Lesser Himalayan ranges, Dharampur, Sabathu and Ramshahr ranges are of middle elevation (800 - 1500 metres), and Solan, Kasauli and Chail ranges reach higher elevations (1500 - 2200 metres). The inhabited parts of these ranges are made stable by cutting into the slopes and creating terraces for cultivation. The hill ranges are aligned in a general northwest to southeast direction and hence the alignment of the fields in the same direction.

The Nalagarh dun (henceforth the Dun), a fault-bounded, gravel-filled, strike valley, entrenched between the Siwalik Hills and the Kasauli range, and comprised mainly of alluvial fans, depositional terraces and flood plains of numerous
streams, is the only geomorphic unit possessing extensive gently sloping surfaces. The Dun, being the most fertile and extensive stretch of plain land in the district, supports large population, concentrated at widely spaced settlements.

The steeply rising hills, narrow V-shaped valleys, fast flowing streams and dendritic drainage reflecting youthful stage of topographic development characterise the geomorphic landscape. (Figs. 4 and 5) Such a topography has restricted the mobility to well-defined natural routes and tracks.

The Gambhar, the Sirsa, the Ashni, the Satluj, the Giri and the Ghaggar along with their numerous tributaries are the major drainage systems of the region. (Fig. 5) The Satluj separates the study area from the district of Mandi and flowing through a deep gorge, insulates it from the adjacent mountainous areas thereby obstructing the diffusion of trans-cultural influences. Other segments of the region are comparatively open to external stimuli. (Fig. 6) Most of the streams are seasonal in the sense that they swell in the rainy season but turn into almost waterless valleys during the summer. The variations in the flow and the deeply entrenched valleys of the streams render the fuller utilisation of water
resources difficult and uneconomical. There is no indigenous mechanism by which they can pump water up from the valley bottom to the fields.

Climatically the region lies in Koppen's Cwa type where seasonality and variability of rainfall are the most marked. Though highly erratic in amount, duration and distribution, the annual rainfall averages 135 centimetres. About 80 per cent of it is associated with summer monsoons and the rest comes with winter cyclones. In the relative absence of irrigation, the farm economy is entirely dependent on the vagaries of nature. The periods of ploughing, the sowing of crops, and the yield depend almost entirely on rainfall. Except for variations in temperatures, the climatic characteristics reveal a broad uniformity in all parts of the study region. The Dun and the Siwalik Hills record much higher average annual temperatures than the Lesser Himalayan region. Many of the Himalayan ranges are snow-clad in winters but become very pleasant in summer season when the lower elevations, particularly the Dun, are under complete sway of heat wave, locally called loo. These contrasts in climate are reflected in the variations of natural vegetation, house types, and field patterns.
The diversity in vegetal cover closely parallels that of the physiography. (Fig. 7) The general appearance of the forest in the Siwalik Hills is dominated by a single species, babul (Acacia arabica). It is markedly gregarious in habit and forms a solid, more or less pure stand, and a dense cover. A few associated species occur, mainly where the Acacia canopy is broken and there is usually very little undergrowth. In the Dun, one encounters tropical and sub-tropical mixed vegetation such as bamboo (Dendrocalamus strictus), babul (Acacia arabica), and shisham (Dalberria sissoo). In the Lesser Himalaya, the main tract of pine (Pinus roxburghii) forests, in which there are virtually no other top canopy species, is rather sharply differentiated at the upper limit from a restricted transition to ban oak (Quercus incana) forest. At the lower altitudes, however, there is much more intimate mingling with the deciduous, appearing to be related mainly to topographically conditioned micro-climatic variations.

The physical isolation of the area, due to high mountain barriers and rugged and highly dissected terrain, has contributed significantly to the preservation of the autonomy of the culture by its people. Very few waves of change, which swept through the Plains, could reach the area in effective magnitude.
The district possesses a cultural diversity which is rather unusual for its small size. Some of the major castes and ethnic groups such as, Brahmins, Rajputs, and scheduled castes are distributed throughout the district and thus do not apparently reveal any ecological adaptations. (8) On the other hand, the Kanets and the tribal groups of the Gujars, and the Jats are associated with specific ecological adaptations and social organisations. (Fig.8) Their culture has a pervasive influence on the settlement features.

