While analysing the setting of towns— their geographical context or milieu, geographers usually refer to location, site, and situation. Location specifies the co-ordinate values of towns position in terms of latitude and longitude. Site is the ground a town actually occupies and its very close vicinities, while situation denotes a much wider area around a town, which by way of imparting the town nodality through its physical lineaments, fundamentally affects the origin and growth of the town. It is the 'position of a town in relation to its surroundings' (Smaile, 1967, p.41) While situation implies an area rather restricted of course, within which a town would be in an advantageous position, the site pinpoints its exact position. Of the two, site and situation, the latter is by far more important for the destiny of towns for their longer future, and may induce towns where there is no good site available or of the several spots where advantages of good situation can be realised, which one would be the site of a town, is decided not infrequently, by chance factors such as a local historic accident, whim of an important person, established fact of an earlier entirely rural settlement, etc. or by only a very transient politico-economic advantage of a site. An interplay of all these fortuitous factors is beautifully exemplified in the site of Indore, the premier city of M.P. as investigated later.

In this chapter on the locational analysis of towns, location is understood to mean not the coordinate values of town's position on earth's surface, but rather the geographic context of towns, in its comprehensive sense. Thus, the distinction between site and situation has also been discarded.
This treatment has been adopted here because this distinction is particularly suitable only in locational analysis of very large towns which are very few in the region. Accordingly in a regional study of geographic context of town locations, where almost half the towns are below ten thousand population mark, such a distinction would be rather superfluous.

FACTORS AFFECTING LOCATION OF TOWNS

Geographical Factors—Malwa presents a moderately undulating topography fairly drained by north flowing medium sized rivers with broad gentle interfluvues separating them. Only a narrow east-west belt on south is a highly dissected hilly tract covered with jungles. Population distribution is also for the most part, markedly even, as are also the towns only on Vindhyan scarp rural population is very sparse and sporadic and towns quite far flunging and rudimentary. Thus, over most part of the region, the direct topographic control on towns location is indeed very poor, except, in a few cases, such as the effect of larger rivers as barriers to be negotiated by roads. Instead, towns of Malwa are much more obviously influenced in their location as well as in spacing and distribution by considerations of centrality, as they mostly are essentially central places of different sizes and orders, with little specialization, and good share of working force devoted to services and commerce.

As rivers and their intervening interfluvues are the features, largely influencing the location of towns through the orientation of routes, quite a few towns are located on river crossing points where routes also naturally converge to cross the river at that point. In a country of mild topography and good drainage, routes naturally tend to follow interfluvial high grounds, and many towns are located on interfluvial nodal positions where a few such routes converge and impart to the
location a high degree of modality. But, surprisingly, there are few good examples of river confluence locations. Examples of towns located on strictly defensive or strategic positions are also rare. Obviously, town of Malwa have been guided primarily by considerations of centrality and accessibility, rather than by defense.

**Historical factors** - For a host of small towns, their location at central accessible positions at the cost of defense considerations, has been possible by the peculiar tactics of local ruling houses, of which these towns were the seats, and the peculiar politico-administrative set-up of provincial government of Malwa in the recent past, i.e. after the degeneration of the Mughal rule after Aurangzeb. As elaborated in chapter II, the Mughal Malwa Subah was divided into sarkars, mahals and smaller principalities. In its hay-days the Mughal rule ceased to be in force below the 'mahal' level, which is synonymous with modern tahsil or pargana. Hence downward, the hegemony of local chief would come in effective power, with its own sub-centres and sub-divisions.

How could these dominant corporate local groups- the quasi ruling houses, sustain themselves in face of provincial and national ruling powers is a critical question indeed. As Singh, K.N. (1968) has illucidated, this has been possible through a highly tactical manoeuvre in times of trouble by these local chiefs, who with a 'bania like disposition' could avert the wrath of provincial power or 'pay-off' the plunderers. This was further facilitated as both the Delhi court as well as the provincial government of Malwa were mostly engrossed in their own internal intrigues. Thus, unless a local chief would perversely show an obvious and gross 'in sub-ordination or withhold the payment of revenue to the provincial government, there were little chances of troubles. As to the plunderers, not infrequently, these local chiefs, considered it safer to pay them off than resist. Thus through the tactical manoeuvre
of political situation, this political sub-structure of local
principalities with their headquarters could sustain itself.
This explains, to a large extent, the location of numerous
small towns not on strictly defensive sites, but rather at
central accessible sites. Development of scores of principali-
ties resulted in most of small towns of Malwa in central loca-
tions in plains, beside a small rivulet or tank or a road.
This greatly facilitated their development as central places.

