

20. There is a continuing crisis of leadership in the politics of Sri Lanka. The clash between the two parties, one, represented by the president of the country and the other, represented by the Prime Minister is a symptom of political factionalism. This divergence of opinion between the two national political parties disturbs the peace process. The Sri Lankan establishment has to make a firm and honest effort to resolve the problem of militancy and the causes responsible for it.

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Geography Behind History

In this chapter, we have tried to describe the physical framework of the South Asian subcontinent. An attempt has been made to recognize the major physiographic regions. The underlying assumption is that the geographical factors determine the boundaries between the regions and within the regions. The evolution of the state from ancient India to the modern times has been analysed. Different streams of ethnic and ethno-lingual groups came to occupy the subcontinent at different points of time and that set the stage for ethnic intermixing par excellence. The chapter also contains the material on region formation and their geographical extent and boundaries. Two types of regions have been identified: (a) regions based on physiography; and (b) regions based on agro-climatology. There are references to regionalism and regional consciousness of the people of the subcontinent in modern history.

The assumption is that geography sets the stage on which the human drama is enacted. It is this terrestrial space on which patterns emerge indicating the on-going process of interaction between nature and the humankind. A general description of geography of the subcontinent is to serve as the foundation for historical exploration (Sastri 1981: 34).

The basic assumption of this statement appears to be a re-incarnation of the by-now discredited theory of environmental determinism.¹ Human initiatives notwithstanding the broader framework of development in the human society is a result of the location on terrestrial space² and the associated factors that come along with it, e.g., distance from the sea, altitude, climate, accessibility by land and sea, social organisation, and more importantly, the organisation of production forces. Possibilism does not negate the influence of environmental factors on human life.³ It is the package of the natural resources, and the human cognition of this potential, that the interactive process begins. Each of these factors operate individually as well as in combination with one another. They define the choices available to the humankind within a certain framework of environment and social organisation at a given level of technology.⁴

-- Environment is a comprehensive term. It plays a determining role in influencing the conditions of the humankind on this planet Earth. The geographical

surroundings of places and regions offer unlimited possibilities for human development, materialistic as well as meta-materialistic, i.e., enabling, or not enabling, the humans to select a given path of development at a given point of time in a given segment of space. The humans adopt a set of technology to utilise the development potential as perceived by them.⁵

Surface Features

What is the nature of the land surface of the subcontinent? We may examine the role of the geographical factors, such as location, altitude, lay of the land and the elements of climate in determining the course of South Asian history. The raised relief map of Central Asia shows a series of mountain ranges with awe-inspiring heights.⁶ Inter-montane valleys separate the mountain ranges. There is a sequence in which the mountains and the valleys occur. Mountain ranges follow the inter-montane valleys, which follow the mountain ranges, which follow the inter-montane valleys and the out-skirting hill ranges. The mountains of the subcontinent are a wall-like structure, which define boldly the northern borders with Tibet, a province of China, and the Central Asian states. The mountain ranges have always restricted overland movement from China to India and *vice versa* to a bare minimum. All human movements have taken place through the difficult mountain passes along the Himalayas from Indus to Brahmaputra, as well as from Indus to the Helmand river in Afghanistan. However, a thin traffic of nomads along with their animal stock has always managed to cross these passes, howsoever difficult they might have been. This reveals the protective role of the Hindu-Koh Himalayan chain of mountains in the history of the subcontinent. It is because of the Himalayas that the Indians have been able to retain their distinctive ethnic/racial traits. There may be other reasons as well, but terrain and accessibility do matter. This is not to deny the fact that both India and China have been influenced by each other's cultural traits, ethnicity as well as linguistic affinity. It may be noted that this influence remained confined to the northern border regions from Baltistan and Ladakh in the northwest to Arunachal Pradesh, Nagaland, Manipur, Mizoram, Meghalaya and Tripura in the northeast. The evidence, mostly ethnographic and linguistic, is scattered all over the region. This marginal interaction notwithstanding the mountain ramparts have helped the people of the subcontinent retain their uniqueness.⁷

Thus it is evident that the partially enclosed character of the South Asian subcontinent owes its origin to the two outstanding features, which delimit the region—the Hindu-Koh Himalayan Mountains in the north and the Indian Ocean in the south.⁸ In the north, the bordering rim of the lofty mountains has an impressive cluster of the highest peaks in the world.⁹ The mountains remain snow-bound for the greater part of the year. In fact, they have acted as a formidable barrier throughout our history. However, the mountains have never been regarded as impregnable. There are passes all along the mountain chain from Afghanistan to Assam and beyond. It is through these passes that a small traffic of nomads, pilgrims, *sanyasis* and the Boudh *Bhikshus* has always moved. Even the armies have crossed these passes to reach the subcontinent. For example, in 1962 the

Chinese army moved into Arunachal Pradesh in the northeast and Ladakh in the northwest, after crossing difficult passes. Therefore, the mountain ranges have played a critically important role in defining the ethnic and cultural characteristics of the South Asian subcontinent. It was in this context that the famous Urdu poet, Iqbal, described the Himalayas as a vigilant sentinel guarding our territory.¹⁰

Towards the south, the Himalayas lose their height in the Siwaliks and finally, give way to the vast alluvial basin—the North Indian Plain. The geographical location of the Plain is such that it promotes a feeling of security, self-sufficiency and a psychic feeling of exclusiveness. The Plain extends from the Punjab to the Ganga delta in Bengal and Bangladesh. Punjab Plains have been built by the five rivers, Satluj, Beas, Ravi, Chenab and Jhelum, which have deposited the detrital materials over the geological ages. The joint stream of these five rivers, the Panjnad, pours their waters in the Indus. The Plain reappears in the Brahmaputra valley in Assam. The Plain has been described as a gable (Wheeler 1964). The shorter wing slopes towards the Arabian Sea in the Plain of Indus and the longer wing slopes towards the Bay of Bengal. The mighty Brahmaputra, locally known as Jumna in Bangladesh, joins the Ganga, and the united stream flows into the sea. Jumna, Meghna, Padma and the Hooghly rivers flow through a deltaic tract, with an imperceptible slope, before they pour their waters in the Bay of Bengal.

On the south, the North Indian Plain gives way to the Deccan Plateau, which rises gradually, but at some points it rises abruptly and looks like an escarpment. The Plateau reaches its maximum height in the Nilgiris, where the highest peak is named as Doda Betta (2,636 m.). The Ghats consist of a series of hill ranges, such as the Sahyadri, Ajanta, Nilgiris, Cardamom, Palni and the Anaimalai Hills. The Central Vindhyan Complex has a series of mountains extending from west to east, such as the Vindhya-chal, Satpura, Mahadeo, Maikala, Bhanrer and the Kaimur Range. There are several erosion surfaces, like Chhotanagpur, Chhattisgarh and the Bastar plateau. The tip of the Peninsula dips into the Indian Ocean at Cape Comorin (Kanyakumari). To the east-southeast of the Peninsula lies the island of Ceylon (now Sri Lanka) the Sarandeeep of the medieval geographers and travellers. The Palk Strait separates Sri Lanka from the mainland. The subcontinent resurfaces in Sri Lanka where it reaches the maximum height in Pidurutalagala (2,524 m.).

The Vindhya's are a complex mountainous tract. The relief on its northern face is rugged and not very negotiable. The southern face, on the other hand, is marked by a gentle slope. On the south, the land declines abruptly with a general escarpment like relief, sloping down to the Narmada basin. The Narmada basin is bounded by an escarpment, which stands like a wall. The Satpura, Mahadeo and further eastward Maikala ranges dominate the scene. Further eastward, the Tapi river flows on the south of the Satpura roughly parallel to the Narmada river. This complex of hills and escarpments is generally recognised as the dividing line between north and south India (Wadia 1976: 406). However, these mountains have never been impregnable. Inter-communication has never been hindered. The give-and-take between the northern and the southern regions of India has continued through the ages.

It may be recapitulated that the two delimiting factors—mountains in the north and the sea in the south—have contributed immensely to the uniqueness of South Asia as a result of the intermingling of the different racial and cultural strands. These factors have operated through the ages. In fact, they have acted in a way so as to make the South Asian subcontinent a unique cultural realm, a melting pot for the mixing of diverse peoples and diverse cultures. The mixing of the racial and ethno-lingual groups has made the subcontinent a museum of social and cultural history.

