

Mountain slide into dam wiped out an entire Italian valley

THE years had lined the Italian peasant woman's face and now down its creases there ran a constant stream of tears. But there was nothing else about this woman's stoic face to indicate her torment on this bleak October day in 1963.

What was heart-rending, however, was that she was crouched in a sea of mud and, with a spoon, was digging and digging, her pathetic efforts frustrated as the mud slid back into each tiny hole she dug.

Around her, for miles, there was nothing but more mud. But she knew that on this spot the day before had stood her house and in it had been her husband, son, daughter-in-law and three grandchildren.

With numb determination, she kept digging, desperate to believe that they were still alive. But like most of the inhabitants of the small town of Longarone and its surrounding hamlets and villages in the Italian Alps, about 55 miles north of Venice, they had been killed by one of Italy's greatest disasters.

Rising more than 2000 metres behind where the old woman dug with her spoon was Mount Toc, a crumbling giant, which had delivered a devastating blow to the tiny communities that lay at its feet.

Between the mountain's peak and its base was Italy's engineering triumph, the 50,000-tonne, 24-metre thick Vaiont Dam, which spanned a gorge 510 metres up the mountainside, just south of the Dolomites.

Completed just three years earlier, in 1960, it was more than 6.4km long and 50 metres across and rose 280 metres, to make it the third highest in the world and the world's highest arch dam.

But the night before, on October 9, 1963, at 11 o'clock, when most of the people were in their beds asleep, Mount Toc took its revenge on man's interference with nature. A massive slice of earth and rock, weighing some 250,000 tonnes and described as "practically an entire mountain itself", suddenly broke loose and crashed into the dam at a speed of 50km/h.

Its impact caused a 150,000-tonne wave of water to surge across the lake, hit the dam's lip and, with awesome momentum, rear up over the dam wall, then descend to gouge an apocalyptic path of horror down the Valley of Piave.

Within minutes, more than 2000 people, including more than 200 children, more than half the area's population, had been killed.

Until that night, Longarone had nestled in green pastures in a region famed for its fruit and red wine. The next day, it was a scene of incredible desolation and misery, with more than eight square kilometres of black mud and the flattened rubble of buildings. Even the few trees left standing had been stripped by cyanide, which had been kept in a factory, ripped to shreds by the flood.

The old woman, Carmella Buttet, had survived because she had climbed the mountain above her village of Fae to visit a married daughter. High in the mountain, she had watched the cataract of death roar over the huge dam's wall — a wave of death that was to engulf villages and leave its mark of destruction for 55km down the Piave River Valley.

When the enormous rush of water had passed, she had scrambled down the mountain to look for her family but all that remained were stones, gravel and mud.

Months later, a technical inquiry found: "The blame for the accident must be shared by the public authorities in the

The Vaiont Dam disaster

it was written, it had still not reached Rome. The bureaucrats along the way were loath to imagine that Italy's engineering marvel could be a white elephant and be moth-balled.

In part, the report read: "The slides and movements are now visible to the eye. We await instructions as to how to deal with its growing hazard."

Meanwhile, the weather in the Piave River Valley had been hot and dry until the beginning of October, when tor-

rip across the valley, smashing and flattening everything in front of it, villages, roads and railways, and killing everyone who was in its path.

Fifteen kilometres from the dam, the crest was still nearly 30 metres high. "It was as if God had dropped a boulder into a cup of coffee," a village survivor said.

First hit and completely wrecked was the hamlet of Vaiont. Then, the town of Longarone, with its sleeping population of 4600, was completely engulfed. By the time the torrent had passed the hamlet of Villanova, only one house was still standing.

Then it buried the hamlet of Fae under a mass of mud. Where once stood Fae's main square, its church, houses and streets, there was left only a tangled mass of wreckage, bricks, rocks and broken



An overall view of rescuers engaged in the grim task of recovering the bodies of the victims of the Vaiont Dam disaster.

valley, who knew of the danger but did not act on it, and the electricity company which built and owned the dam.

"It was sited in an area geographically unsuitable to its demands. Added to that, the building work which took place further weakened the mountainside above it, making a slip, or series of slips, inevitable."

Nine people were then accused of gross negligence, including the dam construction manager, Mario Pancini. On the eve of their trial in November 1968, Pancini committed suicide but the other eight were found guilty and received sentences ranging from fines to jail.

But it was small compensation for the Piave River Valley survivors, who, for years, had expressed their fears over the safety of the dam, which nestled in a mountain area notorious for its landslides.

The mountain side securing one end of the dam was dry, with little vegetation to hold the rock and earth together. An engineer said of it: "The mountainside has a tendency to slide, a little bit at a time, towards the basin of the dam."

"It only needs something violent to hit the reservoir — some large rocks or a heavy storm — and the water could cascade into the valley. If that happens, it will be the end of life around here."

A report was prepared outlining the serious dangers of the new dam but, in Italy, as in other countries, the bureaucracy ran at a snail's pace

and, by October, months after rental rain, carried by gale-force winds, began to pound the mountain.

Workers on the dam knew that a disaster was inevitable. During the previous 10 days, huge chunks of rock had been bouncing down the side of Mount Toc. When they hit the lake, they created waves big enough to surf on. But no one issued a warning to the villagers below.

At 11pm on October 9, 1963, during a violent night, came the disaster the villagers had long feared and which the engineers knew would happen.

