### The Bedford Park Society

# Technical note no 1

From Knowledge Comes Care

## **Brickwork**

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## INTRODUCTION AND DESIGN HISTORY

The guidance notes on brickwork are divided into two groups; repair of existing structures and the construction of new ones. The philosophy, techniques and materials are different in each case. However an appreciation of the historical context and in particular the use of materials is a prerequisite.



Detail of original brickwork showing Flemish bond and recessed pointing. The Lion badge was a plaque that certified that the house owner was subscribed to a fire insurance scheme.

#### Brick type

Bedford Park was built largely using red facing bricks produced locally in Acton, which were cheap and of very moderate quality. Some houses, however, were built in yellow stock bricks with red brick dressings and decoration. In many cases the same design of house was built either entirely in red bricks or in yellow bricks with red brick detailing.

#### Mortar - general

Until the 20<sup>th</sup> century bricks were laid and pointed using lime mortar, a mixture of sands and lime, which hardens slowly by a chemical reaction with the air. Lime mortar uses a range of aggregate from coarse to fine, and this gives the mortar a gritty texture. Modern construction almost invariably uses a cement mortar, and the craft skills relating to lime mortar have been lost to the general builder. However the use of lime putty and mortars based on hydraulic lime has been reintroduced over recent years, largely in the context of historic building conservation, and the materials and specialist craft skills are increasingly available.

The original brickwork of Bedford Park is laid in a soft lime mortar, which was no doubt mixed using whatever aggregate was available. Few buildings in Bedford Park have escaped re-pointing in the 20<sup>th</sup> Century, so the prevailing pointing is with a cement mortar, often with a 'lightly struck' joint. See below for comments on pointing finish.

Lime mortar pointing allows the brickwork to 'breathe' to a far greater extent than cement mortar, and the use of lime mortar can enhance the control of damp in walls and extend the life of the bricks themselves. The reverse is true of a strong cement mix, which traps moisture in the wall, and which can cause the bricks themselves to erode at an accelerated rate.

Lime-based mortars are weaker, softer and more flexible than cement based ones, which can be highly beneficial in some contexts but they require some experience and specialist knowledge for correct specification and use.