The peninsula tapers towards the south, finally disappearing in Cape Comorin. From the tip of the peninsula, the coastal plains—Malabar in the west and the Coromandel in the east—run in the northwest-northeast direction respectively. All major seaports like Cochin, Goa and Mumbai are located on the Malabar Coast. They have provided anchorage for ships from Africa and Mediterranean lands.

The Himalayan mountains are arranged in ranges one after the other. The inter-montane space has accommodated little culture worlds from Gilgit, Hunza and Baltistan to Arunachal Pradesh. With all its detailed topography these cultures have survived the ages of historical development. Their own evolutionary history is not properly documented.

Looking at the historical links that India established with the neighbouring countries across the nation, it may be concluded that the Satvahanas, Pallavas and the Cholas established contacts with the eastern world—the Malay Peninsula and Indonesia. It was due to their interest in trade that the country emerged as a maritime power. Their glorious tradition of seafaring and shipping was known all over the old world.

The peninsula has a triangular shape made up of very old rocks from Satmala-Ajanta ranges to the Nilgiris, the plateau on its western edge is very steep. On the other hand, the plateau has a gentle fall on the east. This complex of hills is defined as the Eastern Ghats. Between the Eastern Ghats and the Coromandel Coast lies Carnatic lowland. The eastern coastal plain is wider than the western coastal plain. If you look at the Western Ghats from the west, they look like a gigantic fall often rising in steps from the shore line, hence the name ghats. The average elevation of the plateau is more than 600m. from the mean sea level. In the northern part, the Ghats rise more than 1,200 m. The altitude increases towards the south culminating in the Nilgiris. The continuity of the Western Ghats is broken by the Palghat Gap. Its north-south length is about 32 km. People have traversed this gap time and again.

The basaltic lava plateau is covered by a thick layer of the lava deposited here during the Vindhyan times. Geologists describe it as the Deccan Trap. The weathering action has shaped the surface suitable for citadels and fortresses in the midst of the hills. They have locationally strategic value. During the Maratha period, the mountain formations helped establish their military supremacy. The plateau is covered by the black soil, a residual of the weathered lava sheet, considered fertile for cotton production. A dense forest has covered the seaward side of the plateau. There are several passes in the Western Ghats, which have enabled human movement. Reference may be made to Trimbak pass near the source of Godavari. Pimpre pass provides routes from Sopora and Kalyan to Nasik. There is yet another pass known as the Nana pass which provides access to Junnar

and the Konkan. It was on the mountain spurs that the fortifications, such as Bhimsankar and Chakan are located. Another pass is known as the Bhor Ghat or Khandala pass with a height of about 610 m. The Amba pass connects Ratnagiri with Kolhapur. There are other important passes such as the Shencottah Ghat and the Aramboli pass. Long-range changes in the level of Coromandel coast have been quite common. Once upon a time, the commercial cities known as Korkai and Kayal were flourishing in commercial activities. The cities, however, are buried under the sea. Similar changes have been recorded in the Gulf of Cambay and other neighbouring areas.

Roundabouts and Cul-de-Sacs

It is necessary to examine the salient features of structure and relief of the subcontinent, which have determined the space relations. The tract of land between Peshawar (Purushapura in Sanskrit) now in Pakistan, and Jalalkot, now known as Jalalabad in Afghanistan, is negotiable through the historic Khyber Pass. There are, of course, other passes in the northwestern mountain complex linking it with Afghanistan. Likewise, there are passes in Baluchistan, which have provided access to the nomads as well as to the warriors. It is believed that the Greeks, Greco-Bactrians, Huns, Kushanas and the Indo-Iranians (Aryans) came by the same route. Further north, the passes in the Hindu Koh range, particularly in the Bamiyan province of Afghanistan, viz., Kowtal-e-shebar, Kowtal-e-salang and Kowtal-e-anjaman, the upper streams of the Kabul river and its tributary, the Kunar river, provide natural routes linking the northwestern region of the subcontinent with the northern slopes of the Hindu Koh range and the regions lying beyond. This segment of the subcontinent has been the main theatre of intermixing of the people of diverse ethnic origins. The low-lying valleys of northern Afghanistan have always attracted the pastoral nomads. In some valleys, traditional agriculture has also been a viable alternative to nomadic pastoralism. Further east-northeast, the city of Mazar-e-Sharif is the outpost of the seat of power based in the Kabul valley. There are tiny little streams, like the Zhob, Kurram and Loralai, to mention only a few, with cascaded valleys on the western slopes of the Sulaiman Range. These valleys have a thin alluvial veneer suited to traditional agriculture. The region has sufficient archaeological evidence to show that the early communities, familiar with the art of agriculture settled in the tiny villages during the period 4-5 millennia B.C. These valleys have also served as routes for the adventurers and the warriors wandering between Baluchistan and southern Iran. The Oxus (Amu Darya) has been crossed time and again by travellers from Mazar-e-Sharif to Termez, in Uzbekistan and *vice versa*. However, the traffic has never been one-way. The medieval historians recognised the Oxus as the natural boundary between Afghanistan and trans-Oxania (the regions lying beyond the Oxus, *Mawara-un-nahar*). This area has also been described as eastern Turkistan or Turan.¹¹ As noted earlier, the Indus receives the waters of the Kabul river and its tributaries near Attock. It may be recalled that the Mughal emperor Akbar (1556-1605 A.C.), built a fort at Attock. He perceived this place as a strategic

point for the defence of his vast empire in South Asia (Box 3.1). It was the cis-Indus region on the east bank of the river in Punjab, which had a great potential for agriculture, the real economic base on which the Mughals were crucially dependent.

Box 3.1: The Road to Kabul

From Torkhan to Jalalabad, the road runs through a broad corridor between two parallel snow-capped ranges, the Safed-Koh on the south and the Hindu-Koh on the north. Beyond Jalalabad this corridor splits into the two valleys of the Kabul river and its right bank tributary, the Surkhab, a prudent road steers clear of the Kabul river's gorges. Even the modern road is prudent enough to prefer the Khyber hump to the Warsek slot—and anyway, since the completion of the Warsek dam, this particular gorge has been filled to the brim by the waters of a reservoir, leaving no room at all for a road to find a passage between lake-edge and mountainside. Above Jalalabad the ancient road prudently chooses to give the Kabul river the widest possible berth, though it was heading for a city through which the Kabul river flows, and from which it takes its name. The ancient road swerved away up the Surkhab valley, making for the Khurd Kabul Pass; and here, at Nimla, the Mughals had an imperial garden where they camped when they were travelling to Kabul from Delhi at a leisurely bullocks' and elephants' pace. The modern road rashly chooses to hug the right bank of the Kabul river all the way up to Kabul city; and immediately above the confluence of the Kabul river with the Surkhab, a short stretch of gorge, taking road and river by the throat, gives a foretaste of what lies ahead. Then the valley opens out again and, as quickly, contracts into another gorge that seemed interminable on Wednesday the 20th April 1960 (Toynbee 1961: 47-78).

East of Indus, travellers intending to reach the North Indian Plain have often preferred the northern route running parallel to the base of the Siwaliks, the foothills of the Himalayas. Further north, the movement is obstructed because of the hilly terrain. On the south lies the Thar Desert, which has never been considered as a viable alternative route. But there is the example of Humayun, the son of the Mughal emperor Babar, who under unfavourable circumstances crossed the Thar desert and reached Umarmot, in the Tharparkar district of Sind, on his way to Iran to seek asylum in that country. The northern route takes one to the river Yamuna, at the point where the river debouches from the hills, near Yamunanagar, in Haryana. It may be recalled that the nomads, warriors and the stray travellers coming from the west and the northwestern parts of Asia crossed the Indus river frequently.¹²

An alternative route lies further south, which connects Multan with Delhi via Hansi, a small town, now in Haryana. The northern route takes one to the upper Ganga-Yamuna *doab*, one of the most fertile tracts in the subcontinent. The region has always remained exposed to the traffic of nomads, wanderers and the armies of the enterprising invaders originating from parts of western and central Asia. But its location has been a great disadvantage to the local people. It is not

easy to describe the misery of the people living in this 'corridor of intrusion'. They were plundered time and again by the intruders. Perhaps their history was written in blood and erased by water.

