Fall 2010





McGill School of Environment

www.mcgill.ca/mse



Director's Message

by Marilyn Scott, Director of the McGill School of Environment

This autumn has provided an amazing array of opportunities for me, opportunities to get to know many of our undergraduates, opportunities to work closely with our incoming class of graduate students registered in the MSE Graduate Option in Environment, opportunities to meet several of our donors, and the opportunity to review dossiers of applicants for two faculty positions at the MSE. Of course, interspersed with all these "opportunities" has been the usual mix of administrative chores, but let's not focus on those!

Our undergraduate enrolment is soaring! We have almost 340 students in our various majors, almost 200 students in our Minor and another 17 registered in our Diploma in Environment. Over the first six weeks of the term, I hosted 7 roundtables which provided me with an opportunity to talk with many of these students, to hear about their backgrounds, why they chose to come to McGill and to the MSE, their thoughts about courses (and professors), their extracurricular initiatives, and their plans for the future. To say that I am proud of our students is a major understatement!

At the graduate level, we offer a Graduate Option in Environment, the equivalent of a Minor for Graduate Students. We have 13 new students this year, the largest group of incoming Option students since the Option began. I am coordinating a seminar course for these students who are doing Masters and PhD research in topics ranging from regulation of organic foods as a means toward sustainable development, to ethical arguments for a new ecological economic system, to impact of biofuels on soil and water quality in Quebec, to development of pollution remediation techniques, to environmental responsibility in the context of the World Trade Organization, to impact of food insecurity on health of indigenous mothers and infants in Latin America. The calibre of these students is simply outstanding. How refreshing it is to interact with students from very different disciplinary training who share a common commitment to understanding our interaction with the biophysical and social environment, and to finding meaningful ways to ensure a balanced network of interactions for future generations.

As our alumni base grows, we routinely hear about their career advancement, and celebrate with them for the honors bestowed on them. We also keep in touch with our many friends who believe in the MSE and support us financially. I am so pleased when I have the chance to speak with these friends, to hear their interests and concerns, and to share with them my enthusiasm for the faculty and students of the MSE.

This year, we are in the process of recruiting two new faculty at the MSE, an Assistant Professor in Urban Sustainability, who will be jointly appointed with the Department of Geography, and a Liber Ero Chair in Environment, our first endowed chair! Of all the decisions we make



Prof. Marilyn Scott, Director, McGill School of Environment

at the MSE, our choices in recruiting new faculty are the most important. These individuals will help to shape the future of the MSE, and based on the dossiers that I have been reading, the future looks promising indeed.

In the pages that follow, you will read about our newest professor, Nicolas Kosoy, who began his appointment in August, after working for several years at the United Nations Environment Program. You will read about the amazing guests who have given Public Lectures this fall ... Sally Bingham, Gwynne Dyer, and Jim Fleming. In all cases, we were able to partner with other groups at McGill to bring these international leaders to McGill. And you will read about the activities of many of our students and professors.

As the cold winds of December approach and students think of exams, we remember all the spiritual and cultural celebrations around the world - Christmas, Hanukkah, Kwanza, Omisoka, Shabe-Yalda, Ash Shura, Winter Solstice, and Bodhi Day to name a few – and extend best wishes to everyone!

Environmental Research Symposium

We are currently preparing the program for the 2011 McGill Symposium on Environmental Research. This unique conference will highlight cutting-edge McGill research on some of the world's most pressing environmental problems. It will feature presentations by McGill professors, research associates and students, as well as an invited speaker. There will also be a panel discussion on the challenges of translating environmental research into policy. Prizes will be awarded to the best graduate and undergraduate student posters and oral presentations.

This 2-day event will be held in the Spring (dates to be announced).



New Faculty at the MSE

Nicolas Kosoy, Dept. of Natural Resource Science, and the MSE

by Aaron Vansintjan, MSE Reporter



We are pleased to welcome
Associate Professor Nicolas
Kosoy as the School of Environment
and Department of Natural Resource
Sciences' newest faculty member.

