



Saint Mary's Times

Saint Mary's University, Halifax Nova Scotia

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Leading edge degree offered



Dr. Terence Day

A new Bachelor of Science in Environmental Studies is now offered at Saint Mary's. Four years in the making, the program was officially accepted by the Maritime Provinces Higher Education Commission (MPHEC) on October 24, 1994.

"We feel that this program is going to help attract more women to science," says Dr. Terence Day, who is in charge of the new program. Dr. Day is also the University's Research Officer and Director of the Atlantic Canada Centre for Environmental Science (ACCES). The program has been

BSc in Environmental Studies

a passion of his for many years. With a background in geography, geo-science and geo-physics he has a keen interest in the environment, and is pleased that students will now have the opportunity to receive a degree in this field. Dr. Day will assist students in choosing their courses for the new degree.

ACCES was formed three years ago by a committed group of faculty members from science, arts

and commerce whose primary research and teaching interests were environmentally oriented. The group has expanded to include members from both the private and public sectors.

Students interested in a BSc in Environmental Studies will have co-operative education opportunities. Environment Canada and Loucks Oceanology Limited in Halifax are two examples of busi-

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Revisiting the Shubenacadie Canal 9

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Wishing you a Merry Christmas around the world

Feliz Navidad y Prospero Año Nuevo

Fröhliche Weihnachten

和平 快乐 友谊

Joyeux Noël et Bonne Année

Weli-nipi-alasutmamk, Pusu' l Puna' ne

Tubagaliza Sekukulu enungi Nomwaka Ogujja

あけましておめでとうございます。

ΚΑΛΑ ΧΡΙΣΤΟΥΓΕΝΝΑ ΚΑΛΗ ΠΡΩΤΟΧΡΟΝΙΑ ΧΡΟΝΙΑ ΠΟΛΛΑ



Around campus

Accounting students excel

Two Saint Mary's Bachelor of Commerce students, Charlene Christopher and Jocelyn Pothier, participated in the fifth annual Doane Raymond Atlantic universities accounting case competition, in Halifax on November 4-5. Christopher and Pothier competed with students from eight other Atlantic university campuses to determine who could present the best analysis and response to a challenging accounting case. For this year's case the students were expected to provide practical business advice to a company regarding the use of excess plant capacity and other related matters. The aim of the annual competition is to promote the case method and higher standards in the education of accountants.



Pictured left to right: Jocelyn Pothier, Allister Byrne, FCA, Doane Raymond Judge, and a Saint Mary's alumnus and faculty adviser, Charlene Christopher, Dr. Barry Gorman, Chair of the Accounting Department.

Czech and Slovak exchange program

As part of this year's Czech and Slovak exchange program seven students participated in the management seminar held at



the end of October. Stanislav Chýlek, Ambassador of the Czech Republic to Canada, was also on campus. (Left to right:) Michal Kovan, Pavel Ondrcka, Eva Janovsova, Helena Suvova, Milos Dradlo, Dr. Hermann Schwind, Management Department, Anton Vacko and missing from photo Jan Hobl.

Providing a helping hand

Saint Mary's Food Bank is in its second year. This year, students from all three residences donated anywhere from \$5 to \$10 in points off their meal cards to the University's Food Bank. Over \$2,635 was raised. This year over 60 students from 17 Loyola, and B2 and B3 Vanier House organized the drive.

This year's goals are to provide food for needy students, to assist the Halifax-Dartmouth, Metro Food Bank and the Children's Breakfast program. Last year approximately 60 students used the service.



Back (left to right): Troy Pellerine, Sean Murphy, Angela Kane, Father Ron Cairns, front (left to right): Kerri Hollis, Heather Bone, Ingrid Justason and Jodi McMurray.

Bahamian ambassador on campus

Taking time out during a visit to Canada, Luther Smith talks to a group of Bahamian students at



Saint Mary's. Back (left to right): Kevin Wright, Brent Knowles, Charise Bain, Daphne Stuart and Tanya Swain. Front (left to right): Kerri Lightbourne, Luther Smith, Bahamian Ambassador to Canada and Marjorie Scavella.

Sobey Scholarship

For the third year in a row, Tom Riley, 21, a fourth-year, Commerce student, received the \$4,000 Frank H. Sobey Fund for Excellence in Business Studies. The award is given annually to an Atlantic Canadian commerce student. Besides maintaining a Grade Point Average of 4.0, Riley is Commerce representative on Saint Mary's University's Student Association.



Receiving the first draft of the \$4,000 cheque, Tom Riley is all smiles with Dr. Scott Carson, Dean of Commerce to his left.



A letter from the president

Dear friends and neighbours,

This is a joyful time of year for our community. Saint Mary's is a snapshot of the cultural diversity of the world with our students, faculty and staff reflecting the many faces of the modern world.

The spirit of this season is reflected in the fact that we commit ourselves on a daily basis to create a better society through teaching, research and community service.

No matter how you celebrate Christmas, my wife Elizabeth and I wish you the very best and hope that you enjoy it in good health and good cheer with the people who mean the most to you.

Merry Christmas and Happy holidays

Dr. Kenneth Ozmon,
President, Saint Mary's University



New environmental studies degree

From page 1
ness organizations interested in hiring environmental science students for work terms.

One unique aspect of this new program is that students will have the option of taking courses in Environmental Studies at Acadia University. Saint Mary's and Acadia are the only two post secondary institutions to offer this program as a degree. The University College of Cape Breton offers a diploma in Environmental Technology which may be upgraded to a Bachelor of Technol-

ogy level.

The new program is a four-year major with 20 credits, 12 in selected science and geography courses, five in supporting environmental topics from commerce and the social sciences, an English course, a math course and two electives.

Within the program, students can concentrate their studies in biology, chemistry, geography, geology or management. Students may proceed to do an honors degree option in which they carry out a research project on an

environmentally related topic.

"Students always do better if they are interested in what they are studying. How can anyone not be interested in their environment? We expect that graduates of this program will find employment in the public and private sector," says Dr. Day. Already over 100 students have expressed an interest in the program.

Clarification

In the last issue of *The Times*, in the "Escape from Rwanda" story it was reported that Daniel Roukema said that, "He saw 24 or 25 people lying in the streets, partially clad with their faces covered in blood." It should have read, "He saw a guy 24 or 25 years-old lying in the street partially clad with his face covered in blood." Daniel also mentioned that when he threw his passport at the soldier he spoke French to explain he was from Canada and showed the soldier his Canadian passport.

Under "New faculty members hired" in the last issue it was incorrectly reported that the Geography Department hired the first part-time female faculty member. From 1973 to the present the department has hired a total of five part-time female instructors.



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Waiting for the Star of Bethlehem

by **Dr. David Turner**
Chair, Astronomy Department

The scene is the astronomy library at Sippar, a city in Mesopotamia on the Euphrates River, 50 km southwest of modern Baghdad and 60 km north of ancient Babylon. It is the evening of a day near the end of the year 306 of the Seleucid Era, mid-December of 7 BC. Astronomers have gathered to assess the significance of their planetary observations over the last 7 months and to consult ancient records of planet positions stored on clay tablets. It has been a most curious period. The great planet Jupiter, named in honor of the king of the gods, has passed the fainter planet Saturn three times this year: at the beginning of May 29, the beginning of September 30 and most recently around December 5. Saturn, considered to be the Protector of the Children of Israel, is honored by them with the day marking their Sabbath — Saturday. An event of momentous importance to the Jews must be in the offing for the gods Jupiter and Saturn to be in close proximity to one another for so long.

There is something more, however. A check of the records on the clay tablets reveals that such triple conjunctions of Jupiter and Saturn are fairly rare. One of their colleagues has been busy for the last three months projecting planetary movements into the future, using a geometrical representation of their motions in order to predict triple conjunctions of these two important planets over the next few millennia. According to his calculations, fifteen more are predicted over the next three thousand years. But none will occur in Pisces, the site of this year's triple conjunction.

The last result strikes them as being very important astrological-



ly. Their recent observations of stars visible on the eastern horizon at sunrise, indicate that a new astrological era has begun. What was once the Age of Aries, marked by sunrises in the constellation of Aries on the first day of Spring, has become, as a consequence of the slow march of precession, the Piscean Age, marked by sunrises in Pisces on the first day of Spring. The meaning of the planetary conjunctions is now clear. The recent "Rebirth" of the heavens in Pisces is preceding an Earthly rebirth of particular importance to the Jews.

In accordance with Jewish tradition, the birth of the new Jewish messiah is being signaled in the stars. The triple conjunction in Pisces that they have witnessed, being the first and only such conjunction in Pisces during the entire Piscean Age, is the long-awaited signal.