The North Indian Plain stretches for thousands of kilometres in the east-southeast direction between the Indus in the northwest and the deltaic Bengal-Bangladesh in the east. Moreover, the plain has its eastern-most segment in the Brahmaputra valley in Assam. On the south, the plain merges with the peninsular plateau almost imperceptibly. Geologists inform us that the northern flank of the peninsular plateau in southern Uttar Pradesh and Bihar lies buried under a thick layer of the alluvium deposited by the rivers, such as the Chambal, Betwa, Ken and the Sone, all originating in the mid-Indian plateau region and emptying themselves in either the Yamuna or the Ganga (Ganges). Historians tell us that the North Indian Plain along with the northern segment of the peninsular plateau constituted the core of the Madhyadesa long back in time, perhaps in the Puranic period (c. 600 B.C.—600 A.C.). It was the hub of the Delhi Sultanate in the medieval period (1200 A.C. and beyond). The puranic Madhyadesa extended from the banks of the legendary Saraswati (perhaps the Ghaggar river)¹³ of northern Rajasthan in the west to the Rajmahal hills in the east and from the Siwaliks in the north to Narmada (earlier Narbada) in the south. The region came to be known as Hindustan.

Confusion on the question of defining the extent and boundaries of the region notwithstanding, Hindustan lives in the public memory. In real language terms, all parts of northern and central India where the main language is Hindi or Urdu came to be known as Hindustan and the spoken language as Hindustani. The lingua franca changes from Hindi-Urdu to Punjabi in the northwest, to Bengali and Oriya in the east and to Gujarati and Marathi in the southwest of this region. The Hindustani-speaking region ends with the Rajmahal Hills in Bihar. The North Indians are called Hindustanis in Bengal and Assam as well as in the Deccan region, just as all South Indians in North India are described as Madrasis (after Madras, now Chennai). North Bengal is a transition zone between Hindustani and Bengali language realms on the one hand, and the Bengali and the Assamese on the other. However, there are also minor language groups, such as the Gorkhas and the Bodos. This is a transitional zone to the Assamese in the eastern and the northeastern regions.

Language historians believed that the Maithili was the mother of all the three major languages of eastern India—The Bengali, Assamese and Oriya. A general view is that Hindustan does not have a single core or a single periphery. Cores have shifted as the battle for controlling Hindustan has continued over centuries. As cores have shifted, peripheries have also shifted. In fact, there have been multiple cores and multiple peripheries. For example, places, as far away from each other as Kanyakubja (now Kannauj) and Purushapura (now Peshawar) have served as capital cities. These were the two hubs from where the King Emperor Harsh Vardhana ruled over the subcontinent. Then there was the Delhi Sultanate, which had its nerve centre in Delhi. The Sultanate encompassed the entire region of the

Indo-Gangetic divide, upper and middle Ganga-Yamuna *doab* and the trans-Ganga region of Rohilkhand in western Uttar Pradesh. Perhaps the Delhi Sultans were not capable of controlling the territory lying further east. The eastern region was a part of the Sharqui kingdom, based in Jaunpur in eastern Uttar Pradesh. The kings of Gaur ruled over the deltaic region of the Ganga in West Bengal and Bangladesh. There were, as the historical facts reveal, many gaps in the so-called no-man's land in between. They were the centres of bandit power.

The valley of Brahmaputra in Assam was another core region, although not as extensive as the other regions mentioned above. The surrounding rim of mountains and hills from Arunachal Pradesh to Tripura constitute the Assamese core. The Garo-Khasi and Jaintia Hills, the outer Himalayan range in Arunachal Pradesh and the curvilinear hills in Nagaland, Manipur, Mizoram and Tripura together form the eastern frontier zone of the British Empire in India up to independence in 1947. It may also be noted that there was no viable political boundary between this region and the neighbouring territory of Burma (now Myanmar). There are disputes between India and China on the northern boundary of Arunachal Pradesh. A part of the territory is claimed by China. There is confusion on the demarcation of the McMahon Line, which is yet to be accepted as a boundary between the two countries (Box 3.2).

Box 3.2: The McMahon Line

The boundary in the eastern sector is 1,140 kms. long and runs from the eastern limit of Bhutan to a point near the Talu Pass at the tri-junction of India, Tibet and Burma. This line is called McMahon Line after Henry McMahon, a British representative who signed the 1913-14 Simla convention. The boundary was established along the Himalayan crest of the northern watershed of the Brahmaputra, except where the Lohit, Dihang, Subansiri and Kameng rivers break through that watershed. The only variance from the watershed principle is near Miayetun and the two Tibetan pilgrim places Tstokaro and Tsari Sarpa.... In the eastern sector, China claims about 94,700 sq. kms. of Indian territory, occupying 19,000 sq. kms. including the Kameng Frontier Division, the Subansiri Frontier Division, the Siang Division and three-fourths of the Lohit Division of Arunachal Pradesh. In 1911, Tibet revolted against the Manchu Dynasty and until the end of 1912 there were continuous skirmishes on the Sino-Tibetan Frontier. In 1913, Tibet declared full independence.... After full discussion, the three plenipotentiaries (Chinese, Tibetan and British) initiated the map and drew up the draft convention.... The McMahon Line then, did not create a new border but merely confirmed the natural, traditional, ethnic, and administrative boundary existing between India and Tibet—a boundary which has been recognised for centuries (Sukhwal 1985: 263-64).

It shows how difficult the task of clearing the historical backlog is. It is here that India and China meet. In fact, Myanmar constituted a part of the Raj, until it was given a special status in the 1935 Act of India as a separate country. The India-Myanmar boundary does not correspond to any historically established

criteria. The *janajatis*, such as the Nagas, Kuki-Chins, Mizos and the Tripuris, to mention only a few, are living on both sides of the boundary. At present the Indo-Myanmar boundary is well defined, and the more important thing is that the two concerned countries accept the position on the ground. But within India the boundary between Manipur and Nagaland has given rise to civil strife, with the Nagas demanding the constitution of another state, which according to them should include Nagaland as well as parts of Manipur state where Nagas are predominant. The Naga youths have been pressing for this reorganisation. The on-going agitation has disturbed the normal life due to the blockade of all movements on roads. The Manipur state is virtually cut off from the rest of the country.

The rivers have acted as natural boundaries throughout human history. The Mughals, for example, recognised the channels of the five rivers of the Punjab as boundaries between the Sarkars. The *doabs* between the two confluent rivers emerged as an acumen for the human settlement and for the pursuit of agriculture.

Within the subcontinent, boundaries have been delimited rather arbitrarily. The boundary between India and Pakistan, for example, does not follow any river channel or a range of hills. As it happens, history and practice are the main criteria in the delimitation of boundaries. The boundary of the princely states of Bikaner and Marwar with Sind, Khairpur, and Bahawalpur in Pakistan, became the Indo-Pakistan boundary in this sector. In the British Punjab (undivided Punjab) none of the tributary rivers of the Indus system served as natural breaks for boundary formation. Similarly, the line of control (LOC) in Jammu and Kashmir simply shows the position on the ground, perhaps, as we believe, the situation is likely to remain the same unless it is recognized as an international boundary between the two countries. This may not be the ideal solution. But the recent political history cannot be ignored. So far, neither of the two sides have agreed to convert the armistice line into an international boundary. The Kashmiris are certainly opposed to any such move for the partition of the state.

The Republic of India, Bharatavarsha of the ancient period, as we know it today, is a distinct geographical entity occupying the central place in the South Asian subcontinent (Ali 1966). It is the largest country in the region in terms of area, population and resources. It is a country of great geographical extent and its people are of diverse ethnic composition, dialects, languages and the folk arts and crafts. In fact, its vastness in size, diversity in the natural environment and in material cultures is amazing. So is the disparity in human development. All these factors add to its uniqueness. It extends from the snow-covered peaks of the Himalayas in the north to the Indian Ocean in the south. The Bay of Bengal and the Arabian Sea have a coastline extending for thousands of kilometres from the state of West Bengal to the Rann of Kachchh in Gujarat. Taking Delhi as the centre, the Indian territory stretches on all sides encompassing the vast expanse of the North Indian Plain from the upper Indus valley in the west to the Brahmaputra valley in the east. The encircling line of hills around the Assam valley and the Shillong plateau together constitute the international boundary between India and Bangladesh. The tropical sun and the monsoon regime are the two elements that together exercise an influence on the life of the teeming millions of South

Asia, who are dependent on agriculture and the rural artisan industry. As we know, the Himalayas constitute the boundary between India and China. In the following paragraphs, we will describe the macro regions of the subcontinent based on physiography.