Professor Kosoy's research focuses on ecological economics and the challenge of attributing a theory of values that isn't based solely on costbenefit analysis and monetary systems.

He focuses on ecosystem services and socio-ecological injustices to show that judgements shouldn't be based solely on market prices but on many other aspects. He claims that 'we cannot continue translating income into utility and then assuming that aggregation of individual utility is the social state of affairs. That's not right. Environmental issues are social issues and we should develop social indicators to understand them." "What made me go in this particular direction," says Kosoy, "is the injustices that I've seen around the world. All of them are stated in different languages but all of them convey more or less the same message: be careful of hegemony. Be careful of monolithic answers to complex issues."

His work has mainly focused on developing countries. "Developing countries are areas in very important environmental conflicts, and that's the reason of choosing those countries." Aside from research in Vietnam and Kenya, Nicolas has directed his research closer to home: "I'm originally from Latin America and I think I have to return something to my region."

Nicolas had recently obtained his Ph.D. when he began lecturing at the Autonomous University of Barcelona and doing research for the city about energy efficiency from a socio-economic perspective, after which he started working for the United Nations Environment Program as the coordinator of the Millennium Ecosystem Assessment Implementation Programme. For a year he travelled around the world making sure that stakesholders on a global, national, and regional level were implementing the recommendations of the Millennium Assessment.

Born in Venezuela, Nicolas achieved a degree in biology before studying conservation biology in the United Kingdom and realizing he needed more economical knowledge after working for WWF in Vietnam, he enrolled in Barcelona's graduate and Ph.D. programs. His graduate research involved case studies all over Central America, including Costa Rica, Guatemala, Honduras, Nicaragua, and El Salvador. He then spent six months in Mexico researching indigenous communities' involvement with ecosystem services.

Aside from his training in marine and conservation biology, he is grounded in a theoretical approach. Influenced by Marx and his criticism of hegemonic systems, Nicolas is also influenced by Amarta Sen, a contemporary Indian economist and winner of the Nobel Prize, who Nicolas admires for his theories of justice and freedom and the idea of multiple identities and therefore multiple methods of evaluation.

At McGill, Nicolas will be continuing his research where he left off. He's pursuing his interest in developing a theory of "plural values" through two projects: one would be to "develop a list of case studies with students that will allow us to understand how different societies are able to trade goods and services--natural or environmental goods and services--without the need of monetary markets." To start with Nicolas wants to look at marine and coastal ecosystem services and study how different regions depend on them for subsistence, which he will analyse "in monetary terms, in material terms, but also in labour terms." The other project focuses on food security in Guatemala, where 80% of food is produced by women. "Analyzing food production in Guatemala without engaging women farmer's groups is a waste of time... I would like to see how women groups are able to cope with increasing climate uncertainty and able to bring a stable production of food to Guatemalan society." Both projects, says Nicolas, "challenge the hegemonic discourse that is delivering policies." These policies, he claims, have not succeeded in protecting marine and coastal environments, nor have they been able to promote food security.

A Retreat for MSE Students - An opportunity for reflective learning

by Joan Marshall, Faculty Lecturer, MSE

Imagine a group of fourteen students who have never met, all attending McGill for the first time, and all passionately concerned about the environment. Among them are five Americans, one young woman from Kenya and another from Denmark, several from Ontario and one from Quebec. Together these fourteen students registered for a weekend course at Mt. St. Hilaire, McGill's Biosphere Reserve, over Hallow'een weekend when most other students were partying. Without exception, they all brought intelligence, curiosity, enthusiasm, commitment to, and passion for the environment, at the same time as their varied backgrounds and experiences provided for a rich diversity of perception and awareness that encouraged lively discussions that went far into the night.