Evening twilight has just ended for the citizens of Jerusalem. Out on the Mount of Olives east of the Vale of Kidron on the edge of the city, a group of Magi (the local term for astronomers) have completed a short journey from

Jericho, where they had an audience with King Herod at his Winter palace. It is now February 15, of 6 BC and the Magi have been directed by the Jewish scholars to the small town of Bethlehem, south of Jerusalem. Their arrival in Jericho and the news of their two-month journey from the Kingdom of Parthia, in search of the newborn messiah, have created considerable consternation among the Jewish citizens. Could the reign of the despised King Herod finally be near an end? Certainly, Herod himself was most anxious

to interview them to learn when the "Star" appeared. He showed great interest in all that they had to tell him.

Here on the edge of Jerusalem they survey the rapidly-darkening sky above the western horizon. Although they know that Jupiter and Saturn have been in reasonably close proximity to one another in recent weeks, cloudy weather has obscured their view of the planets on most nights. Tonight is different. Off to the southwest the clearing sky reveals Jupiter and Saturn standing above the horizon in the glow of the zodiacal light, like a signpost marking the road to Bethlehem. Tonight, as well, they have been joined by the swiftly-moving Mars, the god of war, which now lies between them. Together the three planets point like a heavenly finger towards their ultimate goal — Bethlehem and the newborn messiah.

While the story presented here is fictional, the events they depict are quite real. There was a triple conjunction of Jupiter and Saturn in Pisces during 7 BC, followed by a planetary grouping of these planets with Mars in February of 6 BC. The elapsed time from the first conjunction in May of 7 BC to the final grouping in February of 6 BC was nine months, identical to the normal period between a child's conception and his birth. There have been no comparable celestial events since that time with connotations quite like those described here. But was this the Star of Bethlehem? No one can be sure. The story of the Star is one that has inspired scholars through the ages. Numerous explanations have been advanced to explain the events described in the Book of Matthew as a natural, or even supernatural, phenomenon. The one given here is a favorite of many.

Age of the universe: scientists close in on answer

The age of the universe has been a contentious question for centuries. Is it young, middle aged or old? As Dr. Michael West of the Astronomy and Physics Department tells a group of first-year students, the answer lies in physics.

Dr. West is a cosmologist who studies the origin and evolution of the universe. A graduate from Yale University in the United States, he joined Saint Mary's in September. "After reading Carl Sagan (a science fiction writer) in high school I knew I was hooked," says Dr. West, to the students as he explains why he wanted a career in Astronomy and Physics.

Human beings have always wondered about the age of the universe. According to Dr. West there are several different ways that age can be determined. One way is by finding out how old the Earth is. By examining the Earth's rocks and through radio-



Spiral-shaped galaxy

active dating using uranium it was discovered that the oldest rocks were roughly 5 billion years old. The next step was determining the age of the Moon using the same

methods. The results were the same.

Another method was through the study of the Sun and other stars. Like people, stars pass through different stages in their lifetime. By using computer models of how stars evolve and comparing those with observations of stars, astronomers can estimate their age and the age of the universe. Of particular interest to this riddle are globular star clusters, which contain a million or more stars and are believed to be the oldest objects in space. "The brighter stars burn up their fuel quicker than the fainter ones. By examining the brightness of the stars that are left we can determine how old the cluster is," says Dr. West. Nearly 200 globular star clusters have been charted in the Milky Way galaxy. The oldest ones appear to be around 15 to 17 billion years old.

One other way of determining the age

of the universe is by examining how fast the universe is expanding. Astronomers believe that the universe began with a "Big Bang" and that today all the galaxies in space are moving away from each other. By examining the distance between galaxies and by measuring how fast they are expanding, it is possible to determine the time since the Big Bang occurred. Recently the Hubble Space Telescope determined the distances of galaxies as far away as 50 million light years. The results showed that the universe is approximately 15 billion years old.

"We are optimistic. The age of the universe determined in these different ways is very similar, which is encouraging. But there are also important differences and that tells us that something is not quite right. That just means we have new things to discover," says Dr. West.

For charity

Scott Montreuil a third year BA/B.Comm student helps Trevor O'Brien, a 2nd year Commerce student shave off his beard for charity. A group of 16 students from the 18th floor of Loyola grew their beards to raise money for the Children's Wish Foundation. About \$1,300 was raised.



Why students choose science at Saint Mary's

by Renee Field

The University has launched a survey of recent Science graduates and current students. The purpose is to find out why students choose science at Saint Mary's. Does their thinking change during the course of study? Why do students pick certain subjects over other ones? What are the determining factors which encourage students to continue studies to the Master's level?

The objective is to see if there are patterns indicating why students

choose specific majors. The other underlying goal is to find out why not many women major in natural sciences such as geology or engineering, why fewer women enter graduate science programs compared to men and why fewer women than men enter science at Saint Mary's.

Saint Mary's is the first Nova Scotian post-secondary institution to launch a study of this nature. The study is made up of three parts. The Institutional Research and Analysis Department is tracking a group of science students who entered the University in the Fall of 1988 and the Fall of 1989. This phase of the study is looking at patterns of enrollment among males and female science students.

The second and third parts of the study are being organized and formulated by Shannon Nickerson and Tracy Fiander, both fourth-year Psychology students who are conducting the surveys as part of their honours theses. "Shannon and Tracy are thrilled to have this opportunity and they recognize that their work will have an impact," says Dr. Serge Desmarais of the Psychology Department, and thesis advisor for both students.

As a social psychologist, Dr. Desmarais' primary research is gender related issues. He can't wait to read the final report from his students which will be finished in April, 1994. "Why is there a huge influx of women in biology and substantially fewer in engineering?" he asks.

The second part will survey a sample of current science students at Saint Mary's. The third part, will use the 1988 group of students from phase one of the study. This will act as a follow-up, and the hope is to find out what people are doing now, if they did or did not graduate and what they thought of science at the University.

"The hope is to get information from people," says Dr. Georgia Pe-Piper, Geology Department and a key member of the project. Dr. Pe-Piper and Jo Stern, Sexual Harassment Advisor, formulated the proposal for this study. Other members include Judith Murray, Institutional Research and Analysis Department and Dr. David Richardson, Dean of Science.

"The goal is for this study to be constructive," says Pe-Piper, who is one of five full-time female faculty members in Science. Women in the faculty of Science make up 10 per cent of full-time professors. That number would be lower if Psychology, which has three full-time women professors, was placed in the Arts Faculty as many other universities categorize it. Women hold 28 per cent of full-time faculty appointments at the University.

The three studies will be compiled into one final report. The report will be presented to both Dr. Colin Dodds, Vice-President, Academic and Research and Dr. Kenneth Ozmon, President, Saint Mary's, in the summer of 1995.

Scholarly and Professional Development

Academic and Research

Dr. Colin Dodds, Vice-President, Academic and Research published "The Funding of Pacific Industries," Chapter 3, in *Industrial Policies in the Pacific*, edited by G.K. Sletmo and Goyd, Westview Press, 1994. Dr. Dodds has also joined the editorial review board of the *International Trade Journal*.

Commerce

Dr. Scott Carson, Dean of Commerce has been appointed to the Board of Directors and Executive Committee of the Halifax Board of Trade. The new board merges four Boards of Directors including 70 members and a Director into a single Board of 24 Directors. **Michael Zatzman**, a member of Saint Mary's Board of Governors has also been appointed to the new board.

Dr. Albert J. Mills in collaboration with Tony Simmons has completed his latest book, *Reading Organization Theory: A Critical Perspective*, 1994, Garamond Press, Toronto. The book is a critical introduction to the study of behavior and structure in organizations. **Dr. Mills** has also been appointed the new Associate Dean of Commerce.

Education

Dr. John Haysom was elected to the Board of Directors of the Youth Science Foundation of Canada on October 16, 1994.

The Youth Science Foundation of Canada is a national charitable organization which provides skilled leadership in extra-curricular science and technology education. It is probably most well known for the National Science Fair Program. Over 500,000 students across Canada participate in this program annually. "My main interest is in helping students develop an awareness and appreciation about how science and technology affects our lives," says **Dr. Haysom**. "It does so both positively and negatively. The effects are felt at the personal, local and global levels."

English

The English Department hosted the annual conference of the Atlantic University Teachers of English (AUTE) on October 21-22. The theme for the conference was "Class in the Classroom." **Dr. Terry Whalen** chaired the Friday night session, at which Canadian writers Alistair MacLeod, Donna Smyth and Kay Tudor spoke about, "How Social Class Affects the Way I Work." The Saturday sessions included a workshop on "Class in the Writing Classroom" along with sessions on "Values and Evaluation" and "Class and Atlantic Canadian Literature." The conference organizers were **Dr. Russell Perkin**, **Dr. Gillian Thomas** and **Dr. Andy Seaman**. In addition to being on the organizing committee, **Dr. Seaman** presented a paper on "Class as a Clarifying Concept: Some Applications to Alistair MacLeod's Stories."