The scheduled castes, Turis, Doms, Kolis, Chamars, Maha-brahmins and Chanals, reputed to be descendants of the indigenous pre-Aryan group, are found throughout the district and comprise about thirty per cent of the population. (9)

In addition to the groups described above, there are five small but economically important merchant castes, Khatries, Mahajans, Guptas, Suds, and Bohras, most of whom live in and around towns. (10)

Agriculture is the main occupation of the people in the study area. About 90 per cent of the population is engaged in farming. The rural communities of the area are comprised of four distinct classes, owner cultivators and owners of the land, artisan castes, service castes, and landless labourers. Even the service and the artisan castes own land and cultivate it.
Study area

Distribution of the culture groups

Rajputs, Kotas and Brahmins

Gujaras and Jats

Fig. 8
In addition to cultivation, they render the services generally associated with their castes. The agricultural communities consist of Brahmins, Rajputs, Kanets, Jats, Gujars, Kolis, Tarkhans (carpenters), Lohars (blacksmiths), Kumhars (potters), Julahas (weavers), and Chamars (workers in tanning and curing of hides and leather).

In the region the agricultural system is of sedentary subsistence type. The fields are under frequent cultivation. Most of the produce is consumed by the farmer himself although at some places the marketable surplus is also available which is disposed of either through barter system or in the nearest market. The field patterns vary with crops, cropping patterns and cropping practices. Some crops have their peculiar land and technological requirements which have a bearing on the field patterns.

Two types of crops, kharif (summer), and rabi (winter) are grown. Kharif crops include maize, paddy, and pulses while in the rabi season two main crops of wheat and gram are grown. A bit of oilseeds and vegetables is also grown.

In the study area, traditional agricultural implements are used in ploughing, digging and levelling the fields. These implements are made by the local service castes such as carpenters and blacksmiths. They visit the settlement
occasionally and make or repair implements for the farmers. The agricultural implements are made from locally available wood and imported iron.

Plough is the most important agricultural implement used for tilling land. Suhaga or suhagi is used for crushing dallas (clods). Salancha is used mainly for carrying thorny bushes of garra (Carissa diffusa), and ber (Zizyphus jujuba) used for fencing the fields. Kassi is used for digging earth and levelling undulating ground. Khurpa and khurpi are used for removing weeds and grass from the fields and datti for cutting grass and harvesting crops. Tangli and gahan are winnowing and hoeing implements respectively. (Fig. 9)

Cattle play an important role in agricultural activities. Nearly all the main agricultural tasks, such as, ploughing and levelling of fields and thrashing of harvested crops are done by bullocks. The cattle-dung is the extremely popular manure.

Methodology

In the context of cultural geography, a rural settlement is considered as the core of the rural landscape. It is the organising element, the leitmotif, reflecting the culture of the people occupying a particular area. The interplay of
Fig. 9

Study area

Farm implements
habitat, habit, and inhabitants is reflected in the rural settlement. The natural resources of an ecological zone are converted by a cultural group to create the rural cultural landscape characteristic of the agrarian mode of living. These natural resources individually and in complex associations characterize different ecological zones. The zones are dominantly and preponderantly inhabited by different cultural groups each of which possesses a distinctive technology and a set of value systems. Equipped with, and guided by these two endowments, a cultural group interacts with the material foundation provided by the ecological zones. The manner in which the cultural group comes to terms with an ecological zone and the historical circumstances of settling are ultimately controlled by the combination of its technologies and value systems. In the following chapters, these associations among ecology, culture groups, technology and value systems have been analysed adopting a culture-ecological approach.

The main difficulty in any research work on the rural settlement landscape of India in general and that of the Himalayan region in particular is the lack of published and unpublished literature. Only a few studies have been made to understand the evolution of rural cultural landscape.
The work done by a few Indian geographers essentially suffers from two kinds of inadequacies - (a) methodological and (b) substantive.

(a) Methodological

The usual practice has been to select large areas and to identify different physiographic regions within them. This is followed by an attempt to fit rural settlements within each predetermined region. Such a practice covertly strengthens the physical deterministic approach which implies that rural settlements are nothing but a creation of the physical environmental milieu. Thus the traditional methodology has been restricted to the physical determinism philosophy.

(b) Substantive

Though the conventional focus has been on type, form and pattern, no attempt has been made till recently to distinguish them from one another. Geographers have failed to study all the elements of rural settlements with equal concern or at least, the concern they deserve.

