

The TIMES



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For the first time in nearly two decades there is consensus among the universities in Metro Halifax about the future direction of higher education and the services required to support that future. The result is a business plan for seven Metro universities that ear marks savings of \$17 million over the next three years, while ensuring the integrity of each institution and recognizing the rights and obligations of Boards of Governors and Senates.

The Consortium has grown out of the Partnership model, proposed initially by four Metro universities. There are a number of positive elements in the plan that will allow Saint Mary's to continue its growth and development as one of the country's leading universities.

"Change must come," says Dr. Ozmon. "With this plan, we have a greater measure of control over our future than in the merger or federation model or a plan developed by the government."

Saint Mary's has been joined in the Consortium by Mount Saint Vincent University, the Nova Scotia College of Art and Design, the Atlantic School of Theology, the Technical University of Nova Scotia (TUNS), Dalhousie University and the University of King's College. The seven member partnership must deal with the inevitable funding reductions faced by universities.

Across Canada universities are faced

with impending cuts from their respective provincial governments because of changes in the federal transfer payments. Alberta universities and colleges are working through an 18 per cent budget cut, and colleges and universities in Ontario just received word of massive cuts to provincial grants.

The Consortium's business plan must deal with a reduction in provincial grants of \$17 million over the next three years. The proposed savings in Metro will be achieved by sharing systems and services, through academic partnering including attrition and early retirements, and co-ordination or consolidation of some programs and departments.

"While the business plan is short on detail, we are seriously committed to finding the targeted savings, and to doing this in partnership," says Dr. Ozmon. "As painful as they may be for us, the cuts will also be painful for others within the partnership."

The winners in this will likely be students who will achieve greater mobility among campuses, marks accepted at face value, maximize greater choices of faculties and programs, and enhanced services.

Academic Partnership

Savings of more than \$5 million will be realized by non-replacement of faculty through normal and early retirement. Another \$5 million will be realized through a variety of efforts. Those efforts could include more extensive collaboration and program consolidation.

programs at all levels.

The agreement also recognizes Saint Mary's urgent need for a commitment from government to fund an addition to the Loyola Academic building to house the Commerce Faculty. An agreement has been reached on a more integrated and co-operative program in Computing Science between TUNS and Dalhousie University.

Administrative Partnership

The Consortium will realize savings of nearly \$7 million on the non-teaching side through the creation of Halifax Universities Services Limited (HUSL) and on site administrative savings. HUSL will provide services for all members in Information Technology; Registrar and Admissions; Financial Services; Human Resources; Payroll; Physical Plant and; some Library Services. While every effort will be made to centralize services, further analysis is needed to determine what services should remain on individual campuses.

There will be some large up front expenses including a common Management Information System, retirement and buy out

packages, and enhanced transportation among member institutions. Disputes will be handled at the departmental level, as much as possible, and the Presidents and several external members will attempt to settle serious disputes that arise.

Finally, there remains a need to refocus the relationship

The Consortium BUSINESS PLAN

between government and universities and to design a new Nova Scotia Council on Higher Education, which can serve as an effective buffer body between the universities and government. The relationship must be built on government identifying and developing a long term public policy agenda while providing the funding and support to reach those goals.

The Honorable John MacEachern, Nova Scotia's Minister of Education, received the Consortium business plan on Friday, December 1, 1995. He will analyze the document and also look over the report from Janet Halliwell, Chair, Nova Scotia Council on Higher Education, which was given to the Minister earlier this year. The government's response will be released over the next few weeks.

"This plan, based on mutual respect and trust, will avoid universities becoming empty monuments to yesterday's thinking," says Dr. Ozmon. "We will be the champions of the future. A future over which we have some control and leadership."

\$12.5 million CIDA grant awarded for joint Indonesia project



A joint \$12.5 million CIDA grant was awarded to Saint Mary's and Dalhousie University along with Agriteam Canada Consulting to enhance gender equity in Indonesia. From left to right: Drs. Joan Campbell, Sociology and Social Anthropology Department and School of Environmental Resources at Dalhousie, Jane Parpart, History Department and Co-ordinator of the International Development Studies program (IDS) at Dalhousie, Patricia Connelly, Sociology Department and Co-ordinator of IDS at Saint Mary's, and Martha MacDonald, Economics Department and Co-ordinator Women's Studies Program at Saint Mary's.

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The Canadian International Development Agency (CIDA) will award \$12.5 million over five years to a consortium of Saint Mary's, Dalhousie University and Agriteam Canada Consulting, Calgary, for a project to enhance gender equity in Indonesia. "This is the largest international development project in which Saint Mary's has been involved since the early 1990s," says Denise LeClaire, Director, Saint Mary's International Activities.

Continued on page 4

Strengthening ties between

Saint Mary's and Japan

by Annabel Bruce



Maintaining cultural and educational ties to Japan

Standing on the steps to McNally is back (left to right): Dr. Charles Beaupré, Modern Languages and Classics Department, Dr. Jim Morrison, History Department, Denis LeClaire, Director, International Activities, front (left to right): Dr. Tadashi Okudaira, Dean, Hokkaido University of Education, Dr. Ken Ozmon, President, Saint Mary's and Professor T. Aoki, Co-ordinator, International Exchange Committee for Hokkaido University of Education, who was also a visiting professor at Saint Mary's two years ago.

Students, faculty and staff will have the chance to experience Japanese culture and business acumen first hand with a renewed exchange program between Saint Mary's University and Hokkaido University of Education in Hakodate, Japan. Due to the success of the first exchange agreement, which ran from 1990 to 1995, the two schools undertook a second five-year plan on October 23, 1995.

Deemed Phase II, it will nurture long-term research and educational exchanges and collaborations relevant to each university, and to the industrial, scientific, and social and cultural interests of each country. Under the agreement, the two schools will trade professors, administrative staff, undergraduate and graduate students, exchange books and other teaching materials, and co-ordinate research projects in language training, science, social services, the humanities, and teacher education.

So far, some 25 Saint Mary's students have gone to the Hakodate campus in Japan, and 150 Japanese students have come here. Saint Mary's faculty who have participated so far in the program include Drs. Edna Keeble, Political Science Department, Harold McGee, Anthropology Department, Hugh Millward, Geography Department, Patricia Connelly and Dr. Gene Barrett, both from the Sociology Department and Colin Howell, History Department. Dr. T. Aoki, Co-ordinator of the International Exchange Committee, and a professor at Hokkaido, taught Japanese at Saint Mary's in 1993/1994.

Dr. James Morrison, a History Professor and Co-ordinator of the Asian Studies program at Saint Mary's says, the program has been effective for a number of reasons. For one, the Hakodate campus is on the island of Hokkaido, far from the international bustle of Tokyo.

"Students get more attention there, and are more likely to befriend Japanese people instead of Westerners," he says, adding that it's important to expose students to Japanese culture because, for many countries, including Canada, Japan is a significant economic and political partner.

The new exchange program agreement requires each university to allocate space and provide scholarships for studies, training, and research or administrative work for the partnering institution. In support of the program, the Japan Foundation in Toronto has already donated to Saint Mary's \$5,000-worth of books on Japanese literature, religion, history, art and political science and economics. This growing collection will help nurture the University's connection with Japan long after this second exchange program ends in June 2000. ♡



To acknowledge the continued friendship between Saint Mary's University and the Hokkaido University of Education, Hakodate Campus, Japan, Dr. Tadashi Okudaira, Dean, Hokkaido University of Education and Dr. Ken Ozmon, President, Saint Mary's signed the formal document that outlines the memorandum of agreement between the two universities. Back (left to right): Dr. Charles Beaupré, Dr. Jim Morrison and Prof. T. Aoki, from Hokkaido University of Education.



Japanese exchange students on campus

A group of Japanese exchange students arrived on campus during the summer to study English as a Second Language. Back (left to right): Chris MacRae, Cultural Assistant, Kaori Yamada, Megumi Miura, Ai Kobayashi, Yoshiko Enomoto, Carolee Buckler, Cultural Assistant, Satomi Umehara, Sue Lundquist, Co-ordinator; front (left to right): Hideto Suzuki, Rumi Senda, Miki Shibutani, Kimiko Miyata, Sachi Hirai, Naoko Abe and Mika Kobayashi.

Letter from the editor:

Starting with the next issue of *The Times*, a new editor will be taking over the reins, for a period of eight months.

Annabel Bruce, a graduate of the University of King's College School of Journalism, will pinch-hit for me while I'm on maternity leave. She has written for a number of publications, including *OWL* magazine, the *Globe and Mail*, *Dalhousie Magazine*, *Commercial News*, and *Chronicles of Canada*. She is a former editor of the St. Francis Xavier University *Alumni News* magazine, and *Salar*, the Atlantic Salmon Federation's tabloid newsletter.

I will still be hooked-up to the University via e-mail and look forward to hearing from many of you over the upcoming months. ♡

*A Christmas greeting
from the President
Dear friends
and neighbours,*

In this fast-changing world, we cherish our traditions more than ever. Like eager children on Christmas morning, we await the familiar warmth and good cheer of the season. We draw strength from our family, friends and colleagues, and from within.

