File

ENTERTAINMENT

A giant step for underwater exploration

A Titanic tale of the deep

BY WILLIAM FRENCH
The Globe and Mail

FOR ROBERT Ballard, the discovery of the Titanic on the ocean floor two years ago is in the same category as the first moon landing. He makes the analogy several times in this book, referring to underwater astronauts and undersea space ships.

Perhaps the comparison is valid, but for most of us the moon landing wins for sheer drama and technological ingenuity. But then it cost zillions of dollars more, so it *should* have had a bigger impact. But in long-term benefits, the two achievements may not be so different. The successful expedition to find the Titanic proves we can now explore ocean space as well as outer space.

THE DISCOVERY OF THE TITANIC
BY DR. ROBERT D. BALLARD
Viking, 232 pages, $39.95

Ballard is hardly a disinterested observer. He was the driving force behind the Titanic project, and his discovery of the wreckage, after near-misses and near-disasters, was an intensely emotional experience for him and his crew. He admits that, as a scientist, he was supposed to be detached and, officially, he was merely testing new undersea exploration equipment, but he became obsessed with finding the wreck.

Ballard tells the story of his search and its consequences with the help of Toronto editor Rick Archbold. The Discovery of the Titanic in fact is very much a Toronto production; Madison Press, a Toronto packager, has produced it in eight languages for distribution in 12 countries, with a press run of more than 300,000 copies.

Finding the Titanic, as Ballard emphasizes, was an extraordinary challenge. The last known position of the mortally wounded ship, when it sent an SOS signal, was made by dead reckoning, and could have been as much as 10 miles out. No one knew how far the ship drifted before it sank or what direction it took on its plunge to the ocean floor 12,460 feet below.

(Above) a bisque doll's head, either French or German, on the ocean floor. It may have belonged to 3-year-old Lorraine Allison of Montreal (shown right with her brother Trevor), the only child from first-class who did not survive the Titanic sinking.

But Ballard was confident that new undersea equipment he had helped to develop would find it. The main gadget was Argo, a robot submarine controlled from a mother ship, that could scan the ocean floor and send back immediate pictures. Argo indeed did the trick, when the expedition was down to its last five days.

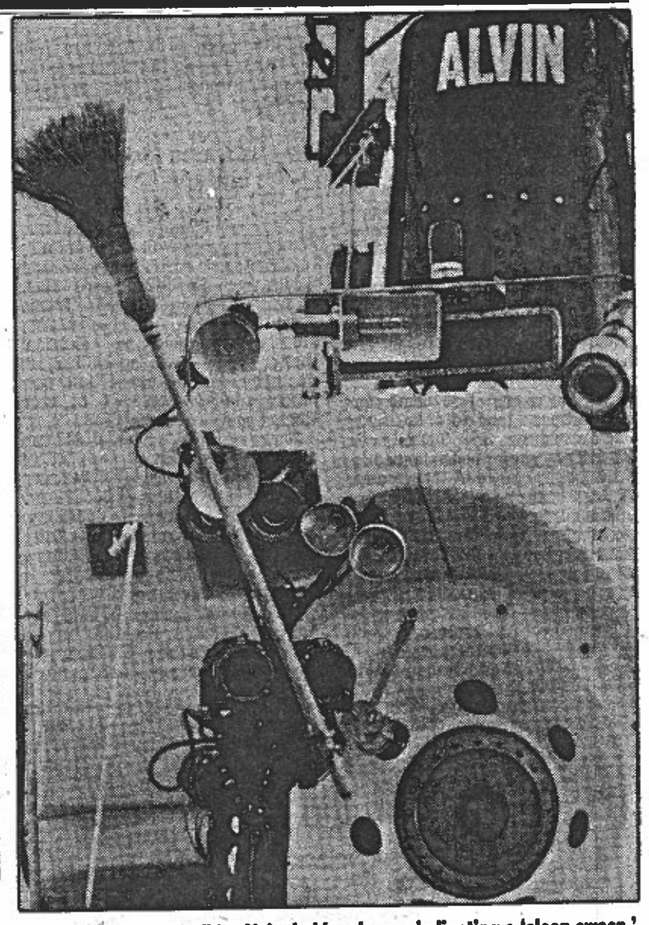
Then other equipment was ready for the follow-up in the summer of 1986. Alvin, a three-man submersible able to withstand the enormous pressure of the deep ocean, allowed Ballard and his colleagues to go down and inspect the wreck from close quarters. Tethered to Alvin on a leash was Jason Jr., a remote-controlled and highly manoeuvrable robot that could enter the ship and, with special cameras and lighting, send back photos.

The Woods Hole Oceanographic Institution, to which Ballard is attached, didn't endorse the idea of finding the Titanic; Ballard turned to the U.S. Navy's Office of Naval Redearch for sponsorship. French scientists, who were partners in the undertaking, had no such inhibitions; they wanted to find the wreck. Ironically, they came within 3,300 feet before the Americans took over.

The most graphic part of Ballard's story is his description of the descent into the briny depths in Alvin, and his first views of the Titanic. It was an eerie and awesome experience to peer through port holes and identify parts of the great ship. Ballard reconstructs events on that fateful night of April 14, 1912, and relates them to areas of the ship he is able to identify. He thought there was a slight possibility of finding skeletal remains of some of the 1,500 victims, but saw none.

He downplays the danger involved in his exploration, but it was ever-present. Some hint of the emotional state of Alvin's crew is discernible in the information that on the 2.5-hour descent to the ocean floor, they played classical music on the sound system; on the way up, they played rock music.

Ballard omits some details, such as the cost of the expedition, and is skimpy with others, such as the problems created by the intense media competition to get the story and the photos. And we have to read between the lines to deduce that he's something of an abrasive character, intensely competitive.



The manned submersible, Alvin, holds a broom indicating a 'clean sweep.'

The Discovery of the Titanic is generously endowed with dramatic photos and other artwork that document the complete adventure. Some of the pictures of the wreckage are particularly compelling — empty lifeboat davits, a doll's head, wine bottles still corked, a pair of boots, unbroken stained glass windows.

The wooden fittings of the ship have already succumbed to marine worms, with the exception of teak. Ballard predicts that the hull and other metal parts, already corroded by iron-eating bacteria, will have crumbled away in another 75 years or so.

The scientific significance of the discovery could be far-reaching. As Ballard points out, we've hardly begun to explore the two-thirds of the earth covered with sea water. It's the last unexplored region of the planet and its secrets could have an important bearing on our future. Thanks to the experience with the Titanic, scientists know that exploration of the deep ocean, with both manned and unmanned vehicles, is now feasible.

Trekking through some wooden acting and polyester