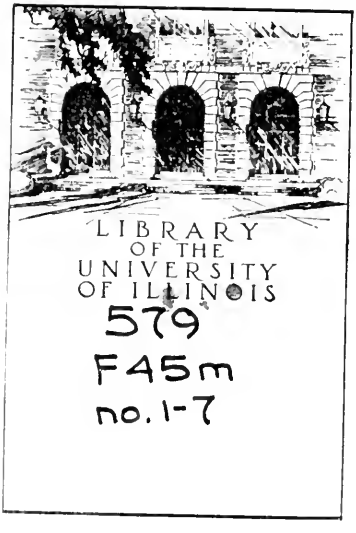

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A new form of construction in fossil exhibits has been employed in a group of Pliocene edentates in Field Museum. The skeletons are mounted in high relief attached to a background, which is modeled in relief with painted perspective. The figures are grouped about a tree which has the lower trunk modeled in full relief, but the upper portion is joined with the background and modeled in half relief. A sharp bend in the trunk makes this possible and at the same time offers a convenient point of support for one of the skeletons. Other accessories used are reeds cast in half relief at the front and merging into the background in perspective.

The specimens exhibited in the group comprise a skeleton of a small ground sloth of the genus *Pronothrotherium*, and a medium-sized glyptodont, *Sclerocalyptus planus*. The skeleton of the sloth is mounted in an upright position with hind legs set well apart and tail resting on the ground. The fore feet are resting lightly on the bent tree-trunk, the head and neck are free. The figure of the glyptodont rests on all fours with carapace attached to the background. Head, feet, and tail are in full relief.

The conception of the group is that the sloth has been feeding on the foliage of the tree and is interrupted by the appearance of the glyptodont. The scene has for its setting a wide plain covered with rushes and dotted with occasional trees.

The construction of the group is relatively simple. The ground work is carried on an L-shaped base made to fit the inside of a 2 by 12 foot upright case. The ground and background are constructed of plaster laid over ordinary wire lath. The trunk of the tree is formed on screen wire, loosely woven to admit shaping. The method of construction was as follows:

A temporary mount of the sloth was first made by posing the vertebral column and the ribs on a clay form. This form was covered with burlap and flour paste backed up with plaster, making a mold. The mold containing the ribs and vertebrae was removed and the clay taken out. The burlap, where it showed between the bones, was treated with clay water as a separator, care being taken not to get clay on the ribs. A thin layer of plaster of paris mixed

with cooked dextrine was run into the mold. The purpose of this was to cement the bones firmly to the cast. A mixture of half plaster of paris and half asbestos, with sufficient dextrine to make a thick paste, was then plastered into the mold between layers of burlap. This is essentially the process used by taxidermists for making manikins.

After drying well, the outside jacket was removed, care being taken not to disturb the bones. The vertebrae and ribs in their plaster support were then put into place on the pelvis, which had previously been mounted with the usual iron work. The rib-manikin was then fastened to the back of the case with screws. Skull, neck, and legs were mounted in the usual way except that they were attached to the manikin. This method of mounting the ribs is well adapted to fragile bones which must be thoroughly supported. It is easily done and every inch of the ribs is supported, which is not possible with wire or iron supports. Also, considerable iron work may be saved in the attachment of skull and legs. The glyptodont skeleton was mounted by hidden iron supports attached to the framework of the background.

The smaller plants of the background were in part cast, then modeled or painted as they receded in perspective. To accomplish this, the background immediately behind and to either side of the glyptodont was filled with modeling clay to a thickness of from one to six inches. Into this clay, leaves of cat-tails previously graded according to size were pressed. The smaller leaves were placed first, with their tops showing behind the larger leaves which were placed in front of them. Here and there, clay was added to thicken the mass and give more depth to the relief. A mold was made of this and a cast from it placed in position to represent the foremost clumps of rushes. Actually only a few inches of space is occupied, but perspective gives the impression of several hundred yards of rushes. The larger clumps which project from the background break the monotony of a straight line and help to blend the background into the foreground.