As we review our past successes and lessons, and prepare for future challenges, we see how connected we are to our community, and how we strive to improve our world through education, research and public service. Much of what we do here at Saint Mary's University provides food for thought. My wife Elizabeth and I hope this holiday brings you food for the soul.

Take to heart the words of St. Paul: "The fruit of the spirit is love, joy, peace, longsuffering, gentleness, goodness, faith, meekness, temperance." We will need all of these in good measure in the coming year.

*Peace & Good
Will to All*

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

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the TIMES



The Times is produced by the Public Affairs Department of Saint Mary's University. Submissions from faculty, staff, students and friends are welcome.

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AROUND Campus

Brazilian ambassador on campus
(Left to right): His Excellency Sergio DeQueiroz Darte,



Ambassador of Brazil to Canada, met with Dr. Kenneth Ozmon, President, Saint Mary's and Antonio Luz, a Trade Commissioner and Dr. Colin Dodds, Vice-President, Academic and Research. Over 30 business and government people attended a breakfast meeting to discuss potential business opportunities and capital venture projects between Nova Scotia and Brazil. The discussion focused on the current environmental concerns and the possible joint ventures and franchises that may exist in sewer and water pollution treatment, agricultural, environmental impact studies, clean technology and hydroelectricity.



Marriott donation
This summer Marriott Management Services donated \$10,000 on a \$50,000 pledge to the Capital Campaign for the University. Receiving the cheque is Don Keleher, Director, Advancements and (left) Dalton Mather, Director, Food Services and (right) Michel Marleau, Marriott Regional Manager.



New Huskies patrol van
This year, thanks to the efforts of Saint Mary's Students' Association and University Security, there is a new Huskies patrol van that drives students, staff and faculty to and from the campus from 6:30 p.m. to 12 a.m., Sunday to Friday. The van drives students throughout the southend area, excluding the downtown core. "The focus is on the personal service to the students because we go door-to-door," says Bill Promaine, Manager, University Security. Mark Gallant, a Commerce student and Huskies Patrol Coordinator, says "This year, 918 students have received rides home from October 10 to November 9, 1995." Call for a ride at 420-5577.



United Way Kick-off day
On October 17, 1995, the University community kicked-off this year's United Way Campaign with a dinner. From left to right: Steve Hines, Christine MacGillivray, Barb Meunier, Kim Squires and Tony Arab. Over 100 people participated in the lunch and \$178 was raised for the United Way. To-date over \$5,500 has been raised which is over 40 per cent of the University's goal.



MBA winners
This year's MBA students participated in a computer-based business simulation that took part from October 23-26, 1995. The winners had the opportunity to lunch with Dr. Ernest Cadotte, author of business simulations on November 8, 1995. From left to right: Liam Whitty, Devlin Hinchey, Dr. Codotte, Steven Wood, front (left to right): Steve Spencer, Pamela MacLeod, Mary Ann McGuire and Paul Cugno.



The Vietnamese connection
Five professors from National Economics University (NEU) in Hanoi, Vietnam are attending classes in the Commerce Faculty this semester. They are participants in a five-year project through which Saint Mary's and Moncton University, New Brunswick, are assisting NEU to develop new courses in marketing, economics, accounting and other Commerce subjects. Pictured with Dr. Colin Dodds, Vice-President, Academic and Research are (left to right): Dr. Dang Kim Nhung, Tran Thach Lien, Tran Dai, Dr. Dodds, Lan Hoang Huong and Tran Dinh Hein.



Marketing seminar
About 300 people attended the marketing seminar held in the Theatre Auditorium, McNally building this October. From left to right: Shane MacKay, BA/BComm student, Dr. Harold Ogden, Marketing Department, Doug Cluff, Principal, 21st Century Marketing Systems Inc., Tom Manton, Vice-President, Sales, New Cap Broadcasting, Eldon MacKeigan, CMM, General Sales Manager, Metro Radio Group and Melanie Wells, BComm student.



Moosehead Scholars program established
Moosehead Breweries has donated funds of \$15,000 to establish the Moosehead Scholars program to support Saint Mary's students who are studying abroad in Japan. Three Commerce students are pictured here with Dr. Kenneth Ozmon, President, Saint Mary's, from left to right: Earl Murray, Chris MacRae and Jefferey Caterer with Dr. Ozmon.



President for a day
What would you do if you could be Dr. Kenneth Ozmon, President, Saint Mary's for one day. Well, that's exactly what Scott Morton, first year Science student had the opportunity to find out. He spent lots of time on the phone, in meetings, reading over reports and meeting with people. The money raised, \$150, went to the Students' Ambassadors program.



President's BBQ
On September 17, 1995 about 200 people participated in the President's neighborhood BBQ at the Oaks. Children enjoyed the live entertainment and face painting.

Students study in Mexico
For the second year in a row, Saint Mary's is participating in the Regional Academic Mobility program, which allows Commerce students the opportunity to spend one or two semesters in another North American Country. This semester, seven students from Mexico and one from the United States are studying at the University, while three Saint Mary's students are spending this semester in Mexico, at Instituto Tecnológico y de Estudios Superiores De Monterrey (ITESM). Pictured (left to right) are Dawn Pottier and Michael McInnis from Saint Mary's, with ITESM students (and Saint Mary's alumni) Cinthya Cifuentes and Laura Saenz. Currently Pottier is helping ITESM's International Exchange Office in promoting study abroad programs.



Ranked Top Five Nationally

SAINT MARY'S

Saint Mary's has ranked in the top five in the "Best Overall", "Highest Quality", "Most Innovative" and "Leaders of Tomorrow" categories, according to *Maclean's* 1995 reputational survey of Canadian universities.

"Once again, our success in the *Maclean's* ranking is a tribute to the effort, calibre and resourcefulness of our faculty and staff," says Dr. Kenneth Ozmon, President, Saint Mary's.

Maclean's ranked 39 universities across the country in areas such as class sizes, student body, faculty, finances, library facilities and reputation. This year, Saint Mary's moved up a notch, going to eighth from ninth place in the overall ranking.

"Our faculty have been ranked number one (again) in Canada and we enjoy one of the best reputations for quality in the nation. Students have known this for years as they have "voted with their feet" for Saint Mary's by choosing us for a quality undergraduate education," says Dr. Ozmon. Besides being ranked first as an institution with the highest number of faculty holding PhD's, the University came in second for awards per full-time faculty and fourth for

Social Sciences and Humanities Research Council of Canada grants.

This year most of the province's post-secondary institutions received good grades. Mount Allison, Acadia, St. Francis Xavier, and Mount Saint Vincent universities were all ranked among the top 10 overall, while Saint Mary's and Acadia were the only two Atlantic Canadian universities to receive the highest marks in all four reputational categories.

Saint Mary's continues to struggle with the lowest level of government funding compared to any other Canadian university, and received 17th place out of 19 for its operating budget. "The issue of equitable funding remains pivotal to the future of Saint Mary's," says Dr. Colin Dodds, Vice-President, Academic and Research. "We would be ranked closer to the number one spot if Saint Mary's were to be funded at even the provincial average. Regardless of funding though, we are pleased that the calibre of our programs are being recognized by this national body."

"In spite of our low funding, Nova Scotian universities can be proud of how well they're ranked," says Dr. Ozmon.

In the value added category, Saint Mary's ranked 15th out of 15, as one of the leading institutions that went the distance for their students. This category took into consideration the average entering grade and the percentage of students with averages of 75 per cent or higher, and the proportion who graduated and student awards.

This year, 11 institutions pulled out of the *Maclean's* ranking, while 15 schools opted out of the survey, last year. This is the fifth year of the survey, which is based on information received from the institutions. The reputational survey is the opinion of leading educators, government and business leaders from across Canada, high school guidance counsellors and academic administrators. ♡

Overall Reputational Ranking

Acadia	1
Ryerson	2
Trent	3
Mount Allison	4
Saint Mary's	5
Wilfrid Laurier	6
Lethbridge	7
Mount Saint Vincent	8
St. Francis Xavier	9
Brock	10
Lakehead	11
Bishop's	12
St. Thomas	13
Winnipeg	14
Cape Breton (UCCB) ...	15
Nipissing	16
Laurentian	16
Brandon	18
P.E.I.	19

\$12.5 million CIDA grant awarded

Continued from page 1

The Women's Support Project Phase II (WSPPII) plans to augment the role of women in Indonesia by working with government agencies and non-government groups to create gender-responsive policies, plans and monitoring systems, and by building strategic networks among all levels of the infrastructure.

Input from Saint Mary's and Dalhousie's gender and development experts helped Agriteam win the contract. Agriteam, a private company which has worked on 60 development projects worldwide, including seven in Indonesia, will work with Saint Mary's through its International Development Studies (IDS) and Summer Institute on Gender and Development (SIGAD) programs, which it runs jointly with Dalhousie. SIGAD focuses on gender-specific research and policy development, and the theories and methods needed in order to conduct research on related issues.

"The Women's Support Project will have a large impact on Indonesian policy and institutions," says Dr. Patricia Connelly, Saint Mary's Sociology Department. She and Dr. Jane Parpart, Dalhousie's History Department, co-ordinate IDS and

co-direct SIGAD.

"It's a wonderful opportunity for collaboration," Dr. Connelly says. "We are looking forward to working with our Indonesian counterparts." She advises several international bodies on gender and development and has participated in many provincial and federal task forces on social policy and women's issues.

