Authentic hand-carved Haida canoe to float at Expo

A moment of Haida history was re-created on the shores of False Creek in Vancouver, British Columbia when artist Bill Reid and carvers Gary Edenshaw and Simon Dick joined EXPO 86 officials in launching an authentic hand-carved Haida canoe.

As part of a joint project by EXPO 86 and the University of British Columbia Museum of Anthropology to revive ancient traditions and skills of native canoe building, noted Haida artist Bill Reid and carvers Gary Edenshaw and Simon Dick were commissioned to hand-carve an authentic Haida canoe.

EXPO 86 Commissioner General Patrick Reid said that "since the theme of the 1986 World Exposition is transportation and communications, it is appropriate for Expo to be involved in reviving the indigenous form of west coast transportation".

Carved from a single red cedar log, the canoe was constructed using traditional carving techniques. The complicated process involves drying and digging out a carefully selected log which is then steamed using heated rocks, water and a stretching and bracing system to achieve the maximum beam. The high extension is attached and the outside is adzed and decorated.

With the knowledge gained in this project Mr. Reid plans to construct another larger craft for use during EXPO 86. Full size Haida canoes have not been built in over 75 years and firsthand knowledge of the skill is almost lost. Only a few large canoes remain in existence and those that have survived are art treasures in major museums.

Most distant star discovered

A Canadian team of astronomers in British Columbia has discovered an exploding star nearly a billion light years from earth.

"It is definitely the most distant star ever discovered," said Chris Pritchet, a University of Victoria physicist who was involved in the project with Bruce Campbell, of the Dominion Astrophysical Observatory in Victoria. Also on the team were a University of British Columbia astronomer and a resident astronomer of the Canada-France-Hawaii telescope in Hawaii.

The supernova — a star which explodes and becomes billions of times as bright as the sun before fading away — was observed in May 1983. As the star was not visible during the telescope viewing time, the scientists had no indication of the find until the recorded viewing data was processed.

A leading 'chip' maker

Carleton University's *This Week* reports that the university's Electronics Department is the first one in Canada where undergraduate students can design, fabricate and test integrated circuits within one term.

Over a period of 16 years the Ottawa university has acquired the highly specialized and expensive equipment, manpower and computer design network to fabricate the silicon chips used to create integrated circuits.

According to Professor C.H. Chan, who teaches a course on integrated circuit design and fabrication at the university, the chips can be fabricated entirely in-house within a three-week period. This leaves five weeks for design and five weeks for testing and evaluation during a typical 13-week course.

Professor Chan says the manufacture of silicon chips normally takes anywhere from four to ten months if there is not an in-house fabrication facility.

Silicon chips are basic essentials in modern technology. Canadian universities interested in integrated circuit chip design usually use the national facility provided by the Canadian Microelectronics Corporation (CMC). The chips are manufactured in Canada by Northern Telecom under the auspices of the Canadian Microelectronics Centre. Designs are typically routed through the VLSI Implementation Centre at Queen's University in Kingston, where they are examined and put on large, multi-project chips, before being sent to Northern Telecom for fabrication.

This year will mark the second year that the fabrication of chips has been available within Carleton's Electronics Department.

Software authorization system stops stealing

A design team at Ryerson Polytechnical Institute in Toronto, Ontario has developed a system that they claim will prevent unauthorized copying or use of software.

The prototype device for the software authorization system (SAS) was invented by Michael Atkin, a fourth-year student working with Thomas Dean, an associate at the Ryerson Centre for Industrial Development.

The SAS system consists of a small box. The user inserts a card with an authorization code that is validated and matched by a special program built into a single chip.

The microprocessor-based system prevents a user from operating a personal computer unless he possesses a special authorization card (called the key) and inserts it into the lock correctly. There is a unique key for each piece of software run on the machine.

Because of the needs for multi-tasking and local area networks, a single lock can accept up to 19 different keys.

The program for the system was written by Mike Kassam, a professor in Ryerson's electrical department. It is "encrypted" into the chip during manufacturing.

A study released by the Association of Data Processing Service Organizations, which is based in Arlington, Virginia, estimates that personal computer users illegally copy one version of software for every version sold. The study says this copying amounted to a $600-million (US) loss for software companies in 1984 and $1.3-billion over-all loss since 1981.