Geology

Dr. Georgia Pe-Piper recently published "Sub-ophiolitic amphibolite soles from the Dafnospilia-Kedros area, Western Thessaly, Greece," with K. Hatzipanagiotou and L. Pyrgiotis in the *N.Jb. Miner. Mh-Jg*. She also published with L.F. Jansa and Zen Palacz "Geochemistry and regional significance of the Early Cretaceous bimodal basalt-felsic associations on Grand Banks, Eastern Canada," in the *Geological Society of America Bulletin*, V. 106, pp. 1319-1331, October 1994.

Management

Dr. Terry Wagar, Management Department, who is currently on sabbatical in Australia where he is working with a colleague in New Zealand on a study of labour relations practices in both Australia and New Zealand, recently published three journal articles. "Fac-

tors Affecting Workforce Reduction in Unionized Workplaces" was published in the *Australian Bulletin of Labour* with collaborator Clive Gilson, along with "The Effect of Lawyers on Non-Discipline/Discharge Arbitration Decisions," in the *Journal of Labor Research* and "Workforce Reduction in the Public Sector: Evidence from the Maritime Provinces," with Shelly Arsenault in *Canadian Public Administration*.

Marketing

Dr. Julia Sagebien, Marketing Department received her PhD from the London School of Economics.

Psychology

Dr. Samuel A. Danquah, Department of Psychology, recently received \$35,000 as part of a major research grant from the Award Committee of Roeher Institute and the Scottish Rite Founda-

tion of Canada. Last fall, **Dr. Danquah** received the same grant from the Scottish Rite Foundation to lead the four person research team including Dr. C. Mate-Kole, Richard Zehr, Alana Aisthorpe and himself, in researching the field of non-verbal communication among individuals with intellectual impairment. This year's grant allows him to continue the work he started last year. The total funds of \$70,000 has been awarded by the Foundation for this project. **Dr. Danquah** hopes to publish his findings soon.

Moving day

On November 15, 1994 the Continuing Education Department moved into their new residence at 833 Robie Street. Still working out where everything goes, **Jim Sharpe**, the Director of Continuing Education grabs one of the many boxes for his new room.



Representing Saint Mary's in China

A letter by Dr. Bill Bridgeo,
Chemistry Department, Dean Emeritus

RECENTLY I WAS A MEMBER of a People to People Citizen Ambassador Program delegation to China. We went to China to discuss drinking water and waste water treatment with Chinese engineers and scientists.

Fourteen days of meetings and visits were held in Beijing, Wuhan and Shanghai. The program began with a three hour lecture on the theory of waste water treatment at Tsinghua University in Beijing, by delegation leader Dr. W. Wesley Eckenfelder Jr., a former professor at Vanderbilt University, a widely recognized authority and author of 22 books on the subject. All twelve members of the People to People Delegation were introduced on that occasion.

The program of meetings and visits to design institutes, universities, water supply and waste treatment companies, as well as historical sites was intense. Days began at 6 a.m. and ended at 8 p.m. The mode of travel in each city visited was by bus, often on very crowded roadways. Reconstruction and construction was evident everywhere I visited. It is intended to solve the current heavy traffic problems, which will help modernize the country's infrastructure and industrial capacity. The Chinese like visitors to be punctual but they seem to be forgiving these days. Several meetings started late because of traffic holdups. That was particularly true in Shanghai, the fourth largest and one of the fastest developing cities in the world. One of the visiting delegates was born in Shanghai and is now a consultant in Texas

and Beijing. He was a great help to both sides in crossing cultural barriers and in aiding communications. Much technical information was shared.

Pollution problems are a main concern in China. City dwellers seem to be more aware of air pollution and rural people seem to be more aware of water pollution. Modern water treatment plants are being constructed and more are needed. In Shanghai all heavy industry has been, or is being moved to new plants beyond the city, to eliminate major sources of pollution in the Yangtze River. In all three cities visited there are examples of broad commitments to improve environmental quality, but the examples represent a fraction of the task to be done.

Their water scientists and engineers know the problems, but finances remain a problem. While they are taking action in the area of source control, they are very practical and know that they must have a healthy economy to support their environmental programs. They aim to minimize environmental impact and optimize economic activity.

Inflation is running at about 25 percent, another indication of financial problems. It is hoped that those financial problems will not get out of control and prevent China from pursuing its goals for environmental improvement.

China is a large country with 25 percent of the world's population. As one of the Chinese hosts says, "We all share the same planet." What China does about environmental issues is of interest to all of us.

The trip was a marvelous experience and a real adventure. I expect that some of the People to People Citizen Ambassador Program delegates will make follow-up visits to China.

Problems facing South Africa

The changes South Africa has undergone over the past few years have been momentous, but there are still major issues that have to be resolved, says Mafika Pascoe Ludidi, Managing Director of Kwaludidi Area Development Association in Transkei, South Africa, who spoke as part of the International Education Centre's guest lecture series, on November 23, 1994.

Speaking to a group of twenty people, who braved the first snow of the season, he spoke about recent developments in South Africa and stressed that the main issues facing blacks today are land, jobs and having a say in the political process.

"We were electing political parties into power, not individuals,"

says Ludidi, who spent 17 years in exile from his home country. For the past five years Ludidi has lived in Halifax while attending Saint Mary's. In 1991 he graduated with his Master's in International Development Studies from the University. A committed individual, he has often spoken out against apartheid and is currently devoting his efforts to grassroots organizations.

By electing political parties and not individuals, rural people in South Africa have no political leaders they can approach. Instead the new government works on the National level, making it very hard for grassroots organizations to find out what is going on in the rural areas.

With six million Afrikaners in

the country, it was immediately recognized that removing them would cause an economic collapse. The reality is that, "Whites are here to stay," he says. Now the new government under the leadership of President Nelson Mandela has to find ways to accommodate the blacks who were pushed off their lands to make way for white farmers. If the white farmers, who made money off the land were forced to leave their farms, the government would also have to consider compensation for them.

"Rural people will have to wait for the next round (of elections) to feel they have a stake in them," says Ludidi. Local government elections are scheduled for October 1995 and the next set of national elections will take place in 1999.



Dr. Van Kamamidi Sastry, Division of Engineering, with one of his graduate students working on pile foundations in Japan.

Professor teaches engineering in Japan

Dr. Van Kamamidi Sastry, an Associate Professor in the Engineering Department at Saint Mary's has been hired by Saga University, Japan to train graduate

students in research techniques at their Faculty of Agriculture.

"It is a great environment to do serious research work where the academic community works 10-12 hours a day, six and a half days a week. The society is safe, friendly and very helpful," says Dr. Sastry, who came to Halifax to attend the 47th Canadian Geotechnical Conference in September.

With grants from the Natural Sciences and Engineering Research Council of Canada's Japan Science and Technology Fund and from Saint Mary's, Dr. Sastry was able to spend six months of his sabbatical year 1993-94, conducting research in the field of Pile Foundations. Impressed with his enthusiasm and his new research directives for Saga University, university authorities granted him special leave for one year. In spite of different academic years, with Canada running from September to August and Japan going from April to March, Saga University made special arrangements to hire Dr. Sastry until the end of August 1995.

"Even though it is not normal to grant such leave in continuation of the sabbatical year, the author-

ities at Saint Mary's have considered this as an honor and granted leave to Dr. Sastry, to enable him to take up the term appointment at Saga University," says Dr. David Richardson, Dean of Science.

Dr. Sastry is busy buying new equipment, worth over 3.25 million Yen (\$50,000 Canadian) that is vital to his research in, "Flexible batter model piles in homogeneous soils and subjected to lateral loads." His research has direct relevance to the design of bridge foundations and off-shore drilling rigs.

In 1991, Dr. Sastry was invited to Saga, Fukuoka and Osaka to make presentations concerning his research. During the summer of 1990-94 he lectured at 20 engineering universities in the United States, Japan, China, Singapore and India, including the University of California at Berkeley, Stanford University, National University of Singapore and the Indian Institute of Technology at New Delhi, Kharagpur and Madras.

"It is a rewarding experience to exchange the research findings with different people. It broadens one's thinking and makes one humble," he says.

Chris returned to work with co-op plan

Finding a job after graduating is no easy feat. Nor does it get any easier after you have been out of the work force for a couple of years, not working in your field.

That's why Chris Henkleman, 26, knows luck has been on his side. A graduate of Saint Mary's first Computing Science and Business Administration Co-op degree in 1992, he didn't immediately enter the work force in what he had trained for.

