

Lakehead  
UNIVERSITY

# Agora

A NEWSLETTER FOR LAKEHEAD UNIVERSITY STAFF & FACULTY

## Dr. Inderjit Nirdosh receives Faculty Advisors Award

*By Frances Harding*

He cares about his students. He explains things well. And he's always willing to help.

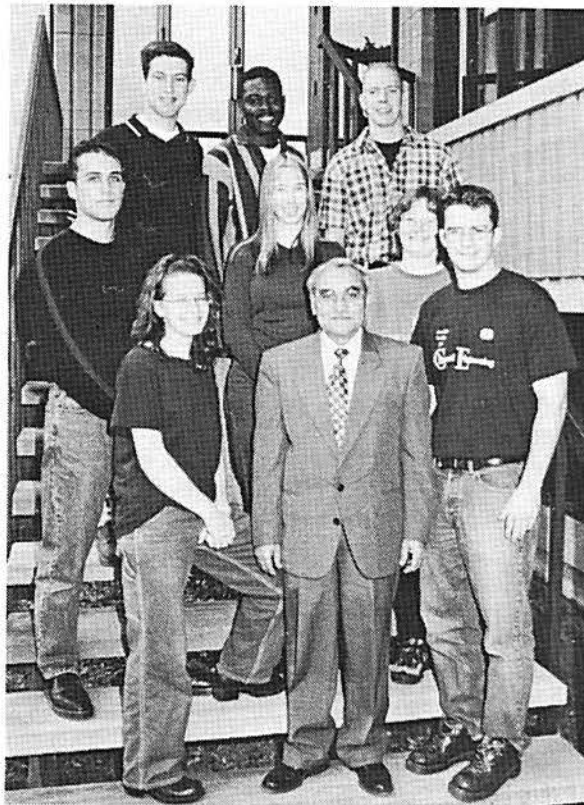
That's what engineering students Ted Conlon and Barclay Metler say when asked about Dr. Inderjit Nirdosh, winner of the first annual Faculty Advisors Award from the Canadian Society for Chemical Engineering (CSCHE).

Nirdosh has been helping students like Ted and Barclay since coming to Lakehead in 1981. He became faculty advisor for the Student Chapter in 1989, encouraging students to organize seminars and social events in order to build school spirit. "The Student Chapter wouldn't exist if it were not for Dr. Nirdosh," says Barclay Metler, Student Chapter secretary.

In 1993, Nirdosh took the Lakehead Chapter to new heights by establishing an annual conference of students and alumni. The conference provides an opportunity for the Department to showcase student work, keep in touch with the alumni, and relate to the wider profession through invited guests. This year, from March 10-12, 2000, Lakehead will be hosting the 3rd Biennial National Student Conference of CSCHE.

Dr. Inderjit Nirdosh's teaching skills have earned him a Lakehead University Distinguished Instructor Award (1995), an OCUFA Teaching Award (1995) and a 3M Teaching Fellowship (1996). In 1989 he was the co-recipient of Lakehead's first Distinguished Researcher Award.

Under his guidance, the Lakehead University Student Chapter won the CSCHE Student Chapters' Merit Award for 1995 and 1996, and Honourable Mention in 1997 and 1998. In 1997, Nirdosh raised nearly \$60,000 to establish nine chemical engineering bursaries -- an amount that has been matched under the Ontario Student Opportunity Trust Fund.



*Dr. Nirdosh with members of the Student Chapter: (l-r) Marianne Ariganello, Ted Conlon, Angelo Facca, Victor Akinyemi, Christine Chezick, Barclay Metler, Robin Gould and Sean Deighton*

# Lakehead UNIVERSITY

## Agora

November 1999 Vol. 16, No. 9  
THUNDER BAY, ONTARIO, CANADA  
ISSN 0828-5225

The Agora is published by the Office of Communications and distributed monthly September through June. We welcome news and other submissions from our readers. Send them to:

