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The British Stone Federation *Architectural Engineering Monumental*

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STONE

information on current stone practice. No. 7: November, 1955

Stone in housing

Throughout Britain, stone is regaining its popularity for the building of houses both by local authorities and private enterprise

BEFORE the spread of a communication network during the early nineteenth century made easy the transport of brick and tile, stone was always used for building houses in areas where quarries were near at hand. It is for this reason that the architecture in stone districts is especially pleasing, since local building traditions grew up alongside indigenous materials.

It is encouraging that many local authorities in stone-producing areas have, in recent years, become increasingly aware of the architectural and 'amenity' advantages—added to its unequalled durability—to be gained by the use of

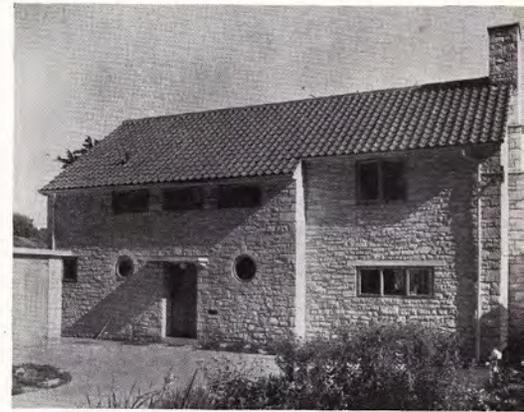
stone buildings. To meet this criticism, experiments have been made with natural stone cut mechanically to produce a rough face. In such ways the stone industry is constantly improving its products.

Bath Corporation has recently built stone houses for the higher-income group. These are modern in design, with projecting gable walls of Douling and Cotswold stone, and have front and rear walls of Bath stone. The same authority has also produced a memorial scheme for old people, consisting of 12 bungalows and a social centre, in Bath stone.

Private enterprise is also making use of stone in house-building, as individual purchasers become aware of the dignity that it gives their homes. A further—and important—consideration to the private enterprise builder is that a stone house will maintain its value better than one built of other materials.

A good example of stone used in a contemporary manner is the house at Weymouth for which the architect Mr. Wamsley Lewis, won an award.

Even in areas where it may not be practicable to use stone as the main building material, its



SUCCESSFUL USE OF PORTLAND STONE IN A HOUSE OF MODERN DESIGN AT WEYMOUTH (ARCHITECT: E. WAMSLEY LEWIS, FRIBA)

remarkable qualities of colour and texture make stone an ideal material for dressing and quoins, gate-posts, porchways, chimney-breasts, and fireplaces.

In garden architecture, stone may be attractively used in a variety of ways: for seats, rockeries, as decorative paving, and for garden walls.

Stone has durability, interesting textures, and subtle colours. While it continues to be used for building, so long will our towns and villages keep the charm, and harmony with their surroundings, that stone has previously given to domestic architecture in Britain.



ROUGH STONE IN THE GARDEN PROVIDES AN EFFECTIVE SETTING FOR THIS STONE-BUILT HOUSE IN MATLOCK

stone in housing. A striking example is found in the Peak District, where all but one of the housing authorities are now using stone.

In Yorkshire, stone is being used extensively for housing; and in Scotland, too, where Aberdeen's housing committee for example has plans for an 'all-granite' housing scheme at Kincorth.

Post-war stone housing is helping to preserve the traditional appearance of the Cotswolds, and locally available stone is still the most favoured building material in and around Bath. There, however, it has been felt for a long time that sawn ashlar blocks, or sawn rangework—the cheaper and more widely used types—are not entirely satisfactory in country districts, looking out of place against the mellow surfaces of older



MEMORIAL HOMES OF BATH STONE FOR OLD PEOPLE AT TWERTON HOUSING ESTATE, BATH

Location of principal quarries
throughout England, Scotland & Wales



7 Ancaster Stone

- (1) WEATHERBED
- (2) FREESTONE
- (3) HARDWHITE

SOURCE Ancaster, near Grantham, Lincolnshire.

GEOLOGICAL Limestone: Great Oolite series of the Jurassic System (approximate age 145 million years).

COLOUR (1) Various tones of brown, blue and mixed brown and blue.
(2) Creamy white.
(3) Creamy white with occasional brown flecks.

CHARACTERISTICS

- (1) Hard Shelly Crystalline with beautiful patterning; will take a high polish and is especially suitable for interior decorative work.
- (2) A freeworking stone of medium grain, suitable for both plain and elaborately carved work.
- (3) Somewhat finer-grained; will take a sharp arris and—like (2)—it can be used internally and externally.

AVAILABILITY To suit demands.

FINISH

- (1) Fine-rubbed, eggshelled, or highly polished.
- (2) Rock-faced, dragged, rubbed.
- (3) All finishes as for (1) and (2).