Instead, for a period of time he pursued his other interests, namely environmental issues. This interest enabled him to work on a volunteer basis as a researcher for the Ecology Action Centre, in Halifax, Nova Scotia. Later he was hired by the Metro Clean Harbour Coalition to help fight the sewage treatment proposal for the Halifax, Dartmouth area. Following that he worked as a canvasser for the New Democratic Party during the last provincial election. Then he went to Ireland and Germany for awhile.

Even before his trip abroad, Chris realized that if he did not start working in the field he studied, his future would be limited. His first contract was with Atlantex Limited, a computer-oriented company located one hour east of Halifax in Musquodoboit Harbour. Before being hired by Atlantex he applied for a job with Centre Logic, a computer consulting firm and ended up with an interview in February 1994. Hired in May his first contract was with the Nova Scotia Department of Health.

Despite taking time off after graduating, Chris was able to secure a job at Centre Logic, thanks to his co-op experience. Recently Centre Logic was renamed Anderson Consulting. Currently Chris is working on his sec-



Chris Henkleman is all smiles in his new job with the Nova Scotia Department of Justice.

ond contract, with the Nova Scotia Department of Justice, on their Justice Oriented Information System, known as JOIS.

"On a personal level, co-op lets you experience and explore a variety of working environments. You get to find out what different jobs you like and get a better feel than you can from just reading the text book," he says. Technology is also a factor. If universities don't keep up with the technology, industry won't be interested in the students. Students in co-op get to experience these benefits plus, "It allows students to bring back what they learn on work terms for their studies."

Even before he joined the co-op

program, which became an option in second year, he made a number of contacts with different organizations. Volkswagen Canada Incorporated in Toronto, Ontario was one of them. Chris ended up working two work terms for them. Another work term was spent with Michelin in New Glasgow, N.S. and one was working for Dr. Larry Hughes, Mathematics and Computing Science, Saint Mary's.

"The co-op program is a brilliant idea and a fantastic opportunity. The main reason I got a job with Anderson Consulting was because I had experience with natural adabas (a mainframe system) which I learned working for Volkswagen Canada and the Nova Scotia government."

Where the



Tammy Estabrooks

Trying out a career

Tammy Estabrooks, 20, a third year biology student, is in her first year of the co-op program. Hired by the Biology Department in September, she is planning to complete two work terms with the University. "I was interested in it last year. I thought if I went into something like this I would get to try things I like." Her work involves plant tissue cultures and helping out the department as a lab assistant.

WITH TO
determin
told us,

Facts about the Co-op program

- Co-op at Saint Mary's is entering its
- The first co-op programs started in departments of Geography and Soci
- In 1989, under then Dean of Science leadership, the co-op program was the Faculty of Science and Comm
- Co-op began at the University of Dr. Tom Musial, Dean of Arts and McCalla, Geography and Dr. Lind Sociology Department.
- The total number of students the program over the years 17
- This year, 95 students are e
- Over 100 companies from A Ontario and one in the Unite employers.
- This year a new "Co-op Ja at Saint Mary's to encour students in Canada to wo

Ready for job in petroleum industry

Pat Mackin recently graduated with a Bachelor of Science degree. With a major in geology her interests lie in petroleum and the education aspect of geology. What better place to study petroleum than in Edmonton, Alberta, one of many oil rich Prairie cities? Packed and ready to go, she is looking forward to either working in the field or continuing her studies.

Pat, like most co-op students, spent five years studying and working for her degree. In November she received the Centennial Scholarship Medal from the Mining Society of Nova Scotia, for outstanding marks in economic geology and extra-curricular activities that increased the awareness of the field of geology.

"There are big plusses in co-op. I have gained so many contacts and it has opened so many doors that I feel co-op has really helped." And for Pat it has.

She started her first work term with the Nova Scotia Department of Natural Resources as a geological public affairs officer, where she could excel with her people oriented personality. For the summer of 1991, Pat answered all questions concerning

“ I have gained so many contacts and it has opened so many doors that I feel co-op has really helped.”

Pat Mackin

Nova Scotia geology and conducted various media and public tours concerning geology around the province. In 1992 she received a Natural Sciences Engineering Research Council of Canada grant to work at Saint Mary's. Her research involved the study of rare sapphirine granulites, which are specific types of rocks that contain small quantities of sapphirine. In the end she published a paper called, "Geochemistry of sapphirine granulites of Indian Head Range of Newfoundland."

For her next two work terms she worked for the Natural Resources Canada, Geological Survey of Canada, at the Bedford Institute of Oceanography (BIO). Part of her work at BIO was spent cataloguing tiny sea and plant animals that aid in the search for oil. The other project that she worked on was for Natural Resources Canada with Dr. Graham Williams, Reseach Scientist for BIO. The work involved cataloguing all Earth science resources across Canada, parts of the United States and as far away as England and Australia in one book, *Earth Science Resources*, for schools. The project is ongoing and Pat continues to work on a volunteer basis.

Her work at BIO enabled her to network with people involved in the Atlantic Geological Society (AGS). Currently she is secretary for the Education Committee within the society and also served on the EdGeo workshop for Natural Resources Canada. The workshop was geared for teachers to increase their awareness of Earth science resources across Canada.

"I would recommend co-op to any student who is pursuing a professional

career. With the individuals I worked for, all of them reinforced the curriculum I learned at Saint Mary's."

The work experience she gained on the educational level made her the prime candidate to help coordinate a Nova Scotia Mining Kit geared for students and teachers. In 1994 she coordinated 11 people to work on various aspects of the kit. Her major role besides coordinating was writing lessons for the manual that accompanied the kit.

"I liked working at BIO the most. They gave me a lot of leeway to pursue the things I enjoy. Plus it gave me lots of contacts in the geology community," she says.

With two children in school, Pat has been called to participate in many career days over the years. One thing she emphasizes to the children with her hands-on approach, by bringing in crystals and different rock formations, is that geology is fun.

In Edmonton, Pat will continue her involvement with the *Earth Science Resources* book. Dr. Williams and Pat have applied for grants to offer the book on the Worldwide Web service for teachers across Canada

and they hope to develop the book into a CD-ROM format on Mosaic. Pat hopes to find work in the field of petroleum geology and to continue her involvement on the education end of geology. She is also seriously considering doing her Master's at the University of Alberta.

Biology stud



Carmen Cranley

Some jobs are

DAY'S tough economic times, it takes guts, grit and determination to get a job. One sure benefit, as our students find, is a co-op degree. Below are stories recent graduates and soon-to-be graduates have told us concerning why they chose to take a co-op degree.



All smiles with the prospect of his new job with the Pugwash Salt Mines, in Nova Scotia, David Pass on his last week of work for Saint Mary's GeoChem lab.

Job down under

The timing couldn't be better for David Pass. After over a year working in Saint Mary's GeoChem lab, he had one week left before his contract expired to find another job. And he did just that.

For the next six months, David, 24, will be working for the Pugwash Salt Mine, which is owned by the Canadian Salt Company Limited of Canada. Located approximately one-and-a-half hours from the Nova Scotia-New Brunswick border, he is excited that he'll finally get a chance to put his training into practice.

David graduated with a Bachelor of Science honors degree this year.

Majoring in geology, he started the co-op program in his third year. After six years of working towards his degree, he feels co-op definitely gave him the edge to compete in today's market.

"Co-op is definitely useful. It gives you the opportunity to experience something for a few months without dedicating yourself to it," he says.

David's work experience began as a research assistant in the Geology Department at the University. In May 1991 he started work for the Bedford Institute of Oceanography (BIO), Atlantic Geoscience Centre. As a research assistant at BIO he got to experience the thrill of a lifetime, by participating on an ocean going voyage with the Hudson, a BIO research vessel. David enjoyed and excelled in his research at BIO so much so that he was asked to continue for two more work terms with them. The experience he gained in geological mapping, geochemical sampling and structural analysis at his various jobs is what helped him get his recent contract with the Pugwash Salt Mine.

"I've never had a job like this before and I'm really looking forward to it." Soon an everyday experience for David will be traveling 1000 feet, roughly one-quarter of a mile below the Earth's surface, where he'll sketch and map tunnels, and test for the best possible sites for salt deposits.

Before David had the job interview he decided to take a tour of a salt mine. "I was amazed at how spacious the tunnels were," he says. Compared to coal mining where miners work in roughly two to three foot tunnels, salt miners have a 20 to 30 foot high ceiling. The vehicles brought into the salt mines are driven deep into the mine and left there until they corrode away, usually four years later.

David is optimistic that the practical hands-on experience he'll gain from this job will improve his chances of finding another one and he is also hopeful that his six-month contract will be extended.

