

THE AHMEDABADI POL HOUSE:  
COURTYARD STRATEGIES IN A HOT-DRY/HOT-HUMID CLIMATE

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ABSTRACT

The building stock of the dense center of Ahmedabad, India is comprised primarily of the pol house, a house type built for more than 300 years in this city. The houses are two to four stories in height with a small court open to the sky and party walls on either side. This paper discusses the thermal behavior, occupancy patterns and "operation" of a typical pol house through the seasonal cycles of hot-dry, hot-humid, and temperate-dry which characterize Ahmedabad.

1. INTRODUCTION

The city of Ahmedabad is located at 23.5° NL, inland from the Arabian Sea in the Indian state of the Gujarat (see Fig. 1). The seventh largest city in India, Ahmedabad was founded in 1411 by Ahmed Shah. The old city sits on the east bank of the Sabarmati River

and was surrounded by city walls in the late 16th century (see Fig. 2). Following communal riots in 1714, and continuing through the civil disorder of the 18th century, the houses built in the city were organized in dense neighborhoods consisting of a set of dead end streets entered through a single gateway<sup>1</sup>. The residents of each neighborhood tended to belong to not only the same religion, but also the same caste or occupation group. The gate into the neighborhood could be closed for security and each house had capacity to store its own water and grains. These neighborhoods are called "pols" after the Sanskrit *pratoli* meaning gate or entry<sup>2</sup> and the houses in such neighborhoods are popularly known as "pol houses". The old city of Ahmedabad houses all religions and Hindus, Muslims and Jains all live in pol houses.

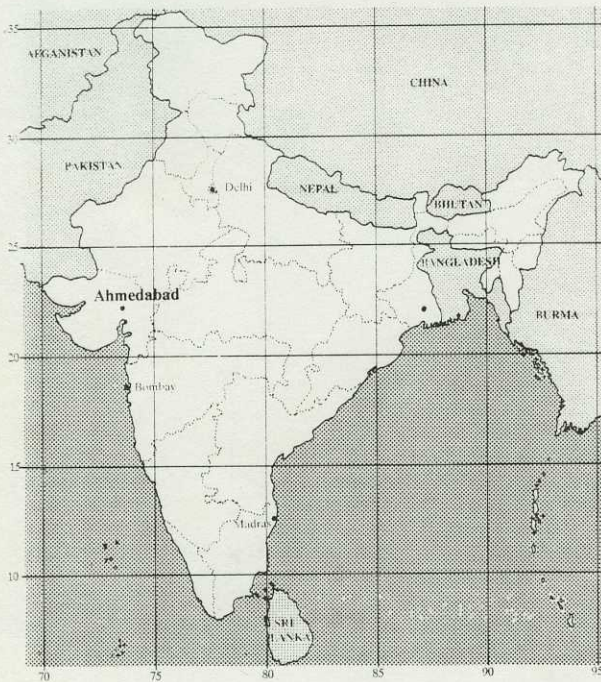


Fig. 1 Map of India.

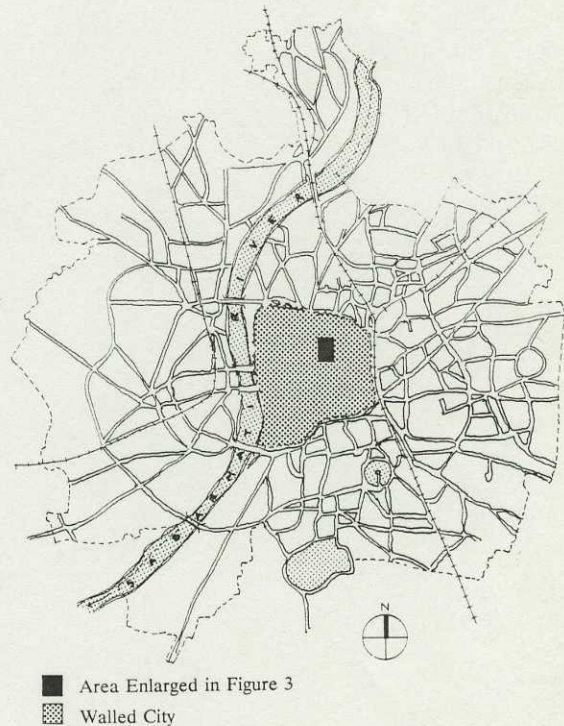


Fig. 2 Map of Ahmedabad.



