COMPARISON OF CONTEMPORARY BRICKS WITH THE BRICKS USED DURING THE BRITISH COLONIAL PERIOD

Case study: Buildings of the Lahore Railway Station, Aitchison College Lahore and Alhamra Art Council, and University of Lahore.

Thesis Advisor

Prof. Dr. Muhammad Yusuf Awan

Submitted By

Tahir Mahmood

ST. ID. NO. 13001183001 (**M.Arch. Thesis)**

Department of Architecture and Planning

SCHOOL OF SCIENCE AND TECHNOLOGY (SST)

UNIVERSITY OF MANAGEMENT AND TECHNOLOGY

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DEDIDICATION

To My Beloved Parents And Dearly Loved Wife & Kids

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ABSTRACT

The bricks are frequently used in construction as building material everywhere in the world. The British colonial buildings in Lahore city were mainly constructed with fair face clay bricks (Locally available building material).

Major parts of the British Colonial buildings are made of bricks with lime mortar and also cement mortar (which was used at the end of this era). The different forms and styles of bricks are frequently used in the building facade. The study is aimed at to highlight the qualities of a durable brick and proper selection of clay for the manufacturing of a salt free brick.

This study is focused on the analysis of the contemporary bricks and the bricks used for construction during the British colonial period with an objective to find out whether the bricks used in British colonial period are more durable than contemporary bricks, and the reasons behind the salt deports on contemporary brick masonry.

It further highlights the importance of the clay selection in brick manufacturing and the factors which matter in producing a better quality of clay brick.

It was considered to assemble data regarding international standard and significance of the brick, its manufacturing process and use throughout the British period to to-date. It included manufacturing of brick and to assess general causes of salt appearance on the face of brickwork.

Proper samples of the British colonial building bricks were taken from various buildings constructed during different times in British Raj.

These samples were tested in laboratory of Building Research Station Punjab Building Department C&W Government of the Punjab and Laboratories of the University of Engineering and Technology, Lahore. The buildings were also physically examined and various causes of deterioration / appearance of salt were identified.

The data collection included photographic evidence and drawings. After collection of data, it was analyzed and compared with respect to its chemical composition, clay quality, clay selection, shapes, strength, manufacturing process, burning process, and uses in the buildings and then the conclusions were drawn. These valuable results helped in the formulation of recommendations for brick masonry.