Editor, Agora

Lakehead University

955 Oliver Road

Thunder Bay, ON P7B 5E1

Telephone: (807) 343-8193

Fax: (807) 343-8999

E-mail: frances.harding@lakeheadu.ca

**Deadline for submissions for the next issue is December 1, 1999.**

*Publications Officer:*

Frances Harding

*Communications Officer:*

Denise Bruley

*Analysis and Communications Assistant:*

Jennifer Willanen

*Photography:*

Peter Puna & Staff

*Printing:*

Lakehead University Print Shop

**Canadian Postmaster:**

Send address changes to

Agora, Office of Communications

Lakehead University, 955 Oliver Rd,

Thunder Bay, Ontario, Canada

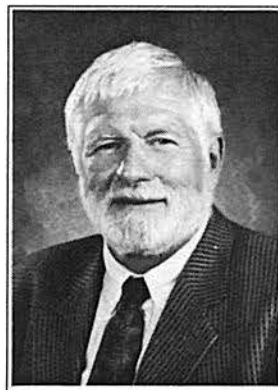
P7B 5E1

Publications Mail

Agreement Number 1497073

## From the President's Desk

by Dr. Frederick F. Gilbert



Lakehead University has revised and resubmitted the Advanced Technology Centre project as the Advanced Technology and Academic Centre (ATAC). The original capital project submitted last December was designed to meet current deficiencies in the technology area and centralize access to computing facilities. All funding for new capital projects will now come from the SuperBuild Growth Fund and must be justified, at least partially, on how they will help to accommodate the growth in university enrolment expected in the next few years. The \$32 million ATAC will provide, in addition to the technology areas, additional smart classrooms, a 300-seat lecture theatre, a number of smaller classrooms, as well as faculty offices. It will accommodate growth of over 1,300 more students and facilitate distance education, create partnership opportunities with government and industry through the GIS Laboratory, and enhance the learning environment for faculty and students with modern, flexible and technologically-enhanced classrooms. This building is essential to the university's needs and, therefore, we have declined to submit at this time a second project which could be justified to improve our Education teaching environment by modification and addition to the Bora Laskin Building. Nonetheless, we are proceeding with the development of plans for this project and will have them available for future funding opportunities.

In addition, the government has set aside up to \$150 million for joint projects between the colleges and universities. We are exploring with Confederation College, the Thunder Bay Regional Hospital, the Northwestern Ontario Regional Cancer Centre, St. Joseph's Care Group and Health Sciences North, a health sciences building that would focus research, clinical, and other teaching activities in, for example, Nursing, Kinesiology, Psychology, and other interests such as Biology, Applied Biomolecular Science and Social Work. Such a building adjacent to the new acute-care hospital would position both the College and the University for additional academic development in the health sciences.

Finally, I must say something about the *Maclean's* ranking based on 1998/99 indicators data. We are neither complacent nor satisfied with a ranking of 20th out of 21 primarily undergraduate universities. I do not believe that the ranking reflects the true value or mission of Lakehead. Ask our students and our alumni about the quality of education they received here and the positive response is overwhelming. Although we rank 20 in class size, they talk about the small classes here and the personal interactions with faculty and other students. They recognize the tremendous advancements we have made in computer access this past year

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and question how we can possibly be ranked so low when they know that we offer a quality education and an improving learning environment. Part of the answer is funding and the corridor issue, and the large number of unfunded students we have that, if fully funded, would bring an additional \$6 million annually into our operating budget. Part of the answer relates to the role of this university in providing access to higher education to the people of Northwestern Ontario. This latter responsibility means that we must be a comprehensive university, not just a liberal arts institution with a limited mission like Mount Allison. It also means that we play an important socioeconomic role in our region. The research and graduate programming provided by Lakehead are essential elements in helping the region develop economically. If I truly thought that the indicators used by *Maclean's* represented the value of the education we provide, I would be dismayed and question why I should have the optimism I do about our future. As we implement the Strategic Plan's objectives, we all must recognize that we are establishing a base for future growth and development of the university from the sound base that exists. Rationalization of functions and actions and commitment to living within our means necessitate change, but we must never lose sight of why this university exists and why it is important to the people of the north as well as all the people of Ontario. Hopefully, the province will recognize those same realities.