Saint Mary's renowned for co-op courses

Peng (Stephen) Xue travelled all the way from Beijing, China to attend Saint Mary's University for the Commerce program.

Told by friends that they had the best program he only applied to Saint Mary's and the University of British Columbia. Saint Mary's accepted more of his transfer credits, so Peng decided to venture to the Maritimes.

The co-op program presents a chance for Peng, 24, to learn business skills in the West. This past summer he completed his first work term with Saint Mary's Business Development Centre. "It's not like doing a case in the classroom, you have real business problems," he says.

This is Peng's second year at the University but he is in his third year of a Commerce degree. Currently he is planning to complete a double major in computer science and business administration and small business entrepreneurship.



Peng Xue

Put your best foot forward

Co-op jobs not only provide experience but they teach students the best way to market themselves.

For Bryan Levangie, 27, that is important. In his last year of the co-op computing science and business administration degree, he has undergone a gamete of interviews that either focus on his skills and top

marks or on his visual impairment.

During Bryan's first year of University he completely lost the vision in his left eye, when the retina detached for unknown reasons. Coping with the loss of eyesight made his first year difficult and a write-off. But by second year he was back in the swing of things and pulling

top marks in the three courses he took. With only 10 per cent vision in his right eye he was forced to cut down the total number of courses he could take, from five to three, to keep up with his reading ability.

"Without experience no one will hire you," he says. "For me I have to be twice as good to get half as far."

His first co-op job was working for Michelin in New Glasgow, Nova Scotia, as a programmer. "It was the best place I worked." The job environment was very competitive at Michelin and each time Bryan completed a task he was given a harder one. "I thrive off things people tell me I can't do," he says. In the end Bryan worked there for eight months.

Like most co-op jobs, Bryan found his third and fourth placements on his own through the Student Employment Centre. Once he had a company that agreed to hire him, it was only a matter of getting approval from the co-op department. As long as the job is in the student's field, in most cases the co-



Bryan Levangie

op department will give approval.

The issue Bryan sometimes has to contend with, is that some prospective employers once they realize he has a visual impairment, tend to steer the interview away from his job skills to questions like how he would get to work every day. Usually once this happens, Bryan knows he won't get the job. But now with references from Michelin and Environment Canada (where he completed a work term as a programmer) his chances of securing a job in the future are better.

Student learns technical skills

Co-op for Carmen Cranley, a technician in the Biology Department, enabled her to gain work experience and research skills.

Her first work term in the summer of 1989 was spent working with Dr. Douglas Strongman, Biology Department, on the blueberry fruit fly. Working with Dr. Strongman was a lot of fun, says Carmen. "He is very easy to work with and I got to work on my own."

The experience she gained researching helped her get a job with Forestry Canada in Fredericton, New

Brunswick.

For the past four years Carmen has divided her work terms between the Biology Department at Saint Mary's and Forestry Canada.

As a mature student she has a half credit left before graduating with a Bachelor of Science. For the time being she is working as a full-time technician in the Biology Department. Her job involves planning labs for students and working in the microbiology lab, as well as supervising this year's co-op student.

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Meet the ambassadors

Alumni group promotes university, does charity work

Geoff Brown and Trevor Dill are two members of the Saint Mary's Student Alumni Association, known as the Saint Mary's ambassadors. Their job is to promote the University at alumni and student functions. It is work both of them love and easily excel in.

Brown, 22, a third year psychology major, is the current President of the Student Alumni Association. Recruited last year, he says, "It's a great way to keep in touch with alumni and it helps you form relationships with them before you leave."

Alumni ambassadors not only promote the University but they encourage students to get involved with charitable organizations and to participate in events. This Christmas, the Association helped work the phones during the Christmas Daddies Telethon. Previously they have worked for the Alzheimer Society and the Canadian Cancer Society.

The Student Alumni Association was founded in 1989 and over 200 students have joined over the years. Today there are 22,000 Saint Mary's alumni across the world. This year there are 65 members with 35 of those actively participating at most if not all alumni functions.

This is Dill's first year as a student alumni. At 22, in his fourth year of a Commerce degree, he decided to get involved with the Association after helping out during last year's Annual Fund campaign. "When I was recruited I was



Saint Mary's student alumni get into the cowboy swing of things at this year's Alumni weekend, back (left to right): Maureen Hachey, 2nd year B.Comm, Nicole Lavigne, 3rd year BComm and Geoff

Brown, President, Student Alumni Association. Front (left to right): Eiron Cook, 4th year B.Comm and Curtis Gildart, honors history student.

interested in the fun activities and there are a lot of them."

This year the Association has a number of special events planned. Besides conducting campus tours for the Admissions Office, student

alumni will promote Saint Mary's to high schools across Halifax next semester. University President for the day has been planned for next semester, as well as a career night, chocolate rose day in time for

Valentine's, exam survival packs for both December and April finals, and a skating party next semester, with all proceeds going to the Metro Food Bank.

This year the Association is try-

ing to raise as much money as possible to send as many as six student alumni representatives from the University to the National Student Alumni Conference at McGill in Montreal held in January.

Representing Canada worldwide

Saint Mary's alumnus joins foreign service

Soon an alumnus will be traveling all around the world promoting Canada, Nova Scotia and whenever he has the chance, Saint Mary's University.

At 26, Sanjeev Chowdhury has already worked as an Executive Assistant for the Minister of Economic Development and Tourism, been elected the first off-campus president of Saint Mary's University Students' Association (SMUSA), worked as a writer for the Chronicle Herald/Mail Star and received his Commerce degree.

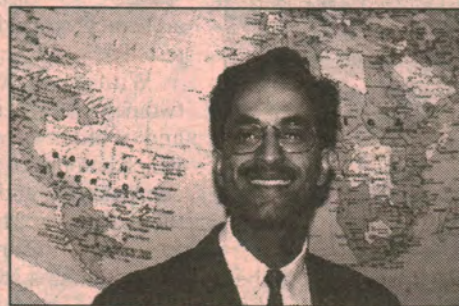
Now he is launching a new career in the Foreign Service.

"When I wrote my foreign service exams it was in Theatres A and B at Saint Mary's. I believe I had the SMU edge because of this," he says. After writing three exams he found out in late October that he was accepted into the service. Already, he is gearing up for his first assignment as a member of the federal panel planning the G-7 summit

in Halifax, next summer. "The University will be playing the best part as host to a distinguished group of people."

Chowdhury has lots of praise for both the University and key people who took an interest in his ambition to be the best he could be. One thing that he contends with is his age. Elected SMUSA president at the age of 20 he says, "You grow up quickly and learn responsibility."

When he decided to attend Saint Mary's after graduating from Halifax West High he received special permission to enrol for summer courses at the University. Originally planning to study chartered accounting, he realized almost immediately that he was more of a people person than a number cruncher. After finishing his Commerce degree in 1989 he wanted to further his studies. Through consultations with Dr. Colin Dodds, Vice-President, Academic and Research and Dr. Hari Das, Management



Sanjeev Chowdhury

Department, he decided to study at a school in Arizona that specializes in Personal Industrial Relations. With help from a \$3,000 Rotary International Youth Scholarship he was able to attend the school. "When I went on that course I was worried I wouldn't be able to compete but I had a lot of faith in my education at Saint Mary's. In the end I finished first in my class."

"My philosophy is that while you are young and unattached now is the time to make a name for yourself." That is exactly what he has accomplished. Realizing that he needed an education, he sought the best from Saint Mary's, then with his easy going manner and interest in extra-curricular activities he became the Commerce Student Society President in 1988. With help from Elizabeth Chard, Registrar, who "Took a keen interest in my personal development" and his parents, "Who always have a great influence in my life," Chowdhury was able to grow and learn at the University. "I'm not an exceptionally smart person but I am a hard worker," he says. "I truly believe in the Saint Mary's motto 'Age Quod Agis'."

On January 3, 1995, Chowdhury will officially enter the Foreign Service. Wearing a Saint Mary's ring on his left hand, he's not shy about telling people about the benefits of the University.

History at the Shubie Canal



Archeology students unearth the past in Port Wallace

by Renee Field

IN THE 1800'S oceans, lakes and rivers were the main links for transportation. The canals throughout Canada played a vital role in that industry. In Nova Scotia the canals linked people with other parts of the province and New Brunswick. Today the history of the Shubenacadie Canal in Port Wallace, outside Dartmouth, Nova Scotia is in the process of being rediscovered.

Dr. Stephen Davis, Anthropology Department at Saint Mary's and assistant Laird Niven, along with archeologist Stephen Powell and 14 students, recently spent time excavating the area and dating test sites. The students were broken into three teams and spent a full day practicing archeology techniques they learned in the classroom. For the past 11 years, Dr. Davis has worked on and off excavating around the canal.