Titled "A Thoreau Retreat", this retreat hosted by the School of Environment was held over two days on Mt. St. Hilaire. In a context of activities designed for experiential learning, the main goal was to encourage students to explore their ecological identities, both as children growing up with an evolving environmental awareness and as students whose main focus at university would be to learn about environmental issues and challenges facing global and local communities. Based on the writings of three historically important environmentalists, Henry David Thoreau (1817-1862), John Muir (1838-1914), and Rachel Carson (1907-1964), all activities explored aspects of these foundational philosophers and scientists.

The first evening there was a team game in which they were asked to identify the author of quotations taken from the original texts. Not only did the students surprise us with the speed of their accurate responses, but we were thrilled to learn that several of them were excited to have discovered the joys of research in library stacks for the first time in their lives. Other activities included several hikes, one as individuals, in silence, another as a large group sharing thoughts and discoveries; a short essay about childhood environmental experiences, shared amongst the group; an activity that incorporated cluster mapping of concepts and ideas linked to environmentalism; and the drawing and constructing of sense-of-place maps that used a variety of materials and three-dimensional representations. One of the highlights was undoubtedly the several inches of fluffy snow that fell overnight on Saturday, making for a winter fairyland that brought smiles to everyone's faces early Sunday morning. But no one was more excited than the student from Kenya, Cheenar, who had never before seen snow.

As instructors, Iwao Hirose and I were ecstatic that this great group of students had obviously enjoyed the weekend retreat so much. For me, there is no question that it was a highlight of my 35 years of teaching. And I would be remiss indeed if I failed to give credit to Mitchell Thomas whose book "Ecological Identity" (1996) that I bought at a conference ten years ago provided many of the ideas that I incorporated into the design of the retreat program. With young adults such as these, there is real hope for the future of our environment.

The cover photos were taken at this retreat and were kindly donated by the students and instructors for this publication.

Faculty of Law and MSE Trip to the Gault Estate

In Search of the Balanced Lifestyle: A Voyage of Discovery by Meredith Cairns, Green Commissioner, Faculty of Law, B.A. (Hons. Env.) May 2008

A group of forty students as well as faculty and staff members from the Faculty of Law and McGill School of Environment recently participated in a field trip to the Gault Nature Reserve on Mont Saint-Hilaire, located 30km east of Montreal that is perhaps best known for apple picking. Andrew Hamilton Gault bought the property in 1913 and in 1957 the property was bequeathed to McGill University to conduct scientific research and preserve its wild nature.

This excursion was intended to open dialogue between students in both programs and a chance to get outdoors. Students learned about environmental law issues and careers in environmental law from our guests from McCarthy Tétrault law firm. This field trip was made possible by the Mary H. Brown Endowment Fund and many thanks to George McCourt and Danielle Lefebvre of the MSE and Aisha Topsakal and Catherine Bleau from the McGill law Career Development Office.





Forces AVENIR aims to recognize, honour and promote the involvement of youth in projects that enhance knowledge, arouse the taste of success, personal achievement and development of civic responsibility, contributing to the formation of citizens aware, active and responsible, both rooted in their community and open to the world.



Left to right: Christian Elliott, U2, BA&Sc, Interfaculty Program in Environment; Will Miller, U1, BA&Sc, Interfaculty Program in Environment; and, Alex Pritz, U1, BSc(AgEnvSc) Environment Major

A picture is worth a thousand words as the old saying goes and a group of students at McGill University decided to put this into practice when they established their Developing Pictures project. The goal was to promote, through documentary videos, different non-profit organizations working in developing countries so as to heighten public awareness of the importance of supporting them. The project was launched in 2009 when Alex Pritz, Will Miller, and Christian Elliott spent five months in Kenya filming and producing promotional videos for small humanitarian aid organizations. They then repeated the experience in Haiti following the devastating earthquake at the beginning of 2010, shooting film footage for five different organizations that they then broadcast on the Web and during projection evenings. What's more, Developing Pictures is now getting ready to set up a humanitarian aid program that will enable students to spend two weeks in Haiti.