The Gazetteers (1910), Settlement Reports (1881-83, 1915-16), Census Monographs (1961), popular books, and a few articles published in the geographical and anthropological periodicals have been of great use in the preparation of this thesis. (11)
The thesis is divided into two sections A and B. Section A discusses different attributes of rural settlements and Section B is based entirely on field observations and personal enquiries. For the information on the settlement landscape elements: distribution of clan blocks which provides the outline of morphology, the houses, their plans, their origins and diffusions, and the cultural controls of field patterns, the author has drawn mostly upon her fieldwork.

Hypothesis

On the basis of logic and empirical findings of rural settlement geographers, some correlations between the elements, namely, morphology, house types and field patterns, and physical-environmental, cultural and economic variables have been attempted. An examination of the ground realities enables one to validate or reject these sets of hypothetical relationships. In this deductive approach to the study one develops a priori insight into the correlations and can identify the facts to be searched for in the field.

Different sets of propositions can be formulated regarding different elements of morphology, house type and field patterns.
a) Settlements and fields are created through the processes of settling and constitute the transformation of the material foundation provided by nature in an ecological context of the existence of culture groups. Hence, the settlements and fields are genetically and functionally integrated with each other. From this follows the raison de être of their constituting a viable functioning system.

b) The material substance which is provided by nature is transformed into rural settlements by cultural group. Hence the rural settlements are intrinsically related to the ecological context which provides both the resources and the conditions for their creation.

c) A rural settlement is the cumulative result of the settling processes which have operated through time. Hence, for an understanding of the historical past, the past processes or the sequent occupation becomes imperative.

d) The flat roofs are found in areas receiving scanty rainfall where there are no problems of leaking and sagging of roofs, and of drainage discharge. On the other hand, the sloping roofs occur in areas having heavy and high intensity precipitation, where in order to avoid roof sagging the sloping roofs are preferred to the flat roofs. This also promotes quick discharge of rain water. These areal correspondences
may be entirely fortuitous. It may be associated partly with the amount and form of precipitation but mostly with cultural and historical factors. But these observations can be applied to the interpretation of the roof forms only after they have been validated by extensive fieldwork.
e) In the construction of walls, floors, and roofs of the rural houses the materials locally available are generally used. But, the use of any material, even where locally available, depends on the people's perception of the material as capable of being manipulated and used in a particular manner. Hence, the culture of the people and the stage of development of building technology determine whether a material will be used in building construction or not and the manner in which it will be used.
f) The division of the total family space into different functional parts is a cultural expression and is guided by the cultural beliefs of the people. The house comprises of the main part of the total family space and its divisions into different functional units. These and the overall orientation of the house reflect the religious and cultural beliefs of the people including the familial structure and familial interactions as well as social structure and social interactions.
g) In different terrain units the expected field patterns should be different. In sloping areas we expect terraced field pattern and irregular fields. The fields located along the gently sloping choe-beds should be parallel to the contour lines. On gentle slopes fields are expected to be larger than on steeper slopes.

h) The fields situated in the outfield area of a village are larger than the infield areas. This is due to the fact that the heirs are not keen in dividing intensively the outfield, rather they prefer to have a full unit in a distant part, but they certainly want a share from every field near the settlement (infield). The resulting field patterns in the two cases are different.

i) In unconsolidated holding fields are small, irregular, and intermingled with irregular field pattern. In a consolidated holding fields are large, regular, and form more or less block-field pattern.

j) Each crop has its own techniques and eco-technological requirements and, hence, the field patterns under different crops are different. In commercial grain farming areas the fields are large and regular whereas in grain and livestock farming (subsistence farming) areas fields tend to be intermediate in size, and more or less, rectangular and regular.
k) The lands owned by different caste groups display different field patterns and forms because the amount of land in the possession of each caste varies and there are variations in the characteristics of farming and of mode of living. In general, high caste groups have large landholdings and low caste people have small and, therefore, the field patterns of the two will be different.

l) Source of irrigation also affects the field pattern. In the kuhl (irrigation ditch) irrigated areas, fields have ribbon shape and are parallel to each other and perpendicular to the kuhl. The fields form a strip pattern. In the well irrigated areas the fields form a block-field pattern and radial sectoral pattern.

