
Sculptured ears of corn fabricated from white architectural precast concrete comprise this memorial in Dublin, Ohio, fulfilling the artist's requirements for aesthetic beauty, history and longevity.

Artist Chooses Precast Concrete for Field of Corn



Mary K. Hurd
Engineer-Writer/Consultant
Farmington Hills, Michigan



Russell S. Fling, P.E.
Consulting Engineer
Columbus, Ohio

With public reaction ranging from rhapsody to ridicule, a unique work of art in precast concrete has attracted nationwide attention. *Field of Corn (with Osage Oranges)* by Malcolm Cochran consists of 109 man-sized ears of concrete corn that stand upright in realistic row patterns accented by an intriguing curve at one corner. They are the centerpiece of a two-acre park in Dublin, Ohio.

The work is designed to symbolize Dublin's history as a farming community, and to be a memorial to the rural landscape fast being consumed by urban development. Appropriately, it stands on land that was once part of a cornfield and the park has been named in honor of Sam and Eulalia Frantz, who farmed the land and pioneered in the production of hybrid seed corn.

Though not a literal recreation of a cornfield, the ears of corn have been arranged in rows reminiscent of the farmer's field, but are sensitive to the site's high visibility from passing automobiles. Indeed, the majority of viewers will see this work of art as they pass at prevailing speeds along its boundary on Frantz Road. The ears of corn are 6 ft 3 in. (1.9 m) tall, a height thoughtfully chosen to be large enough to be impressive from a distance, yet modest enough to provide an intimate human scale when viewed at close range.

As indicated by the title, the group of Osage orange trees is an important part of the artist's design. Mature trees already present on the site are the remnant of a 19th century hedgerow planting. A second row of

Osage orange trees has been planted, ultimately to take the place of the older trees but meanwhile creating a shady lane to be enjoyed by visitors. The nubby, inedible fruit of the Osage orange is about the size of a large softball or grapefruit, with a surface rather like the surface of an ear of corn.

The artist Malcolm Cochran, professor of sculpture at Ohio State University, Columbus, Ohio, was commissioned by the Dublin Arts Council following a juried competition to develop a significant work of art for a small park owned by the city of Dublin. The park was previously regarded as unusable because of its location at a busy corner in a new office park. Cochran selected concrete for both practical and aesthetic reasons.



Fig. 1. Precast concrete ears seen from within the cornfield, with Osage orange trees in the background. The trees have outgrown their original hedgerow function. (© M. K. Hurd)



Fig. 2. Malcolm Cochran puts finishing touches on one of the corn prototypes from which the molds were made. (© Chas Krider)

The \$70,000 budget eliminated the use of materials such as limestone and bronze, while durability concerns eliminated the use of wood. Cochran believed concrete — specifically, white concrete — could provide, within budget, the combination of abstraction and monumental quality he was seeking.

From a distance, the field of corn ears resembles the regimented grave

markers of a military cemetery. The artist has used this symbolism to represent the death and rebirth of individuals and society. It is intended, Cochran says, to remind us of our heritage, to commemorate the passing of an agrarian way of life, and in the process of looking back give us pause to think about where we are heading — all the while maintaining a sense of joy in the present. The sculpture is

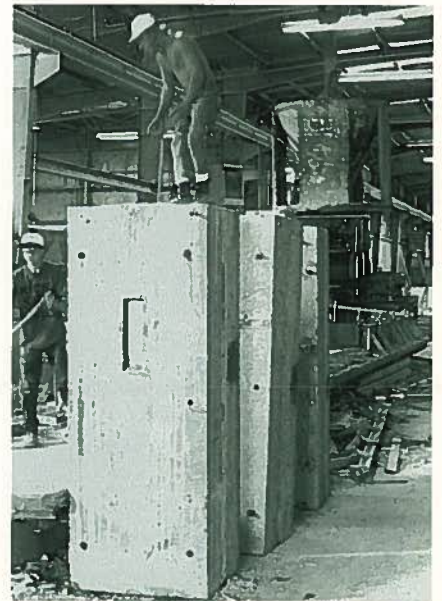


Fig. 3. Filling molds at Cook & Ingle. (© Malcolm Cochran)



Fig. 4. Lifting up ear of corn while holding down second side of polyurethane mold. (© Malcolm Cochran)

also meant to be a roadside attraction — something unexpected and light-hearted.