LIFE CYCLE OF FACTORS OF LOCATION OF TOWNS

All settlements large or small, rural or urban are, in
the functional sense, living organisms, which evolve,
 thrive and decline or see alternating lulls and gusts of
growth, in the context of their environmental milieu and through
an interplay of human needs and acts backed by technology.
This statement though looks involved and cumbersome, but it
takes into account all the major factors entering into the
complex of forces which in greater or lesser degrees, condition
their evolution where they are, and, in very many cases, also
control their eventual growth as well as relationship with the
country around and with the fellow towns.

Besides these rather systematic factors, there is also
the important category of fortuitous and unsystematic factors,
such as historical accidents and human caprice, which are
subject, practically, to no laws.

While the elements of physical environment change, as
a rule, extremely slowly, the human factors his needs,
technology and, therefore, also acts, change rapidly so that
human interplay with physical environment undergoes notable
changes with time, and with them fortunes of towns also change.
To quote Smailies (1967, p.56), "Towns are the products not
of gaps, valleys, bays and estuaries, but of man's use of these
features for his routes". As these features cease to serve the human needs in form of conductive and conducive channels of traffic etc. due, of course, to changes in the human factor itself such as in channels of trade and traffic etc. the towns sited at them fall in a phase of hepeless decay.

The forces of site positive or negative are most powerful in early nascent stages of towns. In course of time, and after a certain stage of viability, they become less and less dependent on those original physical factors. Moreover, unless a town is sited with immense foresight and imagination, and this is rarely the case, how so much the site advantages in the initial stage, before long their further extension meets site features which are handicaps. That town nevertheless continues to grow, accomodating to these disabilities, (at, of course, much socio-economic costs) is a measure of the importance of the capital already invested in an essentially immobile equipment (Smailes, 1967, p. 52).

In course of development, towns loom less on the direct advantages of physical elements of a site, and more and more on economic elements, particularly route orientations. Because routes perforce shun away from these physical features, towns also slowly shift away and away from them and new developments take place along the routes. Begumganj furnishes a good example of this, as today it shows no orientation to Bina river, and caters solely to the Sagar Bhopal state highway. Moreover, the original site factors say, a small rivulet slowly loose all weight for the growing town and ultimately become meaningless. As examplified later, these rivulets simply remain as under developed belts, sometimes presenting only slumscape or areas of sewage and sullage disposal. In the cases of vigorously growing towns, this inevitably leads to the imminent needs for an alternative source of water supply, as examplified by Indore.
LOCATIONAL TYPES OF TOWNS

Though locational context of towns vary from one case to another, it is feasible to generalise them into well defined categories, as the physical features associated with them have unmistakable influence on one or more of the major factors that enter into 'raison d' etre' of towns. But certain factors place rather utterly incompletable demands on town locations, such as the effective barrier to free assesses to enemies demanded by defence and high accessibility demanded by usual central function of routine life. In Malwa, for a majority of towns it is latter category of factors that has out-weighted the former in a marked degree, as the towns are essentially the central places of various orders, with a large proportion of their working force devoted to central functions like trade and commerce, services etc. How this non defensive siting of towns has been feasible has been explained before.

Also, though each location is the result of a combination off several factors, in Malwa town locations can be divided in following major types.

(1) River side and river crossing location such as Ujjain, Mandsaur, Vidisha, Bhandagar, Sarangpur, Rehli, Sonkatch etc.

(2) River confluence head location such as Garhakota, Mahipur, etc.

(3) Strategic defensive location such as Chanderi, Raisen, Bahatgarh.

(4) Central, or route nodal location - such as Guna, Sironj, Khachrod, Berasia, Ratlam, Badnawar, Jaora, Agar, Begumganj.

(5) Lake side location - Bhopal, Sagar.

(1) **River side location** - As for early inland civilization, so also for urban centres there, rivers have been the fountain
heads of their growth. They not only render the area oppulent in food resources, and provide the most basic need of life i.e. water, but also provide lines of water borne inland communication. Moreover, they at times render effective barriers against free entry of attackers from at least one side. For one thing rivers never have been the means of communication ever most parts of Indian including Malwa. Thus it is through their channelising effect on route, compelling them to converge at the fording points that the rivers have wielded utmost influence on location of towns by giving these fording points a marked degree of nodality. This route nodality, proximity of water source, availability, sometimes, of an effective barriers in form of streams and or high slope against attackers make river side or river crossing locations excellent sites amid rich hinter lands. The influence becomes enhanced by some other local features there such as hillock causing a sharp bend in the river, or a rivulet joining the river there.