Like butter sliced with a hot knife, 250,000 tonnes of the mountain broke away and fell without impediment into the lake. "It plunged down into the basin of the dam like an express train out of hell," said an engineer. Its impact caused the water in the dam to surge up the mountain sides, swallowing two hamlets.

As though replenished, the water then formed itself into a wave of tidal proportions to speed across the lake, hit the lip of the dam and then roar down the narrow mountain gorge, "foaming like a mad dog" — like Niagara demolishing a collection of model villages.

Eyewitnesses said that, as the water hit the valley floor, it seemed to "bounce up" again to form a gigantic wall between 150 and 200 metres high. It then flattened out to a height of about 100 metres, with a front of some 4km, to

household goods — among which Carmella Buttet found her spoon to begin her silent digging.

The savage, swirling waters then swept on towards the Zoldo Valley, crushing villages like match boxes. It devastated the southern part of the village of Codizzago and left Pirago with only the bell tower of the church, the chapel of the cemetery and one house.

Whole families died in the darkness, as the surging waters poured into their homes, ripping the blankets from their beds and the pyjamas from their bodies. Their cries of terror were silenced as they drowned almost immediately, their twisted and mangled bodies to be spewed up later in the wash of the maelstrom.

Incredibly, there were not many injured. People either saved themselves or died.

Among the survivors was 21-year-old Alessandro Belluncini, who was in a tavern at Fae watching a re-run of the European Cup Match, Real Madrid v Glasgow Rangers. "At first, there was a loud, distant roar and then the window panes began trembling," he said. "I raced outside and saw the flashes of light on the mountains, where electric wires were snapping."

"I screamed that the dam had burst and all of us began running up hill towards the mountain. We'd not covered 300 yards when we saw something like a whitish, rolling foam engulfing the valley at fantastic speed. I saw homes



This house was partially destroyed by the water's fury but rendered unliveable. The inhabitants later rescued their few remaining possessions.

being wiped out in seconds."

The winds generated by the steam-rolling wall of water hit other villages first, "with the sound like the roar of 1000 express trains". In Villanova, Mario Faini was asleep in his home with his two sons. "I felt what seemed like an earthquake," he said. "Then I heard a terrible wind blowing outside, just like a tornado. Suddenly the windows were smashed in."

Mario's son, 20-year-old Guiseppe, jumped on to the bed of his 11-year-old brother and held on to him and the bed with all his strength. "I felt like a feather in the wind," he said.

The gale was so strong it ripped off the pyjamas of the family, who raced naked to higher ground just seconds before the water smashed through their house.

Finally, the water's rage was exhausted. An eerie stillness engulfed the valley, to be soon replaced by the walls of mothers and wives that echoed in the night.

The waters had washed away roads and railway tracks and it was not until daylight that the degree of destruction became apparent. Then slowly and numbly, the walls were replaced by the rasp and thud of shovels and picks, as they chipped away at the wilderness of mud, tangled trees and debris in their search for loved ones.

Wrote one journalist: "I have seen the horrible vision of death and destruction everywhere. Houses have been swept away like pieces of straw and I saw bodies still stuck in the mud of the Piave riverbank. With the background of the red, carrot-like Dolomite peaks, it all looked so unreal except for the stench of death, black mud and debris."

Tens of thousands of rescuers flocked to the area, digging in the knee-deep mud for victims. As they pulled the bodies of pyjama-clad children from the ooze, the dazed survivors moved slowly through the mire, calling out the names of their loved ones. By dusk the following day, 800 bodies had been recovered but thousands were still unaccounted for. The area had become a huge, mud-covered coffin.

Far downstream, as far as 55km, bodies were found buried in the mud, thrown against rocks or uprooted trees, or floating down the now-calm river. Most were naked, as the tremendous force of the water had ripped away all their clothes, even their hair, from their bodies.

The town of Longarone was

the hardest hit and lost almost half its population of 4600.

After visiting the remains of the town, Italy's Public Works Minister, Fiorentino Sullo, described it as a disaster of "truly biblical" proportions. "Anyone who visits Longarone has the sensation of being at Pompeii before the evacuations were begun. It is a human tragedy that leaves one frightened and dismayed."

Only a few inhabitants of Fae and Pirago, villages of fewer than 200 people, survived, while two other hamlets, Codizzago and Castenavazzo lost half their population.

At least 200 people were missing from the hamlets of Casso, Spessa, Pineda, San Martino and Villanova.

The Italian National Assistance Board director, Dr Francesco Belisario, said: "What yesterday were happy mountain villages, the haunt of holiday makers, have now disappeared as if they never existed. It's hard to believe that only yesterday, these were towns with streets and houses and people living here. They have completely disappeared."

Amid the devastation, miracles occurred. Two days later, rescuers hauled a middle-aged shopkeeper from his cellar. He could not believe his eyes when he came to the surface. Where his house had stood, there remained only a pile of loose stones and broken bricks. While shocked and dazed, he was otherwise unhurt and without even a dirty mark on his clothing.

Several hours later, two children were found in another cellar, while at Codizzago, a married couple and their four-month-old son were dug out of their half-destroyed house.

In the end, almost 2000 bodies, including about 200 children, were recovered. Another 700 people were never accounted for.

But always in the background was Mount Toc, casting a black, crooked shadow. With half its side gone into the dam, it now had a giant crag, which jutted out precariously, threatening to plunge into the lake and repeat the tragedy. The dam itself survived with only its upper corner damaged by the landslide.