Lessons Of Stonehenge

By DAVID L. PERKINS AIA

The basic architectural form to Stonehenge was the trilithon which was formed by standing upright two gigantic stones and topping these with a third boulder of the same type. In the inner circle, the trilithons stood apart, but were placed to form a horsehoe, while in the outer circle, trilithons were joined to trilithons until a complete circle was made. Each stone had its own incredible astronomical significance, but the architectural operation is one that is just as fascinating when you consider the forethought, teamwork and effort that went into such a production.

Two main types of stones were used in Stonehenge - bluestone and sarsen stone. The sarsens came from about 40 miles away by sledge. The estimated mode of transportation was to form sledges that were treed-bells of trees joined by ropes of vines and animal hides.

Big Task

In 1854 when the British Broadcasting Company presented the drama of Stonehenge, they found it took 16 men to pull one ton in the manner the Stonehengers used. With each of the bluestones from Wales, weighing 5 times this amount, getting them to their destination was a time and man-consuming task that required a great deal of determination on the part of these people. It is thought that they used waterways as much as possible to conserve effort.

Though the sarsen stones came from a much closer distance to Stonehenge, they weighed at least 20 tons or so more than the bluestones. Speculation is that it sometimes took 800 men to pull such stones on these sledges with maybe 200 or more needed to clear brush, guide the sledges and form the path.

Once the huge boulders were at the site, they had to be shaped somewhat. This was initially done by bashing them with 60 to 90 mauls that may have broken off from the original and also tools made of animal bones. A man bashing at a sarsen stone for one hour could hope to knock off about 1 cubic inch only.

In the delicate cutting that went in making the grooves across the top of the two parallel boulders so the crosspiece boulder would fit, meticulous care had to be taken or the heavy crosspiece stone might fall crushing anyone for anything in its way. The grooves were smoothed by pulling heavy stones back and forth across the stone.

Countless Artifacts

Erecting the stones was another difficulty and monumental task. It took about 200 men to pull the heavy rocks into place with vines and ropes. Once in place, the Stonehengers frantically filled in the space in the hole around the rock with everything and anything possible so they wouldn't topple. This often included tools, bones and scraps along with the turf and soil. The areas around the great stones have yielded countless artifacts to archaeologists and given up many of Stonehenge's historical secrets.

When you consider the odds and the effort, it's no curiosity that the completion of Stonehenge took about 300 years and an approximate total of 1,475,850 days. An even more phenomenal fact about Stonehenge is that it wasn't the result of slave labor as were the Egyptian pyramids, but the concerted effort of a group of people who willingly worked together and had the pride and determination to see their goal through to completion regardless of the amount of time it took. Modern equipment could easily put up another Stonehenge in a matter of months, but today's civilization would do well to copy the enthusiasm, drive and peaceful cooperation in the shaping of our modern world. When history looks back on us 5000 years from now, may it do so with the same degree of respect and admiration!