To explain the validity or invalidity of the hypotheses a number of questions for investigation are raised:

i) Why while in the Dun the integration of settlements and fields is complete, in the Siwalik Hills and in the Himalaya it is incomplete, weak and even non-existent? Is it related to the Gujar genre de vie in the Siwalik Hills and in the Himalaya to the rugged, mountainous terrain and the distribution of forests from which the fields have been carved out?

ii) If we accept the second hypothesis then we should have the same rural cultural landscape in a given ecological zone.
Then, how do we explain the variations in the house types and in field patterns in the same ecological setting of the Dun or of the Himalaya?

iii) What are the explanations of the distribution of the same house types and field patterns in different ecological zones? What are the roles of cultural and ecological diversities? How are they related to the historical processes of culture diffusion and growth?

iv) How have the different culture groups in different altitudinal zones created characteristic cultural landscapes?

v) What have been the effects of time and space on the morphological pattern of the rural settlements? How does time and space influence the cultural and social variations in settlements?

vi) Is the house a proper indicator of the economic and social structure?

vii) What are the landscape results of genre de vie of different culture groups occupying the study area?

viii) Dhars, the convex flattish ridge crests, are the best suited sites for human habitation in hilly areas, yet they are largely uninhabited. What could be the possible explanation for this distribution?

ix) Rajputs, Jats, and Gujars were practising a farming
technology suited to the Plains when they moved up north. The Gujars and the Jats diffused through Siwalik Hills and the Duns to whose ecology their mode of living, pastoralism and farming, was functionally adjusted. But only the Rajputs spread through the Himalayan country. Why?

x) In most part of India a rural dwelling, in the ultimate analysis, is comprised of a set of rooms arranged around a central courtyard used for secular and religious purposes. Why is this core of the rural dwelling missing in the Himalayan region?

xi) Although originating from the same culture hearth the cultural groups have created different types, forms and patterns of rural settlements in different ecological zones. What could be the possible explanation for such variations?

Cultural Landscape

In the process of establishing a permanent relationship with the acquired habitat in a given ecological zone, a cultural group creates a cultural landscape, which tends to attain the goal of maximisation of functional efficiency while retaining the integrity of its culture. The rural cultural landscape reflects natural environment, culture, history, and economic characteristics of the region and helps
in understanding the past and present cultural processes. Rowntree and Conkey suggest that the cultural landscape is created and transformed by human symbolic action. 'The cultural landscape in part functions as a narrative, a symbolic legacy conveying, if not realizing, information from one generation to another, information about subsistence ways, cosmology, territory, or historical position.'(12)

The Himalayan realm of which the study area is a part 'is one of the few places on earth with main streams of culture that have been next to each other over vast stretches of time and where the forces of fusion have failed to obliterate the individual culture.'(13) Within the small study area these diversities of cultures and of cultural landscape are striking. While the causal associations of cultural landscape of larger divisions of the Himalaya are known, at least, in their gross outlines, their generic and genetic nature in relatively small areas and containing diverse ecological niches are almost unknown.

The study area, in the culture regional scheme of Karan is included in Indic culture area.(14) The Hindu or Indic cultures arrived in this area in waves from the south, made it their home, and left their imprint on it. The region is inhabited by numerous hill people and tribes possessing different
cultures and belonging to different culture areas. The present study aims to understand the culture ecological processes by which people with distinct cultural characteristics came, settled, and produced distinctive settlement fabrics.

Internal Morphology and Form

Internal morphology and form are often but erroneously used as synonyms of each other. While internal morphology connotes the arrangement, relative to each other, of streets, houses and spatial units given to non-residential purposes, form is simply the geometrical shape of the outer boundary of the majra or abadi (settlement proper).(15)

The internal morphology and form of any settlement is determined by physical, social, economic and cultural factors. Generally the terrain can and does play a crucial, influential and decisive role in their creation. But, this role becomes marked in areas of diverse topography. Even in the plain area of the Bun, micro-topographic details have influenced the form, though marginally. Therefore, it is obvious that, in such areas they depend largely on cultural factors of which the placement of residential blocks in relation to each other and the physical growth of the settlement are of prime importance.
The placement of the blocks is very greatly controlled by the social structure and cultural traditions. The tradition prescribes the rules of where, at what distance and in which direction the blocks of different castes will be placed. This, reflects, in general, the fragmented nature of the rural community. The fragmentation is not related to caste only but also to gotras (clans) and kunbas (constituent lineages). (16)

In the Indian rural context the fragmentation of the society is highly characteristic. In such a fragmented society the placement of the houses and house blocks are not random but follow definite norms. These may involve both the distance and direction from some historically well-rooted reference points which could be the residential area of descendants of the founders of settlements. These principles are followed widely.

