

look. When you have a small dam you compare it with yourself. When you get hundreds of feet high, you start comparing it with the mountain. It looks small then."

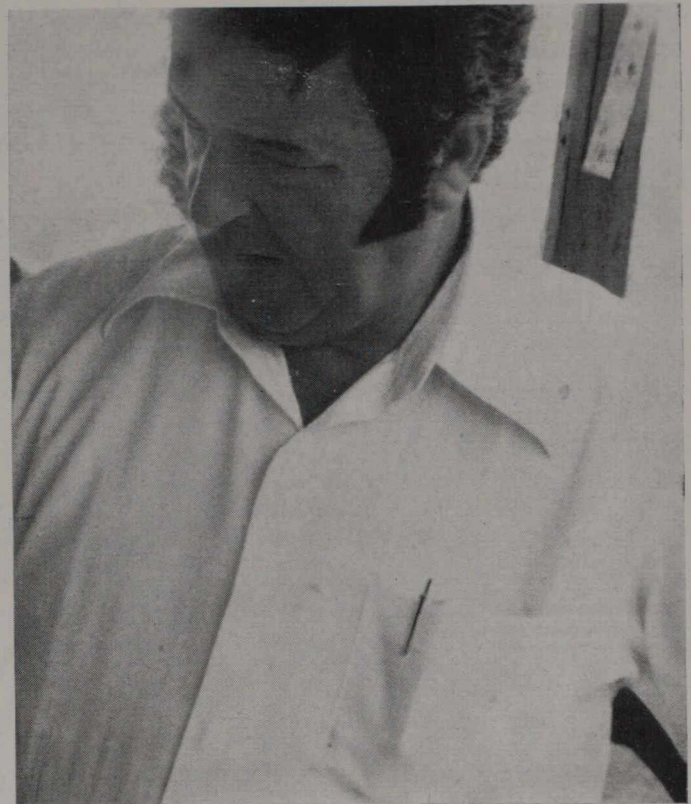
POULIN is short, bespectacled and balding. Trembley is big, beefy and tousled, a man whose presence matches his responsibilities. The third Quebecer here is Martin Rancourt, Project Engineer responsible for the power system. There's also a real Frenchman, name of Maurice Coutaud, who works for the turbine company, Neyrpic, Canada. The rest of the Canadian team: John Lees, in charge of quality control of concrete, Erskine Flook, engineer in charge of installation of the generators, and Lazo Zakula, a Yugoslav by origin, who is Project Engineer, Dams.

We were standing in the powerhouse now, looking up at the 110-foot-high ceiling of the cavern. Poulin assured me it wouldn't come down on our heads. There's wire mesh and rock bolts and other things to stop it, but the basis of his confidence was past experience.

Most of the powerhouse has already been concreted with natty fluted walls and control rooms. The ceiling remains unconcreted, but the lighting will be up there and the only bare rock in the place will be lost in the glare. But for the absence of windows there will be nothing to remind the powerhouse worker he is under a granite hill, 2,000 feet down the access tunnel. The cost of excavation is offset by subsequent economies in upkeep by comparison with surface powerhouses. Also the head of water entering the turbines is so many more feet—the powerhouse is only 196 feet above sea level. It is proof against landslides and hypothetical bombardment. The switchyard, on the surface, is connected to the powerhouse by a cable tunnel.

A big yellow gantry crane moved silently along the rails atop the powerhouse walls. It was hard for a layman to figure out how it got up there. Rancourt described the process, which appeared to have involved clever improvisation. "It took the same time it would take in Canada," he said. "And we had half as many men as they would use in Canada."

Three men died excavating the powerhouse. One of them was the contractor himself, felled by a chunk of roof which he had warned his workers was unsafe. Two others died in a freak accident when lightning struck at the mouth



MARCEL TREMBLEY: a presence to match.

of the access tunnel, ran along the ventilation pipe and set off detonators that had just been placed. Like all the massive hydro projects around India, Idikki will have its martyrs' list, presumably inscribed in black on a white marble plaque alongside the names of the 15 or so Canadians who worked here and their KSEB colleagues. And not all the casualties at Idikki were accidental. There were those who fell from ledges or died in other contrived ways during the bitter days of '68.

IDIKKI has already racked up 50 years of chequered history, if you take E. J. Jacob's original report to the Travancore government in 1919 as the starting point. The basic shape of the present project—diversion of the waters of the Periyar and Cheruthoni to another basin—was first mooted in 1932 by W. J. John in another report to the Travancore government. In 1937 it engaged two Italian engineers for yet another study, but they ignored John's contribution. It was left to the Travancore government's chief engineer, Joseph John, to spell out this suggestion. He foresaw the lines the project ultimately took with the location of the powerhouse at Moolamattam. That