Regions and Regionalism

Historians, historical geographers and archaeologists have noted that the regions based on the surface relief features and the drainage basins of rivers have acted as break points between one region and the other. They also believe that the dualism between the early river valley settlers and the hillsmen is based on the geographical framework. Often the boundary between the two is knife-edged. However, these surface variations have caused diversity in the formation of cultural regions and their evolutionary history (Appendix II).

Macro Regions

These regions have been identified on the basis of physical features. Physiography is defined as a branch of geology, which deals with the development of the existing features of the terrestrial space. The surface features are the product of a combined action of the external forces of the lithosphere. Physiography deals with topography and the landscape produced by the weathering agents. These agents may be identified as running water, glaciers, wind and the sea waves. These forces operate on the global scale. But the base on which these weathering agents operate takes its form and shape due to the earth-movements. The higher the relief, the more intensive is the erosional work of these agents. The term surface features apply to various kinds of landscapes in mountains, plateau surfaces and the plains. The South-Asian subcontinent consists of the following macro regions:

- (a) The Hindu-Koh-Himalayan Mountains
- (b) The North Indian Plain
- (c) The Peninsular Plateau

The Hindu-Koh-Himalayan mountain complex consists of a series of mountain ranges. Across the Great Himalayan Range lie the Karakoram, Zaskar, Ladakh and the Kailasa ranges and the plateau.¹⁴ To the south of the mountains lies a vast alluvial plain, the North Indian Plain. On its outskirts in the northeast lies the Brahmaputra valley in Assam. In the northwest beyond the Indus lies the Kabul valley, an alluvial plain built by the Kabul river and its tributary streams. However, there is no comparison between the Kabul valley and the Assam valley. They differ both in the depth of the alluvium as well as in its width and density of the detrital deposits. Moreover, Kabul valley is distinguished for its glacial past and its altitude. On the southern outskirts of the North Indian Plain lies the Peninsular Plateau. The geological view is that the alluvial deposit of the Plain, in its eastern and western segments, has covered the northern flank of the Plateau. The alluvial deposit laid down by the Ganga and its numerous distributaries and the Brahmaputra

river in the deltaic region have broken the continuity of the Plateau, with the result that the original form of the plateau lies buried under a thick layer of the alluvium. The outlying segments of the Plateau re-emerge in the Meghalaya Plateau, popularly known as Garo, Khasi and Jaintia Hills, and Kachar, Tripura and Chittagong Hills. The Plateau also re-emerges in the west and the northwest. The Aravallis and the Potwar Plateau are the relicts of an earlier phase of geological history.

The northwestern flank of the Plateau is a dry region known as the Thar Desert. The Thar extends from the Aravallis to the Indus and beyond. In fact, the Thar is a part of a vast arid zone, which extends from Rajasthan to Sind and from Sind to southern Baluchistan. The dry region also encompasses the south-western parts of Afghanistan, southern Iran and the whole of North Africa, up to the Atlantic seaboard. The Indus breaks the continuity of the desert and flows through it in Sind. The dry zone of the southwestern parts of Afghanistan is a similar case—the Helmand river flows through it and breaks the continuity of the desert. The Helmand is one of the major inland streams of the world. However, the comparison ends there. Helmand is worlds apart from the Indus in terms of its size, length and the volume of water it carries. The northeastern periphery of the subcontinent is delimited by the Himalayas in Arunachal Pradesh. The largely denuded hills of Nagaland, Manipur, and Mizoram delimit the region and separate it from Myanmar.

Can we consider coastal plain as a regional unit of the first order? There is a difference of opinion among geographers on the question of considering the coastal plain lying to the west of the Western Ghats and to the east of the Eastern Ghats as part of the Peninsular Plateau, or it is a physical division of the first order in itself. The Eastern Ghats is a series of broken hills running parallel to the coast. It is not as imposing as the Western Ghats. However, it is customary to recognise the coastal plains as a part of the Plateau. As noted earlier, the Island of Sri Lanka is an extension of the Indian Plateau, even though it is a separate country.

Meso Regions

Each of the three-macro divisions of the subcontinent described above consists of several meso regions, or second-order regions. In the first place, each meso region has a broad uniformity in its physical characteristics, such as relief, geomorphological history, drainage, climate, natural vegetation, animal life and soils. Although at the micro level these regions may have differences in the natural environment and/or superficial features, there is a broad unity in their general appearance, which distinguishes them from the other regional units in the neighbourhood. The North Indian Plain, for example, has a broad uniformity in relief and geomorphological characteristics. But at the lower level there are striking differences in all these respects. Brahmaputra valley and the Punjab Plains are both alluvial plains, but they sharply differ in details due to geographical location and the microclimates. However, local details have to be ignored in order to identify the unity at the next higher level of generalisation. The natural history, geomorphological features, climate and the soil are not always distributed in a way so as to correspond perfectly with each other. They often overlap. The regional boundaries are, therefore,

generalised. The transition from one region to the other is not a line but a zone through which one type of region changes into the other.

The Hindu-Koh-Himalayas have striking differences in their layout and location. For example, the Eastern Himalayas lie closest to the sea. The Hindu-Koh, on the other hand, lies farther away from the sea. However, due to their location, the mountains are exposed to the tropical sun and humidity. Similarly, the Assam and Kashmir Himalayas are both part of the northern mountain complex, but they differ in many respects, particularly in their glacial features, distribution of precipitation, character of natural vegetation and the associated wild life. Likewise, the North Indian Plain has a broad uniformity from the Hooghly and Tista rivers in the east to the Indus in the west. But even a common observer may notice the important differences in relief and climate between the Ganga delta and the delta of the Indus. The Punjab plain and the north Bihar plain have differences in their micro relief. These differences are caused by the depositional work of rivers, local climates, natural vegetation cover and the soil. Even the difference between the plains of western Uttar Pradesh and eastern Uttar Pradesh is quite well marked, although the climatic regime is by and large the same. Evidently, the criteria for the identification of the second-order regions (meso-level regions) are not necessarily the same as for the delimitation of the first order regions.

The concept of regions is hierarchical, which means that all macro regions have meso regions and all meso regions are divisible in micro regions. An analysis of the regional contents reveals that all regions exist at all three levels at the same time. The classification is based on a scale defining the hierarchy. At the macro level, it is usual to recognise the first order regions on a general basis, e.g., a physiographic division at the highest level of generalisation. This generalised classification defines the basis of their identity.

As pointed out earlier, the narrow coastal plain—Malabar and the Coromandel coasts, situated on the outskirts of the peninsular plateau, is recognised as a region of the first-order. But there is no consensus among the geographers on this suggestion. Information is not sufficient to recognise the coastal plain as a first-order region. Geologists believe that the coastal plain is an integral part of the peninsular plateau itself and cannot be identified as a separate region.

