On February 13, 1958, the freighter “Monte Navajo,” bearing the 3300 stones which make up the Fuentidueña apse, docked safely in New York harbor. After they had been unloaded, the 839 crates of stones and the 55 bundles of wooden cradling, weighing in all 627,200 pounds, were trucked to The Cloisters. By March 6 the last crate had arrived and all had been stacked in the courtyard awaiting the start of construction.

On June 10 the work of uncrating the stones began; this job continued through the month of August. As the stones were uncrated, they were placed on three-tiered racks ranged fanwise around the periphery of the courtyard, leaving space—and only barely enough space—for the manipulation of cranes, cement mixers and all

Fig. 1. The interior of the apse at Fuentidueña before dismantling
the machinery necessary for a major building operation (see Figure 2). The sculptured corbels, capitals, and pier figures were moved into the basement of The Cloisters for complete protection against the weather.

During that summer every one of the 3300 stones was treated with a preservative which had already been tested on old stone at The Cloisters. This preservative has the property of making stone more dense and thus more capable of resisting deterioration due to twentieth century atmospheric conditions. To be on the safe side, we had casts made of one of the finest large exterior capitals and of the handsome exterior pier sculpture with caryatid figures; the casts replace the originals in the outside structure and the originals themselves are displayed inside.

As the stones were studied from many points of view, we noticed that several of the blocks bear masons’ marks on the untrimmed surfaces, which are hidden from sight when the building is completed (see Figure 7). Among these marks are a star, a triangle, an arrow, an X, and a mark shaped like this $\triangledown$. Such marks have frequently been found on medieval buildings and have been the subject of wide conjecture. It is now generally believed that certain masons on a job were required to “sign” their stones, either because their work was unknown to the master mason and therefore needed to be checked, or because these masons were paid by the number of stones they turned out rather than by the day or week. A few of the stones are marked on the finished surface with a double-armed cross. All of these are vault stones and the marks may be intended to indicate the position of the blocks in the structure. In any case these masons’ marks are worth recording for the light they shed on building practices in twelfth century Spain.

On July 14, while the stones were still being uncrated and then treated with preservative, work was begun on the new wing at The Cloisters into which the old apse is incorporated. Exterior and interior walls had to be demolished, stairs ripped out, and a whole new ground floor constructed to support the apse, which is on the first-floor level (see Figure 3). Then, early in January 1959, several base courses of old stone were set up “dry,” that is, without mortar, to determine to a fraction of an inch the dimensions of the
ground plan of the apse (see Figure 4). As Miss Gómez-Moreno has explained in the preceding article, the base of the old apse was not exactly level horizontally and also one side had swung out of line because of the settling of the building during the centuries. It was necessary to correct these discrepancies when the apse was reconstructed here. The "dry run" of several courses of both the outer and inner walls took about two months. During this time, decisions also had to be made whether to use the badly disintegrated old stones at the base level or the new ones cut in Spain for replacement. Wherever possible the old stones were chosen even though they sometimes had to be squared off at the corners with small patches of stone called "dutchmen" by the masons.

In May 1959, with the initial problems solved, the work of setting the stones in mortar finally began. Since in the original construction the stones were laid with very little mortar, the joints in the reconstruction were kept to a minimum, averaging about an eighth of an inch in thickness.

During the summer months the building progressed, stone by stone and course by course. The outside wall and the inside walls were constructed
simultaneously and the area between was filled with brick, except for the air space to prevent condensation (see Figure 8). All along the way, trial runs were made for tricky sections such as the niches in the interior wall, the blind arches both inside and out, and the windows. The windows were especially important because at that level the outer and inner walls, four feet apart from surface to surface, were joined together by the sills and jambs of the window slits. It was a satisfaction when, on reaching the window level, all the stones of the walls and the windows met and fitted with each other perfectly.

There was one section of the building, however, where the stones did not meet and match so well. This was a part of the west wall which was being constructed plumb, that is, on a true vertical, until it was discovered that, built thus, it would not fit the arches of the blind arcade. And so that part of the wall had to be taken down and rebuilt slightly out of plumb.

By September 8, 1959, the setting of the cornice above the windows in the interior had been completed and it was time to start the building
of the half dome of the apse, the barrel vault, and the triumphal arch. Using the same wooden centering that had been employed in Spain for dismantling the apse, trial runs were again made (see Figure 10). Only the triumphal arch presented problems because it was slightly stilted and somewhat twisted. It must be admitted that although irregularities such as these present difficulties to the modern builder, they contribute greatly to that quality of vitality which medieval buildings possess, as opposed to more mathematically precise modern imitations of the Romanesque and Gothic.

After the completion of the vaulting, work was continued on the exterior wall, and by the end of November the last two courses, including the capitals, corbels, and cornice with billet molding, were being set in mortar. The apse was receiving its crown.

Excerpt for the pointing of the exterior and interior, the reconstruction of the old apse was virtually finished early in January 1960. On January 19 the final stone was put into place. That stone was the head of Saint Martin which had not been in position for at least several decades and was discovered near the site in 1958.
And so the Fuentidueña apse was rebuilt at The Cloisters. The Museum staff especially wishes to thank the Spanish architect, Sr. Ferrant, who drew the measured plans and elevations of the apse in situ; the American architects of the firm of Brown, Lawford and Forbes, who not only provided the working drawings for the reconstruction but supervised the placing of every single stone; the general contractors, Vermilya-Brown Company, who rebuilt the apse and who also built The Cloisters in the 1930s; and finally the workers who entered wholeheartedly into the project and carried it out with patience, enthusiasm, skill, and affection.

NOTE: The reconstruction of the Fuentidueña apse was completed in 1960, but it was not until over a year later that work on the new hall which serves as a nave for the apse was finally finished and the new wing could be opened to the public.