As a rule it is found that the more fragmented is the society into groups, regardless of their base of identity, the larger is the number of blocks. Their settlements generally are rectangular or circular. Conversely, the settlements having fewer social groups reveal squarish shapes.

The nature of the physical expansion of the site is also very important. If for some reason, the settlement has expanded uniformly in all directions then it may be circular. In the
region a perfect circular settlement is absent. There are no walls, or moats, or gates, or circular wall suggesting an original circular form. Most attenuations are reflected in rectangular or elongated forms.

Internal morphology can be easily identified and categorised in accordance with the classification given by Manu.(17) In the case of form although it is possible to identify and categorise settlements of the Dun, it is neither possible nor meaningful to do so for the Himalayan areas. Here, the form is elongated and accentuated. It is impossible to distinguish the point at which one settlement ends and the other begins. The village territories are indistinct.

House Types

Physical shelter has been one of the prime necessities of humankind down the ages. It is the first material culture feature that a culture group creates in the process of settling in an area and is, therefore, a symbol of its terrestrial existence. It is a cultural artefact, built of natural materials, and has a characteristic distribution.

It is the smallest unit of occupancy of the cultural landscape and acts as a node of territorial organisation in all types of modes of living and economies.(18) The fields
are arranged in relation to it and paths radiate out from it. Houston supports this idea by saying 'a traditional house expresses the distinctive social organisation of its inhabitants.'(19) Hence, it marks the beginning of the creation of cultural landscape. This becomes all the more important where primeval natural landscape is transformed into the first cultural landscape.

A house, the similar of which we cannot find anywhere, which means that it is unique, cannot be designated as a house type. A house type is both spatially and temporally representative. It represents a region and also a historical period. A house type is distributed through an area where the cultural group for which the house type is characteristic has settled during different periods of time. In the words of Mukerji 'rural house type is the most conspicuous material culture element in the rural landscape, and is an expression of the intimate and complex relationships existing between the farmer and his environment.'(20)

Elements of Rural House Type

1. Internal Layout and Ground Plan

The internal layout refers to the segmentation of the private space, that is, not open to the society but which is
vitaly related to the mode of living, the cultural values, and even some of the physiographic variables. The private space is a part of the site, which in the rural settlement is owned by a particular family. This space relates the family not only to the social functioning of the community but also to the morphology of the settlement. It has a set of symbolic values. The private space provides for the integrated living of the family keeping, at the same time, the outer world apart. Since this private space in a rural settlement is very small and limited, it is partitioned in such a way that the efficiency of daily living is maximised. The most important element resulting from the efficient management of the private space is the courtyard. It has secular, ritual and religious functions. This element of private space protects the family from external interference in social terms. The behra (outer and inner courtyard), the chhappar (verandah), the chabutra (outer platform), and baithak (sitting room) are the elements of private space, which are to varying degrees, related to varying extents of privacy.

2. Roof Types

Roof is the covering construction over the enclosed space of a building for the purpose of keeping out rain, sun, and wind.
The flat roof is widely distributed in the arid and semi-arid regions. Its major function is, of course, to provide a large area for back radiation and thus to keep the rooms cool. In these environmental conditions it provides for several additional secular functions. The flat roof functions as an extension of the private space.

The gable roof, being an efficient adjustment to the varying amount and nature of rainfall, is regionally related to the entire humid-tropical, humid-temperate, and areas of the cold-temperate regions. The people of these areas have functioned as efficient agents for the transference of cultural traits, of which the gable roof has been an important one and which has become widespread.

3. Building Material

The use of locally available building material is easily one of the most diagnostic features of rural house type which is truly reflective of the local natural endowments and the cultural heritage by which these are manipulated. But the use of any material depends on the people's perception of its suitability to their requirements.