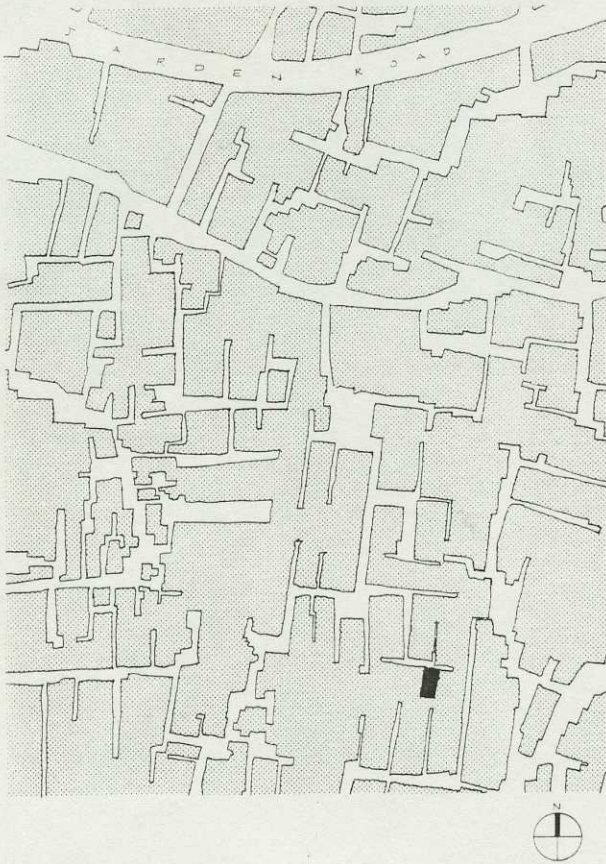


Fig. 3 Urban fabric of Ahmedabad's walled city. Surendra Patel's house in Kadwa Pol is indicated.

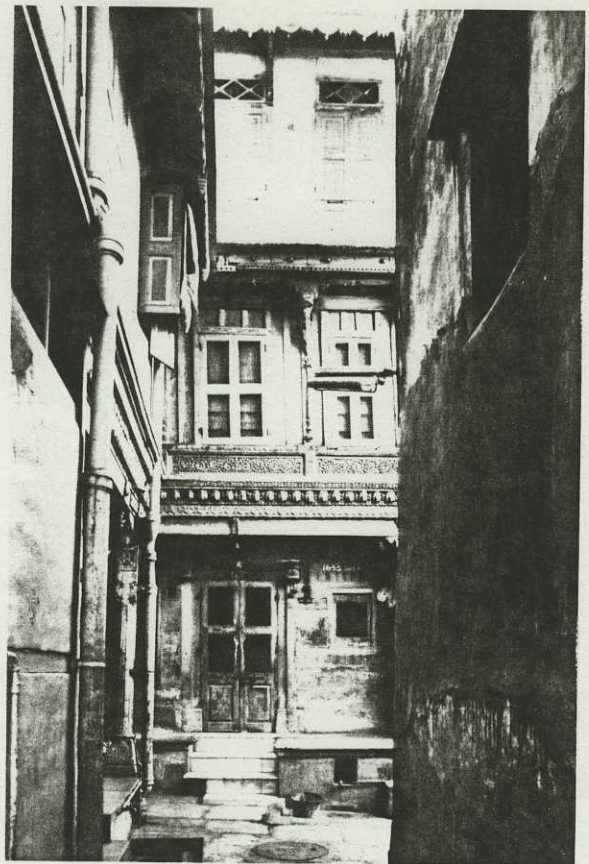


Fig. 4 Exterior of Surendra Patel's house in Kadwa Pol

## 2. CHARACTERISTICS OF A POL HOUSE

Pol houses typically sit with minimal frontage on the neighborhood street, which is itself quite narrow (see Fig. 3). Side walls of the house tend to be shared with the house next door and the house occupies the entire plot of land. The resulting environment in these neighborhoods is quite dense. In 1971 the population reached 225,000 people per square mile within the walled city with some areas having a greater density than Hong Kong<sup>3</sup>.

Pol house construction is generally based on a structure of wooden posts and beams with infill walls of brick. The brick walls are not exposed to weather, but rather are plastered on the interior and exterior (see Fig. 4). The street facade is heavily treated with wooden structural and decorative elements, including carved columns, brackets, window shutters and balconies. The *oatla*, or entrance platform, is generally a plinth with a row of columns which marks the limits of the house on the street. This space is used for sitting outside and often for washing dishes and clothes if water is supplied through a tap in the street. In Hindu households the *oatla* is also an important site for religious activities.

The interior rooms tend not to be designated as "living room", "dining room" or "bedroom", but rather to be very flexible in their use (see Fig. 6). Easily movable furniture and bedding allow migration from room to room as necessary for changing family composition or to find comfort during seasonal changes. Exceptions are the *bethak* or reception space (the first room near the entrance used for visitors to the house), the kitchen, the storage rooms for drinking water and grains and the *puja* room for prayers.

In the dense urban fabric, the open spaces of the house take on increasing importance. The courtyard, known as a *chowk*, is the primary element of the house (see Figs. 5 and 6). All other rooms are built around the *chowk* and it is this space which provides the connection between inside and outside for much of the house, functioning as a light well and a ventilating shaft. In most pol houses the *chowk* is small, an opening of 60 to 100 square feet (6 to 10 square meters) moving vertically from the ground floor through the roof. "The court in a house ...[is], according to traditional Indian tenets of planning, presided over by Lord Brahma. Being open to the sky, these spaces infuse in individuals ... the consciousness of nature, as well as bringing the occupants into daily contact with the supernatural and the mythical."<sup>4</sup>