The Shubenacadie Canal was one of four canals in Nova Scotia. Others included the Bras d'Or lake canal, the Halifax to Minas Basin canal and the Strait of Canso canal, connecting Cape Breton to the mainland. The turbulent history of the Shubenacadie Canal made it one of the most memorable operations in Nova Scotia's history. Construction began in 1826 and over

three different surveys were conducted on the proposed area. In 1853 to 1861 the Inland Navigation Company took over the assets of the Shubenacadie Canal and constructed what today is known as the second canal. In the end it was decided that nine locks and two incline planes were needed to hold eight feet of water throughout the canal. The rivers and streams that



Artifacts uncovered during Dr. Davis' work in 1985.

connected to form the Shubenacadie Canal were previously used by the Mi'kmaq people as portage routes from the Atlantic shore to the sheltered waters of the Bay of Fundy. In 1870 the canal was sold for the last time to L.P. Fairbanks.

In August 1993, archeologists found the ruins of two buildings, that belonged to Irish laborers who worked on the canal in the 1830's. The features were discovered in the area known as the summit, which is where the water flows in two dif-

ferent directions. The two features were of interest to Dr. Davis. Previously, in 1985, an Irish house was discovered close to the canal. Dr. Davis believed that other buildings existed in the surrounding area and with the discovery of two more features he was anxious to get to work.

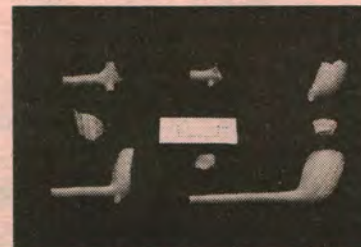
FOR 12 days Powell and Dr. Davis worked on excavating the site. Their discovery is an archeological find. Both buildings tested belong to the Canal camp.

With the discovery of these two new features including a forge and a black powder magazine, which belongs to part of the Canal construction, and an Irish house, there are now 21 known cultural features. Dr. Davis feels that five of the features are domestic Irish houses.

"To me this represents a tremendous social history centered around the canal. There is no place in Nova Scotia that has an Irish village which is truly reminiscent of Ireland," says Dr. Davis. At its peak, between 250 and 300 immigrants worked on the canal. Building houses in the traditional Irish way for a climate in Ireland meant many were not prepared for Canadian winters. Usually when immigrants

move to a new country they copy the style of housing already in existence in the area, but not in this case. The Irish immigrants are believed to originate from Munster and Leinster provinces in Southern Ireland.

"Without a doubt it is one of the most historic sites in Nova Scotia for this period, because it is



Examples of clay pipes used by Irish laborers who worked on the canal.

extremely rare to find this type of building," says Peter Latta, General Manager, Shubenacadie Canal Commission and a Master's graduate from Saint Mary's Atlantic Canada Studies Program. Two areas of the canal have been reconstructed and are open to the public. Both are in Dartmouth, near Port Wallace and another is under construction at Porto Bello Park, between Dartmouth and Waverly. Last year 50,000 people visited the parks.

Darren Demings, a third year Anthropology student and Stephanie Edge, a fourth-year Anthropology student hard at work diligently recording their findings while working at the Shubenacadie Canal.

One piece to the puzzle that remains unsolved is why the houses were built in the first place. All land surrounding the canal was owned by the company. To allow laborers to build settlements on the land was an unprecedented act.

Over 30 artifacts were recovered from this expedition. They include buttons, nails, metal, decorated and shelled pearlware. While most of the money for the project, some \$3,000 in total, came from the Metropolitan Halifax-Dartmouth Agreement, funding also came from the An Cumann, the Irish Society Association of Nova Scotia and the Charitable Irish Society. "The Irish societies were very interested and excited about our work," says Dr. Davis.

"The Canal Commission is interested in the recent findings," says Latta, and it is hoped that in the future the Commission will sponsor an archeology field school to continue the work. Presently funding for the school is still in the approval process.

Tracking down a Nova Scotia mystery

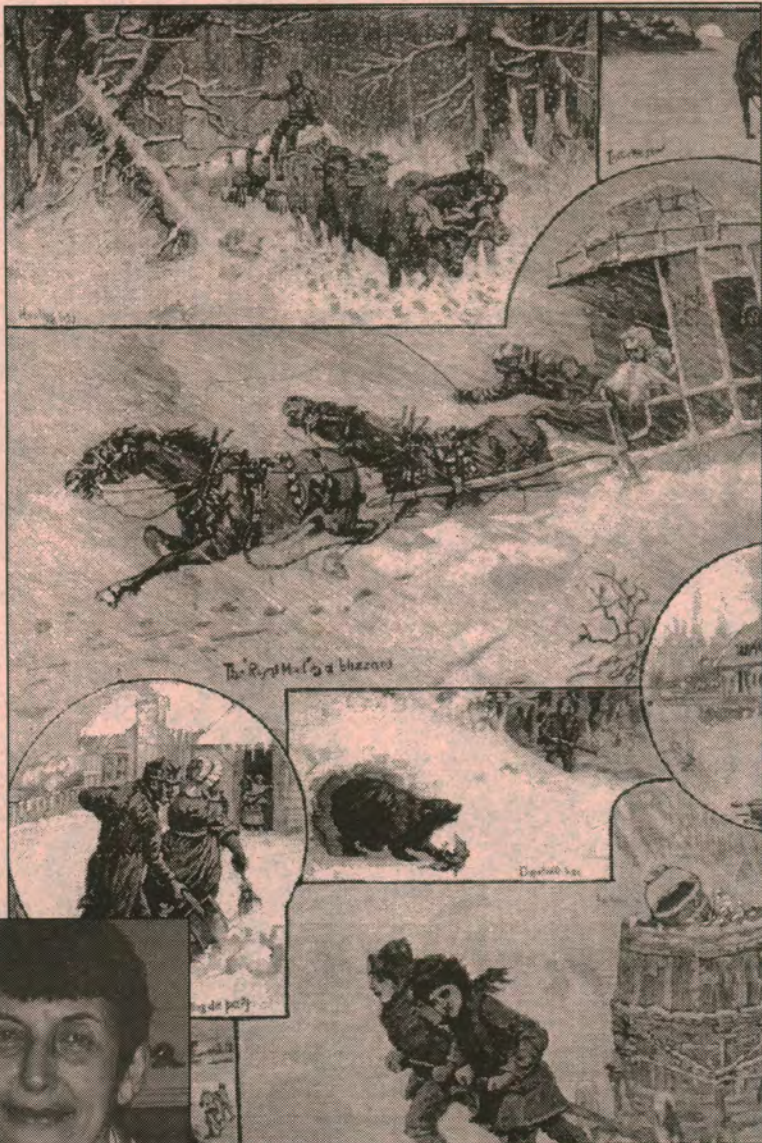
by Renee Field

Reading a mystery novel can be engrossing as the plot thickens with each chapter. Discovering who committed the crime is often better than reaching the end.

Mysteries are something Dr. Lilian Falk, retired English professor at Saint Mary's, is becoming an expert at tracking down. Her mystery began approximately six years ago while walking to work. Passing a government plaque in honor of Gilbert Stuart Newton, a Nova Scotian painter, outside the then Art Gallery of Nova Scotia on Coburg Road, she read that Newton lived for many years in London, England. Newton was also the subject of Israel Zangwill's novel, *The Master*. While the name Newton was not familiar to her, Zangwill was, as a well known 19th century Jewish writer who was involved with the Zionist movement. Immediately upon reading the plaque Dr. Falk's interest was piqued. "Why would a British writer feature a painter from Nova Scotia?" she asks. "I thought 'one of these days I'll read *The Master* and find out about it.'"

Years passed and the idea of reading the novel was placed on hold while she continued her work at the University. In 1992 the 400 page book was finally read. "I didn't find it that exciting," she says, but "the book describes Nova Scotia and life in a small village with lots of detail, plus the dialect was written in the Nova Scotian way." Dialect and languages is Dr. Falk's forte. Immediately she wondered how a man

born in Whitechapel, London, in 1864, who never travelled to North America until several years after he published *The Master*, could write with such authority and detail about Nova Scotian life. More importantly, why did he



Dr. Lilian Falk, retired English professor — with sketches of George Hutchinson's work for Israel Zangwill, a 19th century writer.

decide to write about a young boy growing up in a small village who aspired to be a painter in London?

Dr. Falk wondered why the book was written almost 60 years after Newton's death. Someone must have mentioned Newton to Zangwill, but who was that person? That is what Dr. Falk set out to find. She played many scenarios out in her head.