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Jonathan Glencross, U3, BA(Hons), Environment & Development

During his three years at McGill University, Jonathan Glencross, a student at the School of Environment, has contributed significantly to turning his institution into a model in terms of sustainable development. Among other things, he helped set up the McGill Office of Sustainability and contributed to the rapid development of the McGill Food Systems Project, which promotes food sustainability on campus. Jonathan then decided to put his heart and soul into advocating the creation of a fund aimed at financing projects linked to sustainable development. Following many months of hard work and incalculable meetings, the Sustainability Projects Fund was officially launched at the beginning of 2010, heralding an unprecedented collaboration between McGill students and the university administration. With an incredible annual budget of just over \$800,000 for the next three years, it is the biggest fund of its kind for a North American university.

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Jonathan has also won the *McGraw-Hill-Ryerson Student Scholarship*. This scholarship recognizes and rewards students who enhance the learning environment at their college or university. McGraw-Hill Ryerson Limited is a leading Canadian publisher of educational resources and information products and services.

Trio to attend UN Summit

Three McGill students have been selected as members of the Canadian Youth Delegation for this year's United Nations Climate Change Summit to be held in Cancun, Mexico Nov. 29 – Dec. 10. Maggie Knight (Environment and Economics), Amara Possian (Political Science and Middle East Studies) and Audrey Yank (Bioresource Engineering) will join 26 other young Canadians from 18 to 29 years of age to represent the voices and views of Canadian youth at the meetings. The Summit's mandate is to continue the task of reaching an international agreement on climate change before the 2012 deadline, the date when the Kyoto Protocol, in its current iteration, will be retired.



2010 FACULTY OF ARTS INTERNSHIP AWARD RECIPIENTS

Environment



Faculty Program Environment
- Environment & Development

Dana Holtby, U2 Native Friendship Centre Montréal, Canada

Dana is an active member of several on-campus and community organizations including TAPthirst, a QPIRG working group and as co-organizer of Uncharted Waters, a recent student-led conference on Canadian water issues. Dana is a summer 2010 intern at the Native Friendship Center, a non-profit organization that seeks to develop and enhance the quality of life in the urban Aboriginal community of Montreal. At the NFC Dana hopes to gain important community development skills which will be highly applicable to her future in environmental and social justice organizing.

Chardé Morgan, U2 National Fisheries Resource Research Institute Jinja, Uganda

Chardé is a summer 2010 intern at the National Fisheries Resources Research Institute, a research facility specializing in fisheries management, environmental conservation, and community outreach. Chardé is involved in initiatives that encourage creative learning, as shown through her participation in the development of the Sustainable Campus course at John Abbott College. She hopes to use her experience to support ongoing outreach activities at NaFIRRI that target health and education, and plans to pursue graduate studies in the field of environmental health and epidemiology.



Honours Environment - Ecological Determinants of Health in Society



Faculty Program Environment
- Environment & Development

Raahil Madhok, U2 GreenPower Kianyaga, Kenya

Raahil is a summer 2010 intern at the Green Power in Kianyaga, Kenya, an NGO that establishes renewable energy mini-grid systems. Raahil has had extensive leadership experience through the Pearson Seminar on Youth Leadership. He is also very involved in organizations around campus such as DECA McGill, and is currently McGill Improv President. His experience at Green Power will expose him to the economic and environmental aspects of asset creation and electricity provision, a unique application of both his fields of

Sophia Kehler, U2 National Fisheries Resource Research Institute Jinja, Uganda

Sophia is a summer 2010 at The National Fisheries Resource Research Institute (NaFIRRI) in Jinja, Uganda, an organization that provides the research necessary for the sustainable management and conservation of Ugandan waters. Sophia has been involved with Organic Campus and the Concordia greenhouse throughout the year, and has been published in Intersections journal of women sstudies. She s excited to further her knowledge and understanding of environmental research and collaboration in Jinja this summer.