Drs. Connelly, Parpart and Agriteam's Barbara Hoffman are the three principals on the WSPPII management board who will meet regularly in Canada and Indonesia to keep the project on track. SIGAD team members Drs. Martha MacDonald, Saint Mary's Economics Department and Co-ordinator of the Women's Studies Program, and Tania Li and Joan Campbell of Dalhousie's Sociology and Social Anthropology Department and School of Environmental Resources, will also play key roles.

Half of the professionals hired to work in Canada on the project and half of the short-term consulting contracts will likely come from Saint Mary's or Dalhousie. A Canadian and Indonesian team will establish offices in Jakarta and Ujung Pandang.

"It's a wonderful opportunity for collaboration... we are looking forward to working with our Indonesian counterparts."

Indonesia, a vast string of some 17,000 islands stretching between the Asian mainland and Australia, has undergone a progressive metamorphosis since President Suharto launched his "New Order" 30 years ago. Yet a disproportionate number of women remain poor and separate from mainstream development. Although more women are entering the workforce, they earn less in insecure jobs. Despite health care programs, more women die during childbirth than in any other country in South East Asia.

The consortium will do the following: conduct gender analysis and research; provide technical, management and expert support; create strategies that work within the country's cultural, social and economic context; deliver responsive participatory planning and consensus-building tactics on gender equity principles; achieve sustainable benefits — for example, changes in behaviour and attitude; and establish systems for long-term career planning and training.

Through the project, post-graduate candidates from Indonesia will have the chance to attend the joint Saint Mary's-Dalhousie-Mount Saint Vincent universities

Masters Degree in Women's Studies and the Saint Mary's Masters Degree in International Development, with a specialty in gender and development. The program could be up and running as early as September 1996.

"The IDS Program, the Women's Studies Program, and SIGAD are good examples of partnerships at work," Dr. Connelly says. "We're looking forward to extending these to the Canadian private sector and to Indonesians in order to support women in their drive towards gender equity."

Dalhousie has considerable development experience in South East Asia through its project Environmental Management Development in Indonesia. Dalhousie and Saint Mary's share, through a number of projects, a rich network of contacts within the Indonesian government and academic institutions. Dr. Parpart expressed interest "in maximizing the synergy between projects in order to provide the most benefit for all — both in Indonesia and in Halifax."

In April, Dr. Connelly and her colleagues will travel to Indonesia to work out the details of the project. ♡

Creating efficient use of wasted energy

by Renee Field

Consider a process that could increase the flow of water through a pipe, leading to a more efficient way of producing electricity that is environmentally friendly and for consumers potentially cheaper — people start to take notice.

That technology of district heating and cooling (DHC) as a means to conserve energy and save money has government organizations, utilities and other organizations quite excited. In Canada, much of London, Ontario and downtown Charlottetown, Prince Edward Island are served by district heating systems and nearer to home Nova Scotia Power is considering the technology.

"We're looking at it (DHC technology) for long term use and N.S. Power is interested in community energy systems in the Metro area," says Kerry Blamire, Advance Technology Specialist, N.S. Power Inc.

Waste heat from electrical power generations and other large-scale industrial activities offers an economical and environmentally friendly source of energy for DHC systems. However, few people wish to live or work next to an electric power station, which means that this energy has to be transported to consumers, often over considerable distances. In modern systems, heated or chilled water is the preferred medium for distributing "hot" and "cold" to individual users through a pipeline distribution network. The cost of electricity to operate the pumps which circulate water through the distribution network is a major part of the total operating cost for a DHC system.

For a number of years, Dr. John C. O'C Young, Professor Emeritus, Chemistry Department, has worked to reduce the cost of

pumping water by developing chemical additives that reduce hydraulic drag in pipeline distribution systems. His work comes under the direction of the International Energy Agency and several foreign research groups.

The process works the following way. When water flows through a pipe very slowly then the individual water molecules follow a straight line, parallel to the wall of the pipe. But as the water flow increases the velocity changes and the molecules become unstable and begin to spiral, forming turbulent eddies. These eddies consume energy and raise the pumping energy requirements. "Eddies are bad because they greatly increase costs," says Dr. Young.

Dr. Young and his students have patented additives that inhibit turbulent eddy formation. "The additives remove the excess energy from eddies as they begin to form and then disperse the energy in the direction of the flow," says Dr. Young, who has carried out successful tests of these additives in the cooling system of the Patrick Power Library. In a pipeline, these additives can reduce pumping costs by as much as 70 per cent.

When energy has been transported to the consumer through the DHC pipeline loop, it must be delivered to the consumer's own system through a heat exchanger. This works, much the same way, as the heat exchanger in a domestic oil furnace as heat is delivered to the radiator system loop.

While eddy suppression is desired in pipelines because it reduces pumping costs, it is undesirable in heat exchangers because

throughout the countryside where he would undertake geological surveys. An inventor by nature, he was always looking for ways to make money from his explorations or his inventions.

In 1825, Gesner went to London to study medicine. The idea was for him to become a physician. However, he never enjoyed medicine and only engaged in it when there was no other way of making a living.

After his one year in England he returned to N.S. and settled in Parrsboro, where he began a medical practice. During that time he continued to explore the province by any means available and was able to combine his medical practice with geological exploration. At that time he published his first book on Nova Scotian geology. In 1838, he moved to Saint John, New Brunswick, where he was appointed as the first government geologist in a British Colony. He published five geological reports over the five years he held the appointment.

While in London, the streets were being lit up by gas lanterns. The gas was extracted from coal. The idea of using coal and other related substances to extract useful products intrigued Gesner, who experimented with a bituminous material (organic compounds) found in Albert County, N.B. His experiments led him to extract a superior gas from the material and later a liquid fuel he named kerosene.



In his Advanced Fluids Research lab at Saint Mary's is (left to right): Dr. John Young, Jennifer Hovey and Graeme Day, a fourth-year honors Chemistry and Mathematics student.

eddies are the principal mode of heat transfer.

Part I: Eliminating a problem

Dr. Young received a \$40,000 one-year grant by Natural Resources Canada (NRC), "to figure out a way to achieve the benefits of drag reduction in pipelines without incurring a loss of transfer efficiency in heat exchangers."

When the additives are added to the pipeline they cause drag reduction, and "rodlike micelles" of molecules form. Dr. Young's group is exploring ways of shearing the flowing liquid to disrupt these micelles just before they enter the heat exchanger and then have them reform to resume the drag reduction downstream of the exchanger. This technique worked in the cooling system for the University's library, by partially closing a valve located immediately upstream of the chiller unit.

Part II: Working to make foul pipelines usable

Dr. Young's Advanced Fluids Research group was recently asked by the NRC to carry out exploratory research aimed at determining the causes and recommending

At that time there were many people trying to patent new inventions concerning the use of gas. Gesner found himself tied up in two great legal battles by 1851. His problem was that he could not obtain



Dr. Elizabeth Haigh, History Department, is currently finishing her book on one of Nova Scotia's inventors — Abraham Gesner, the man who invented kerosene.

the mineral rights to the land where he discovered huge deposits of bituminous material. His first battle was in Halifax and second, in Fredericton, N.B. He lost both battles.

After that, he moved his family to New York City in 1853, where he helped to set up a company to extract and market kerosene. For a period of time the business prospered and Gesner was able to make a lot of money. However, in 1856, a Scottish inventor sued the company for patent in-

fringement and Gesner was forced to leave the company. "It's a mystery what happened there," says Dr. Haigh. So, in 1863, Gesner returned to the Maritimes as Chair, Natural History Department at Dalhousie University, Halifax, N.S. At 67 years of age, he died in April of that year, before assuming the position.

"In the end, Gesner lost out. As a geologist he was overtaken by others, who were more advanced in the field and at the time, he was never given full credit for his inventions," says Dr. Haigh.

Gesner married Harriet Webster, the daughter of a physician in Kentville, N.S. Together they had 12 children, seven of whom survived into adulthood. Once the family moved to the United States, the children never returned to Canada. Nothing appears to have survived to inform researchers about the marriage, but Dr. Haigh was contacted by a physician in the States, who happened to be a Webster descendant, and who had information about some of Gesner's children.

Dr. Haigh is hopeful that her book concerning Gesner will be available sometime in the new year. ♣

strategies to relieve the serious problem of fouled water supply in the geothermal energy system in Springhill, Nova Scotia. Armed with a \$10,000 grant, Jennifer Hovey, a fourth year honors Chemistry and Biology student is working with Dr. Young on ways to remove the bacteria that have formed in the pipelines.

The mines in Springhill were shut down around 1958 and at that time all the iron and steel-based mining equipment was left underground. Once the pumps were shut off, water filled up the mines. Over the years this water has slowly heated. In the geothermal energy system, small amounts of this large body of water are pumped out of the mine and passed through the evaporators and condensers of heat pumps to provide space heating and cooling energy sources for a number of facilities in the town.

"However, this simple and elegant scheme — the brainchild of a local industrial engineer, Ralph Ross — is in danger of coming apart," says Dr. Young.

