Chapter 2

DESIGN OF THE STUDY
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The ceramic industry is about 150 years old and is mainly concentrated at Khurja in Uttar Pradesh and Morbi in Gujarat. The present study region broadly covers 11 districts of Gujarat which have the spread of ceramic industries and more so in particular the two places namely Morbi in Rajkot district (22° 48' North Latitude and 70° 48' East Longitude) and Thangadh in Surendranagar district (22° 33' North Latitude and 70° 55' East Longitude) which have locational inertia of ceramic industry for in-depth field survey. Morbi is a taluka place located on National Highway No.8-A and Thangadh is 20 Km away from the Taluka Headquarters – Chotila which is on Broad Guage railway line.

Study Area:

Gujarat has 33 percent of the large scale ceramic industries with 55 percent of the total capacity and 83 percent of the small scale units of India with 97 percent of the total capacity of SSI units and 80 percent of the total sanitary units with 75 percent of the total capacity of ceramic units of India. (Status Report on Sanitaryware, Government of India, 2000). Out of 80 percent of sanitary units of India in Gujarat about 96 percent of units are in Thangadh alone which are small scale units. The remaining 4 percent of the units are located mainly in Morbi, Wankaner, Bamanbor and Kadi and are large scale units. Morbi has the concentration of roofing tiles and glazed tiles. Based on the above mentioned factual information, the present study chooses Morbi and Thangadh for an in-depth survey and analysis.

Objectives:

The present thesis enlists the following objectives to set the direction for research and analysis:
1. To trace the historical origin, growth of ceramic industry in Gujarat.
2. To evaluate the present status of ceramic industry in Gujarat.
3. To identify and analyse the geographical factors responsible for the growth of industry in Gujarat.
4. To analyse the spatial inertia and spatial spread of ceramic industry.
5. To find out the spatial correlation between the nature of raw material and type of ceramic units.
6. To evaluate and understand the impact of ceramic industry on the socio-economic condition, environmental quality and overall regional development, and
7. To identify the problems associated with the industry and make appropriate and feasible recommendations.

Database:

The present study is based on both the primary and secondary data. The important sources of secondary data on ceramic units include Central Statistical Organisation, Kolkata, DGCI&S, Kolkata, UN International Trade Statistics Year Book 2003, New York, Industrial Extension Bureau, Gandhinagar, Commissioner of Industries, Gandhinagar, The Indian Ceramic Society (Gujarat Chapter) – Ceramic Directory – 1997-98 and 2001-02, Panchal Ceramic Association, Thangadh, and Morabi Tiles Association, Morbi and Status Report of Small Industries Service Institute, Government of India, Ahmedabad (2000). The other sources of secondary data include published and unpublished reports, theses, journals, newspapers and articles referred in the Libraries of Gujarat Chamber of Commerce, Gujarat Vidyapith and Gujarat University, Ahmedabad. The primary data are collected through questionnaire schedule at two levels. First level survey includes the collection of data and information on ceramic units from the owners of all the units of both Morbi and Thangadh and second level information includes details on workers on sampling bases. The study covers Roofing Tiles, Sanitary wares, Glazed Tiles, Crockery and Electrical Porcelain units which cover about 95 per cent of the ceramic industries.

Methodology:

The present study uses some of the statistical and cartographic methods for data analysis. Among them, location quotient, concentration indices, chi-square tests are important. The cartographic methods include proportionate circle, choropleth, flow diagram and ray diagram to show various aspects of ceramic industry (location, size, movement, volume, origin and destinations).

An Outline of the Study:

The present study traces the origin of pottery and ceramic industry to the days of Harappa-Mohenjodaro Civilization. The industry represents the fine blend of nature and culture. The study highlights the geographical factors responsible for the growth and development of ceramic units, their spatial pattern and change. The backward linkages with the places of various
raw materials and forward linkages with the destinations of market centres are analysed. The impact of the industry on economy and environment is studied and problems are presented for better planning and development. The present research work is organized into Eight Chapters.

The first chapter is an introductory chapter and refers to the meaning, origin, range of ceramic products, types of raw materials and processes and literature survey. The second chapter presents the importance of the study, the objectives, methodology and an outline of the study. The third chapter focuses attention on the origin, growth and development of ceramic industry in India in general and Gujarat in particular. The temporal and spatial analysis of ceramic industry has been made. The fourth chapter brings out the geographical factors responsible for the greater concentration of ceramic units in two centers of two districts of Gujarat. The availability of raw material, cheap and skilled labour, industrial inertia, availability of water and energy are discussed in detail. The fifth chapter deals with the aspects of localization of 85 per cent of ceramic units of Gujarat at two places i.e. Morbi and Thangadh which amply shows its raw material orientation. The spatial spread and concentration of ceramic industry has been studied. The sixth chapter refers to the nature of labour force and sources of energy in the production of ceramic products. The seventh chapter deals with the analysis of production pattern, packaging material and distribution pattern. The eighth chapter not only brings out the industrial and environmental issues and findings but also makes policy recommendation for the development of ceramic industry. Thus the present study brings out the significant aspects of ceramic industry in Gujarat in terms of their locational inertia, geographical advantages, royal patronage, enterprising community, marketing skills and regional economic development.
Fig. 2.1. Study Area

(India, Gujarat, Rajkot-Surendranagar district to show Morbi and Thangadh)