A Listing of On-Campus and Off-Campus Events can be found on our Website

[www.lakeheadu.ca](http://www.lakeheadu.ca)

under

"News & Events"

## What's New on the Lakehead Website

Each month we will be featuring information posted on the Lakehead University website

[www.lakeheadu.ca](http://www.lakeheadu.ca)

Staff and faculty who may not have access to a computer are encouraged to use the University computers at the Internet Café in the Agora

### Faculty Expertise

<http://www.lakeheadu.ca/~research>

Looking for an expert on a particular topic? Try using the Website of the Office of Research which lists the curriculum vitae of 25 faculty members under a data base called "Community of Science."

To get there, you have to first click on "Links to Funding Agencies" then click on "Community of Science Expertise and Funding Opportunities Database" and finally, click on "Search for Experts at Lakehead University."

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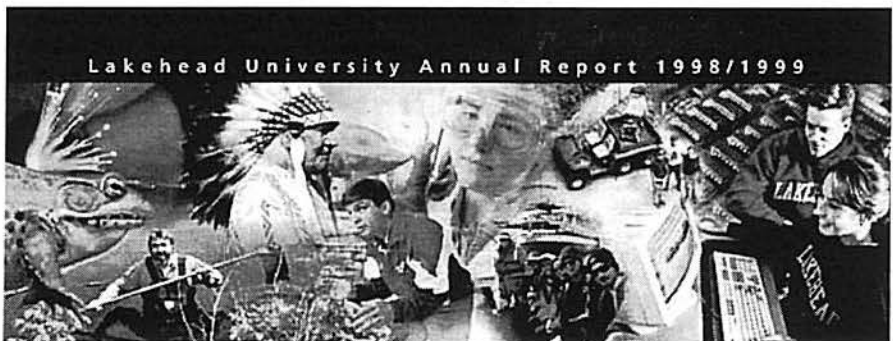
If you are looking for the recent publications of Lakehead faculty, go to the Research Office homepage and click on "Faculty Research Expertise and Publications." Scroll down past the Disclaimer and you will find a listing of 85 faculty members whose recent publications are noted on-line.

Faculty not yet listed on-line are encouraged to contact Lynn Wilson by phone 343-8283 or by E-mail: [lynn.wilson@lakeheadu.ca](mailto:lynn.wilson@lakeheadu.ca) to make the necessary arrangements.

### Now on the Web ...

#### Lakehead University Annual Report 1998-99

Click on "News & Events" and look for it at the top of the list



Is there a section of the Lakehead Website that you would like to highlight in next month's Agora? Contact the editor by E-mail: [frances.harding@lakeheadu.ca](mailto:frances.harding@lakeheadu.ca)

# Why Study Frogs?

*"They are good model organisms for studying ecology," says Dr. Stephen Hecnar, "and are excellent indicators of ecosystem health."*

by David MacDonald

## ***The Premier's Research Excellence Awards (PREA)***

were introduced in 1998-99 by the provincial government. The province will contribute a total of \$50 million over a 10-year period to help gifted researchers attract talented graduate students, post-doctoral fellows, and research associates to Ontario universities.

Lakehead University is honoured to have two PREA recipients in its faculty: Dr. Stephen Hecnar, an empirical biologist, and Dr. Marc Dignam, a theoretical physicist.

"Lakehead University is pleased that Dr. Dignam and Dr. Hecnar have won these prestigious awards. Consistent with the purpose of the awards, we anticipate that the funds will assist these researchers in launching and maintaining a vigorous research program here at Lakehead University," says Dr. John Whitfield, vice-president of research and development.

**David MacDonald is one of several students participating in a student writing program sponsored by The Chronicle-Journal.**

Dr. Stephen Hecnar tells his ecology students that "a bad day in the field is still better than a good day in the lab." His recent award of \$150,000 from the Premier's Research Excellence Awards will allow him more time out in that field, with an anticipated four MSc students and one post-doctoral fellow working alongside. "We will try to attract some highly talented individuals," says Hecnar, who expects the grant to fund possibly five years in the study of northern and southern Ontario amphibian populations.