The submerged mining machinery, which has lain dormant for almost 40 years, is slowly dissolving to form ferrous iron in the water. This soluble ferrous iron is being oxidized by bacteria into insoluble ferric iron, which is forming rust deposits that are progressively plugging up the pipelines that feed the system. The aim of Dr. Young and Hovey is to determine what is causing the problem and then recommend a solution.

Initial results suggest that a pasteurization process might be the key. "However, Jennifer is still trying to determine what is in the bacterial soup," says Dr. Young, "and then we have to figure out how to carry out a pasteurization process four hundred feet down in the mine." ♣

Dr. Haigh is hopeful that her book concerning Gesner will be available sometime in the new year. ♣

The man who provided us with light

The life, times and inventions of one Nova Scotian are starting to be re-examined in a new light.

Abraham Gesner was born in the Annapolis Valley in 1797, to a father who was a United Empire Loyalist and a New England Planter mother. Gesner went on to become a geologist, chemist, author and world-renowned inventor. A man with little formal education and isolated at the time due to the geography of Nova Scotia, he briefly went on to study the sciences in London, England.

"He was typical of certain 19th century men. He was largely self-taught and very much an entrepreneur," says Dr. Elizabeth Haigh, History Department, Saint Mary's.

Dr. Haigh is a historian of science. She became interested in Gesner after stumbling upon his research in the archives. While working on other research projects over the years, she has had the chance to slowly compile the life and works of Gesner into a book.

"In N.S. he was always running into the establishment, but he was very, very adept at doing anything," she says. One of Gesner's passions was to take long walks

Honoring employee service to Saint Mary's

This year 29 people were honored for their service to the University, on November 17, 1995, in the McNally building, Theatre Auditorium. Thirteen people have worked at the University for 25 years, while 16 have 10 years of service. Over 150 people attended the ceremony.

Last year was the first year of the Employee Recognition program and 234 people were honored for their contribution and service to Saint Mary's. The program has become an annual event for the campus and everyone is invited to attend the ceremony to recognize their fellow colleagues.

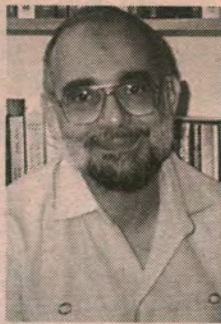
A 10kt white gold label designed to represent the University is presented to those recipients with 10 years of service, while people with 25 years of service have the choice of a gold watch (with the same design as the label) or a limited edition lithography of Saint Mary's University.

Kim Squires, Manager, Personnel Services and Daniel Stone, Director, Personnel Service, have the job of co-ordinating the program. "The day is meant to recognize those at 25 and 10 years, but also for the whole University community to come together and recognize co-workers and the contributions of all in making Saint Mary's what it is," says Squires.

This year certificates were also handed out to Deans, Professors and Chancellors Emeriti. This rank of "emeritus" is designated upon retirement to a member of faculty, who have demonstrated outstanding academic service to the University. This distinction is bestowed after careful review by the nominee's peers and with the approval of the University's Academic Senate. ♡

Professors/Deans/ Chancellors Emeriti

Dr. A. Czako, *Professor Emeritus, History of Art (deceased)*
 Dr. Burke-Gaffney, S.J., *Professor Emeritus, Astronomy and History of Science (deceased)*
 Dr. Stanislas Swianiewicz, *Professor Emeritus, Economics*
 Dr. James Murphy, S.J., *Professor Emeritus, Chemistry*
 Dr. William A. Stewart, S.J., *Professor Emeritus, Philosophy*
 Dr. Harold Beazley, *Dean Emeritus, Commerce (deceased)*
 Prof. Allan Sabean, *Professor Emeritus, Chemistry (deceased)*
 Dr. John R. MacCormack, *Professor Emeritus, History*
 Dr. Alfonso Rojo, *Professor Emeritus, Biology*
 Dr. Stanislaw Bobr-Tylingo, *Professor Emeritus, History*
 Dr. Richard Beis, *Professor Emeritus, Philosophy*
 Dr. Kay Tudor, *Professor Emeritus, English*
 Dr. Douglas Williamson, *Dean Emeritus, Science*
 Dr. James A. Hayes, *Chancellor Emeritus*
 Dr. Arthur P. Monahan, *Professor Emeritus, Philosophy*
 Dr. Emero Stiegman, *Professor Emeritus, Religious Studies*
 Dr. William Bridgeo, *Dean Emeritus, Science*
 Dr. John Chadwick-Jones, *Professor Emeritus, Psychology*
 Dr. Helen Ralston, RSCJ, *Professor Emeritus, Sociology*
 Dr. C. John O'C Young, *Professor Emeritus, Chemistry*
 Dr. William Lonc, S.J., *Professor Emeritus, Astronomy and Physics*
 Pro. Edward McBride, *Professor Emeritus, Political Science*



Dr. Jamal Badawi,
Management Department



Dr. Cyril Byrne,
English Department



Dr. Linda
Christiansen-Ruffman,
Sociology Department



Dr. Patricia Connelly,
Interdisciplinary Studies



Dr. Ronald Cosper,
Sociology Department



Dr. James Darley,
Psychology Department



Dr. Bernard Davis,
Education Department



Dr. Colin Howell,
History Department



Elaine McCulloch, Safety
Co-ordinator



Michael Tingley,
Computer Services



Dr. John C. O'C Young,
Chemistry Department

Professor Brian Robinson,
Geography Department

"Slaunnie,"

By Annabel Bruce

Riding a zamboni, Ken Slaunwhite scoots around Saint Mary's Alumni Arena with Gretzky-like speed and precision. Intramural hockey teams, in uncharacteristic calm, watch from the bench as he resurfaces the rink. As he leaves the ice, before the doors close behind the zamboni, players start shooting. "I should receive danger pay," says the 62-year-old Physical Plant worker students call "Slaunnie." "I've been hit by a lot of pucks."

During his 25-year stint at the rink, Slaunwhite has seen teams come and go. He misses the Huskies, which now practice at the Halifax Metro Centre, and



Kenneth Slaunwhite, Physical Plant
Department

remembers about players such as Richie Bayes (BComm '78, BEd '80, MA '86), Dale Turner (BA '74, BEd '76), Malcolm Davis (BA '90), Bob Warner (BA '75), and Bob Boucher, Huskies hockey coach in the 1970s. A gentlemen's alumni team still plays at the arena on Saturdays, and even Mayor Walter Fitzgerald shows up to shoot a few pucks. Students, minor hockey clubs and

we couldn't have played without you

other community leagues continue to use the rink, as well.

Advertisers have used the arena as a backdrop for commercials. Slaunwhite recalls a beer ad featuring local hockey talent, and another in which the star was supposed to ricochet a puck off each of the goal posts. "He just couldn't do it," Slaunwhite recalls. "So they had to throw pucks with their hands to get the shot."

Slaunwhite's job entails more than riding the zamboni. In the rink's boiler room, he monitors ammonia-filled compressors and the brine running through the pipes that cool the floor. He takes temperatures and checks high- and low-pressure gauges,

and performs whatever else needs doing, in order to keep the ice hard and the puck in play, including mending nets, and plowing snow.

Born in Halifax, Slaunwhite attended long-gone Acadia Street and Moir's Street schools, and Queen Elizabeth High. In 1952 he joined the Armed Forces and served in the Royal Canadian Regiment until 1960. He worked at Celtic Glass and Farmers Dairy until he joined the team in the University's Physical Plant in 1970. "Saint Mary's has been good to me," he says succinctly. Saint Mary's couldn't have played without him.



R. Irene d'Entremont
Doctor of Commerce
(honoris causa)

Well-known in the Nova Scotia business community, R. Irene d'Entremont has demonstrated her keen entrepreneurial spirit throughout the Atlantic Provinces.

Over 20 years ago, she and her husband, Ted, purchased Wesmar Electronics, a Yarmouth-based marine sales and service company specializing in sonar technology. A decade later they established Marine Electronics Equipment (M.I.T Electronics), a manufacturer of safety products for the fishery. Seven years ago they bought a women's clothing store called Women's Up To Date Shop Incorporated, in Yarmouth.

A native of West Pubnico, Nova Scotia, she has a Certificate of Accounting, a Diploma in Business Management, and has completed many business management, accounting and business law courses. She has served as Chair for a number of business organizations including the Nova Scotia Chamber of Commerce, the Yarmouth Chamber of Commerce, the Atlantic Provinces Chamber of Commerce (APCC) and the Atlantic Provinces-New England Business Council. Currently, she is on the Board of Directors of the Canadian Chamber of Commerce.

During government negotiations for the North American Free Trade Agreement, d'Entremont, as Chair, APCC, was unyielding in her support for job retraining for Canadians.

She is currently involved with the Council on Canadian Unity and sits on the Board of Governors of the Université de Sainte-Anne; the Nova Scotia Power Inc.; and ACOA. She is also presently, serving on committees for both Revenue Canada and the Treasury Board of Canada.

Not forgetting her roots, she served as Councillor of Yarmouth Town from 1985-88; President, Yarmouth YMCA, 1983-84; and as an appointed member of Yarmouth Community Futures Board of Directors.

For both her business and community commitments she was inducted into the Nova Scotia Business Hall of Fame, housed at Saint Mary's University, in June, 1994.