Faculty Program Environment
- Ecological Determinants of Health
in Society



Annette Slonim, U3 Instituto Conmemorativo Gorgas de Estudios de la Salud (ICGES) Panama City, Panama

Annette is a summer 2010 intern at the Instituto Conmemorativo Gorgas de Estudios de la Salud (ICGES), a tropical public health research institute. Annette has been involved with organizations on and off campus, including Santropol Roulant and B. Refuge. Her internship at ICGES will expose her to current issues in tropical health, and the research methods and analytical tools to address them. This will prove invaluable to realizing her goal of a career in global public health.

Faculty Program Environment
- Ecological Determinants of Health in Society

The Faculty of Arts Internship Awards are generously funded by alumni, staff and friends of McGill University. Thank you!

A special thanks to the faculty, administrative staff and advisors that support the Faculty of Arts Internship Program.

Internship Program
Faculty of Arts

Faculty of Arts Internship Office | Leacock Building Room 307 www.mcgill.ca/arts-internships | aio@mcgill.ca | 514-398-3467





Vivian Lewin Field Study Endowment Award 2010:

Beatrice Rose Simms, U3 BA&Sc Interfaculty Program in Environment

She will be using her award to assist in field work in the Research in Panama field course.

Anne & Stewart Brown Graduate Student Teaching Assistant Award, and the MSE Teaching Assistant Award of Excellence for 2010:

Carli Halpenny, a sixth year Ph.D. student in Parasitology, and Teaching Assistant for the MSE course ENVR 301, Environmental Research Design, and for the Parasitology course PARA 410, Environment and Infection, last term, was voted by the students to receive these awards. These awards recognize a teaching assistant's skill and dedication in guiding our students through their course work.



Pierre-Elliott Trudeau Foundation Scholarships 2010:

An independent and non-partisan Canadian charity, the Pierre Elliott Trudeau Foundation was established in 2001 as a living memorial to the former Prime Minister by his family, friends, and colleagues. In 2002, the Government of Canada endowed the Foundation with a donation of \$125 million following a unanimous vote in the House of Commons. In addition, the Foundation benefits from private sector donations in support of specific initiatives. Through its Scholarship, Fellowship, Mentorship and Public Interaction programs, the Foundation supports outstanding individuals who make meaningful contributions to critical social issues.



Joel Thibert, MSE graduate May 2004, BA, Environment & Development; Master of Urban Planning (MUP) in May 2007, now doing his Ph.D. at Princeton University

http://www.trudeaufoundation.ca/program/scholarships/current/2010/jolthibert



Karina Benessaiah, MSE graduate May 2004, BSc, Major in Environment, Renewable Resources Management; MSc Geography/McGill-STRI Neotropical Environment Option in October 2008, now doing her Ph.D. at Arizona State University

http://www.trudeaufoundation.ca/program/scholarships/current/2010/karinabenessaiah

"Moderation is a fatal thing: Nothing succeeds like excess."

~ Oscar Wilde

Professors, students, and graduates of the MSE are proving this quotation true!

Royal Society of Canada: Thirteen McGill academics were named Fellows of the Royal Society of Canada, in the Society's annual naming of new Fellows. No other Canadian university came close to McGill in nominations this year! Congratulations go out to Prof. Colin Chapman, jointly appointed with the Department of Anthropology, and the MSE, who was named a Fellow of the Royal Society of Canada.

Professor Colin Chapman is a leading Canadian figure in tropical ecology and conservation. Given the plight that primates have suffered as a result of deforestation and hunting, he has focussed his research and conservation efforts on primates. He is a research associate of the Wildlife Conservation Society, an honorary lecturer at Mekerere University in Uganda, and has been instrumental in funding and maintaining the Makerere University Biological Field Station.

Save our bogs: Two professors from the Department of Geography, and MSE Associate Members, received Mer Bleue Wetland Conservation Awards in Ottawa on Sept. 26. Tim Moore and Nigel Roulet were among eight researchers honoured in recognition of their significant contributions to wetland conservation and research.