Regions of the Hindu-Koh-Himalayan Mountain Complex

- (a) Kabul River Valley
- (b) Herat, south of the Paropimismus Range and the Firoz Koh
- (c) Qandahar
- (d) Balkh and Badakhshan, north of the Hindu-Koh Range bordering Turkmenistan
- (e) Helmand Desert
- (f) Trans-Hindu-Koh Region
- (g) Waziristan, Chitral, Yasin, Gilgit and Hunza

- (h) Karakoram, Baltistan, Kargil, Dras and Ladakh
- (i) Kashmir Valley
- (j) Upper Chenab Valley, Kishtwar and Doda
- (k) cis-Pir Panjal Range: Jammu, Punch and Rajauri
- (l) Himachal, upper reaches of the Beas, Spiti and the Chenab rivers, south of the Satluj and between Satluj and Beas
- (m) Uttaranchal: Garhwal, and Kumaon Himalayas
- (n) Nepal, Sikkim and Bhutan
- (o) Eastern Himalayas
- (p) Arunachal: Great Himalayas, Abor, Miri, Dafla, and Mishmi Hills
- (q) Purvanchal Hills, Naga Hills, Barail Range, Aimatol Range, East Manipur Hills, Lushai Hills, and Tripura Hills

As already noted the Hindu-Koh-Himalayas are a division of the first-order. Both the mountain ranges are considered as young in age in geological terms. Geologists hold the view that like the Alps they are young-folded mountains. However, the agents of denudation, such as rivers and glaciers have largely modified the original relief of the mountain complex. There are several identical characteristics. Among these features, the more pronounced are high altitude, high degree of slope and the extremely rugged character of the terrain. The mountains have several altitudinal zones. Each zone is characterised by variations in vegetation cover, water supply and soil formation. The differences in climate and natural vegetation are caused by differences in altitude, aspect and the soil type. By aspect, we mean the direction in which the mountain range is arranged, north or south. Aspect is an important factor. The natural vegetation, snow-cover and the duration of sunshine are all dependent on it. Aspects of the Himalayas, which face the south, are far more sunny and rainy. They receive lashing monsoon rains leading to the growth of dense natural vegetation. However, aspect itself is not sufficient, much depends on the altitude. Both climate and natural vegetation and the associated animal life have an interesting altitudinal zonation. These diversities within the Himalayan Hindu-Koh mountain complex have resulted in a number of second order regions, which can be identified easily.

The Kashmir valley, which lies in the northwestern region of the subcontinent, belongs to the Himalayan realm. It is surrounded by high mountain ranges in the western Himalayas. It has a distinct regional character based on the eco-system of an alluvial plain. The population consists of ethnic and ethno-lingual strands. The climate varies from temperate to alpine type, with a variety of natural vegetation from subtropical to Alpine. The specific ecological conditions, level relief and abundant water supply from snowmelt are some of the distinguishing features of the valley of Kashmir. The surrounding mountain ranges, such as the Pir Panjal and the Great Himalayan Range, have differences in climate and forest types caused by differences in altitude and exposure to the sun and the rain.

In the north, the Great Himalayan Range gives way to the imposing Karakoram Range and the old pre-Himalayan Plateau surfaces, such as Baltistan, Aksai Chin

and Deosai, etc. Across the Great Himalayan Range and to the northeast of the valley of Kashmir lies Ladakh, which has a distinct climate marked by low precipitation and cold weather conditions. Ladakh, a good example of a cold desert, along with Kargil and Dras valleys have accommodated distinctive ethnic types. The cold weather season is rigorous. The mercury may drop to minus 40 degrees Celsius in winters. The transition from the valley of Kashmir, a distinctive ethnic region, to the Jammu region is through the Pir Panjal/Pir Pantshal range. Many of the passes in the mountains remain frozen for the greater part of the year. As stated earlier, the traditional routes to Kashmir passed through the Baramula gorge, now under the control of Pakistan. However, India needed an all-weather road to reach the valley of Kashmir. This resulted in the construction of an all-weather road that passes through a tunnel below the Banihal pass. The tunnel provides a safe entry into the Kashmir valley. But the route is not free from landslides, which often block the passage to the valley.

To the east of the Satluj gorge, the mountain range is known as Dhauladhar, which lies in an east-west direction. Further eastwards, the mountains extend into the Kumaon and Uttarakhand regions of Uttaranchal. The general relief, however, is not much different. The Himalayas in this sector are different from the Kashmir Himalayas in rainfall and natural vegetation. Both Kullu and Kangra valleys have a distinct physical appearance; so are the people. The higher rainfall has its effect on the nature of forest types, which are sub-tropical, particularly in the low-lying areas. The general appearance in Kumaon remains by and large the same.

The high mountains extend further eastwards in the Himalayan kingdom of Nepal. There is a broad similarity in the relief features. Nepal has three main physiographic divisions: the Great Himalayas, the Middle Himalayas, locally known as the Mahabharata range, and the Outer Himalayas, or the Siwalik range. The plain area on the foot of the Siwaliks is known as the *terai* belt. The Kathmandu valley is a small alluvial basin lying between the Great Himalayas and the Mahabharata range. The major concentration of population is seen in the Kathmandu valley and the *terai* region. Sikkim and Bhutan are also located in the lap of the Himalayas. They have a characteristically mountainous relief; the climate ranges from cold to Alpine conditions. It is to be noted that the highest peaks of the Himalayan Range, such as Mount Everest and Kanchenjunga lie in this part of the Himalayas. The segment of the Himalayan range east of Sikkim is also described as the Eastern Himalayas.

The Eastern Himalayas are different from the Western and the Middle Himalayas largely because of their layout and placement. It is customary to identify them as a separate sub-region. The change occurs between 86 degrees and 88 degrees East Longitude. To the east of the 88 degrees East, the mountains are exposed to the strong monsoon currents originating from the Bay of Bengal. As a result, the mountains receive a far higher amount of rainfall. The luxuriant growth of the Tropical Wet Evergreen Forest type sharply distinguishes them from the western and the middle segments of the Himalayas. These general features continue without any noticeable change eastwards up to Arunachal Pradesh, which is the eastern-most state of India.

The Indo-Myanmar Hills represent the southward extension of the Himalayan mountain range. However, they have a relatively low altitude and less imposing relief. They rarely rise above 2,000 m. The rainfall in this region is scanty. The forest cover is thick and generally dominated by vegetation types ranging from Tropical Evergreen to the Monsoon Deciduous varieties.

North Indian Plain

The North Indian Plain consists of four segments: the Indus Plain, including the Kabul river valley, the Indo-Gangetic-divide, Ganga Plain and the Brahmaputra Plain. The plain is monotonous in terms of relief features. There are minor local variations. Climate and depositional history have contributed to the lower order differences in relief. Both climate and geomorphology work in combination with each other. They can modify the work of rivers: erosion, transportation and deposition. The North Indian Plain lies parallel to the axis of the Outer Himalayas from west to east. It is interposed between the mountains of the north and the plateau in the south. The Plain consists of the following second order regions:

- (a) Sind Plain from Sukkur to the mouths of the Indus near Karachi
- (b) Punjab Plain from Indus to Yamuna
- (c) Indo-Gangetic-Divide region between Satluj and Yamuna in Haryana and Delhi
- (d) Ganga Plain from Yamuna to Rajmahal Hills
- (e) Delta of the Ganga from Purnia to the mouths of the Ganga and Brahmaputra
- (f) Assam Valley/Brahmaputra Plain from Sadia to Duars

Lying in the extreme west, the Punjab Plain is part of the larger plain of the Indus river. However, a small segment of the Punjab Plain is in India. The major segment of the plain extends from Sialkot to the mouths of the Indus in Pakistan. The southern segment of the plain in Bahawalpur and Multan has an arid climatic regime. It is characterised by a generally dry climate, showing a clear climatic transition between the arid and the wet tracts. The Punjab Plain is divided into several interfluvial plains (*doabs*), such as Bari *doab* between Beas and Ravi, Bist *doab* between Beas and Satluj, Rachna *doab* between Ravi and Chenab and Chaj *doab* between Chenab and Jhelum. The inter-regional differences, as we understand them, appear to have been caused by the shifting river courses. Its semi-arid climate and a dry thorny forest-cover differentiate the plain from the sub-humid Ganga Plain lying to the east of the Yamuna.

The Indo-Gangetic Divide, as the name suggests, is a watershed between the Indus and the Ganga rivers. The divide extends in a northeast-southwest direction, mainly in Haryana between the Yamuna and the Satluj. The divide has a generally alluvial character, but the Aravalli outcrops rise above the level of the land adding diversity to the relief features. The longitudinal valleys between the Aravalli outcrops are intensively cultivated. As in geomorphological character so in climate,

the Indo-Gangetic Divide is a transition zone from the sub-humid to the semi-arid types of climate.

The Ganga Plain is an extensive area of generally uniform relief consisting of level alluvial plains. The Ganga and its numerous tributaries deposited a deep layer of alluvium. However, this uniformity is not so pronounced in climate. The rainfall decreases towards the west from West Bengal and Bangladesh to Delhi, Haryana and the Punjab. With this decreasing trend in rainfall, a corresponding change occurs in the natural vegetation and the soil cover. This change reflects the physiographic characteristics of the Upper Ganga Plain and the Lower Ganga Plain. The climate undergoes a significant change as one moves eastwards from Allahabad to Rajmahal Hills. Beyond the Rajmahal Hills lies the delta of the Ganga and the Brahmaputra in West Bengal and Bangladesh. The deltaic character of the alluvial plain is evident in the intricate maze of rivers and their distributaries.

