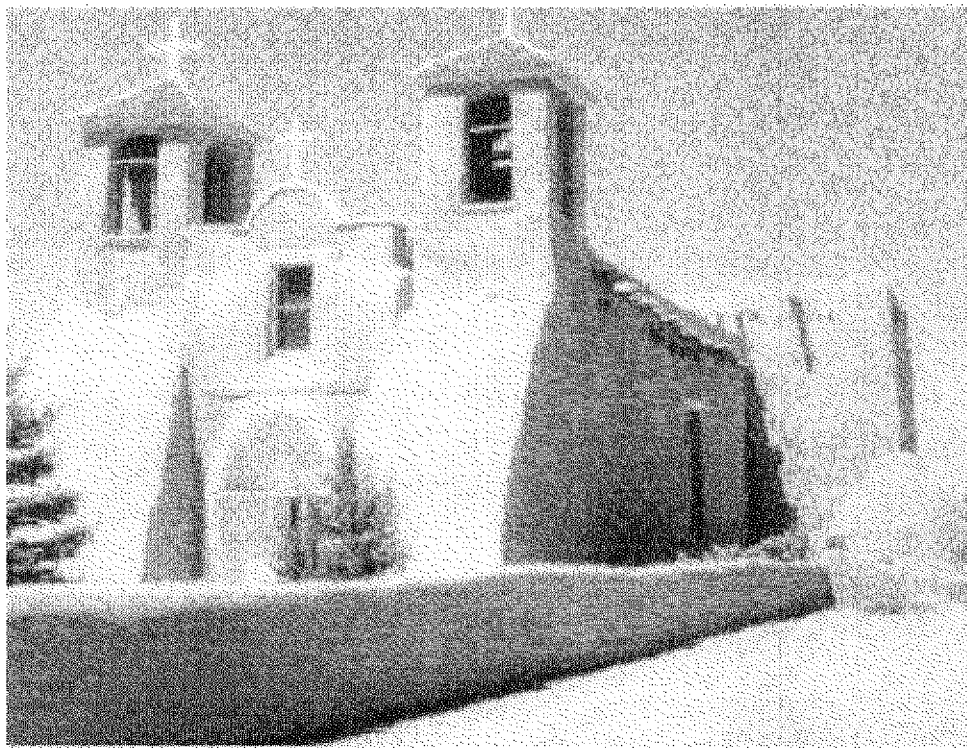


16. Plasters and paints

Adobe walls have to be plastered by mortars made of earth or lime, or by earth stabilized with cement, lime or bitumen. A pure cement plaster should never be used, as it is too brittle and tends to crack under thermal loads (through expansion and retraction) and under mechanical impacts. If water penetrates through these cracks, the earth underneath will expand creating more cracks, or even burst off.

The church at Ranchos de Taos, New Mexico, see Fig. 16-1, which was built in 1815 with adobe walls, was plastered with cement plaster during a restoration in 1967. Eleven years later the plaster had to be taken off, as rain water had penetrated through the many cracks and caused the destruction of many parts of the surface.

If an earth mortar is used for plastering, it is recommended that the surface be made waterproof by applying a paint of lime or lime-casein. Rammed earth walls do not need plastering. It is better to smoothe the surface with a trowel while it is still humid and then add two or three layers of thin lime or lime-casein paint. The first layer must have a high water content, so that it penetrates 2 or 3 mm deep into the wall.



16.1
Church San Francisco
de Asís, Ranchos de
Taos, EEUU