PHYSICAL PROPERTIES

- Density (1) 156 lb. per cu. ft.
(2) 140 lb. per cu. ft.
(3) 140 lb. per cu. ft.

WATER-ABSORPTION

- (1) 2.5 per cent of dry weight.
- (2) and (3) 6.2 per cent of dry weight.

CRUSHING STRENGTH

- (1) 552 tons per sq. ft.
- (2) 184 tons per sq. ft.

WHERE USED Ancaster Weatherbed stones have

been used for interior decorative work throughout the land, as Church pavings, wall plaques, fonts, and wall linings of exceptional beauty, a fine example of which is in the entrance to the Royal Empire Society Building, London. The Freeworking Ancaster stone boasts a list of famous buildings far beyond the scope of this short leaflet. To mention only a few:—

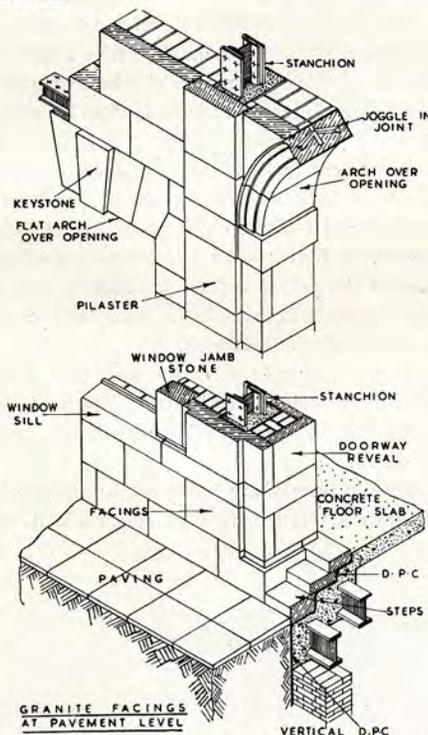
Holborn Town Hall; Wollaton Hall (16th cent.), Nottingham; and the post war Church at Waddington, Lincolnshire.

These stones have a history that can be traced from the Roman occupation of Britain to the present-day export of carvings to Baghdad.

CONSTRUCTION NOTES

Granite facings

IT IS FUNDAMENTAL THAT all stone facings to steel and reinforced-concrete structures should be regarded as clothing materials; and for such purposes stone has more or less ceased to be a building material and become a decorative medium.



There are many natural and synthetic materials suitable for clothing framed structures. But there is none better fitted for this purpose than natural stone, and in certain circumstances granite is to be preferred.

It is its texture and complete absence of planes of stratification that make granite adaptable for conversion into thin slabs as a facing medium in modern construction. Thin slabs of granite can be securely anchored to the structure without fear that fracture will take place when the slabs are subject to tensional stresses due to movement of the structure.

In a modified form, granite is still being used

largely for building construction; and so long as structural requirements are borne in mind in making the facings, and especially in bonding and jointing the units, granite facing compares very favourably with other materials for durability, economy, and the quality that pleases.

Granite is often neglected as a building material because of its hardness and the difficulty presented in working it—and both these features have resulted in high costs. But the introduction of modern machine appliances has reduced fabrication costs very considerably, and granite facings are now available at comparative costs.

Aesthetic quality in the design of a limestone-faced building is enhanced by granite facings at its base and ground floor. When used in such positions granite gives a feeling of strength, solidity, and substance. Granite facings can also be easily cleaned, and they offer a high degree of resistance to abrasive action, which so often destroys the beauty of the facings at the base of a facade.

The accompanying sketch illustrates the construction of granite facings at ground-floor level, and at the side of an entrance to a building. They are of block construction, the units being economically bonded and jointed to meet the needs of a steel-framed structure. The sketch includes the construction at the base, side, and head of the opening.

CURRENT NEWS

The new—and biggest—block of offices in the West End of London, in Portman Square, on which work recently started, is to be faced with natural Portland stone and contrasting green Westmorland slate.

New Sheffield store

106 ft.-long frontage of Roberts Brothers' store, recently opened in Sheffield, is of Portland stone.

Local stone for new station

Cirencester station—described in 1841 as a 'very chaste and elegant building'—is to have a new front built in Cotswold stone.

Special machine to quarry Cathedral stone

To quarry the stone at Hollington quarry for the new Coventry Cathedral, a special machine has been developed, and a second is on order.

ADVISORY SERVICE

The British Stone Federation has made a close study of all the problems relating to the use of stone, and has set up an advisory panel, which is freely at the service of architects and others, to give advice and help on stone matters. Inquiries should be addressed to the Secretary, The British Stone Federation, 70 Victoria Street, S.W.1.