Towards the east, the Plain has another physiographic sub-division in the clearly marked out Brahmaputra valley in Assam. The valley is enclosed by the foothills of the Himalayas on the north bordering Bhutan. They extend up to the Purvanchal Hills. The Shillong Plateau lies to the south of the Assam valley. The region receives heavy rainfall from the southwest monsoon current, with the Shillong Plateau receiving the highest rainfall. Meghalaya and the regions beyond receive prolific rainfall and are characterised by high humidity. These conditions have resulted in a thick growth of natural vegetation.

The Peninsular Plateau

The Peninsular Plateau has remained exposed to weathering since the early phases in its geological history. It is characterised by a broad uniformity in relief features. Its relief has acquired distinctive features of an erosion surface. There are, however, local variations in the geomorphological features caused by ontogenetic forces. It is believed that the differences in relief were caused by the differential uplift of the plateau. Climate and the successive cycles of erosion have affected the process of soil formation, both in terms of depth and soil profile. These differences have resulted in the diversity of natural vegetation. In geological terms, the Peninsular Plateau is described as a 'horst' which means a solid crust-block or a shield which has remained a stable landmass of great rigidity and has been unaffected by any folding movement. The differences in altitude and location have caused local variations in climate, soil and the vegetation cover. Geologists agree that the Plateau has reached the stage of senility. In fact, successive cycles of erosion and the long-range changes in the sea-level have further contributed to the ageing process of the plateau.

The Peninsular Plateau is divided into the following second-order regions:

- Aravalli Hills and the Vindhyan Uplands of east Rajasthan and adjoining Madhya Pradesh
- The Thar Desert, west of the Aravallis up to the Indus in Sind
- Khandesh: Satpura, Mahadeo Hills, Maikala Range

- Chhotanagpur Plateau
- Bastar Plateau, Chhattisgarh and the Eastern Ghats in Orissa
- Meghalaya Plateau comprising Garo, Khasi and Jaintia Hills
- Kachchh and Kathiawar Peninsula
- Gujarat Plains comprising Mahi and Sabarmati Valleys
- Western Ghats from Satpura Range to the southern tip of the Peninsula
- Konkan Coastal Plain from Maharashtra to Goa
- Malabar Coastal Plain from Goa to the tip of the Peninsula
- Wainganga and Mahanadi River Basins
- Deccan Lava Plateau
- Karnataka Plateau
- Telangana Plateau
- Eastern Ghats
- Deltaic Tract of Orissa, Mahanadi, Brahmani and Baitarani Rivers
- Andhra Coastal Plain and the Deltaic Tract of Krishna and Godavari Rivers
- Tamil Nadu Plateau
- Coromandel Coast from Krishna Delta to the southern tip of the Peninsula
- Central Highlands of Sri Lanka
- Coastal Plains of Sri Lanka

The northern flank of the peninsular plateau bordering the Indo-Gangetic Plain consists of a series of tablelands separated by the troughs of the rivers. To the west of the Aravallis lies the Thar Desert. It is an expanse of sand dunes and the 'relict' hills. The sand has accumulated during ages of denudation under extremely hot and dry climatic conditions. The vegetation cover is scanty. The Thar extends from the Aravallis to the Indus river in Sind. In the east, the Aravalli hills separate the Thar from the Vindhyan Upland and the gneissic country. The Aravalli range is quite pronounced near Udaipur, where the highest point is reached in Gurushikhar peak (1,722 m.). The altitude decreases in a east-northeast direction. The western slope of the Aravallis in Udaipur and Banswara is fairly rainy and forested. North of Ajmer, the Aravallis are generally devoid of forest cover due to overgrazing. From Ajmer to Delhi, the Aravallis are divided into several parallel ridges separated by longitudinal valleys. These valleys have sufficient trapped moisture, which is replenished by rain. It supports dry farming crops.

The Vindhyan Uplands consist of the Malwa Plateau and the Bundelkhand gneissic country. A line of scarps and the hill ranges, viz., the Vindhyan, Bhanver and the Kaimur runs eastwards from Vindhychal mountains to the Chhotanagpur plateau. The Satpura range lies between the Narmada and Tapi rivers. South of the Tapi trough lie the Sahayadris. East of Burhanpur, Govilgarh Hills merge into the Mahadeo range. The uplands are highly dissected and the soil cover is generally shallow. On the other hand, the river basins have a relatively thick soil cover and are important for their agricultural potential. The middle Indian region, south of the Narmada river consists of a series of erosion surfaces. The Tapi trough has



alluvial deposits partly contributed by Purna, a tributary of the Tapi. The historically well-known region of Khandesh lies in this alluvial basin interposed between the Ajanta Hills and the Satpura Range.

The Chhotanagpur Plateau, east of the Son river is characterised by a variety of relief features. The Plateau comprises several erosion surfaces at different levels of altitude. The plateau receives high rainfall, which has resulted in a thick growth of the moist deciduous forest. As stated earlier, the Peninsular Plateau east of the Rajmahal Hills lies buried under the thick alluvial deposit of the Ganga. The Garo, Khasi and Jaintia Hills collectively known as the Shillong Plateau are an outlying segment of the Deccan Plateau. The plateau is highly dissected as successive cycles of erosion have resulted in a complex maze of hills. The representative natural vegetation consists of a variety of tropical wet evergreen forest.

The Peninsular Plateau on its western flank in Kathiawar and Kachchh has lava formations believed to be an extension of the Deccan trap. The Kathiawar Peninsula gives way to the mud and salt of the Rann of Kachchh. The Indo-Pakistan border lies in this sector. The general elevation of Kathiawar is below 200 m., but there are several hill ranges, particularly the Gir range, which rise higher than the surrounding land. The diversity in geological structure and relief has given rise to variations in the soil and natural vegetation, which is mostly deciduous. The Sabarmati and Mahi rivers have built a level plain generally referred to as the Gujarat plain. The west-flowing rivers, such as Narmada and Tapi flow through this trough. They have deposited a thick layer of alluvium giving the region a general appearance of an alluvial basin. One observes a clear transition between the humid west coast and the arid and the semi-arid zone of Rajasthan and Gujarat. The coastal plain lying to the west of the Western Ghats consists of several segments, such as the Konkan, Goa and Malabar. While the Konkan coast is narrow, the Goa and Kanara coast gradually merge into the Malabar coast in Kerala. The outlying scarps of the Western Ghats overshadow the narrow coastal plain. Climatically, it is a hot and humid region with a long rainy season. The coastal plain widens southwards into Kerala, a region with a distinctive character. The Malabar coast receives the highest rainfall from the southwest monsoon current. It has resulted in a thick cover of natural vegetation. These factors, along with the lagoons add to the scenic beauty of the Malabar coast unparalleled in the subcontinent.

The Western Ghats delimit the Deccan Lava Plateau. The Ghats, however, continue southwards into Karnataka and beyond. The average height is between 900 and 1,100 m. The Ghats differ in their physical appearance rather abruptly at a point near Goa. The highly rugged topography of the lava plateau is replaced by the smoothly rounded hills composed of granites and gneisses. The Ghats are interspersed by gaps, such as the Palghat, which has enabled cross-communication between the plateau and the sea. The evergreen and deciduous varieties of forest have covered this segment of the Western Ghats.

The Deccan Plateau is covered with lava deposits over extensive areas. The lava sheets were laid down in horizontal beds during the last phase of the volcanic activity in the Cretaceous period of the geological history of the peninsula (Wadia

1976: 275).¹⁵ These flat tablelands are bordered by hill ranges, such as the Ajanta and Satmala hills. The Ghats, of course, act as a barrier to the Arabian Sea current of the southwest monsoon. The rainfall suddenly decreases towards the east. It is a typical example of the rain-shadow effect. This area is characterised by the black soil, known for its cotton cultivation. The soil is a product of weathering of the lava rock formations over long geological periods. The lava of the Deccan Plateau is replaced by gneisses and granites over the Karnataka Plateau. It is an area of generally uniform relief with elevation ranging between 450 and 800 m. The general uniformity in relief features is, however, disturbed by variations in local climate, natural vegetation and the soil cover. The two main sub-regions of Malnad and Maidan stand out as clear examples of this diversity.