The time honoured city of Ujjain- the oldest town in the region is the most important town located on a river. It has been a prosperous centre throughout, the hallmark of religio-cultural heights of Malwa only very recently surpassed by Indore, even more recently by Bhopal also. Standing within a broad westward bulge in the north flowing Shipra (properly Kshipra) river only a little down the confluence of Khan river with Sipra (Plate 12), it occupies one of the finest, central locations. Standing amid an agriculturally oppulent, level country, it was a nodal point of Mulhal and, later of Maratha routes. Today five major routes from different towns and a dozen lesser routes from the country side focus upon it making it an important railway and road focus of Malwa.

Yet, it would not be correct to ascribe the location of Ujjain to the nodal position of major routes. Ujjain antecedates
these routes and was an important seat of religion, culture, and political power throughout. Therefore, routes were later developed with orientation to it. It is thus a central place of high order with several routes focussed upon it.

The original settlement was sited about two miles to the north of present position near Bharthari caves and Garh Kalika. Here the bank is higher than to the south and even today certain parts of the present town on its south west fringe are subject to occasional inundation in the monsoon. Advent of railway at turn of the last century induced southward spread. Development along the road to Dewas to the south-east is natural as this road links Ujjain with Agra-Bombay N.H.3, and with the road to Bhopal via Dewas. Vidisha, formerly Bhilsa, is another important town standing beside an important river of eastern Malwa. Over periods of history, it has been the recognised capital of eastern Malwa called Akara, while the superior town of Ujjain was directly controlling western Malwa called Avantika. While the exact date of origin may be a point of archaeological debate, the original settlement called Beshnagar stood on an excellent defensive site at the head of confluence of the Besh nadi with the river Betwa (original puranic name is 'Vetravati') (Plate 13). Through its long standing as a centre of religion, culture and administration, there developed road links to all directions. Though the old site was subsequently deserted to the present one about a mile from east bank of Betwa, the history left an abiding imprint on route orientations. That is why the road across the Betwa crosses the river not below the confluence, as could be expected, but just above the confluence through the old site, thus crossing both the rivers, the Betwa and the Besh.

As in the course of history, so also in the locational context, Ujjain and Vidisha are much similar, and may be called
sister towns though set apart. Both stand on east banks of medium sized but important sacred rivers. Due to long standing as important centres, both have developed good network of radial roads around, and thus become excellent central places. Of course, due to rather hilly topography on southwest in the case of Vidisha, the road links of this town in this side are poor. But this is also partly due to historic and ethnic reasons. While the south and west of Vidisha, Bhopal was an alien Muslim State, Ujjain had the same political and social fabric and same racial stock Maratha and Rajput around it. Thus Vidisha is also a case of an important old town which developed a high degree of centrality due to its recognised long position.

Mandsaur occupies an excellent river crossing location on left bank of north east flowing Sau or Siwan river where it takes a bend to the left. The strength of this site is enhanced because a few rivulets join the river just upstream of this site, while a fairly large stream joins the river only about five kms down stream (Plate 12). Both the important road as well as the railway between Ratlam and Neemuch cross the river Sau at this point. Mandsaur is also an ancient town of much archaeological significance. Its old name was 'Dassharna' or Dashpura. Thus, three oldest towns of the region stand on important river banks. Only Bhopal can compare well with these towns in the length of standing.

Shajapur occupies simply a river bank location. Standing in broad eastward bulge of Tilar nadi, it clings to west bank of the river and the towns morphology is structured along this bank (Plate 13) so much so that it has not been pulled by even the Agra-Bombay Highway. Sarangpur is another town located on east bank of important river, Kaisindh, where the Agra-Bombay Highway crosses it (Plate 12). A few roads from other directions also converge upon it.
(2) Confluence head location— Garhakota furnishes the best example of a confluence head location, sandwiched between Sonar river on the east and a smaller river, Gadheri nadi, on the west. Exact confluence head a highly pitched projection, is excellently occupied by an old fort (Plate 13). Sagar Damoh road crosses the rivers at this location. Later much development took place on the ground to east of the Sonar river, and today the town look to be standing on both banks of this river. Due to long standing, several small roads also converge upon it, notably from Patharia in north and Rehli in the south.

Other towns standing on notable rivers/Badnagar at Chambal river where road and railway between Ujjain/Indore and Ratlam crosses the river and Sonkatch on Kalisindh where Indore Bhopal road crosses the river.

(3) Strategic defensive locations— As noted before, such locations are rare in Malwa. Good examples are furnished by acropolises of Chanderi, Raisen and Narsingarh, and the imposing river bank scarp in case of Rahatgarh. Fort site of Garhakota also presents an excellent strategic location. Forts in several other cases are not of much importance except in furnishing strong houses of local chiefs.