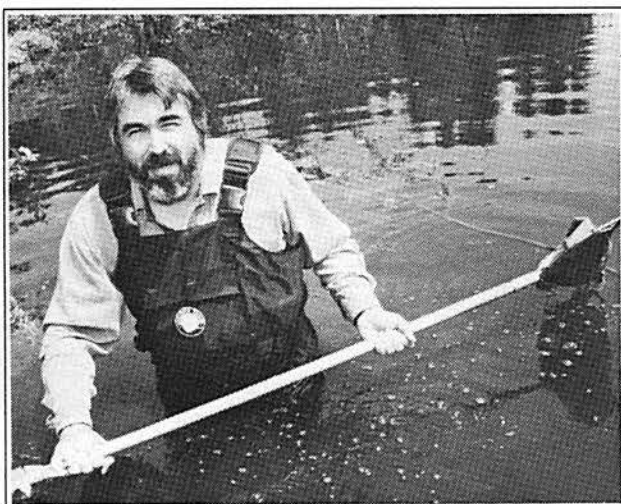
Stephen Hecnar's field is herpetology, the study of amphibians and reptiles, and he is one of Canada's most promising empirical ecologists. His interest in amphibians and ecology was sparked in his ecology classes with Professor Doug Lindsay and Dr. Murray Lancaster, here at Lakehead University years ago. He completed his MSc and PhD in biological sciences at the University of Windsor, while compiling an extensive research and publishing record. Subsequent experiences with Agriculture Canada, MacMillan Bloedel, and Parks Canada

gave Hecnar the opportunity to pursue his interests. While working at Point Pelee National Park, he discovered that the five-lined skink was being illegally collected for the pet trade. He also found DDT contamination in migrating frogs at levels unsafe for humans in the park, and helped the park clean up the problem.

Why study frogs, asks the non-herpetologist? Amphibians play a pivotal role in the food chain, says Hecnar. In many ecosystems, amphibians contribute more biomass than birds and as much as small mammals. As human activity encroaches on these ecosystems around the world, habitat loss has seen a half-dozen amphibian species become extinct in the last decade alone. Hecnar's research will utilize northern Ontario ponds as control sites; "we must try to learn from some of the mistakes of the past in southern Ontario," he says.

Lakehead University's emerging focus on conservation biology is exciting for Stephen Hecnar, because of its situation in a resource-rich area. "We are utilizing these natural resources, and we want to manage them in an informed and concerned way to meet both human needs and non-human needs," says Hecnar. For students interested in northern conservation, "we can give them a solid education," he says, and keep our best young minds involved in research at a Canadian university.

With the limited availability of NSERC and SSHRC funding, we "have to look in more places for our research support," says Hecnar. "It's important for us to do solid research. It helps put Lakehead on the map, both nationally and internationally,



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*Hecnar continued from page 4*

when we can translate these resources into research and then communicate our results." Resource corporations are beginning to help; "local industry here has been contributing to our research funding, and seems to be working well with us at this point," says Hecnar. "We've got to get corporations to realize that investing back will benefit them in the long run."

As a new faculty member, Stephen Hecnar has had limited time for hiking, but is looking forward to investigating local conservation areas and trail systems. "Just about every discovery in science is a serendipitous discovery," he notes with amusement, and as a leader in community ecology research, it is certain that his discoveries will continue to put Lakehead on the map.

## Laser Light and Superlattices

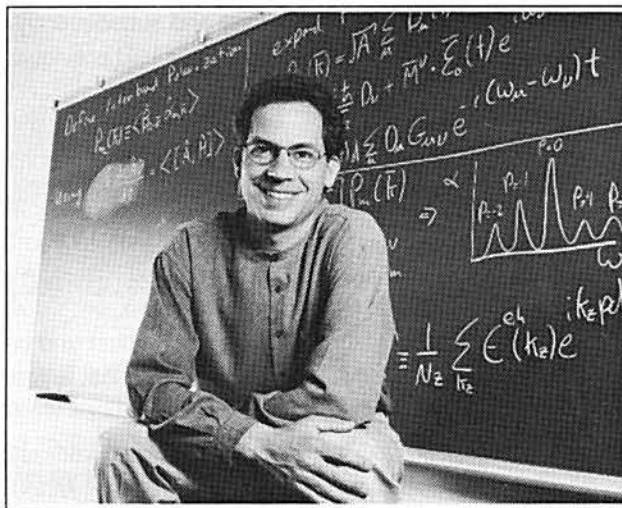
*Dr. Marc Dignam is developing a better understanding of the interaction of light with solids*

