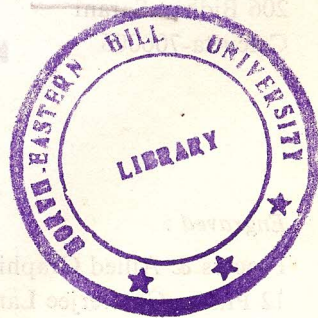


STRUCTURAL ANALYSIS
OF THE CITY OF GAUHATI
[A GEOGRAPHICAL STUDY]

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OF THE CITY OF GAUHATI

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Dedicated with warm affection

To

My beloved friend

Dr (Mrs) DIPALY BEZBARUAH M.A., Ph.D.

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Madhab Chandra Sarma

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January 1, 1982

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INTRODUCTION

The study of the phenomena on urban geography has been carried out by different scholars of various disciplines such as Sociology, Geography and Economics. The main concern of urban geography is the association of activities of urban areas. Geographers of earlier generation held that physical environment determines the form and pattern of culture. But the views of the modern geographers are that the activities of man, the physical forms and structures that exists within the urban areas are the result of cultural framework which shows a reflection of the relationship with the natural environment. Urban Geography is also concerned with the economic base of the people who lived there. Hence an urban centre is not an isolated physical or social unit. Therefore in urban study the physical conditions are determined precisely and then the process of its formation and expansions are examined.

However with the growing problems of physical growth, sociological and economic structures as well as in its development a new field in the study of the city structures has been introduced. This new field is the study of urban ecology¹ and it is hardly more than a century old.² The ecological study of the geographer is different from the social ecologists as their primary emphasis is on the settlement as a habitat. From the

1. A. Theodorson, By Urban Ecology we mean the application of the concepts and techniques of 'Human Ecology' to a study of the city. *Study on Human Ecology* (Evarston, Illinois, Row Peterson and Company), 1961.

2. Park, R. E., As a fundamental discipline Urban Ecology dates from a study published by Park in 1916 although the term 'Human Ecology' was not introduced until 1921. *The City*. Suggestions for investigation of human behaviour in urban environment *The American Journal of Sociology*, Vol. XX, 1916, pp. 577-612.

beginning of this century particularly after 1921 the scholars of various field relating to socioeconomic structures, their spatial distribution to the urban area have applied this technique of human ecology. This period may be regarded as a turning point in the field of research in urban geography as a number of classic statement concerning urban geography have evolved.³ Some of the works done by various scholars on urban geography are listed in the Table 1 in chronological order. These studies are related to India and the Western world.

Since 500 BC the study of urban places was carried on in India. Regarding this it may be referred back to the *Agnipurana* and *Sukranitisara*. The very word 'Pura' was used in the Vedic literature to mean town of the modern age. The word 'Nakar' in Tamil also seems to be equivalent of the term 'City' in modern times. In India however the study of urban places have been neglected for about last 500 or more years.

But at present, since the last twenty years there has been a tendency to work on urban places in India by both Indian and foreign scholars. *India's Urban Future* edited by Roy Turner (1962) may be cited here as one of the best references in this line. The ecologists regarded the cities as the living organism and try to study the concept of man-land relationship and are interested in the areal pattern and spatial association of the cities. In this regard 'The Chicago School' may be regarded as the pioneer. This new idea has not changed the primary objectives but rather it strengthens the foundations whereby testing and formulating of new hypotheses have been made more scientific. In this respect, the remark of Garner in the field of urban geography is worth-mentioning : "The subject matter of urban geography is a rich and varied potpourri. Moreover there are many different approaches to the geographical study of towns, among which two are most common. First the town can be considered as forming a discrete phenomena in the general fabric of settlement. Concepts and generalisation may

3. Hawley, A.H., *Human Ecology*, New York, The Ronald Press (1950);
Reissman, L., *The Urban Process*, New York, The Free Press (1964).

Table—1

SOME OF THE WORKS DONE IN THE FIELD OF
URBAN GEOGRAPHY

Scholar	Year
INDIA	
K. G. Bagchi	1944
E. Ahmed	1952
R. L. Singh	1955, 1964
B. Arunachalam	1955
V. L. Prakash Rao	1962, 1964
S. M. Alam	1965
M. F. Karennanar	1967
N. B. K. Reddi	1970
B. P. Rao	1971
P. Deka	1973
WESTERN WORLD	
Reavis	1876
Cooly	1894
Weber	1894
Semple	1897, 1903, 1911
Hurd	1903
Taylor	1949
Mayer	1954, 1958
Berry & Garrsion	1958
Burge & Pred	1961-1965
Briggs	1963
Ginsberg	1963
Berry	1964, 1968, 1969, 1970, 1972
Murdie	1969
Robson	1969
Feller	1971
Evans	1972

be formed regarding their distribution, size, function and growth. Areas served by urban places may be delimited and the spatial interaction between places may be studied. Secondly the town may be studied in terms of its layout and build which expresses its origin, growth and function. Concepts and generalisation may be related to the character and intensity of land-use within

the urban area and spatial interaction between its constituent parts.⁴

Now with this view to improve the primary understanding of city structure and to test a few empirical hypotheses, relating to the city structure of Gauhati the present work is carried on in the following manner. In the first chapter, the need of the study of city structure has been discussed with review of literature on previous works in this field and the type of study to be carried on has been justified. In this chapter, the hypotheses that are to be examined have also been described.

In chapter two the study area, data related to the study have been described, the basis of selection has been explained and the implications in selecting the study area and the unit of observation are mentioned. The list of data used for the study, their sources, choice and some of their shortcomings are also discussed. A brief historical background of the study area has also been incorporated along with the sub-chapter 2.2 delimitation of the study area.

The third chapter deals with the simple structural analysis. Here the characteristics of the study area has been described.

In the fourth chapter a brief discussion on social area analysis and the characteristics of the analysis which are related to the study area, the Factor model, the nature Factor Analysis and the nature of the evaluation of the spatial model has been described in detail. The derivation of the mathematical model, its application, testing of the hypotheses have also been discussed. In this chapter it will also be tried to examine the causes of variations of these hypotheses in the city structure of Gauhati.

In chapter five the study has been summarised and conclusions have been drawn from the foregoing chapters. The new findings and the contributions to the field of urban geography along with some suggestions which are beyond the scope of the present study and not possible to the present worker are suggested for further work.

4. Garner, B. J., "Aspects and Trend of Urban Geography" in Putnam, R. G., Taylor, F. J. and Kettle, P. G. (ed), *Geography of Urban Places*, Methuen, 1970, pp. 4-10.