Raisen is essentially a fort town, an acropolis whose subsequent development spilled over down the hill slope over the plain to northeast. The area between Raisen and Bhopal is a highly dissected and forested hill tract and provides very few tortuous accesses through it. The tract is drained by upper waters of Betwa river with two notable tributaries—Richhan nadi running westward just 2 kms south of Raisen, and an other Dabar nadi much to north of Raisen. The southwest—northeast trending Deccan Trap ridge on which the fort is build continues southwest ward almost upto the Richhan nadi (Plate 13). The fort has utilized high southern scarp of this
ridge over looking the Richhan nadi to the south. Thus defended on three sides and with open level plain to one, the Raisen fort on the higher eastern portion of the ridge occupies a commanding position near this accessible point in the hill tract. It commands to road from Bhopal to Sagar and Vidisha.

Chanderi is an old but typical acropolis set on flat top of a high mesa with almost vertical walls on all sides. On the east there is regular and fairly steep slope. On western side there is a narrow gap after which there is the most tortuous hilly upland of Bari Pahar. The gap becomes quite narrow to the south. This gap provides the only access for roads from Ashoknagar on west and Mungaoli on the south, to the north and east. Later development beyond the fort wall occupied this gap more than two hundred ft below the hill top, which is a little open towards north (Plate 13). Several tanks are the source of water.

(4) Route nodal location- Routes are the functional arteries of the organism called society, of which town are but cardinal functional centres. They are vitally important for the functioning and interaction between the town and town, town and country side, and also within towns themselves. In order to gain economic superiority, therefore, towns seek location where from they can command a measure of route nodality. After a certain initial rudimentary stage routes become most important force for town’s growth and orientation, and sometimes loose bearing of the original physical factors of site etc. This is beautifully examplified by Begumganj a town standing besides the river Bina, but catering entirely to the Bhopal-Sagar state Highway and structured along it. Ratlam is the most important town whose location is directly influenced by important roads and railways to very large extent. It stands exactly at the watershed between tributaries of Mahi and Chambal rivers followed here by the important road and the railway from
Indore to Neemuch. Another railway line between Godhra and Kota also passes through this spot (Plate 12). Other lesser roads from places like Sailana, Khachrod, Jhabua etc. also focus upon it.

Jaora has a largely similar locational context. Unlike Ratlam, Jaora has only one railway line passing from Indore to Neemuch and one major road running along it. But there is a good number of lesser roads radiating from here.

Other notable examples of towns by the side of important routes or their junctions are Dewas at cross road of Agra-Bombay and Indore-Bhopal road, enhanced by Indore-Ujjain railway plus other roads linking with villages and Biora on Agra-Bombay road from where roads to Rajgarh on northwest and Narsingarh on the southeast also bifurcate. Yet another example of town location highly influenced by road is Badnawar. It stands on Indore-Neemuch road, where from a road to Ujjain also bifurcates. Its site was pinpointed by the presence of a few small tanks at the site.

Guna, like Ratlam or Jaora, is again an excellent example of a town location at road junction. It stands on Agra-Baombay road and the Bina-Baran section of the western Railway. Other roads are to Kurwai on east and Sironj on south-east (Plate 12).

Though important long distance roads sometimes override local topographic features at a high construction cost, otherwise roads usually follow either river valleys or interfluvial high grounds. In an area like Malwa, mostly with moderate relief, medium sized rivers and gentle intervening interflus and a good deal of drainage density, it is but natural that road should follow interfluvial high grounds in order to avoid crossing many rivers. Then there may naturally be quite a few towns located at interfluvial route nodes,
usually towards the upper reaches of streams. They are usually
nodes of a many lesser roads and sometimes one or two of them
may be important ones also. Such situation may aptly be called
interfluvial route locations. That is why we find towns at
headwaters of several streams but away from any notable stream.
Ratlam, Guna, Badnawar, Berasia, Sironj, Garoth etc. are all
good examples of central place locations of this type. Even
where there is a small rivulet or two close to a town such as
Sironj and Jaora, the economic life draws upon the routes, and
therefore, upon their interfluvial route nodal locations. Also
the rivulets are too small to be of any avail.

In the very large class of such towns two sub types may
be distinguished:

(1) Towns essentially located on major route to which they
cater entirely and which is obviously a through route, such as at
Begumganj.

(2) Towns which are nodes of several lesser roads only,
such as Sironj, Shujalpur, Khachrod, Berasia etc. They are
typical central places of rather small rank. When one or more
of these lesser roads become a major ones the town may represent
a composite of the two cases such as Jaora. Only Ratlam and
Guna are nodes of fewer but important roads and railways. Not
infrequently such radial lesser roads may develop around towns
essentially controlled by other locational factors, such
Mehdipur, Badnawar, Bina etc. For such small but typical
central places the range of lesser radial roads is fairly
coterminus with, and territorially delimited by, tahsil
boundaries, of which they are the headquarters.