Cochran and his studio assistants created three full-size prototypes of the corn ears, from which the precast concrete manufacturer subsequently made the molds. Each of the three ears has a different kernel pattern. Using a core of polystyrene foam, he attached separate hollow kernels made of cast wax, then filled the spaces among the kernels with wax melted by a blow torch.



Fig. 5. Inspecting surface detail of ear of corn after removal from mold.
 (© Malcolm Cochran)



Fig. 6. Finished ears of corn are ready for grinding and sandblasting.
 (© Malcolm Cochran)

The first ear was then shipped to the precast concrete manufacturer Cook & Ingle Co., Inc. in Dalton, Georgia. Cook & Ingle, whose regular business is architectural precast concrete, has provided panels for a number of outstanding structures, including the Carillon Parking Deck in Charlotte, North Carolina, which won a PCI Design Award in 1993. The enterprising firm had previously worked with Cochran on a 1984 sculpture, *Chapels of Ease*, in Atlanta, Georgia's Piedmont Park. For that project, various aggregates including marbles, oyster shells, and fibers such as horsehair and kudzu were used to express the artist's intent and add meaning to the sculpture.

Satisfaction with this earlier commission led Cochran to choose Cook & Ingle for *Field of Corn*. After receiving Cochran's first full size model of a corn ear, Cook & Ingle made an elastomeric mold of polyurethane and cast the first ear of corn for the sculptor's review, using one of their standard white architectural concrete mixes. After approval of this first ear, Cochran prepared two additional models with different kernel patterns and the mold making process was repeated.

Once the three molds were available, casting took a total of 36 working days, based on a one-day turn-around time. The ears were cast upside



Fig. 7. Closeup view of one of the 6 ft 3 in. (1.9 m) ears of corn. (© M. K. Hurd)

down with lifting inserts at both ends and remained in the molds 12 hours before stripping. Then each ear was lightly sandblasted at the plant and coated with a siloxane penetrating clear sealer that prevents absorption of moisture. As with other architectural precast concrete produced by Cook & Ingle, the mix was specified at 5000 psi (34 MPa) compressive strength but actually achieved 7000 psi (48 MPa) at 28 days.

The 1500-lb (680 kg) corn ears were delivered to the Ohio site in four truckloads and installed in October 1994. Foundations for each ear were made by auguring a hole 3 ft (0.9 m) deep and filling it with concrete to within 6 in. (152 mm) of the ground level. A galvanized steel pipe was inserted to the bottom of the fresh concrete, using a template and carpenter's level to establish position and alignment.

The corn ears were cast with a center cavity to fit over the pipe. After the ears were lowered into place, Cochran and his assistants removed the lifting inserts, installed patches in these areas, and touched up the cracks between the kernels. This was followed by additional sandblasting and re-coating with the siloxane. This kind of sealer degrades over time with exposure to sunlight and should be reapplied periodically, perhaps every five years, or after any sandblast cleaning is done on the ears.

After all the ears were planted, the remaining 6 in. (152 mm) of the augured holes were filled with soil and grass was planted. Although there are only three different designs, the castings were rotated to give a variety of orientations so that an observer is hard pressed to find any matching kernel patterns.

Field of Corn (with Osage Oranges) was dedicated at a ceremony on October 30, 1994, with the ribbon cut by Eulalia Frantz, widow of Sam Frantz, who farmed the land on which the new corn "grows." A series of bronze plaques has been installed to inform visitors about the history of the land as well as about the art. The work has already brought national media attention to Dublin as well as delight to a continuing flow of curious visitors.



Fig. 8. Detail of the precast concrete kernels. (© M. K. Hurd)



Fig. 9. Ears of corn are distinctive at a distance yet maintain intimate human scale at close range. (© M. K. Hurd)



Fig. 10. Seen at a distance, the *Field of Corn* resembles gravestones, an impression that supports the artist's intention to provide a memorial to a way of life long gone. (© M. K. Hurd)

ACKNOWLEDGMENT

The authors wish to express their appreciation to sculptor Malcolm Cochran, Christy Rosenthal, Director

of the Dublin Arts Council, George and Rhenda Spence of Cook & Ingle, and Don Lampus of Chem-Probe, Garland, Texas, for providing the information on which this article is based.