The awards coincided with the 15th anniversary of the designation of the Mer Bleue Bog as a Wetland of International Importance under the Ramsar Convention on Wetlands. The Mer Bleue peat bog is located on the outskirts of Ottawa. The 28-square kilometre wetland is fairly unique in Canada because it is so far south and, as a result, easily accessible to researchers year-round. A permanent research station at the centre of the bog measures the amount of carbon dioxide and methane that is released by the wetland.

Environmental

Social Sciences

Methods and Research Design

ISMAEL VACCARO

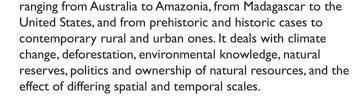
ERIC ALDEN SMITH

SHANKARASWAN

Environmental Social Sciences: Research Design and Methodology: The MSE is pleased to announce that Ismael Vaccaro, jointly appointed professor in Anthropology and the MSE, Eric Alden Smith and Shankar Aswani are publishing a book.

The relationship between human communities and the environment is extremely complex. In order to

resolve the issues involved with this relationship, interdisciplinary research combining natural sciences, social sciences, and humanities is necessary. Here, specialists summarize methods and research strategies for various aspects of social research devoted to environmental issues. Each chapter is illustrated with ethnographic and environmental examples,



Contributing to the intellectual project of interdisciplinary environmental social science, this book shows the possibilities social science can provide to environmental studies and to larger global problems and thus will be of equal interest to social and natural scientists and policy makers.

Fitting the Economy to the Earth

by Peter Brown, Professor, MSE and the Departments of Geography and Natural Resource Sciences

Hardly a day goes by that we don't hear from the Canadian and almost all governments in the world that we must spur economic growth; that we must get the "economy moving again". This is the conventional wisdom within the current economic framework of what is called "Neo-classical economics" as societies try to create more consumption and thereby more employment, while maintaining relatively stable prices. Ominously, for us and the rest of life's commonwealth, this framework lacks any systematic relationship to a scientific understanding of how the Earth works. As result of massive increases in consumption and continued exponential population growth the human project is overrunning the Earth's ability to support complex life as we can see from symptoms such as the overharvesting of the oceans, and the destabilization of the climate system.

Fortunately, there are a number of groups around the world who are developing an alternative framework called "ecological economics" which sees the human economy as a fully integrated subset of the Earth's biophysical systems. Thanks to a generous grant from the Social Sciences and Humanities Research Council of Canada a key dimension of this new framework is being developed by an interdisciplinary team chaired by Peter Brown of the MSE. They are investigating the ethical dimensions of ecological economics. In this regard they are asking questions such as: what the purposes of the economy should be; how big it should be relative to the biosphere; what is a fair distribution of its burdens and benefits; and how should we measure its success. Other principal researchers are Richard landa from the McGill Faculty of Law; Mark Goldberg of the Faculty of Medicine and MSE; and Peter Timmerman and Peter Victor of the Faculty of Environmental Studies at York University. There are several graduate students working on issues related to the project: Julie Ann Ames, Geoff Garver; and Alex Poisson.



More MSE Success Excess

Ecosystem Services, Biodiversity, and Landscape Connectivity by Elena Bennett, Professor, MSE and the Department of Natural Resource Sciences

People depend on ecosystems and the services they provide. Ecosystem services (ES) include food and freshwater, pollination, places for recreation, and flood control. Biological diversity is integral to ecosystem services because many different types of species are involved in the provision of services. The Millennium Ecosystem Assessment (MA) found that human actions to increase some ES, such as crop production, actually result in a decline in biodiversity, and as a consequence, other types of ES. For this reason, there is a need for research on how to manage landscapes to jointly sustain biodiversity and ES.

In a new project funded by the Natural Sciences and Engineering Research Council of Canada (NSERC) and by the Max Bell Foundation, four McGill researchers associated with the MSE (Elena Bennett, jointly appointed with the Department of Natural Resource Sciences; Andy Gonzalez, Biology and MSE Associate Member; Marty Lechowicz, Biology and MSE Associate Member; and Jeanine Rhemtulla, jointly appointed with Geography) will study the way land-use change mediates the link between biodiversity and ES including agricultural production, water quality, pollination, and recreation in the Vallée-du-Richelieu MRC.