by David MacDonald

How can we better understand the inner workings of the world around us? That's the question that drives Dr. Marc Dignam in his quest for insight into the complexities of condensed matter physics. As an up-and-coming theoretical and computational physicist, his ambitious research objectives have been awarded \$142,500 under the Premier's Research Excellence Awards (PREA). Part of this award is funded by Lakehead University, and "it's an excellent sign of the University's commitment to research," says Marc Dignam. The funding will bring a post-doctoral fellow and a few graduate students to Lakehead. "We'll be able to put together a number of projects in the

same area...we can get a kind of critical mass going," he says.

Dignam came to Thunder Bay after a University of Toronto PhD and a stint at the prestigious Bell Labs at Murry Hill, N.J., where he was a post-doctoral fellow under Nobel Prize winner Dr. Horst Stormer. He then worked as a research scientist at MPB Technologies where he



entered the field of fibre optics. An experimental physicist directly tests the physical world through experiments in the lab, while Dignam attempts to develop mathematical and software models of physical systems: "it's a little like doing experiments on a computer," he says. When the opportunity arose to pursue teaching and research at Lakehead University, he jumped at the chance.

As a PREA winner and a 1998 Canadian Foundation for Innovation Grant recipient, Dignam is setting an excellent track record of success. "CFI has provided me with computer equipment which allows me to do calculations that I couldn't do before," he notes. "The PREA will allow me to put together the group to put those computers to good use."

Dignam is investigating the electronic properties of very small semiconductor structures called semiconductor nanostructures. As part of his research, he is studying what happens when pulses of laser light a minute fraction of a second ( $10^{-13}$  s) long are fired at a particular nanostructure called a superlattice. Such pulses cause a large number of electrons in the superlattice to oscillate at a frequency of a few terahertz ( $10^{12}$  hertz). Stay with me, now – this frequency lies between that of the radiation in a domestic microwave oven and that emitted from a computer infrared (IFR) port. If the generation of this terahertz radiation can be better understood and controlled, it

could be applied to computer chip diagnostics, medical imaging, and potentially to the development of a terahertz laser, says Dignam. He hopes to be a leader in that breakthrough.

"One of the big advantages," says Dignam, "of a small department like the Physics department at Lakehead is that it can offer undergraduates a kind of personal interaction and exposure to research-calibre equipment that would be just unheard of at a large university." He encourages students to pursue a dream of research, remarking that for him, "a good day is when the solution to a problem I have been working on for weeks finally becomes clear." With Marc Dignam's curiosity and consistency in winning grants, his research should help in developing a better understanding of the interaction of light with solids, and also further enhance Lakehead University's reputation as a leading centre in condensed matter research.

## Presidential Scholars



*Congratulations to this year's Presidential Scholars: Erin Lamond (right) from Kippens, Newfoundland, and Deanna Milankov from Mississauga, Ontario.*

*Presidential scholarships are national entrance awards valued at \$5,000 a year for four years.*

*The awards are granted annually to two full-time students, entering Lakehead University upon graduation from high school with a minimum average of 90% in 6 OACs or equivalent.*

*Along with high academic standards, recipients must demonstrate experience in leadership, citizenship and community service.*

*Lamond is in Engineering and Milankov is in Outdoor Recreation/Geography.*

## Books

*Dr. Anita Beltran Chen, professor emeritus of sociology, is one of the contributors to the Encyclopedia of Canada's Peoples, published by University of Toronto Press. All of Canada's peoples, from the First Nations, founding people, and more recent arrivals, are described in 119 group entries covering 1,334 pages.*

*Dr. Chen's contribution pertained to Canada's Filipino population -- their arrival and settlement, economic and community life, culture, education, religion, and politics.*