Ron Wallace
Doctor of Civil Law
(honoris causa)

Ron Wallace is well known in Halifax for his political astuteness, his war service and his career as a boxing champion.

He has lived in Halifax most of his life except when he served as a graduate of the Royal Roads Naval Academy in the North Atlantic and the English Channel during World War II. One of 15 children, he attended Saint Mary's High School, then located on Windsor Street, graduating in 1934. Three years later, he completed his pre-law requirements at Dalhousie University, before departing for the Massachusetts School of Optometry, where he graduated in 1939.

Before the war, Wallace was a familiar figure in the boxing ring. He won both the middle weight and light weight championships in the Maritimes.

In 1970, Wallace's community commitment took him into politics, where as a Liberal, he ran successfully in the Halifax Citadel riding — a seat which he held until 1978. Two years later he became Mayor of Halifax. For a record of 11 years he served as Mayor, for the largest city in Atlantic Canada. It was during his tenure as Mayor that Halifax hosted a Papal Visit, the Parade of Sail, the International Tattoo and the Gathering of the Clans, to name a few. He also believed in working at all levels of the city, and was instrumental in establishing humanitarian efforts during the Ethiopian famine of the mid-90's. One of the most interesting developments, during his term as Mayor, occurred in 1982, when the city of Hakodate, Japan was "twinned" with Halifax. Today a significant number of students and faculty take the opportunity to enjoy this educational and cultural exchange.

As an activist he Chaired the financial campaign to build Saint Thomas Aquinas Church on Oxford Street and headed the drive for funds for Saint Vincent Guest House.

A family man, he married Patricia, in 1942, and has six children.

About 350 people graduated at Fall Convocation - October 22, 1995



This year's Master of Business Administration graduates took time out during convocation for a group photo. From left to right: Nina Power, Glenda Reid, Dr. Russel Summers, Director, MBA program, Shiyu Huang, Philip Sceviour, Patricia Singer, Clare MacGillivray and Kathleen Frank.



Reno Barbati, Bachelor of Commerce graduate and Huskies football player takes a peek over his shoulder during convocation.



Dressed in his RCMP uniform, Alan Sutherland, flew from Vancouver, British Columbia that morning to graduate with a Bachelor of Arts. He is pictured here holding his niece, Courtney Myatt, from Sydney River, Nova Scotia.



Dr. Kenneth Ozmon, President, Saint Mary's gives the President's Award for Excellence in Research to Dr. John C. O'C Young, Professor Emeritus, Chemistry Department.



Hazel Sherren, Master of Education graduate, has her flower pinned on by Laura Chapman, Employment Development Officer, Co-operative Education and Student Placement Office.

Award winning students

- Alyson Bailey, a fourth year Astronomy and Physics Student, won the Women in Science and Engineering Work Award from the National Research Council of Canada (NRCC). The award is worth \$10,000 per year and guarantees summer employment in a NRCC facility.
- Adair Fowler, an Engineering student, won the \$1,500 Nova Scotia Power Centennial Scholarship and Kelly-Ann Collier won the Minas Basin Pulp & Power, \$1,000 Scholarship.

- Andrew Vaughan, a Science honors graduate, was awarded the National Alfred Bader Scholarship valued at \$1,000. The Bader award is awarded as a mark of excellence for achievement in Organic Chemistry by undergraduate students completing their final year of study who wish to continue in a graduate program. Andrew has decided to continue his study at the University of California, at San Diego, working with Prof. K.C. Nicolau. Unfortunately he will not be able to accept the award to continue his studies in the United States.

Geology students:

- Geoff Davis, won the Canadian Society of Petroleum Geologists award for best presentation of student research at the annual Atlantic Universities Geological Conference.
- Mark Deptuck, was awarded the Mineralogical Association of Canada prize and a Canada Ocean Drilling Project Undergraduate Geoscience Scholarship to work as a research assistant on the International Ocean Drilling Project. He also won the Atlantic Geoscience Society Award for his talk on the Amazon deep-sea fan facies classification scheme.
- Craig Doucette, won the Geological Association of Canada book prize.
- Brian Luinstra (Huskies basketball player) was awarded the Canadian Society of Petroleum Geologists Undergraduate Award for his class work.
- Derek Robichaud, was awarded the Centennial Medal of the Mining Society of Nova Scotia.

Scholarly & Professional Development

Academic and Research

■ Dr. J. Colin Dodds, Vice-President, Academic and Research, published with Jean Bédard from Laval University a paper entitled, "The University Accounting Professoriate in Canada," in *Contemporary Accounting Research, Special Edition Research Issue*, 1994, pp. 75-110. Dr. Dodds was also appointed to the Association of Universities and Colleges of Canada, Tier 2 Adjudication Panel.

Astronomy and Physics

■ Dr. David Turner, Astronomy and Physics Department, made two oral presentations at the annual meeting of the Canadian Astronomical Society, in Penticton, British Columbia, May, 1995. His paper "Astronomy Education Activities in the Halifax area," was co-authored with David Lane, Technician, Astronomy and Physics Department, along with a scientific paper on "Circumstellar Contamination of the Interstellar Medium in Dynamically Well-Evolved Open Clusters." Dr. Turner also travelled to Calgary, to present a paper called "Are the Rapid Rotators of Roslund 3 (And Other Clusters) Products of Close Binary Mergers?" in June 1995, as a member of the scientific organizing committee for an international symposium on The Origins, Evolution, and Destinies of Binary Stars in Clusters. He also presented "Extracting Information From Color-Magnitude Diagrams for Young Open Clusters."

Chemistry

■ Dr. John C.O'Young, Professor Emeritus, Chemistry Department, was the guest speaker at the 1995 annual Academic Honors Dinner at Acadia University, Nova Scotia. In his address on "The Art of Scientific Investigation," Dr. Young discussed the proposition that people can teach themselves to be more creative.

Dr. Young also hosted a meeting of senior research and engineering administrators from Japan. Sponsored by the Japanese Ministry of International Trade and Industry, this group from the New Energy and Industrial Technology Organization had requested the opportunity to visit the University to explore possible areas of collaboration with Dr. Young's research group. Areas of interest discussed included Dr. Young's work on drag reducing additives, low-temperature thermal stratification and studies of the geothermal energy system in Springhill, Nova Scotia.

Commerce

■ Dr. Albert J. Mills, Associate Dean, Commerce Faculty, presented a paper entitled, "Practice Makes Perfect: Corporate Practices, Professionalization and the Ideal-

ized Gendered Self," at the 13th International Standing Conference on Organizational Symbolism, Turku, Finland in June, 1995. Dr. Mills was also recently appointed to a special editorial board of the *Administrative Sciences Quarterly*, and was elected to the Executive Board of the Women in Management section of the Academy of Management.

Executive Master of Business (EMBA)

■ Bonnie Kirby, Manager, EMBA program, was invited to lead two sessions at the International EMBA seminar in Seattle, Washington, from October 16-17, 1995. The topic was "Precessions," and included discussions of orientation sessions, summer workshops, residency programs and mid-program retreats as part of a degree program.

Geography

■ Dr. Douglas Day, Geography Department, published the following: "Fishing beyond the limit: the Canada-European Union dispute. International Boundaries Research Unit, University of Durham: *Boundary and Security Bulletin*, Volume 3, no 1, April, 1995, pp. 52-58; "Tending the Achilles' heel of NAFO: Canada acts to protect the Nose and Tail of the Grand Banks, *Marine Policy*, Volume 19 (4), July, 1995, pp. 257-270; "Public Policy and Ocean Management in Canada," *Marine Policy*, Volume 19(4), July, 1995, pp. 251-257.

Dr. Day was guest editor of the July, 1995 edition of *Marine Policy: The International Journal of Ocean Affairs*. This special issue focused on Canadian public policy and ocean management and included several papers from the International Geographical Union's Commission on Marine Geography conference hosted by Saint Mary's last year.

Geology

■ Dr. J. Dostal, Chair, Geology Department, attended the Atlantic Universities Geological Conference at St. Francis Xavier University, on October 19-21, 1995. Dr. Dostal also published the following: "Middle Tertiary eruptive rocks in the Vancouver area," with T.S. Hamilton, *Geological Survey of Canada Bulletin*, 241, pp. 171-179; "Isotope and trace element geochemistry of Proterozoic Natkusiak flood basalts from the Northwestern Canadian Shield," with C. Dupuy, D. Dautel and W.R.A Baragar, *Chemical Geology*, 1995, 120, pp.15-25; "Lead isotope evidence for a short-lived hydrothermal system in an epizonal granite batholith, Meguma Terrane, Nova Scotia," with A.K. Chatterjee, *Geological Association of Canada Annual Meeting, Abstracts*, 1995, Vol. 20, A-16; "Chemical and isotopic variations in peraluminous granite pluton: role of fluid fractionation," with A.K. Chatterjee, *Geological Association of Canada Annual*

Meeting, Abstracts, 1995, Vol. 20, A-16; "Late Paleozoic plutonic rocks from the Bridge River accretionary complex, Southwestern British Columbia," with B.N. Church, A. Pettipas, and V. Owen, in the *Geological Association of Canada Annual Meeting, Abstracts*, 1995, Vol. 20, A-17; "Tertiary extensional magnetism and melting dynamics resulting from changing plate motion along the North America-Pacific transform margin," with T.S. Hamilton and R.D. Hyndman, in *Geological Association of Canada Annual Meeting, Abstracts*, 1995, Vol. 20, A-41; "Mine tailings: burden or boon," *Atlantic Mining Journal/Nova Scotia Business Journal*, May, 1995, page C7; "Fundy mineral potential hinted at by Russian studies," *Atlantic Mining Journal/Nova Scotia Business Journal*, May, 1995, page C5.