This research is designed to help managers to improve decision-making in this dynamic and important region. The Vallée-du-Richelieu, located to the southwest of Montreal, is a mix of agricultural, forest, and urban land east of Montreal. The ecosystems in this settled landscape, which includes some protected areas, provide many different benefits to people such as pollination, food, places to recreate, and water quality. The region is being transformed by local influences such as the urban dynamics of Montreal as well as global and regional dynamics such as rising agricultural prices and climate change. These changes are enhancing the supply of some ES and threatening the supply of others. Unfortunately, most of these changes are unintended and poorly understood. We started this project because we believe that local decision-makers would benefit from a set of simple models to help them to manage the landscape to better

provide the many ES that local residents depend on. We are working with partners in the town of Mont-Sainte-Hilaire as well as the Vallée-du-Richelieu MRC to meet their needs for information to help make land use planning decisions. We will develop theoretical tools to assess the tradeoffs and synergies that exist among ecosystem services at the interface between Greater Montreal and its rural surroundings.



Interview with Reverand Canon Sally Bingham

by Aaron Vansintjan, MSE Reporter



Reverend Sally Bingham is the president and founder of Interfaith Power and Light, an organization at the forefront of the religious environmental movement. A coalition of congregations all over America, Interfaith Power and Light focuses on renewable energy, efficiency, and conservation. Reverend Bingham, who was recently named the #I environmental religious saint on the Huffington Post, visited McGill on 28

September and spoke about the importance of bringing hope to the environmental movement and the compatibility of religion and science.

You talk about how faith, hope, and care for creation are important elements in the religious environmental movement. How have these helped you in trying to reach your goals?

If I didn't have hope I couldn't do this. Because the religious community is now involved in a lot of environmental issues, it presents a lot of hope, because we bring this moral perspective that hasn't been there before. The environmental community has been talking about saving the environment from the environmental perspective, scientists have been talking about the scientific perspective, but for thirty years, we have continued to destroy creation. And so now that the moral and religiously responsible voice is entering into the dialogue it's going to help bring about the change we need. It's like Martin Luther King and the civil rights movement: a reverend, quoting the bible, brought moral authority to respect, the dignity of every human being. Now we have to use that same moral perspective to start healing the earth.

There are many environmentalists that are not of any religious conviction. What would your advice be for them?

Keep doing what they're doing. Our message is that the religious community is now involved, and we're going to bring the moral voice to this dialogue, and it isn't in any way to delineate what all the other folks do, we need them, we need to all work together.

Interview with Journalist, Gwynne Dyer

by Aaron Vansintjan, MSE Reporter



The MSE was pleased to host journalist, columnist, documentary maker and historian, Gwynne Dyer who has been studying and publishing works on international affairs for the past 25 years. After researching the military's recent obsession with

climate change, Gwynne Dyer wrote a book and started a radio series called Climate Wars about the geopolitical consequences of climate change. In the book, he describes several "scenarios," taken from military research, that describe the global political situation within the next five decades. The scenarios prove to be eye-opening and worryingly realistic.

What made you focus on climate change when most of your work has been in international affairs?

I was in Washington and a friend mentioned that the joint chiefs of staff were taking quite a serious interest in climate change. There're lots of roles for the military in a warming world. The story that came out was that the major impact of climate change is going to be on food supply, nationally and internationally. And from that they could derive a variety of scenarios where they would be required to stop waves of refugees, to intervene in failed states, to deal with regional wars, particularly countries that have to share the same river systems. I just thought, here's a subject, it needs investigation, and I just started doing it.

You talk about a climate change denial industry, could you describe this industry and who is implicated in it?