4. Form of the House

A house is a cosmos, it is a microcosm within the macrocosm we live in. Every person tries to build his house
in such a way that its form resembles the concept of the form of universe held by the occupants of the house. In the words of Rapoport 'house form is the result of choice among existing possibilities - the greater the number of possibilities, the greater the choice - but there is never any inevitability, because, man can live in many kinds of structures.'(21)

The interpretation of any cultural trait cannot be divorced from and requires a study of, its cultural history. Although the life of an average rural house is not more than one or two generations, similar houses go on being built generation after generation, the phenomenon being termed as 'the persistence of cultural trait.' People continue building houses characteristic of their own culture even after they have migrated to different areas having different ecological settings. Thus, to explain the house form we should consider the cultural milieu and the cultural history of the people concerned, in addition to the physical environmental factors. Unlike urban houses, rural houses show a wide variation in design and method of construction from place to place. These designs have evolved over many centuries and, therefore, represent the optimal solution to local housing needs, given the available building material in the vicinity.
Field Pattern

In field pattern we study the following aspects of agricultural fields: (i) shape of the field, (ii) size of the field, (iii) combination of the form and the size in different areas of the village, (iv) the evolution and the existing distributional patterns of the fields in terms of the previous controlling variables within the village.

Field pattern in an agricultural rural habitat is one of the most diagnostic expressions on cultural landscape, for the very obvious reason that this is created as a result of the exploitation of the basic resource of sustenance that is, land for agriculture. It appears on the landscape only at a particular stage in the socio-economic evolution of the people. Related to this evolution there could be two distinctive types of field patterns: (i) the permanent field pattern, and (ii) shifting field pattern related to either incipient farming or to shifting cultivation.

While the permanent field pattern has a tendency to persist over a considerable historical period, in the latter the fields are not very definitely demarcated and they undergo changes in the form, size, and pattern. The farming system in this stage is not stabilised. Whereas the permanent field pattern is an expression not only of permanent field farming
in which cattle culture is secondary, it is also vitally related to the ownership, control, and use of land in different land-owning communities.

In the villages where, to begin with, the land was owned by a community of consanguineous families, each family gets an equal share in each type of land. The productivity of land, not the inherent fertility, is controlled by its distance from the ma.jra. This is so because productivity is man-induced and is the result of constant care of the crops, addition of organic (biotic) excreta as manure, irrigation and intensive labour input. It is expected that the closer the land to the abadi, the higher will be the productivity.

Determinants of Size and Shape

i) The distance from the settlement and the size of the fields are positively correlated. This is so because the same number of families is given equal share of land in each of the land type annule. The annule nearest to the settlement is the smallest in area. Therefore, here the fields become the smallest.

ii) Crops needing intensive care and high labour input are associated with small fields. Paddy and vegetables are associated with small fields. While in the case of vegetables
the relationship with distance from the settlement is also important, for paddy it is not so. There are two kinds of correlations: (i) in which size is distance dependent and (ii) in which size is distance neutral.

iii) The fields which are irrigated either by wells or by tubewells or by tanks are always smaller than those which are barani (rain-fed). The irrigated fields are small due to their repeated sub-division, each family wanting to have a share in them.

iv) The density of the number of land-owning families and the total amount of cultivated land are negatively correlated. The holdings themselves will vary in size according to the number of land-owning families. If the density is high and the cultivated land remains the same, the size will decrease.

v) Law of inheritance operates for a family in general. Therefore, the holdings have to be sub-divided. The larger the number of potential heirs the larger will be the sub-division. As a consequence the individual fields will become small. In areas where extended family is still a norm, the sub-division of fields could be limited. As a result the fields tend to remain large.

vi) Age of occupancy and the size of the fields are inversely correlated. This is particularly true in the areas
where there has been no marked shift of workers from primary to secondary and tertiary sectors. The pressure on the cultivated land continues unrelieved.

vi) The areas of extensive farming have not only large holdings but also large fields. In contrast the areas of intensive farming reveal very small fields.

References and Notes


6. The Lower Himalaya comprises the Lesser and the Outer Himalaya. The latter includes the Dun and the Siwalik Hills. Lesser Himalaya, the Hills, the Himalaya, and the Himalayan zone have been used interchangeably.


8. Every caste has a distinctive complex of traditions and, hence, can be considered, within broad logical spectrum, as a culture. In the present thesis caste and culture have been used synonymously and interchangeably.

9. See ref. 7.

10. Bohras are traders found all over the district. They were originally Banias from the Plains, but after settling in the hills they began to eat meat and otherwise identified themselves with their surroundings, and so became a separate tribe.


15. The village and settlement are being used synonymously unless specifically mentioned as mauza and maira respectively.

16. The term gotra refers to non-localized, exogamous, patrilineal, and named kinship units which we will call a clan. In the thesis, clan and gotra will mean the same.


