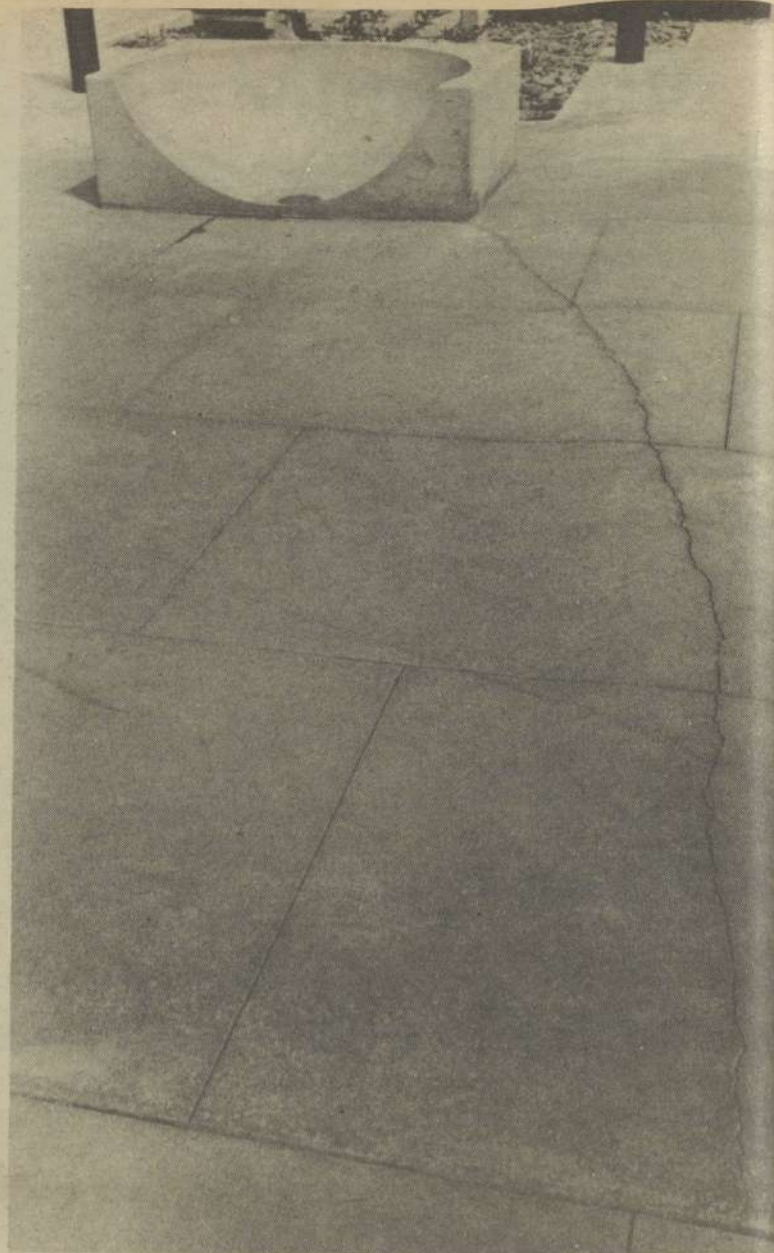
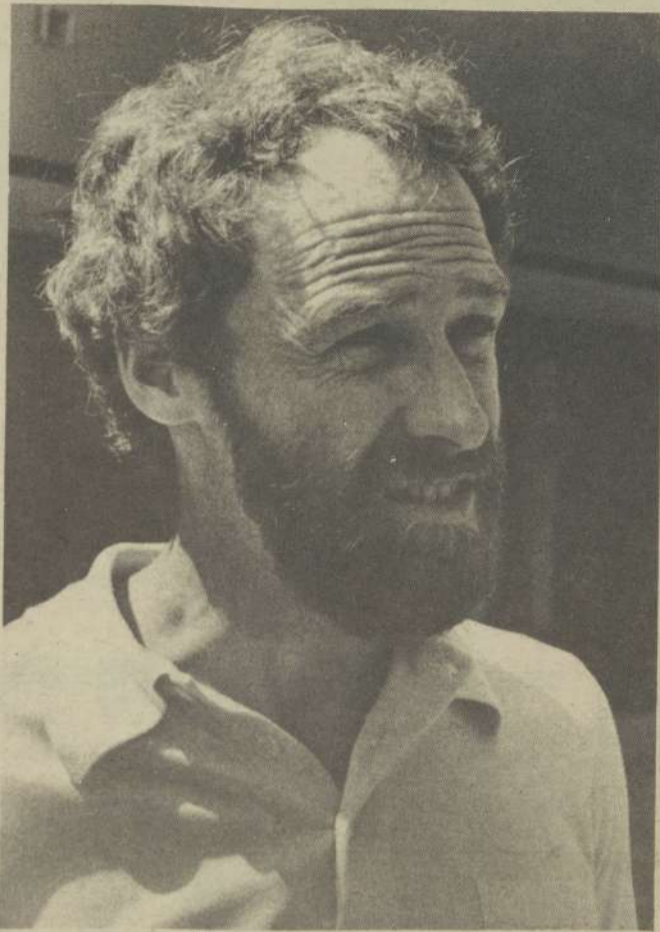