Zangwill was a journalist who covered art openings and someone must have mentioned Newton to him at one of those functions, she thought. After asking colleagues in the English Department if they knew any Canadian writers in London at the time of Zangwill she had a longish list.

The name of Robert Barr jumped out at her. Barr, who began his career in Canada, moved to London and started up *The Idler*, an illustrated monthly magazine, with Jerome K. Jerome. Jerome, known for his humorous novel

Three Men in a Boat, was a close friend to Zangwill. By this time, Dr. Falk had finished reading several biographies on Zangwill and compiled many files of cross referenced material, including information on his acquaintances. She thought Barr may have told Zangwill about Newton. But this theory was not enough.

After a trip to Israel and to London to visit family and to hunt for more information on Zangwill, she returned home to Canada empty handed. Discouraged she went back to the Nova Scotia Public Archives. In the Archives one day she happened to notice they had a copy of *The Master*. On October 15, 1993 she asked to see it. "I thought maybe their copy had a different introduction in it compared to the one I read from Dalhousie University." Neatly written on the fly-leaf was the mention that the book was donated by a man from Halifax, who heard it was about a guy named Hutchinson from Wolfville, Nova Scotia. "I thought 'ah, this is nothing. It's a book about Newton, but I'll have to check this out.'"

Dr. Falk immediately began the hunt to track down a Hutchinson from Wolfville. After a couple of

false leads she found a George Hutchinson, from Great Village, Colchester County, who won a prize in 1885 in London for his life drawing work. After finding this information she went back to her files on Zangwill and found a note indicating that his illustrator for his books was a man by the name of George Hutchinson.

The mystery was solved. Zangwill did not write about Newton, rather he wrote about Hutchinson, a long-time friend, who grew up in N.S., and who aspired to be a famous painter in England. No other person could have taught the dialect to Zangwill. Hutchinson was the fictional person described in the book.

Dr. Falk was able to solve the mystery in time for her presentation at the 17th annual Atlantic Provinces Linguistic Association at Saint Mary's on November, 1993. One puzzle that she is still working on, is why neither Zangwill nor Hutchinson wanted anyone to know that the book was written about an illustrator, namely Zangwill's own. After reading every biography concerning Zangwill Dr. Falk discovered that even his closest friends had no idea who the fictional person was in the book.

Students attend Norway human rights conference

The issue of human rights deeply concerns two Saint Mary's students.

Tom MacEwan, 23, a fifth-year political science student and Anthony Kiley, 29, a fourth-year honors history student were invited in October to represent the University at the International Student Festival in Trondheim, Norway. Five hundred students from over 100 countries around the world participated in the festival.

Both students were surprised to be accepted and thrilled to have the chance to talk in-depth about human rights legislation, policies and world-wide issues.

Last year, both MacEwan and Kiley participated in the model United Nations held at Harvard University. From that conference they established a relationship with a Croatian ambassador's son, who was quite impressed by their performance at the model UN. Both received outstanding achievement awards for their representation of Croatia.

"We had a really good relationship with the Croatians and at the end we gave them our report," says Kiley. The application for this year's Norway conference was sent to them via the ambassador's son, who thought they might enjoy the opportunity to once again discuss human rights.

"I'm hoping to further my interest in ethnic minorities," says



(Left to right): Tom MacEwan and Anthony Kiley days before their trip to Norway, to participate in the International Student Festival.

Kiley, who presented a paper "Regarding Human Rights and Ethnic Minorities," at the festival. MacEwan presented, "Human Rights in a Democracy and the Role of the Supreme Court in Interpreting these Rights."

Students at the festival also took a guided tour of a concentration camp, as a reminder of the value of human rights. In addition to students, a number of guest speakers attended the conference including the Dalai Lama; the Undergeneral Secretary of the United Nations; the Executive-Director of the UN Population Fund; the Leader of the International Conference on Population and Development; Jan Borgen, from the Norwegian Refugee Council and Suzana Dewa, the woman who started Amnesty International in Slovenia.

Drug and Alcohol Awareness Week

During the week of November 14-18, the University launched Drug and Alcohol Awareness Week. This wrecked car was placed on the campus to show students the consequences of drinking and driving.



In 10 years could Canada become another Mexico?

by Renee Field

The way to cut the federal deficit is not by eliminating social programs. There are ways to raise money, such as establishing a wealth tax and increasing the corporate tax rate, says Maude Barlow, Chair of The Council of Canadians, who spoke at Saint Mary's, on November 24, 1994.

Barlow's talk centred around "Defending Canada's Social Safety Net." The statistics the federal government hands out are lies, she told approximately 115 people in the Burke Education Centre.

"Citizens are no longer citizens, rather they are consumers," she says. In the near future those will be the key terms to define citizenship.

The problem facing Canada today, is that the concept of the nation state no longer exists. Instead, transnational corporations have enormous power, move vast amounts of money around the world daily and have lots of clout with governments, including Nova Scotia's Liberal government.

"Ford's economy is bigger than Saudi Arabia's and Norway's. Philip Morris Cigarette sales exceed New Zealand's Gross National Product."

When people talk about global economic booms the benefits go to the transnational corporations, while there are growing inequalities around the world.

The experience Canada is currently going through is where Mexico was 10 years ago, when the World Bank and other monetary institutions forced Mexico to lower their wages, control unions, dismantle public regulatory systems and cut back on social spending in the areas of education and health. As one writer in Mexico says, "We are paying the debt with the lives of our children." Today in Mexico a quarter of the people live on the streets while at the same time there are 24 billionaires in the country.

In the future, Canada's labour force will be working at "Mc" jobs, which do not pay wage benefits and only hire workers on a part-time basis. This work force, known as contingency workers, will make up 1 in 2 jobs by the year 2000. "Thirty per cent of the world's labour force is unemployed and there are 47 million job seekers who enter the labour market (annually)," says Barlow. "From 1975 to 1993 there has been a 120 per cent increase in part-time jobs."

Barlow also stressed that the proposed changes in education, by the Minister of Education, Lloyd Axworthy, and changes in health care are not separate. "If Atlantic Canadians appear to buy into these changes it will hurt more than elsewhere in the country. You have to have courage for an alternative vision. I think we are adapting to something that is awful."

The assault on social programs in Canada is directly related to the



Left to right: Steven Andrews, Manager, Saint Mary's at the World Trade Centre, Dr. Linda Christiansen-Ruffman, Sociology Department, Joan Brown Hicks, Coordinator of Community Services, Halifax City Regional Library and Maude Barlow, Chair, Council of Canadians.

United States system. The shift calls for privatization of social services across the country, which won't benefit Canadians. Once health care is privatized, Canada loses control because under the North American Free Trade Agreement the process becomes open to all, including American companies.

The province of Alberta is following the idea of privatization to the letter. At the same time all the other provinces, including the Federal government, are watching to see what will transpire. Alberta has removed benefits from seniors who make \$18,000 a year, has privatized hospitals and is currently

looking at ways to reduce the cost of education in the province. At the same time, the province has the lowest corporate tax rate in the country and they are proposing to make it even lower, says Barlow.

"We are not overspending on social programs and it's not true that social programs caused the deficit. Only six per cent (of the deficit) is due to government spending and two per cent is for social programs," says Barlow. The event was sponsored by the Metro Council on Continuing Education, the Visiting Speakers Committee at Saint Mary's University and the Halifax City Regional Library.



Board members retire

Dr. Samuel H. Jopling, former Dean of Commerce, receives a gift from Archbishop Austin Burke in appreciation of his dedication and service as a member of the Saint Mary's Board of Governors. Eleven members of the Board of Governors retired on November 30, 1994. They included Elizabeth Boudreau, Saint Mary's University Student Association (SMUSA) representative, Reverend J. Christensen, Allison Cook, SMUSA representative, Craig Dobbin, E.J. Flinn, Q.C., Barry Gallant, Paul Goodman, Kyle Langille, SMUSA representative, James Snell, Louis Comeau and Ellen Froid, who finished her term with the board last year.

16-year-old commerce student and Quebec Major Junior player

Hockey star chooses Saint Mary's first

by Renee Field

When most 16 year-olds are sleeping in and taking it easy for the weekend, Etienne Drapeau is probably shooting pucks in a hockey rink either in Halifax or Quebec City.

Etienne who started skating when he was three, realized four years ago that he wanted to be the best hockey player he could be. "Hockey for me became a passion," he says.

Last year, at 15, he was the first player selected in the Quebec Major Junior Hockey League draft of midget players. Drafted by the Halifax Mooseheads Hockey team, he is the first number one Quebec midget player to play outside of his home province.

At six-foot-one and 175 pounds he knows what he wants. Even with pressure to excel in hockey, academic pursuits don't fall by the wayside. In fact last year, Etienne won the Guy Lafleur Award for outstanding academic levels (he maintained an average of 90 per cent throughout high school) and outstanding sportsmanship.

