

The Man Who Made Both

By CLARISSA START DAVIDSON



Ends Meet

Kenneth J. Kolkmeier, his wife and children came from their home in Ottawa, Ill. to visit Ken's parents in St. Charles, Mo. Because they were so close, they stopped off in St. Louis and took the train to the top of the already famous Gateway Arch.

It was an interesting experience, perhaps a little more interesting for Kolkmeier than for the average tourist since he had spent more than three years of his life working as project manager in charge of the Arch's construction.

"It felt good," Kolkmeier, a University of Missouri graduate (B.S. in C.E. '53) said. "Real good. Although I think we had a better view when we were working on the top of it. You can't see quite as well through those little windows as we could when we were out in the open."

Kolkmeier is proud, and justifiably so, of his part in the huge stainless steel landmark. From September 1962 until January 1966, he watched it grow, from a design on paper to the 630-foot towering structure which dominates the St. Louis skyline from north, south, east and west. Named the outstanding civil engineering achievement of 1967 by the American Society of Civil Engineers, the Arch also received a special award for excellence in November from the American Institute of Steel Construction.

This was not Kolkmeier's first important assignment and certainly not his last, but it was something of an achievement for a young man who wanted to be an engineer from earliest boyhood.

The son of Mr. and Mrs. Elmer Kolkmeier, Kenneth is the oldest of three sons. The other two are Don, who attended Elmhurst College and Eden Seminary and is now a United Church of Christ minister in Rosenberg, Texas, and Elmer, who attended the University of Missouri and the University of Illinois and now has a retail paint store in Cedar Rapids, Iowa.

The father was in the contracting business

and Kenneth began helping him as a boy. "As long as I can remember, I wanted to be an engineer," he says.

Ken was graduated from high school in St. Charles and started at the University of Missouri in September 1949. He lived at the old Phi Kappa Psi house at 820 Providence Rd., which was across the street from the site of the present house. Although he is football player in build, he didn't go out for sports but played trumpet in the band for three years. Among his roommates at the Phi Psi house were Jack Lippincott, now manager of the Ramada Inn in Jefferson City, and Ben Bruton, now with IBM in San Jose, Calif.

After graduation, Kolkmeier went into the service as an Army survey and reconnaissance officer. As a first lieutenant, he served in Karlsruhe, Germany. In November 1955, he returned and started back to school in Columbia the following February, receiving his master's degree in June 1957.

On his second time around in Columbia, a friend, Dan Foster introduced him to Babs Derr, a Gamma Phi Beta from Kansas City. They were married, and Kolkmeier went to work with the Pittsburgh Des Moines Steel Co. in Des Moines.

Up until the time of the Arch, his most interesting assignment was in the building of several Titan missiles. He was engineer for Titan I and Titan II projects fabricated at Vandenburg and Lowry air fields, at Mountain Home, Wichita, and Little Rock.

"The only similarity between the Titan jobs and the Arch job," said Kolkmeier, "is that neither one is like anything else. Neither one could be called standard, they're quite different from any other kind of construction work."

The Arch appointment came as a surprise. He knew that his company had obtained the contract, but still was taken aback when he received a call in Little Rock, telling him to be in Pittsburgh for consultation at 8 a.m. the next morning.

"That was the hardest part of the job," he says with a grin, "getting from Little Rock to Pittsburgh overnight."

In September 1962, he went to St. Louis to start on the pre-assembly job of the first

Playing the parts of typical tourists, the Kenneth J. Kolkmeier family visit the completed Gateway Arch in St. Louis.



High above St. Louis skyline, Ken Kolkmeler oversees construction of towering landmark.



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sections of the Arch. Designed by the late Eero Saarinen, the Arch had been in the planning stage for many years and had attracted widespread comment and considerable controversial discussion. "The Wicket," some referred to it scornfully while others openly debated the advisability of spending \$30 million on a symbol.

The MacDonald Construction Co. was the general contractor with PDM holding the \$8.5 million subcontract to fabricate and erect the steel. Kolkmeier shared top-job status with Art Prichard of MacDonald. Prichard was 36 years old at the time and Kolkmeier, 31.

"The magnitude, complexity and novelty of the project . . . are enough to give veteran engineers a chronic, king-size headache," wrote Robert E. Hannon in the *St. Louis Post-Dispatch* PICTURES supplement on May 5, 1963. "However, the youthful project managers don't mind a bit; in fact, they consider themselves about the luckiest fellows in the construction business. To them, each day presents a new challenge and, in the end, the multitude of problems met and surmounted will be forgotten in an overwhelming sense of accomplishment."

The size of the Arch, as tall as a 62-story building, and its enormous weight made its construction a formidable task. Its complex shape demanded extremely sophisticated engineering techniques. So fine were the design characteristics and so significant the dimensions that an error of one-quarter of an inch could have multiplied into a mistake involving millions of dollars. The gleaming stainless steel panels composing the structure's outer skin required the most delicate handling from the time they were made until they were welded into place.

Both Prichard and Kolkmeier averaged 12 to 14 hours a day on the job, their duties ranging from office correspondence to work in the wide-open and high-up spaces. In the beginning of the project, Kolkmeier had 43 men working under him; eventually this number increased to 70.

"When we had spare time," Kolkmeier recalls with a laugh, "I and one of the other engineers would ride taxicabs and ask the drivers what they thought of the Arch.

"One would say, 'Boy, it's great,' and another would say, 'It's the stupidest thing I ever heard of in my life.'"

The engineers also collected jokes and cartoons as to the probability, or the improbability, of the Arch meeting at the top.

"One of the biggest problems was that of final closure," Kolkmeier said. "It wasn't a problem exactly, just a milestone. We felt it was very successful closing because it was made so very accurately."

St. Louisans had watched the construction, visible for some distance from the riverfront; and the closing or "topping out" on Oct. 28, 1965 was a great civic moment. By this time the scoffers had subsided and a spirit of pride had taken over. The typical St. Louisan experienced a spine-tingling feeling when he looked at the huge structure, symbolizing the nation's historic westward movement after the Louisiana Purchase, and the central point of interest of the Jefferson National Expansion Memorial area.

Kolkmeier stayed on until the beginning of the following year and then went on to his next assignment. He and his wife moved from the house they had been renting in the Florissant suburban area of St. Louis, to Ottawa, Ill., a city of 20,000. Kolkmeier now is branch manager of the Marseilles, Ill. branch of Pittsburgh Des Moines, a new plant fabricating structural steel and bridges.

Mrs. Kolkmeier, who worked for a time as secretary for an architect in Des Moines during their early married life, is now full-time wife and mother to their three children, Lynne, 8, Suzanne, 5, and Bill, born January 1967.

In his spare time Kolkmeier likes to play golf and is a do-it-yourselfer who enjoys wood working.

Looking back on the Arch achievement, he is proud of his part in it. "Not that it was the effort of just a few of us," he said. "A lot of people contributed to it. It represents the work of many."

The Kolkmeier baby was too young to appreciate a visit to the Arch but the two little girls enjoyed it tremendously. Even though their father had had a great part in its construction, they went on the tour in typical tourist fashion, not as VIPs.

"We had to wait an hour to get on the train," said Kolkmeier. "But we thought it was well worth it." □