To its east and the northeast, Deccan Lava Plateau is replaced by a series of undulating plains and low-lying areas, such as the basins of the Wainganga and the Mahanadi rivers in Chhattisgarh. There are, however, striking differences in rainfall distribution and forest cover. The Wainganga valley is rainier than the upper Mahanadi basin. The characteristic vegetation consists of the *sal* forest. Among the two, the *sal* forest is common in the former while the teak forest is predominant in the latter. To the southeast of the Deccan Lava country, lies Telengana, a low plateau highly denuded and dissected. The isolated rock features called *monadnocks*, produce some variety in the otherwise open and monotonous topography. The northern part of Telengana basin has scanty natural vegetation. The southern part is mainly an expanse of tropical grasses of the Savannah type. On the south, the Palghat gap in the Western Ghats gives way to the most rugged relief features of the peninsula, like the Nilgiris, Anaimalais, and the Palani-Cardamom group. They have typical 'horst' topography. Besides their rugged relief, these hills are further distinguished on the basis of a rich forest cover, particularly the teak and the sandalwood trees.

As noted earlier the peninsular interior is bordered on the east by a discontinuous line of hills called the Eastern Ghats. They have, however, no comparison with the Western Ghats. The hills consist of three main groups: (i) the northern hills, which lie between Jamshedpur and the Godavari river; (ii) the hills lying between the Godavari river and the Palkonda range and formed mostly of the rocks of the Cuddappah system; and (iii) Tamil Nadu hills lying between the Palar and the Kaveri rivers. Generally these hills receive scanty rainfall, which is unevenly distributed. As a result, the natural vegetation cover is also sparse. These differences are mainly due to its location. The northern hills are more forested than the southern. The Cuddappah hill ranges are generally wooded but not as thick as the northern hills. The Tamil Nadu hills, on the other hand, have some forest growth on their eastern slopes.

The relief features of the mid-Indian region deserve our attention because a very large tribal population is concentrated in this area. They live in the midst of, by and large, untouched nature. The tribal habitat lies in these scarps and hills. The tribal groups, such as the Gonds have carved out their enclaves of concentration between the lines of hill ranges and the river basins. They are the denizens of the land. They are an example of the marginalised masses of the country.

The east coast of India has three main segments—Orissa coast, Andhra coast and Coromandel coast of Tamil Nadu. Mahanadi and the Brahmani rivers have built a vast deltaic plain in Orissa. The southwest and the northeast monsoon regimes have their transitional zone in the deltas of Godavari and Krishna rivers. The rainfall regime of the Coromandel coast is determined by the northeast monsoon. The entire eastern coastal plain and the deltaic tracts of Krishna, Godavari and the Kaveri rivers have been used for intensive agriculture through the ages. Both monsoon currents, *i.e.*, southwest and the northeast, bring rain to the east coast. The Tamil Nadu coast remains by and large dry during the southwest monsoon period, when the entire country receives monsoon rain.

The Islands

The Islands of the subcontinent consist of three major groups:

- (a) Lakshadweep Group
- (b) Andaman and Nicobar Islands Group
- (c) Maldives

The Lakshadweep group lies in the Arabian Sea off the Kerala coast, while the Andaman and the Nicobar group is located in the Bay of Bengal. The Nicobar group extends towards the south till the Sumatra Island (Indonesia) is reached. Maldives is a sovereign country. The island consists of coral atolls. Bangladesh also claims some of the smaller islands off the Bay of Bengal coast but the issue is disputed. There are significant differences among the three groups of islands in structure, relief, population composition and ethnic structure. Lakshadweep group consists of thirty small islands; only ten of which are inhabited. They are coral islands and have a humid, tropical climate. Their scenic beauty attracts tourists from all over the world. Geographical proximity to Kerala has exercised an abiding influence on the culture and the language of the people. In fact, Lakshadweep group can be described as an extension of Kerala. The population has Malayali elements. They are mostly Muslim and the entire population of the island is recognised as a scheduled tribe.

The Andaman and Nicobar Islands, on the other hand, extend southwards as an archipelago off the Cape Negaris in Myanmar. The group extends up to the Indonesian Island of Sumatra. There are two sub-groups—Andamans and the Nicobars. The former has three clusters—North Andamans, Middle Andamans and the South Andamans. Likewise, the Nicobars have three clusters—Car Nicobar, Little Nicobar and the Great Nicobar. The islands are thickly forested and provide sustenance to a small population of *Janjatis*, such as the Onges, Andamanese and the Nicobarese. However, over time, the immigrants from the mainland of India have outnumbered the local tribes. Recently an earthquake shook the whole region of the Indian Ocean leaving behind a trail of devastation and death due to the high wave, described as the Tsunami, hitting the region.

Many of the former prisoners—freedom fighters—who were detained during the Raj in a cellular jail at Port Blair—stayed on with their families after independence. The tropical climate marked by Equatorial conditions supports a dense growth of natural vegetation and wild life, which adds to the scenic beauty of the islands. The Nicobar tribes speak a dialect known as Nicobarese, a branch of Mon-Khmer, a sub-family of the Austro-Asiatic languages.

This survey of the surface features of relief indicates the fact that the river valleys have supported kingdoms whose strength lies in their potential for agriculture. On the other hand, the inter-fluvial spaces are marked by spurs with thin soil cover and lack of level land for agriculture.

A Resume

This chapter presents evidence to show that geographical factors play an important role in determining the course of history. It is argued here that the socio-cultural differentiation among the regions and between the regions in South Asia is based on physiography—the term being used here to imply that relief, structure, drainage, climate, particularly the distribution, intensity and timing of rainfall, length of the growing season, flora, fauna and the soil have a combined impact on the direction of development and regional consciousness. Accessibility keeps the regions either enabling them to interact or else leaving them in a state of dormancy. Philosophically, one may argue that regions, small or large, are not static or cut off from the rest of the world. It is the interactive model that defines whether they can live in constant touch or in parts or complete seclusion. Time and space are inseparable; it is a continuum. One may posit that the changes coming with time unfold themselves in space; that space is irrelevant without the horizon of time in view. At the same time, as evidence suggests, the pace of temporal change is constantly affected by spatial factors and diversity in environmental factors has a major role to play in defining the personality of a region as a whole or in parts. Take, for example, the case of Punjab, both Indian and Pakistani Punjab, where the circumstances were conducive to rapid change, may be compared with, say Uttaranchal or Himachal Pradesh. Centuries have passed without recording any significant change in the life of the people, their thinking, attitudes and the worldview. In such *cul-de-sacs*, Himachal, Uttaranchal or the mid-Indian region of rugged relief, underdevelopment gives an impression of timelessness.

It is necessary to distinguish between material culture and higher culture. Religious ideas, rites and rituals are, by and large, intrinsically related to the material conditions. They consist of the tools and implements, devices, and work related to the seasonality of the cropping practices. The basic assumption is that material culture is an expression of human adaptation to the forces of nature. The methods of dealing with nature change constantly. But the gaps in understanding are not bridged easily. It depends on the human perception of the natural endowment. All social groups/communities are not equally conscious of the potential. Or, we can say, that they are not equipped with, suitable technology, to appropriate the potential. The subcontinent has baffling diversity in culture and the other associated

phenomena. It may be posited that the cultural differentiation is a product of accessibility and the knowledge of the diverse ecologies within the subcontinent. It is generally observed that the social groups, communities, with differences in the technological know-how live at different levels of social evolution. In sum, we can say, that location in the terrestrial space is an important instrument of change. Knowledge of the ecology of the terrestrial space is the key to success. We do not know exactly that the resource endowment is unevenly distributed in space. The old statement that lack of knowledge hampers progress is still valid.

