

A Labyrinthian Labor of Love



WORD reached Kevin Avants that there were plans being made to build a labyrinth into the floor of the entry plaza in front of the Cathedral Church of Saint Francis of Assisi in the heart of Santa Fe, New Mexico. It would be based on the famous labyrinth in Chartres Cathedral - and it was to be built with concrete pavers. Kevin, a landscape and hardscape designer (and a Stone Foundation member) had an special interest in labyrinths and he felt it was inappropriate to use such material; that the nature of the project called for natural stone, in fact, a noble stone.



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The Labyrinth would be a faithfully reproduction of the Chartres Labyrinth though it would need to be scaled down slightly to a 6:7 proportion in order to fit in the circular void with the arbitrary diameter of 36 feet that had be left in the paving.

The requirement that the reproduction remain as true as possible to the original meant not only recreating exactly the many inter-related proportions of the Chartres Labyrinth, but also capturing a paradox that lies at the heart of its beauty. Although the ideas symbolized in the proportions of the Chartres Labyrinth allude to mathematical perfection, there is a noteworthy lack of perfection in the actual labyrinth itself. This is despite the obviously superior caliber of the masons who did the work. The implication, to the designers of the Saint Francis Labyrinth, is that the beauty of the Chartres Labyrinth lies not in the perfection of the thing so much as it does in the perfection of the ideas behind it. The key then was to strive for perfection, but build by hand.

Templates for the paths, border-lines, labryses, lunations, rosettes and everything else were all drawn actual size using a compass and a string. The templates – 296 of them were created for over 1,600 stones – were transferred to the stones which were each, in turn, rough cut by hand with a 14" Imer Combi-cut 100, and then finished with 4.5" grinders. There are no rectangular pieces in this puzzle. Each stone was cut on the exact arc of the circuit in which it lay; there are 12 bands within the 36' diameter of the Labyrinth and an 8' rosette at the center. Joints between stones are a regular 1/8". The sacred geometry of the original was preserved in the reproduction; in order to have the exact number of lunations, the semi-circular indents in the outer perimeter it was necessary to fabricate a custom 9.5" core drill .

The choice of split-face porphyry was a perfect compliment to the design concept. The natural variations in color of irregular surfaces provide balance and counter-point to the over-all precision of the labyrinth design.

Construction methods were derived from the location, the stone itself and the expectation of years of heavy use. Due to the instability of the soils around the Cathedral, and varying thickness of the stones from which the pavers were cut, the decision was made to set the stones in a bed of mortar on a reinforced concrete slab. Once 80% of the stones were cut, the labryses were laid out, set in mortar and then the path stones were fixed in their proper circuits.

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Porphyry is such a stone and MILESTONES Imports, one of the largest distributors of porphyry in the country is located in Santa Fe. Avants discussed the project and the material with the owner of MILESTONES, Miles Chafee (another Stone Foundation member).

For his model Avants selected green porphyry, which is rarely encountered or used, for the borders and lunations and a red-grey porphyry for the pathway. He approached the landscape architect and discussed with him, and later with the Rector, Father Jerome Martinez the importance of the project and how porphyry, with its long history in sacred architecture, would be the perfect choice. In the end the use of porphyry was approved and Kevin and stone-mason William Campbell were commissioned to carry out the pro-