

Again, if the building is required to be erected with brick, let it be honest brickwork, not a frame plastered with brick, as is very often the custom nowadays. Nothing can be worse than this, as the two materials are totally different in their nature, the one will shrink or burn, when the other will remain firm. Then, again, the posts on which the frame is erected will rot or shrink; the consequence is, the bricks will either fall away from the frame, or be fractured to such an extent as to destroy its solidity, and thus expose the mere sham of its construction. Let brickwork be honest, as it can afford to be. Some of the most beautiful buildings we ever saw were constructed of moulded and cut bricks. In many places the bricks are bad in colour, and do not look well in the walling, but this can be corrected by colouring them slightly with Indian red, and certain acids to prepare it. In this way the worst bricks can be made to look cheerful and bright. Many beautiful effects can be got in brickwork by a judicious admixture of white, red, and black bricks, but this should be well considered before being carried into effect, as sometimes effects intended to be gained will be utterly lost through want of artistic knowledge. All the bricks used in the facing of walls should be perfectly hard and well burnt, as soft bricks absorb the moisture to a great extent. Some soft bricks will absorb upwards of a pint of water. If, therefore, a building is erected with soft bricks, some idea may be had of the quantity of water in the walls by a simple calculation.

The quality of mortar used in a building is another very important consideration. The Romans used to have their mortar made up at least six months before using it for their noble buildings, but in our day this cannot be done. We are expected to erect a large church or public building in the same time that was given the ancients to make their mortar. As little wood as possible should be built into the walls. The old method of building nine-inch brick walls with laid timbers in them is most disastrous to the building; very often the timbers shrink to such an extent as to cause the walls to buckle, and thus injure the building. Whenever it is necessary to strap a brick wall to keep it dry, half-inch thick pieces should be built into the joints. This is sufficient to hold the nails, and the shrinkage in a thin piece will be so little as not to affect the wall.

We consider a well-built hollow wall the best of all walls for either church or school-house. The following objects are gained by a hollow wall, viz.: dryness, solidity and durability. If a hollow wall is built say 16in. thick, the common thickness of a small church, no moisture can be conveyed to the inner wall on account of the hollow between them. Then the wall is more solid, on account of no wood requiring to be built into it, as the walls are plastered in the solid brickwork, and consequently more durable. A hollow wall is also much cooler in summer and warmer in winter, on account of the non-conducting quality of the air between the two sections of the walls. Sufficient has now been said in favour of brick work as a building material. In regard to its fireproof quality, we may say here, it is the only perfectly fireproof material we have for building, as has been proved in all the great fires in the United States and Great Britain.

We will now take stone, and see what is its value for building purposes. All will agree that for effect in church architecture stone stands foremost; its solidity and durability, its beautiful colour and the ease with which many beautiful forms can be carved out of it, place it in the front rank of all building materials. Where would the noble buildings of antiquity have been if built of wood or even brick? Would the grand old Egyptian or Hindoo Temples be standing now, as objects of wonder and awe, and by their solidity and size throwing into littleness the greatest buildings of the present age? Where would have been the magnificent cathedrals dotting the old world, and showing, by their magnificence and vastness, the effects of the Catholic religion on the minds of a people otherwise sunk in ignorance and vice. The answer must be in the durability of the materials and the skill used in their construction.

We will now consider what is the best situation for a church. Circumstances will often prevent much of a choice. In cities or towns the best situation