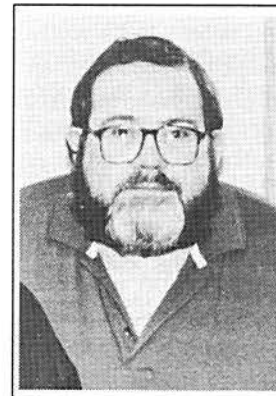
*The book was edited by Paul Robert Magocsi for the Multicultural History Society of Ontario. It is available in the reference collection on the main floor of the Library and can be purchased through the Alumni Bookstore.*

## In Memoriam

Stuart J. Baldwin

Dr. Stuart J. Baldwin, a sessional lecturer with the Department of Anthropology, died of natural causes in his home on May 21, 1999. Although a memorial service was held at the time, a number of his friends, including students and faculty members, were away on summer field projects and jobs, and some did not even learn of his passing until this fall. Therefore, another memorial service was held at the Avila Centre on November 5.

Stuart Baldwin came to Lakehead University in 1995 from Calgary, where, in 1988, he had graduated with a PhD in Archaeology and subsequently worked as a contract archaeologist. He had previously earned a BA in Anthropology (1969) from the University of New Mexico and an MA in Anthropology (1980) from the University of Alberta. Though American born, he was a dedicated Canadian citizen.



Much of Baldwin's 53 years, which he spent in the southwestern United States, Alaska, Alberta, and northwestern Ontario, were devoted to anthropological scholarship. While he was mostly interested in past and present Aboriginal cultures of the American Southwest, Mexico, Central America, and the northern Great Plains, he was also knowledgeable about other regions.

Baldwin's wide-ranging interests were complemented by his breadth of knowledge in the fields of archaeology, ethnology, ethnohistory and historical linguistics. His erudition and versatility were evident in his writings and public lectures, in the range of university courses he taught, in his work history, and in his personal library, as it was in his everyday conversation.

In his few years at Lakehead, Stuart Baldwin taught a very impressive range of courses, including *Fundamentals of Archaeology*, *Scientific Applications in Archaeology*, *Ecological and Environmental Anthropology*, *Anthropological Linguistics*, *Ethnohistory of Canadian Plains Native Peoples*, *Human Evolution*, *Archaeology of the Gran Chichimeca (American Southwest and Northwest Mexico)*, *Pueblo Indian Religion*, *Aztec and Maya Civilizations*, *Archaeology of North America*, and *History of Anthropological Thought*. This list includes some courses he taught as "Special Topics" that could not have been taught by our full time Anthropology faculty. Baldwin was cheerful and sociable but, nevertheless, a rather private man whose life beyond his scholarship was not well known to any of us in the Department of Anthropology. We do know that he had a humanitarian outlook and was concerned about the state of the world.

Although never well off financially, Baldwin had built an impressive personal library, which is presently being used by the Department of Library and Information Studies to teach cataloguing to students. This will be an enormous help to us in dispersing his library resources. We anticipate that parts of his collection will be donated to the Chancellor Paterson Library. Other parts may be sold to other institutions and appropriate individual scholars, with the proceeds going to a Lakehead University memorial scholarship in Stuart Baldwin's honour. Donations to that scholarship would be welcome and potential donors may contact the Department of Anthropology for further information.

-- Dr. Joe D. Stewart, Department of Anthropology

## Powerful Improvements



Lakehead University's Power House is being upgraded with the installation of a new deaerator valued at \$75,000. This pressure vessel treats feedwater before it enters the boilers to be converted to steam. The new deaerator replaces an older, obsolete 1967 model and will allow the University to increase its supply of steam for new buildings.

**Lakehead**  
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## Call for Nominations

### Lakehead University Sports Wall of Fame

Lakehead University Athletics Department is inviting nominations for candidates to be inducted to the Sports Wall of Fame in the year 2000.

There are three categories: "Athlete," "Builder," and "Team." Athletes must have graduated at *least five years before being inducted*. A Builder is someone who has served Lakehead University Athletics as an executive or member of a support group, or as a coach, an official, a manager or an administrator *for at least four years*. A Team must have achieved a high level of excellence in a given year *at least 10 years prior to induction*.

The deadline for nominations is December 15, 1999.