History

■ Dr. George F. Young, History Department, contributed a chapter on "German Banks and German Direct Investment in Latin America, 1880-1930," in the volume, *Las inversiones extranjeras en América Latina, 1850-1930. Nuevos debates y problemas en historia económica comparada*, published in Mexico City, Fondo de Cultura Económica of the Fideicomiso Historia de las Américas.

■ Francis I. W. Jones, and honors graduate History student who worked with Dr. Young recently published an article called "Debt-collector or Kingmaker? The Royal Navy in Mexico 1861-1862," in *The American Neptune*, Vol. 55, no. 3 (summer) pp. 205-212.

Library

■ Margot Schenk, previously Coordinator, Services and Resources is the new Acting Chief Librarian for the Patrick Power Library, Saint Mary's University.

Management

■ Dr. Hermann Schwind, Management Department, was a guest speaker at the University of Mannheim, Germany. He spoke before students and human resource practitioners on the topics, "Trends in HR Management in North America." He also gave a one day workshop on "Modern Human Resource Management," for 30 managers at the Management Training Centre, University of Economics, Bratislava, Slovakia.

■ Dr. Jamal Badawi, Management Department, published, *Gender Equity in Islam: Basic Principles*, by America Trust Publications, Plainfield, IN, September, 1995. He also addressed two plenary sessions at the 32 Annual Conference of the Islamic Society of North America in Columbus, Ohio from September 1-4, 1995.

Master of Business Administration (MBA)

■ Dr. Russel Summers, Director, MBA, published an article, "Attitudes toward different methods of affirmative action" in the *Journal of Applied Social Psychology* recently. He also presented a paper entitled "The Affect of complainant performance status and harasser likableness on reactions to a complaint of sexual harassment," at the annual conference of the Southern Management Conference in Orlando, Florida on November 10, 1995.

Mathematics and Computing Services

■ Dr. Larry Hughes, Mathematics and Computing Services Department, is currently on sabbatical at the University of Newcastle, Tyne, England. He is continuing his research on Lego; exchanging material over the Internet. From October 20-21, 1995, Lamees Abou-Rahma, a third year Mathematics and Computing Science student, presented a paper, "Implementing UNIX Pipes in the Lego Environment," at the 1995 APICS Computing Science conference had at the University College of Cape Breton, Nova Scotia. The work by Abou-Rahma is funded by the Natural Sciences Engineering Research Council of Canada and is led by Dr. Hughes. Dr. Hughes was also an invited panel Chairman at the 1995 Association for Computing Machinery (ACM) Special Interest Group on Computer Science Education, held in Nashville, Tennessee from March 2-4, 1995.

Political Science

■ Professor Edward McBride, Political Science Department, has received the honorary rank of Professor Emeritus.

Public Affairs

■ Chuck Bridges, Director, Public Affairs, has been appointed to the Executive of the National Board of Directors for the Canadian Council for the Advancement of Education (CCAIE). After two years as Director, Atlantic Region, he is now Secretary. CCAIE is an association representing public affairs, alumni and development professionals from Canada's universities and colleges.

Registrar's Office

■ Elizabeth Chard, Registrar, has been elected Chair of the "University/Department of Education and Culture Liaison Committee on the public School Program." This is a special University committee that liaises with the Department of Education and Culture, not only on the public school program, but also with respect to any other contemplated educational policy which is likely to have an impact on University admission criteria in the province.

Students dig up Royal Secrets

by Annabel Bruce

A stone throw away from Prince's Lodge on the Bedford Highway, volunteer archeologists have unearthed the remains of the 200-year-old Rockingham Inn. In October 1995, they hauled equipment and soil, bagged and catalogued artifacts, and crouched and crawled in the mud to discover the historic site's secrets.

From a layer of ash three feet down a foundation wall, Linda Baker discovers a rusty button. She dusts it, bags it, and puts it with other new-found treasures — shards of glass and ceramics, rough-hewn nails and spikes, a chess pawn, and commercial tokens, to name a few. She is one of 15 students at the dig who study Anthropology with Dr. Stephen Davis, Anthropology Department, Saint Mary's University.

"People are interested in learning about their roots," says Baker, who graduated from the University in 1991 with a Bachelor of Science in Physics, and is currently earning a Diploma in Engineering. She hopes to pursue a Bachelor of Arts in Anthropology next year. "But there's a practical reason for going on digs," she says, "You need the experience in order to get future work." These days, students studying history gain much of their learning

from libraries, CD-ROM discs, and the Internet. On Dr. Davis's field trips they grasp the past with their bare hands.

"Most of what we're learning at this site we're pulling from the ground in artifacts," says Dr. Davis. Besides uncovering past mysteries, and strengthening people's ties with history, digs are testing grounds for the theories and practices students learn in the laboratories and lecture halls. "How do you explain, in a classroom, how soil texture in the field changes," says Dr. Davis. "Students see it on a dig."

The Rockingham Inn Project began in 1994 when David Williamson, a teacher at Halifax West High School and the Rockingham Heritage Society (RHS) approached Paul Williams, part-time lecturer in the Saint Mary's Anthropology Department and President, Nova Scotia Archeological Society (NSAS), about excavating the site. Williams enlisted the help of Dr. Davis and experts at Parks Canada. Last fall, Williams, the Project Director, had rounded up nearly 100 fledgling and veteran archeologists from Halifax West High School, Saint Mary's University, RHS



Students seated on foundation stones, from left to right: Vanessa Gray, 23, a third-year Anthropology major who hopes to study cultural anthropology in graduate school, Linda Baker, a returning student, and Tony White, 22, a senior studying Anthropology, who hopes to pursue archeology at the graduate level.

A view of the students on the ancient Rockingham Inn, just down from the Princess Lodge, overlooking the Bedford Basin.



and NSAS. Indeed, the project was so popular and productive that in 1995 organizers expanded the program to include students from two other high schools—Queen Elizabeth High, in Halifax and J.L. Ilsley, in Spryfield.

In 1794 and 1795, the Duke of Kent built an estate for his mistress, Julie St. Laurent, on land he borrowed from Sir John Wentworth. The complex included elaborate gardens and buildings, such as the Prince's Lodge, and barracks for his Royal Fusiliers. When the Duke left Canada in 1800, the property returned to Wentworth. He converted one of the barracks into the Rockingham Inn, home to one of Halifax's first men's clubs until 1815. In 1833, a

stable fire reduced the structure to ashes. When the railroad came in 1854, workers buried the stone foundations under surplus soil from the railway bed.

Moving the soil was a large part of the Rockingham Inn Project. "I love being part of history," says 19-year-old Suzanne Lutz, a second-year Anthropology student at Saint Mary's University. Sporting a smudge of dirt on her cheek, she calls from the floor of a long-gone room at the inn, "Just think, someone was standing here 200 years ago." ♡

Making the NEWS

Dr. Therese Arseneau, Political Science Department, was busy with reporters all across the country giving interviews on the Reform party, from September 13-18, 1995. Dr. Arseneau, was also interviewed by CBC Newsworld concerning the Quebec referendum, on October 31, 1995 and with Maritime Noon and CBC First Edition.

Dr. Jamal Badawi, Management Department, was interviewed by the CBC for their Spirituality series (tapestry), which aired on September 3, 1995.

Dr. Ronald Colman, Political Science Department, was contacted by ATV News to discuss the ramifications of the assassination of Israel's President, Yitzhak Rabin, on November 6, 1995.

Professor Patrick Crowley, Economics Department, along with Dr. Therese Arseneau, Political Science Department were interviewed on CBC's Information Morning concerning the Quebec referendum on October 31, 1995.

Keith Hotchkiss, Director, Student Services, spoke with Heather Proudfoot, ATV, concerning the first days back at school, on September 6, 1995.

David Lane, Technician, Astronomy and Physics Department, and Paul Gray, were guests on the half-hour "Bill Maden Show" on Halifax and Dartmouth Cable. They talked about the supernova discovery. The show aired several times during late October and early November. Lane was consulted by CBC TV News regarding a "fireball" which occurred on September 27,

1995 in the late evening sky. He also was interviewed by the *Chronicle Herald* and the *Daily News* about the same event. He also appeared on ASN's Breakfast TV, to talk about the autumn constellations, on October 3, 1995 and about the Solar System and telescopes on October 23, 1995.

Mary Ellen MacEachern, Manager, Student Placement/Co-operative Education Services, spoke with a reporter from MITV's Maritimes Today show and answered questions on marketing for today's job market, on November 1, 1995.