It is through influencing the orientation of routes
that the physical lineaments of rivers, influvial high grounds
and other such features that physiography of the region
exercises a far reaching effects at town locations as well as
on their subsequent growth. The same feature also intrinsically govern the distribution, density etc. of rural population, which itself is a factor of location and growth of towns.

Nodality factors considered above constitute essentially the larger situation of towns and a restricted area where town location would be advantageous. The exact siting of town may be governed, as remarked at the start, by a very minor local feature such as a small rivulet athwarting general passage, a slight mound, a sharp bend in nallah or by a very transient historical event such as some important event in the life of a then important person, or his sheer fancy about the scenic beauty of the place or other socio-ethnic factors like a premordial seat of an important family etc. Favoured by the local chief, they gained a momentum of growth, and gradually became independent of and also sometimes irrelevant to the minor but originally important factors of siting. In the course of town spread, original local features may be obliterated also. In case these local siting factors are not so small, they may, in cases, appear to be inhibitive rather than inducive to the spreading town. No wonder, then, that we find today towns, at spots with no local advantage of current relevance. Thus the small rivulets close to Sironj, Jaora, Tarana, Khachrod etc. are practically of no avail today, and hence interfluvial route, nodal location and yet close to a small river. Thus one is forced to reconstruct the local geography of a by gone date when the town evolved, in order to appreciate the rationale of its location there.

(5) Lake side location - In Malwa two large towns namely Bhopal and Sagar, furnish the excellent examples of town located beside sizeable lakes set a mid highly picturesque hilly country. Due to this essential similarity location of only one of them i.e. Bhopal is being analysed in detail, as Bhopal is not only a much bigger, vigorously growing town and
the state capital, but historically also it is much more important, Sagar which does not antecedeate the advent of Marathas in its locality, i.e. 18th century A.D.

Bhopal occupies a very picturesque site between two lakes set amid imposing forested hills. One of the lakes is very extensive indeed about 25 sq. km in area. The entire hill tract constitutes the mid western projection in a major northern off shoot of the great Vindhyan Range on the south. Thus Bhopal stands on the junction of two important water divides, one east west range from the Vindhyan range to the south, dividing water destined to the Arabian sea through the Narmada river, and that destined to Jamuna through Betwa; and the other north south hill tract dividing the waters of Chambal and other lesser tributaries of Jamuna (Singh, A.N., 1966, p. 22). Located in such a situation it commands the Barkhera gap in the Vindhyan range through which passes the main railway and trunk road from north to the Narmada valley and beyond. It also controls the Raisen gap in the other watershed followed by the road to Raisen and farther east. Road to Indore follows the gap between Ahmedabad and Idgah hills and the railway to Ujjain follows the gap between Idgah and Singaroholi hills (Plate 12). Only on the north and north-east, the terrain is rather plain for some distance.

Originally developed on south eastern tip of the eastern peninsular on the larger lake (called Upper lake), the town subsequently spread to the north and northeast, still later around the smaller, lower lake to east.

Till recent times, the Samla and Dharampuri hills on the south, and railway line to the north and east were the physical limits of the expansion of the town. In 1956, when Bhopal was chosen for state capital of new M.P., new administrative and residential development was planned on southern
hills, while about the same time the vast plant of H.E.L. (Now B.H.E.L.) with its residential colony was developed to the east of the railway line. After partition of India, the village Bairagarh, only about 7 km to the west was developed as camp site for refugees from Sindh. Thus by 1961, Bhopal with H.E.L. or Govindpura township, and Bairagarh, became an imposing city vigorously growing further.

Due to the hilly site, expansion of Bhopal entailed the levelling and development of hard Vindhyan hill tops and settleing them afresh. Markedly poorer development of road to Vidisha in the northeast is partly due to historic reason or culturoethnic difference. While Bhopal was strong Muslim State, Vidisha was a staunch Hindu seat.

Thus, it may be summed up that the towns of Malwa show a marked degree of supercession of economic factors over physical factors of defence, i.e. of the consideration of ease of access rather than the obstruction thereof. The towns of the region by very inception, are essentially central places, which is visible in their locational patterns also. This factor has further facilitated the development of the urban system of Malwa in consonance with the 'Central Place' notion. Such a locational pattern of towns was made feasible by the peculiar historical processes in the background of immensely hospitable geography of the region.

REFERENCES