The scientists were putting their fears on the table at the end of the 80s but by '91 and '92 in response to that the industries who perceived their interests to be threatened by it were already subsidizing the denial industry, and I think that the most important industries by far were the fossil fuel industries, coal and gas, and the automobile industry. The idea was to throw doubt on either the people who are doing the science or on some relatively minor aspect of the research that they've published; the point being to undermine their credibility rather than actually challenge the science. The automobile industries figured out that they're not going out of business, they're just going to have to come up with more fuel-efficient vehicles and ultimately with vehicles that don't use fossil fuels at all though the substitute may be another fuel which is bio-derived and therefore carbon-dioxide neutral. And the oil industry finally figured out, "We're not oil companies, we're energy companies, and as long as we own the patents on the new fuels we are actually better off than we were negotiating with the Saudis about oil rights."

Breast cancer, traffic pollution link examined in Montreal

study. Press Release by Neil Haesler, Postmedia News

Mark Goldberg, M.D., MUHC, Department of Medicine, and the MSE

Traffic-related air pollution may put women at risk for breast cancer, according to a new study from Quebec. The study, published in the journal Environmental Health Perspectives, looks at links between the risk of breast cancer, a leading cause of death from cancer in women, and traffic pollution.

Researchers from McGill University and the Universite de Montreal charted incidences of breast cancer and compared them with pollution maps. "We've been watching breast cancer rates go up for some time," study co-author Mark Goldberg, a researcher at McGill University Health Centre, said in a release Wednesday. "Nobody really knows why, and only about one-third of cases are attributable to known risk factors. Since no one had studied the connection between air pollution and breast cancer using detailed air pollution maps, we decided to investigate it."

Goldberg and his colleagues combined data from several studies. They created two air pollution maps which showed levels of nitrogen dioxide, a by-product of vehicle traffic, in different parts of Montreal in 1996 and 10 years earlier in 1986. Then, the research team looked at the home addresses of women diagnosed with breast cancer in a 1996-97 study and charted that onto the air pollution maps. The team says its results were "startling," and showed the incidence of breast cancer was increased in areas with higher levels of air pollution. "We found a link between post-menopausal breast cancer and exposure to nitrogen dioxide (NOsub2/sub), which is a marker for traffic-related air pollution", Goldberg said in the release. "Across Montreal, levels of NOsub2/sub varied between five parts per billion to over 30 parts per billion. We found that risk increased by about 25 per cent with every increase of NOsub2/sub of five parts per billion. "Another way of saying this is that women living in the areas with the highest levels of pollution were almost twice as likely to develop breast cancer as those living in the least polluted areas."

Goldberg warns, however, that the study must be interpreted with caution. "First of all, this doesn't mean NOsub2/sub causes breast cancer," he said. "This gas is not the only pollutant created by cars and trucks, but where it is present, so are the other gases, particles and compounds we associate with traffic — some of which are known carcinogens." Goldberg said the study can be subject to unknown variables and that some areas of uncertainty remain. "For example, we don't know how much the women in the study were exposed to pollution while at home or at work, because that would depend on their daily patterns of activity, how much time they spend outdoors and so on," Goldberg said. "At the moment, we are not in a position to say with assurance that air pollution causes breast cancer. However, we can say that the possible link merits serious investigation," the team said in its release.

Studies published in the U.S, have also shown possible links between cancer and air pollution. The study was funded by a research grant from the Canadian Cancer Society and another one from the Canadian Institutes of Health Research.

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The MSE is:

Director—Marilyn Scott

Faculty Members

Madhav Badami (School of Urban Planning)

Elena Bennett (Natural Resource Sciences)

Peter G. Brown (Geography)

Colin Chapman (Anthropology)

Sylvie de Blois (Plant Science)

Jaye Ellis (Faculty of Law)

Frédéric Fabry (Atmospheric and Oceanic Sciences)

Iwao Hirose (Philosophy)

Nicolas Kosoy (Natural Resource Sciences)

Brian Leung (Biology)

Gregory Mikkelson (Philosophy)

Jeanine Rhemtulla (Geography)

Anthony Ricciardi (Redpath Museum)

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