Dr. Leonard Preyra, Political Science Department, spoke with Heather Proudfoot, ATV, concerning the options of NDP candidates, on September 7, 1995. Dr. Preyra was interviewed by Nicole Brown, ATV, on how the Quebec referendum would affect Nova Scotia and do Quebecers really care,

on September 25, 1995. He was also interviewed by a reporter with the *Ottawa Citizen*, on the Quebec referendum and how it would affect the rest of Canada, on October 15, 1995. Dr. Preyra participated in an open talk show on the Quebec referendum with C100's, Brian Phillips, on October 30, 1995. One day later he talked with MITV's Maritimes Today host concerning the outcome of the Quebec referendum.

Helen Vaughan, Financial Aid Officer, was interviewed by *Maclean's*, concerning financial aid to students, on September 15, 1995.

Dr. John C. O'C Young, Professor Emeritus, Chemistry Department, recently gave an interview on the CBC's "Quirks and Quarks" program, in which he updated an earlier report on his energy-related research work that he gave on the same program last year.

Studying the oldest stars in the Galaxy



Surrounded with blue sky and mountains, Mel Blake, a fourth year graduate Astronomy and Physics student, takes time out during his research in Chile to go for a short hike up on of the many slopes.

Graduate students often get the chance to conduct research in other countries as part of their thesis work. But the opportunity to conduct research on their own is a chance of a life time.

That dream came true for Mel Blake, 27, a fourth year graduate Astronomy and Physics student who spent seven nights at a world-class telescope in Chile, this past summer.

Blake originally wrote a proposal to study variable stars known as RR Lyra in one of the oldest known globular clusters (NGC 6287). Globular clusters are groups of a million or more stars that are held together by their mutual gravitational attraction, and many astronomers believe

that they may be the oldest objects in the universe.

This cluster was first studied by Dr. Michael West, Astronomy and Physics Department and Dr. Peter Stetson, Dominion Astrophysical Observatory out in Victoria, British Columbia.

With help from Dr. West he sent off his proposal and truthfully did not expect to have his request filled, since competition for telescope time is very fierce. Both he and Dr. West were thrilled to find out that his proposal was accepted by the University of Toronto, which owns and operates the 24 inch Helen Sawyer-Hogg Telescope in Las Campanas, Chile.

"We were very surprised to get all the time we asked for," says Blake. For Blake, who is from Pasadena, Newfoundland, this was his first trip outside Canada and only his second trip out of the Maritimes. Travelling on his own, making his way through customs and coping with a foreign language did not phase this student. "I'm sort of a loner and while I was anxious, more than anything I was excited," he says.

This was the first time that any student in the department had travelled so far to use a world-class telescope and a first for

a graduate student to go to Chile. "I've fallen in love with the Southern skies," he says. He hopes to have more chances for exploration there in the near future.

Blake is still working on the data he collected. With more time than he expected at the observatory he was able to study these stars in great detail, which will make his data extremely accurate and useful to astronomers around the world. ♡

Will the sky fall?

By Annabel Bruce

Most of us worry about short-term problems — exams, bills, our waistlines, the garbage crisis, the breakup of Canada. Forget those. Dr. Scott Tremaine, a leading theoretical astrophysicist, delivered fodder for long-range fretting at a public lecture in the Burke Education Centre on November 9, 1995.

Drawing both giggles and gasps from the audience, Dr. Tremaine reported good news and bad in his witty, boiled-down presentation "Fate of the Earth," about astronomical disasters which could befall the planet.

The good news is scientists are quite sure it will be seven million years before the

sun expands and engulfs the Earth. "There's still plenty of time to colonize other planets," Dr. Tremaine says. The bad news is orbital changes could alter Earth's climate much sooner. Dr. Tremaine, who holds a PhD from Princeton University, New Jersey, used a double-hinged pendulum, designed at the Massachusetts Institute of Technology (MIT), to illustrate regular and chaotic dynamic systems and the unpredictability of future events. For instance, scientists believe when the solar system was 10 per cent of its current age, there were many more planets. "Time and chaotic change spit them out of orbit," says Dr. Tremaine, adding if it happens again,

Mercury will likely go first. The good news. So far, studies at MIT show little change in the planets' orbits over 100 million years.

Another doomsday possibility is the Earth could spin (or get bumped off) its axis. Or maybe the heavens will come crashing down. When the solar system formed from chunks of rock and matter, there were bits left over. When this debris escapes from orbit it becomes comets and meteors. If a big one struck Earth, it could cause dust clouds, climatic change, crop damage, and perhaps an ice age. "We're effectively in a shooting gallery," Dr. Tremaine says. "The chance you'll die from one of these catastrophes is one in 10,000, about the same as

dying in an airplane crash. But why worry? Astronomical risks are unavoidable."

Dr. Tremaine is a founding director of the world-renowned Canadian Institute for Theoretical Astrophysics and an honorary member of the American Academy of Arts and Sciences. He has earned many prestigious awards, including the Canada Council's Killam Research Fellowship.

Saint Mary's Visiting Speakers Committee funded the lecture. ♡

New international student co-ordinator



Alana Robb is the new International Student Co-ordinator for the University.

International students often face a barrage of confusing and sometimes conflicting advice when they decide to attend a university away from home. Sorting through the maze can be a daunting task and then settling into a new life in a another country, often with a foreign language is even harder.

This year, for the first time, Saint Mary's Student Services Department has hired an International Student Co-ordinator — Alana Robb, to help international students adjust to the University.

"I'm advising students on a one-to-one basis and I try to help them," says Robb, who started her job in mid-August.

With an estimated 500 international students on campus, she has already held a number of orientation seminars about Saint Mary's for the students.

"The challenge is trying to make the university a friendlier and accommodating

place for international students. I'm trying to address their needs and they all have different problems," she says.

Working with international students or groups is not new to her. For the past five years she worked with the International Education Centre to develop international education programs around the province, and previously taught courses in Zambia,

"The challenge is trying to make the university a friendlier and accommodating place for international students."

Africa for two years and in China for one year. This year Robb is serving as a board member with the Nova Scotia Gambia Association.

A number of international students encounter financial problems when they transfer money from their home country to Canada. Robb advises students to sort out

their financial problems as quickly as they can and if need be, she will advise students on the best course of action.

This year Robb published a newsletter that was mailed to all the international students and she plans to hold a number of workshops on such things as how to find an apartment and getting health coverage. She is also planning to meet with a number of student groups to find out the issues that affect them directly.

"Part of the real challenge is to integrate international students into the Canadian population, so they can mix more comfortably with other Canadian students and get them away from segregation of tight groups," says Robb. ♡

Making student employment a top priority



From left to right: Katrina Doucette, Employment Assistant, Mary Ellen MacEachern, Manager, Co-operative Education/Student Placement Services and Laura Chapman, Employment Development Officer.

This year students at Saint Mary's will have the best of both worlds with the amalgamation of the Student Employment Centre on campus and the Co-operative Education Centre.

Always with an ear to the phone for potential jobs, Mary Ellen MacEachern, Manager, of the new Co-operative Education and Student Placement Services Office, is quick to point out the logic of this new service.

"This is a partnership among the students, faculty, the university and the business communities, both regionally and internationally," she says.

MacEachern, who has worked with the Student Employment Centre for the past three years, has her hands full contacting new businesses in the Atlantic region and across Canada, meeting with prospective clients and selling the expertise of Saint Mary's students, all year. The peak employment season is from April to September, when about 200 students visit the centre to check out the job board every day. But the reality is that students should always be looking for potential job prospects.

"I believe life happens around employment. We try to educate students about jobs. It's a learning process — building a set of skills for the real world. We are here to help facilitate the process," she says.

The co-op program provides students with a definite advantage. It combines theoretical skills they learn in the classroom with practical hands-on training they gain through job placements in the field of their study. This makes them a skilled, experienced labor force which is easy to sell. "They can approach an employer with real applied experience and in today's market, employers are looking for related skills, commitment and versatility," she says.

Students are placed across Canada in

the co-op program and through the employment centre. With over 1,000 medium-sized Maritime companies to draw on for support, employers have been very supportive of Saint Mary's students. "Maritime businesses get an opportunity to work with universities to ensure a good healthy work force for Atlantic Canada," says MacEachern.

"I believe firmly that if students want to get a job they can," she says. The employment centre offers students the opportunity to learn how to write a resumé, covering letter, how to access small businesses or international opportunities through working abroad, how to develop interview skills, what type of questions to expect from employers during the interview process and most importantly how to conduct research on a company before the interview.

The Student Peer Support Group will conduct tours of the Student Employment Centre this year for students who have never visited the office before. The aim is to encourage first year students to get acquainted with the services and to inform them of their co-op options.

The Faculties of Commerce and Science offer a variety of co-op options in Biology, Chemistry, Environmental Studies, Geology/Geography, Mathematics and Computing Science, Business Administration and Computing Science and Small Business and Entrepreneurship. Students must maintain at least a 2.5 grade point average in their major to qualify for the option.

"We really look forward and encourage student input. Students understand the challenges in today's market. This can be a win-win situation for everyone — the student, employers and University," says MacEachern. ♡



SPORTS ROUND-UP

The Tower Offers New Service to Members

Members who suffer from chronic back pain, whiplash, tendonitis or arthritis can now receive treatment through physiotherapy at the Tower. Barb Biolokoz, a physiotherapist, has recently set up a clinic in the Sports Medicine area to offer physiotherapy services, including acupuncture. The hours are flexible but members must have a doctor's referral to take advantage of the service. Call 420-5434. ♡

Football Huskies Rebuilding for '96

This was a disappointing season for the Football Huskies. After a surprising 0-2 start, the team fought to gain a share of first place in the AUAA with a 4-2 record, but ended the season with a 4-4 record.

