

Fig. 1. Romanesque frescoes, late 12th century, in the crypt of the church of St. Nicolas, Tavant, Indre-et-Loire, France.

FRESCO

A painting technique appropriate to mural decoration; from the Italian adjective for "fresh." The pigment is ground in pure water and applied on a wall surface of fresh mortar, classically a mixture of lime putty and sand. As the wall dries, the chemical change wrought by contact with the carbonic gas in the air transforms the lime putty into a marblelike limestone. The attendant crystallization solidly seals in the pigment. Thus, fresco is the only technique in which the ground on which the pigment is laid functions also as the binder that holds the pigment to the wall. One should distinguish between *buon fresco*, or true fresco, the technique just described, and the different types of *fresco secco*, painted on dried mortar. In the *secco* technique the pigment may be mixed with lime-milk and applied to the plaster after it has dried and been remoistened, or the pigments may be mixed with a binder of egg or glue and applied to the dry surface. A solid wall, through which humidity cannot seep in from the outside, is an essential condition to a sound fresco.

The traditional palette of the fresco painter is limited and subdued, ranging through ochres and earth colors—yellow, orange, red, purple, black, and green. Recent chemical discoveries, however, have widened the range of lime-resistant colors. True fresco whites are reserves of the untouched mortar, and assert themselves forcefully as the wall crystallizes with time. Retouchings are made possible by *secco* techniques, but because these retouchings do not age in the same transparent way as

the areas of *buon fresco*, some artists prefer to scrape off the offending piece down to the scratch coat and lay on a new coat of mortar.

Unlike other procedures, fresco cannot be improvised in the heat of inspiration. The fact that the final mixture must be laid on the same day that the painting is to be done means that the area must be divided into "day tasks," which may vary between 15 and 30 square feet. Experience alone may suggest the amount of painting feasible in one day. On large walls, approximating 1,000 square feet, the master painter usually works with a squad of apprentices who perform secondary tasks. In such a case, an average of 50 square feet per day has proved a workable maximum. A series of drawings on progressively enlarged scales usually precedes the final design or mural cartoon. Once established, the cartoon is partitioned with care into day tasks that will guide painter and mason throughout the execution.

The basic composition is dictated by the architecture. Outlines of doors and windows, spherical segments of pendentives and domes, offer postulates more varied and complex than the rectangular flat surface of an easel picture. Perspective adjustments must also be considered. Rarely can a fresco be looked at squarely; a diagonal approach is normal, based on the traffic through the building to be decorated.

The techniques of true fresco and of *fresco secco* are of ancient origin, and both methods or combinations of them occurred perhaps as early as Cretan-Mycenean times. The Romans certainly knew the processes, and descriptions of them are found in Vitruvius and Pliny. The Romans, however, seldom employed true fresco

technique alone, but generally finished the painting in *secco* or encaustic, as in the many examples from Pompeii, and it is doubtful whether pure *buon fresco* was widely used in Italy before the 14th century. The medieval painter, in search of a brighter palette, would generally block out his wall in *buon fresco*, and complete more detailed work in *secco* in more intense hues. The wide wall spaces of Romanesque churches gave him ample challenge for his skills. In Byzantine churches, too, frescoes commonly covered the entire interior, especially where mosaics were beyond the builder's means, and the formal two-dimensional Byzantine manner set the style for fresco painting in Italy down through the 13th century.

The 14th and 15th centuries in Italy marked the golden age of fresco painting. The work of *Giotto, in Assisi, Padua, and Florence, gave to the medium a monumental classic style that provided the foundation for an unparalleled flowering of fresco painting. Working as he did in a tradition of didactic narrative cycles on the themes of sacred history, Giotto was the father to a whole line of 15th-century fresco painters, including *Masaccio, *Piero della Francesca, and Filippo *Lippi. The "golden age" closes brilliantly in the early years of the 16th century with the Vatican paintings of *Raphael and *Michelangelo (see SISTINE CHAPEL). The advent of canvas and oil painting inevitably eclipsed fresco painting; the new medium was more brilliant and more manageable. By the end of the 16th century, *Tintoretto was doing his great Biblical cycles on canvas in Venice. However, baroque ceilings continued to be executed in fresco down to *Tiepolo, who lived in the 18th century.

Not until the Mexican mural renaissance of the 1920s was fresco ever revived on any important scale. The Mexican revival, heavy with political overtones, centered on the decoration of great public buildings, both exteriors and interiors. Under the forceful inspiration of such men as José Clemente *Orozco and Diego Rivera, the movement has made an important impact on Latin American art and has restored fresco to respectability.

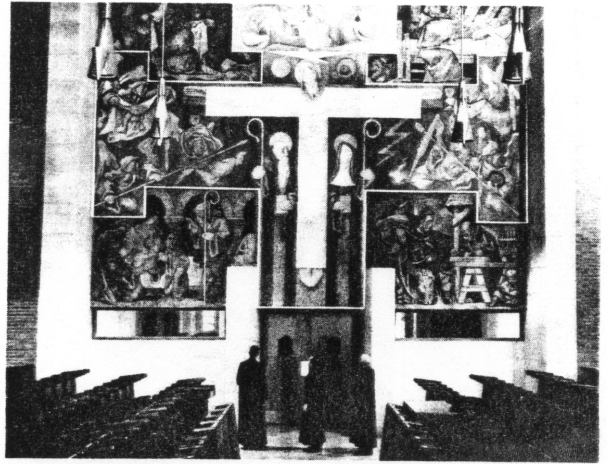


Fig. 3. Jean Charlot, choir fresco, 1958, in St. Benedict's Abbey and College Church, Atchison, Kansas.

Bibliography: C. CENNINI, *Il Libro dell'arte*, tr. D. V. THOMPSON as *The Craftsman's Handbook* (New Haven 1933). G. HALE, *Fresco Paintings*, ed. S. O'SHEEL (New York 1933). R. MAYER, *The Artist's Handbook of Materials and Techniques* (rev. ed. New York 1957). M. H. SWINDLER, *Ancient Painting* (New Haven 1929). E. W. ANTHONY, *Romanesque Frescoes* (Princeton 1951). **Illustration credits:** Fig. 1, Archives Photographiques, Paris. Fig. 2, Anderson-Art Reference Bureau.

[J. CHARLOT]



Fig. 2. Giotto, "The Resurrection of Lazarus," fresco 1303-05, in the Cappella Scrovegni, Padua.