Fluently bilingual and having completed high school two years before most teenagers, Etienne is studying commerce at Saint Mary's. "I care a lot about Halifax



Etienne Drapeau, wearing the Halifax Mooseheads Hockey jersey has a big hug for his older brother, Jean-Francois.

and it was my first choice," he says, even though he was torn between going to a university in the States or staying on with the Quebec Major Juniors. When he got the call that Halifax drafted him as their first pick, he says, "It was a dream come true. I started to go nuts and I was crying for 15 minutes and hugging my parents. I didn't believe it and the feeling

was so great."

Living in a new city, going to a new school and joining a new team can be difficult. For Etienne it has meant saying good-bye to his parents and friends and entering the adult world ahead of schedule. "I have to live an older life than my age. I have to be disciplined."

Even while playing for the Quebec Minor Hockey league, Etienne had to make sacrifices. "With playing hockey everyday, by the time you eat, practice and do your homework there's no time to see friends."

This year, taking two courses for his first semester and hopefully four in second semester, means he has to be organized. "I'm just beginning to get the routine down. On the weekend I just focus on hockey and then during the week I focus on class," he says.

Having won a scholarship from the Halifax Mooseheads, he is a little anxious about his hockey skills and juggling school work (even though last year he scored 35 goals in 40 games playing for the AAA midget in Ste-Foy, Quebec.) Every Tuesday and Thursday, Etienne attends classes at Saint Mary's. This leaves him with all day Wednesday and half of Monday

for assignments, plus hockey practice is every day for one-and-a-half hours. Every Friday, around noon, it is back on the road as he gears up for weekend hockey games.

Asked if he has any heroes, he thinks and quietly says, "One. My brother." His brother, Jean-Francois (nicknamed Jeff) is two-and-a-half years older and has always encouraged, supported and reassured his younger brother. Jeff, who works with handicapped children, told Etienne one day, "That no matter how much money he makes, nothing can compare to the smile on a child's face he has helped." That really put it into perspective," says Etienne.

For the next five years, Etienne hopes to play hockey with the Halifax Mooseheads. If all goes well with his game, he hopes to have the opportunity to play with the NHL. Currently living as a billet with the Lynch family, in Halifax, who have a son involved in hockey, Etienne says, "I don't consider myself a model, but if I could help him in anyway, I would be pleased."

Editor's note: Presently, the Halifax Mooseheads are in 9th place in the Quebec Major Junior Hockey League.

M Huskie Wrap-ups

Men's soccer

The Men's Soccer Huskies ended their season with a hard fought character-building loss to the Dalhousie Tigers. The team lost in penalty kicks after 30 minutes of scoreless overtime. The game finished in a 3-3 tie.

The season was a success and a great learning experience for the new players. Lewis Page, in his final year, was selected Most Valuable Player of the league and a First Team All-Canadian. Desmond Lambert was selected to the All-Conference Team and Idris Mert was chosen as the Rookie of the Year. Coach Stewart Galloway was named AUAA and CIAU Coach of the Year. The Huskies are already looking forward to next Fall.

Women's soccer

The Women's Soccer team finished their season in fourth place. Despite a rash of injuries, the team performed well. Playoff positions were not decided until the last league game of the year. To gain a playoff spot, the Huskies had to tie the first place Dalhousie Tigers.

The team lost in an exciting semifinal game at Acadia, 3-1. Overall, the team improved during the season and made a valiant effort during the playoffs. Next year holds the promise of even better things to come with a strong core of returning veterans. Signa Butler, sweeper, was named an AUAA All-Star, while Heather Richards started every game in the goalkeeper position. The team will miss graduating players Stephanie Lovett, Kelley Hiltz and Michelle Smeltzer.



Saint Mary's Tony McCabe (white jersey) collides with St. Francis Xavier's Brian Trenholm at the Metro Centre November 30.

Tony Caldwell / Daily News

Hockey Huskies hit the ice

It is hockey time at the Metro Centre once again. The action has been fast and furious and at times disappointing for the team, losing several one-goal games. Coach Paul Boutilier has high expectations for his team and anticipates a more focused group to hit the ice in January.

"With the Christmas break coming up, we'll take advantage of the time to re-group and re-order priorities," says Boutilier. Acadia and Dalhousie universities are the strongest teams in the league at the moment and the Huskies will have to draw from within to ensure a play-off spot. Solid, consistent hockey is a priority to make the championship round in this competitive league.

Another successful football season

Finishing first in the league and capturing another AUAA title, this year proved to be another bitter-sweet season for the Football Huskies.

After securing their 13th Jewitt Trophy against Acadia University (60-14), the Huskies ended the season with a disappointing loss to the Saskatchewan Huskies (35-24) in the Atlantic Bowl. A sell out crowd of 8,500 fans kept the Huskie pride alive, until the final minutes of the game.

Individual national honors went to four Huskies: Noah Cantor as 1st Team All-Canadian, Alex Eliopoulos, Colin O'Donnell and

Brian Walker as 2nd Team All-Canadians. Eliopoulos was the league nominee for the President's Trophy for best defensive player in the country and O'Donnell was the league nominee for the JP Metras Trophy for best lineman in the country.

Although the Huskies will lose a dozen graduating players, the team is already preparing for the 1995 season and another shot at the Vanier Cup.

Field hockey

Finishing the regular season with a 4-2-2 record, the Field Hockey Huskies gave everything they had in a disappointing loss to the University of New Brunswick 2-0 in the finals.

This year's team had four AUAA All-Star awards: Sara Kailley, Sabitha Masih, Erin O'Brien, and Colleen O'Brien (AUAA Rookie of the Year). As well, Erin O'Brien was selected as a 1st Team All-Canadian and Masih as 2nd Team All-Canadian.

Winter Huskies update

Women's basketball

"Winning the UNB Fall Classic in October with wins over Laval and Bishops was a great way to start the season", says Coach Jill Healy. Transfer student Norma MacIntyre, a Masters of Education student from Sydney, was named tournament MVP with Jad Crnogorac named to the All-Star Team. In November the winning continued as the Huskies were finalists in the Dal Subway Tournament.

In league play the team continued their strong showing with two close games with Memorial University and a win against the greatly improved UCCB team. Before Christmas the team will meet Acadia and UPEI.

The Huskies are looking forward to the Sparkling Springs Invitational December 30,31 and January 1st that will feature Lau-

rentian, Concordia, Laval, Ottawa, Acadia, UPEI, Dalhousie and Saint Mary's universities.

Men's basketball

The first part of the Men's Basketball season was great at times and inconsistent at others. This year's team has a 1-4 record to date but the season is still young.

"Injuries have hampered the Huskies but the team is starting to gel and with every game, floor time and experience is being acquired," says Coach Ross Quakenbush. "We will be working hard over Christmas to come out strong each and every game."

GAME SCHEDULE

Men's Basketball			
December 29,30,31	NS Sport Heritage Tournament,		
	Metro Centre(X)		
January 6,7,8	Rod Shoveller Memorial Tournament, Dal (X)		
Wednesday, January 11	ACA vs. SMU		8 pm
Friday, January 13	DAL vs. SMU		8 pm
Wednesday, January 18	SFX vs. SMU		8 pm
Saturday, January 21	ACA vs. SMU Metro Centre		
Saturday, February 4	UNB vs. SMU		3 pm
Women's Basketball			
December 30, 31, Jan. 1	Huskies Invitational Tournament (X)		
Wednesday, January 11	ACA vs. SMU		6 pm
Friday, January 13	DAL vs. SMU		6 pm
Wednesday, January 18	SFX vs. SMU		6 pm
Saturday, January 21	ACA vs. SMU Metro Centre		
Saturday, February 4	UNB vs. SMU		1 pm
Hockey			
Monday, January 2	Western vs. SMU		7:30pm (X)
Thursday, January 5	UCCB vs. SMU		7:30 pm
Friday, January 6	UCCB vs. SMU		7:30 pm
Thursday, January 19	UdeM vs. SMU		7:30 pm
Thursday, January 26	ACA vs. SMU		7:30 pm
Saturday, February 4	MTA vs. SMU		7:30 pm
Sunday, February 5	DAL vs. SMU		7:30 pm
Women's Volleyball			
Saturday, January 15	UNB vs. SMU		3 pm
Sunday, January 16	UNB vs. SMU		1 pm
Wednesday, January 25	ACA vs. SMU		7 pm
Wednesday, February 8	DAL vs. SMU		7 pm



Saint Mary's women's basketball team rallied to defeat the UPEI panthers 88-82 in overtime December 3.

Sandor Fizi, Daily News