The trunk of the tree is shaped to stand free from the background at the roots, then swing back and join the background. The branches, modeled in relief, are part of the background. Although they lie in one plane, they are made to give the illusion of depth in perspective by modeling certain parts thicker, and by making them cross one another. An illusion of depth is also secured

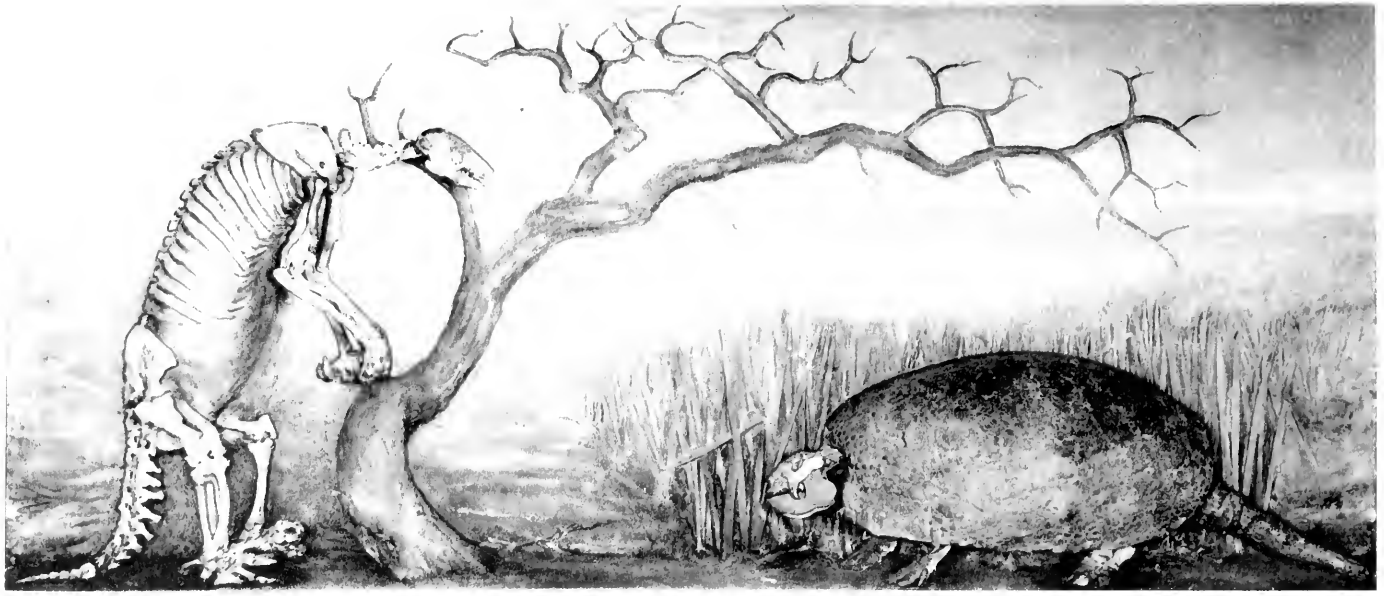

FIG. 1. *Pronothrotherium* sp. and *Sclerocalyptus planus*, a group of Pliocene edentates. Mounted in high relief, with background partly in relief and partly in painted perspective.

as in a bas-relief by painting the smaller twigs on the background, and painting shadows on the limbs.

The entire background is colored with oil paints cut in amyl acetate to avoid gloss. The sky is colored a light bluish cast down to the horizon where the tones change more rapidly, blending gradually into the cast forms. The rushes are colored a grayish green to harmonize with the sky. The joint between the rushes and the background proper is painted to resemble a continuation of the grass of the bas-relief. The foreground which blends into the bas-relief is made uneven and somewhat suggestive of earth. A root of the tree modeled in the round joins the background where its continuation is painted. This helps to break the joint between foreground and background. To keep the picture simple no rushes were put into the foreground nor were details painted in the background.

This type of exhibit makes it possible to install a habitat group in a shallow case. The scientist may examine the skeleton in detail, yet the group as a whole is attractive to the public. Preliminary work on this group included an attempt to model the background directly with plastics, but this was found to be difficult and unsatisfactory. It was found to be simpler and more effective to cast the rushes and paint their continuation into distance.