For the first time since 1986, the Football Huskies did not share the spotlight in the Atlantic Bowl. "Our guys are not happy about playing their last year of eligibility and not making the Atlantic Bowl," says Larry Uteck, Coach of the Football Huskies. "For many, university football is over. But I know a lot of guys who will be training hard and preparing for the 1996 season." ♡

Soccer Semi-finalists

The Men's soccer team finished the season in fourth place with a 4-3-4 record. The parity in the league this year was more apparent than in previous years.

In the first play-off game, the team defeated St. Francis Xavier with a goal from Kevin O'Carroll — out for most of the season with a broken arm. In the semi-finals, however, goals from Idris Mert and George Kyreakakos were not enough to hold off the University of New Brunswick (3-2).

The team will lose many senior players this year. The future looks bright nonetheless, with some talented players returning, such as O'Carroll, Brian Demone, and Doug Inman and Mert. ♡

Experience will help in '96

The Saint Mary's Field Hockey Huskies had a young squad this year with the majority of the team being first- and second-year players. These players made the transition to varsity field hockey, and remained competitive, but were disappointed with their 0-6-2 record.

The Huskies lost to the University of Prince Edward Island (1-0) in the AUAA semi-finals. ♡

Winter Schedule Home Games

Volleyball

Jan 6 DAL @ SMU 7 p.m.
Jan 24 ACA @ SMU 7 p.m.
Feb 3 UdeM @ SMU 2 p.m.
Feb 10 MTA @ SMU 7 p.m.
Feb 16-18 AUAA Playdowns @ MTA

Hockey

Dec 3 STU @ SMU 3:05 p.m.
Jan 6 UNB @ SMU 2:05 p.m.
Jan 11 DAL @ SMU 7:35 p.m.
Jan 18 UdeM @ SMU 7:35 p.m.
Feb 3 MTA @ SMU 2:05 p.m.
Feb 7 ACA @ SMU 7:35 p.m.
Feb 10 SFX @ SMU 2:05 p.m.
Feb 11 PEI @ SMU 2:05 p.m.
Feb 14 AUAA Playoffs

Men's Basketball

Jan 23 SFX @ SMU 8 p.m.
Jan 31 DAL @ SMU 8 p.m.
Feb 3 MUN @ SMU 8 p.m.
Feb 4 MUN @ SMU 3 p.m.
Feb 8 SFX @ SMU 8 p.m.
Feb 11 DAL @ SMU 8 p.m.
Feb 24 UPEI @ SMU 8 p.m.
Feb 28 ACA @ SMU 8 p.m.
March 8-10 AUAA Championships
March 15-17 CIAU Championships

Women's Basketball

Jan 7 ACA @ SMU 8 p.m.
Jan 23 SFX @ SMU 6 p.m.
Jan 31 DAL @ SMU 6 p.m.
Feb 3 MUN @ SMU 6 p.m.
Feb 4 MUN @ SMU 1 p.m.
Feb 8 SFX @ SMU 6 p.m.
Feb 11 DAL @ SMU 6 p.m.
Feb 24 PEI @ SMU 6 p.m.
March 1-3 AUAA Championships
March 7-9 CIAU Championships

Chile Huskie Spirit

"As a student therapist, I can remember thinking... that's the job I'd love to have."
— Diane Webster

by Virginia Jackson



Dianne Webster and Kate Pace, Canada's top Women's downhill skier.

Slalom, Giant slalom, Super G, downhill skiing are common winter words but they were used quite frequently this past summer by one athlete who was about to embark on a great adventure.

Diane Webster, Sport Therapist at Saint Mary's Tower for the past five years, was asked by the National Ski Team to join them in El Colorado, Chile for a training camp in August, 1995. The team spent four weeks training on the Andes mountains along with several other National teams.

This is not the first time that Webster has been involved with a National team. In 1990, she spent the summer with the junior and senior Women's National Volleyball teams as their Athletic Therapist. Her introduction to the ski team happened indirectly from her time at the 1995 Canada Games, last February.

While in Jasper, Alberta, host of the Canada Games, she headed to the mountains to do a little skiing. On one of her runs, she fell and hit her head. A past member of the ski team came to her aid, and as the story goes, that was her introduction to the team.

The Alpine Canada Ski Team just happened to be in the market for a therapist so Webster made use of her vacation and trav-

elled to Vancouver to meet the team and join them for a training camp in Oregon and Blackhome in Whistler, British Columbia.

"Meeting people who travel down vertical pitches of 800-1000 metres at 120-130 kilometres an hour can be intimidating," says Webster. "But they are really like you and me — they just like to travel fast on skis."

The one-time shot at training with the Canadian team was a dream come true for Webster. "While growing up I was a fan of Wide World of Sports and I never missed the downhill skiing portions of the show. As a student athletic therapist, I can remember thinking that's the job I'd love to have."

The team was so impressed with Webster that they asked her to join them in Chile. She is quick to add that the life these athletes live is not that glamorous. They are up at 5:30 a.m. each day and on the hill by 7 a.m. The team spends the morning doing training runs before the snow has a chance to break down and become sluggish. Afternoons are spent dry-land training and activities range from work-outs to vision training. Late afternoon and evening is the time allotted to Webster to treat the athletes for any aches or pains they may have

sustained during the day. But that's not all she does.

At 7 a.m. she is in the starters gate with the athletes preparing them for their downhill flight. She has the responsibility of relaying the coaches instructions who are positioned at various points along the run, communicating weather conditions to the skiers, and ensuring their muscles are loose and warm. "Each skier must be fully focused before leaving the gate, as a moment of distraction could be disastrous," she says.

The most common injuries that downhill skiers incur are related to the pelvic and back regions. Consider driving down the highway in a car at 130 kilometres an hour with the front end slightly out of alignment. The shaking you would feel is worse when you don't have the comfort of the car frame around you. Now consider maintaining control as you make the sharp turns to hit each of the gates. If you translate this line of thinking to skiing, it is no wonder that the age range is 16-30 for ski team members. Members must be at least 16 years-old while the oldest member presently with the team is 30 years-old. ♡

Note: Webster is currently in Europe with the Canadian National Ski Team for the winter.

Academic All-Canadians 1994-95

Men's Basketball

Jeff Baltzer, Bachelor of Science
Cherry Hill, N.S.

Brian Luinstra, Bachelor of Science
Kincardine, O.N.

Jonathan Wayne, Bachelor of Education
Halifax, N.S.

Women's Basketball

Erika Leonard, Bachelor of Science
Halifax, N.S.

Norma MacIntyre, Master of Education
Sydney, N.S.

Bonnie MacLean, Bachelor of Science
Halifax, N.S.

Monica Miller, Bachelor of Science
Shubenacadie, N.S.

Football

Edward MacLean, Bachelor of Education
Halifax, N.S.

Women's Soccer

Kelley Hiltz, Bachelor of Science
Bedford, N.S.

Susan Roch, Bachelor of Arts
Halifax, N.S.

Tara Timms, Bachelor of Science
Halifax, N.S.

Track and Field

Jennifer Coleman, Bachelor of Arts
Bridgetown, N.S.

Todd Murphy, Bachelor of Arts
Sheet Harbour, N.S.

Robert Thibodeau, Bachelor of Education
Halifax, N.S.

Women's Volleyball

Tracy Clinch, Bachelor of Education
Bathurst, N.B.

Cindy Joe, Bachelor of Commerce
Truro, N.S.



Sports Hall of Fame

On October 14, 1995 two people were inducted into the Sport Hall of Fame and Heritage Centre of Saint Mary's University. Left to right: Al Keith, Coach of the 1973 Vanier Cup winners, Bob Hayes, inductee, Bob Boucher, ex-Coach Hockey Huskies, Brian Heaney, guest speaker and former Coach, Basketball Huskies. The late Father J.J. Hennessey, S.J. was also inducted into the Sport Hall of Fame.



Softball tournament

This year the Tower Huskies won against the Business Office/Computer Services softball team on September 22, 1995. It was a tight game with a 13/12 score. Back (left to right): Monica Miller, Norma MacIntyre, Bruce Hopkins, Michelle Smeltzer, Lori Forbes; front (left to right): Jill Healy, Ross Quackenbush, Chris Goddard, Steve Hines, Gus Karouzakis and Ken Goddard.

TSN/Russ Jackson Award

A Saint Mary's student has won the TSN/Russ Jackson Award for the third time in the last four years. Ted MacLean, a Bachelor of Arts and recent Bachelor of Education graduate, was presented the award during Vanier Cup festivities in Toronto. The \$3,000 scholarship is awarded to only one of more than 1,100 student athletes playing university football in Canada, and is given to the student who excels in the classroom, on the field and in the community. Ted, a Huskies offensive lineman with a GPA of 3.86, joins Huskies quarterback David Sykes (1992 and 1993 recipient) on the list of winners for this prestigious award. David is currently in his second year as a Rhodes Scholar at Oxford University, England.