In this chapter we have tried to argue that the subcontinent is a curiosity of sorts. The region displays a baffling diversity in population composition: ethnicity, physical appearance of the people and their life-styles, belief systems and the cultural attributes. The dialects spoken in the different parts of the subcontinent are in hundreds. Over and above there are *Janajatis* and *Jatis* with different ethnic antecedents. The caste system continues to be a major determinant of social-interactive behaviour of the people. The people have an unflinching faith in democracy. But the social rank of an individual is determined by the *Jati* he/she belongs to. The governments of the subcontinent have always tended to set higher goals in economic and social development, but a creamy layer at the top appropriates most of the benefits of development. Even democracy has been forced to conform to an unchanging *Jati* system. Elections to the legislative bodies at the centre and the states reveal, more than anything else that the voters belong to different social strata. Very often the voting decision is not individual but collective. The main conclusion is that the political behaviour of the people is controlled, guided (or even misguided). It is not conducive to the emergence of a liberal all-India class.

It has been argued that the social history of the subcontinent is a product of the geographical location. In the early phases of history, the northern region of the subcontinent was blocked by the Hindu-Koh-Himalayan Mountains and the south was blocked by the sea. Both these factors have contributed to the Hindu psyche, a sense of exclusivity, contentment, self-sufficiency and autonomy in decision-making. The general impression is that as a people we are 'unique' and not comparable with any other people in the world either today or at any other time in history. But it is a debatable issue.

END NOTES AND REFERENCES

1. A classical geographical view is that the environment determines the course of development of the human society. Ms. Churchil Semple, an American student of Ratzel, further advanced the idea. She said that man 'is a product of the earth's surface', 'the child of the earth', 'dust of her dust'. Earth has 'entered into his bone, and tissue, into his mind and soul'. Ms. Semple went far ahead of her teacher. Her treatise, '*Influences of Geographic Environment*' (1911) treats all development in human society as a product of the geographical factors. E. Huntington, the noted American geographer, stressed the need for understanding the role of climatic determinism in the progress of civilisation (*Civilisation and Climate*, 1915). Radical geographers like

- Richard Peet think that the theoretical base of this theory 'was conceptually weak'. We know that the human society in India faces the consequences of both environmental determinism as well as social determinism.
2. The surface of the earth is a familiar phrase in the geographical lexicon. It is also expressed as terrestrial space. It is the outer-most layer of the earth, where the planet earth meets the atmosphere. The spatial interaction between man and nature takes place on this terrestrial space. American geographer, E.L. Ullman, is credited for coining the phrase 'spatial interaction'. The term indicates interdependence of geographical areas (E.L. Ullman 1954, *Geography as Spatial Interaction*).
 3. The philosophical interpretation of man-nature interaction was a contribution of the French School of human geography. The term possibilism was, however, used so as to indicate that man has sufficient scope for different options. The French scholar, Vidal de la Blache, was among those who initiated the concept of possibilism. It developed more as a result of exchanges between geographers, particularly, la Blache, Durkheim and Ratzel. 'Possibilism could still legitimately be regarded as a qualification rather than the negation of environmental determinism' (Derek Gregory, *Dictionary of Human Geography*, 1981, p. 270). The historian Lucien Febvre endorsed Blache's view that 'there are not necessities, but everywhere possibilities, and man as a master of the possibilities is the judge of their use' (*A Geographical Introduction to History*).
 4. Technology is a comprehensive term. It refers to the package of methods and tools available to the human society at any stage of social evolution. Technology may be locally developed where it is *in situ*; it can be transferred from one region to the other. Flow of technology depends on the social institutions governing the life and choices of ordinary people. They may enable or may not enable a section of the society to avail a certain technology, even though it is available.
 5. All regions possess a natural resource endowment, which may remain unutilised due to the unequal access to the right kind of technology in a certain historical context. For example, landless labourers in the rural areas of the subcontinent are not in a position to utilise the irrigation water available to the village. For them, irrigation is by and large irrelevant. However, they can benefit from it because more labourers would be needed to manage the irrigated agriculture.
 6. The Himalayan mountains are arranged in a series: the first are the foothills known as the Siwaliks, the second is known as the Middle Himalayas and the third, Outer Himalayas or the Great Himalayas.
 7. It is established that the Hindu-Koh-Himalayan Mountains have contributed to the uniqueness of the South Asian cultural realm. This would mean a partially enclosed subcontinent. If there were no Himalayas, the northern region of the subcontinent would have easily acquired the Chinese cultural traits.
 8. The sea in the south of the subcontinent has also played a role in connecting people. But before the sailing boats, the ocean acted as a barrier in human interaction. It is common knowledge that the Indian cultural tradition reached the Southeast Asian countries, such as Malaysia, Indonesia, and Thailand through the sea. The Indian cultural tradition has been absorbed by these countries, despite the fact that the people converted to Islam long ago.
 9. All major peaks, such as the Mt. Everest (8,848 m.), K2, Karakoram Range (8,611 m.), and Kanchenjunga (8,598 m.) are located in this zone.

10. In the words of the famous Urdu poet of the subcontinent, Iqbal, the Himalayas are our doorkeepers and stand like a sentinel. They protect us from any kind of danger lurking on our northern frontiers. His actual words are 'woh santri hamara, woh pasban hamara'.
11. The region was called Trans-Oxania or *Mavara-un-nahar*.
12. Toynbee, Arnold, J. (1961): *Between Oxus and Jumna*, pp. 47-48. '...and the Kabul river shone out like silver on any night before it dived, behind my right shoulder, into the mouth of the Warsek gorge. Now Kabul itself was as good as in my pocket. But, at this moment of unguarded explications, the river god gave me a warning. The road suddenly broke off shot, and two lines of heaped-up stones guided us into a shingle-bed down which at least five separate torrents were coursing on their bay to join the Kabul river from the Safed Koh. The 'lorry' was a powerful creature, but it was also ponderous and bulky. It was in fact, an outsize version of one of these delivery vans that block the streets of London ...'.
13. Perhaps the reference is to the Ghagghar river, which is a dry riverbed in the northern district of Bikaner and Ganganagar districts of Rajasthan. The dry channel of the river, in years of good rainfall may flow further and enter into the Bahawalpur region of Pakistan where it is known as Hakra, and then if more water is there to carry on, enters Sind where its local name is Eastern Nara (Ahmad 1962, *The Human Geography of the Indian Desert*, unpublished Ph.D. Thesis).
14. The Middle Himalayas in Nepal are known as the Mahabharata Range.
15. 'Towards the close of the Cretaceous period, subsequent to the deposition of the Bagh and the Lameta beds, a large part of the Peninsula was affected by a stupendous outburst of volcanic energy, resulting in the eruption of a thick series of Lava and associated pyroclastic materials. This series of eruptions proceeded from fissures and cracks in the surface of the earth from which highly liquid lavas welled out intermittently, till a thickness of some thousands of metres of horizontally bedded sheets of basalts had resulted, obliterating all the previously existing topography of the country and converting it into an immense volcanic plateau' (Wadia, D.N., *Geology of India*, 1976: 275).

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Historical Geography I: The Antecedents

Historical geography is an attempt at reliving the past and reinventing it. It does not study the evolution of phenomena, unlike history, which analyses the change along the time-scale. Geography recognizes time as constant and space as variable. This is an exercise in the study of a selective cross-section. An attempt has been made to reconstruct the geography of the subcontinent at different points of time in history. The first part deals with the immediate antecedents of changes in space. The early Aryan tribes migrated from the *Saptasindhava* region to *Madhyadesa* encompassing the middle and the lower Ganga plain.

Perceptions of the foreign travellers who came to India have been compared with the information contained in indigenous sources like the Vedic literature: *Brahmanas*, *Jatak* tales and the folklore. States, kingdoms, principalities, as mentioned in these texts, as far as possible, have also been located in space. In this chapter an attempt has been made to evaluate the multiple effect of the changing situation and antecedents in the context of which one should view the happenings on the political front.

India has attracted people from times immemorial. There were several phases in Indian history when the country was known as a golden bird. In fact, it will not be wrong to say that all expeditions were directed for discovering India (Landstrom 1964: 9). The author has narrated a 3,000 years history of exploration. This tale of exploration by land and by sea as told by the author covers all voyages to the Land of Punt by the Egyptians to the circumnavigation of Africa by the Portuguese thousands of years later. 'The routes were many, but the goal was the same—to reach India, or more precisely, what medieval Europeans called India'. People came from all parts of the old world, especially from East Africa, West Asia and Western Europe in conquest for India. Even Columbus, who was the leader of an expedition sent out to discover India, crossed the Atlantic Ocean and reached a group of islands, which he thought was India. The discovery of the North American continent was believed to be