Nomination forms are available at the Athletics Department, C.J. Sanders Fieldhouse, Lakehead University. For further information call Darlene Yakimoski at 343-8656 or Sharon Kozak 345-2290.

## Honours & Awards

Dr. Norm LaVoie (Kinesiology) has received the 1999 CSEP-FACA Recognition Award from The Canadian Society for Exercise Physiology. The award recognizes contributions of individuals to the field of Fitness Appraisal Services in Canada. "Throughout his career, Dr. Norm LaVoie has been intimately involved with The National Fitness Appraisal Certification and Accreditation program and is most deserving of this award," says Director of the School of Kinesiology Dr. Bill Montelpare.

## Want to Help A Needy Child?

If you would like to make a young child happy, why not pick up a nice bright "shoe box" and fill it with toys and treats?

As part of a national and international humanitarian program, members of the University community can join with other citizens of Thunder Bay to send millions of gift shoe boxes (2.3 million last year) to less fortunate children around the world. "Operation Christmas Child" is part of the Samaritan's Purse year-round efforts to provide the necessities of life (clean water, food, clothing and medicine) to people around the world.

All Student Services offices (Counselling & Career Centre, Learning Assistance Centre, Health Services and Financial Aid) and the Gender Issues Centre will act as "shoebox depots" to pick up information and boxes, and to receive filled gift boxes.

Distribution and collection of the shoeboxes will be November 1 - 20.

Make a child smile -- Fill a shoebox!

## Art On Campus

A sculpture entitled "Inner Healing" by Lakehead graduate Bruce Stonehouse has been installed on campus near Residence. The art was purchased by Residence Council with money raised through the sale of student care packages.



**Department of Music**

**Lumina Concert Series**

*November 24*

Marc-André Hamelin, piano

8 p.m., St. Paul's United Church

**LUCC Children's Christmas Party**

*Sunday, December 12, 1999*

2 - 5 p.m. in the Main Cafeteria

LUCC is inviting staff and faculty to leave donations of craft materials/and or supplies (i.e. ribbon, wood, paper rolls) at the Switchboard and to register their children's attendance with Patti Merriman, President's Office, no later than November 26, 1999.

**Lakehead University Dramatist Theatre**

presents Anton Chekhov's *The Sea Gull*

*November 18, 19, 20, 25, 26, 27*

8 p.m. in The Bora Laskin Auditorium

Tickets: \$10 general admission, \$8 students and seniors. For information call 343-8983.

**Forensic Science Public Lecture Series**

*Nov. 17:* Dr. Roger Frappier will speak on "DNA in the Ontario Courts" at 7 p.m. in the Lower Lecture Theatre

*Nov. 19:* Dr. Anna Cappelli will speak on "The Anatomy and Physiology of a Forensic Laboratory" at 7 p.m. in the Upper Lecture Theatre

**Publications on the Web**

Lakehead's Office of Communications is now publishing issues of the *Agora* and the *Nor'Wester* on the Web. Look for these publications under "News & Events" - "University Publications." The site was designed by Heath Higgins, a fourth-year business administration student who also designed the Web page for Lakehead's Alumni Association. It will be updated by Communications and Institutional Analysis Assistant Jennifer Willianen.



**The Year of the Thunder Wolf**

Lakehead University Athletics kicked off the 1999/2000 season with a pep rally in the Agora to introduce this year's varsity teams and coaches. During the rally it was announced that Lakehead varsity teams, formerly called "Nor'Westers" will now be called "Thunderwolves," and a new logo is in the works.

**Upcoming events at the C.J. Sanders Fieldhouse:**

|                |                                                      |
|----------------|------------------------------------------------------|
| November 19-20 | Men's Basketball Lakehead vs University of Waterloo  |
| November 19    | Women's Basketball Lakehead vs. Laurier University   |
| November 20    | Women's Basketball Lakehead vs University of Windsor |

Starting on Monday, November 15, at 8:45 a.m. (and every second Monday after) CBC Radio will be featuring an interview with Athletic Director Tom Warden and a Lakehead athlete.

Devel. & Alumni Affairs  
CD Trojan