**"I don't see why a public entity should accept anything less than A-1 work from anyone."
—Wayne Daigle**



Science Center construction quality questioned

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Rice suggests that some of the joints were cut from one to three weeks after the pouring of the concrete.

All four men—Fisher, Rice, Lee and Singleton—agree that sandblasting the concrete worsened the appearance of the cracks. Singleton pointed out, "It (the cracking) is a little more noticeable than some areas because it is sandblasted, and when you sandblast, it kind of beads the crack out...but if there was any error at all, it was in sandblasting the concrete, I would think."

Fisher, Rice and Lee also agree that the cracks in the courtyard are not a structural problem, but rather, "an aesthetic problem."

Foundation Cracks

Further cracking problems have also developed in the above-ground foundation footings of the Pauling Center buildings. The vertical cracks run from the base of the footing to the top, and often completely through from one side to the other.

Wayne Daigle, a professional engineer for the city of West Linn, observes, "There's

something amiss here, there's just no consistency." Daigle continues, "Within this 30-foot section of footing there are nine cracks. It's evident to me that the fracturing that runs through the footings is not in the least acceptable."

Asked about the footing cracks, Fisher replied, "The footing cracks are not a structural problem, nor are they all that uncommon. I can show you several places around Barlow (Hall) that have similar cracks."

Considering possible causes of the cracking, Daigle and Jim Harris, an employee of a Portland engineering firm, suggested that the concrete mix might have been too wet, or that the concrete was overworked, or a combination of both. If the concrete were too wet it could cause a large amount of shrinkage. If the concrete were overworked, it could break down the adhesion of the concrete as it set up.

"You can screw up concrete just as much by overworking it as you can by putting in too much water," Daigle explained.

Both Daigle and Harris believe a functional problem

may develop in the building in the future. If water were to run into the cracks and freeze, it could enlarge the cracks through erosive chipping, possibly causing water to seep into the building. Harris said this problem could occur "a year to two down the road."

Landscape Work

Two principal problems in the landscaping workmanship have come to the attention of landscape architect, Andy Rice.

Rice cites improper preparation of the grass seed bed and uneven distribution of the grass seed. "The plans called for an even and dense growth of lawn," Rice commented, "and judging by the patchwork growth of grass, this standard was not attained."

Rice also points out that the contractor provided some wrong types of plant materials, which had to be replaced. "Basically," Rice elaborates, "the landscape problems keep coming up over and over again: inadequate plant material, improper grading of seed beds (lawns), which they proceeded to finish in the same improper way."

Workmanship

In all of the deficiencies in the Pauling Center pointed out by Fisher, Rice, Lee, Daigle, and Harris, a common factor alluded to has been substandard workmanship by the contractor.

"Basically the work does not show any acceptable level of skill, in my opinion," stated Rice.

Daigle reiterates, "I don't see why a public entity should accept anything less than A-1 work from anyone."

An example, according to Rice, of less than adequate workmanship, is the sandblast finish on the courtyard. "If you

look at the work out there, you'll see that there's a great deal of variation in the intensity of the sandblasting which would indicate that the atten-

tion given to the work was inadequate. A person who was really sensitive and careful with the work would have been more careful when he came to those saw-cut joints," Rice said.

In fact, the workmanship was of low enough standards

that a deficiency report was filed with Contractors, Inc. through the College through the office of Don Fisher.

In order to acquire a piece of equipment or service over \$1,000, the College is required by state law to seek ten bids. Then, unless the

bidder is unable to fulfill the college's needs, or the College chooses to turn down all bids, it is required to accept the lowest bid offered.

"It's getting very difficult to get quality work on public projects," mentioned Rice. "The difficulty is that with competitive work contracts, you must bid competitively to anyone who, without reasonable doubt, will be able to perform the work," Rice explained. "If you can prove that the contractor failed to do the work in the past, you can eliminate his bid, otherwise you have to accept it."

College President Jack Hakanson replies, "The contractor has to respond to specifications. All of the contractors bid on the same specifications, and if the chosen contractor doesn't adhere to the specs, he can be held responsible."

