

IQ

INNOVATION QUEST

Advancing social innovation

IN THIS ISSUE: exploring the humanities and social sciences

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McMaster University's Research Newsmagazine



Welcome

It's my great pleasure to introduce you to some of McMaster's outstanding researchers in the Faculties of Humanities and Social Sciences.

As you read through this issue of IQ, you'll see what an amazingly talented group they are and how their work, collectively, strengthens our knowledge of cultural, environmental, economic and social issues. These are the individuals who ask the questions and seek the answers about both ancient and modern societies. They're digging deep to uncover stories from the past so that we can plan and prepare for the future.

Together, they share an insatiable curiosity and a passion for discovery which drives their research. And they're putting that research to work for the benefit of all Canadians. ■



Mo Elbestawi

Vice-President, Research & International Affairs

■ On the cover: Jim Dunn, Chair in Applied Public Health and associate professor in the Department of Health, Aging and Society, pictured on James Street North in Hamilton — a central location for his research looking at health impacts of neighbourhood interventions.

INQUIRE

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Resolving the 'deep problems' that lead to conflict



Nancy Doubleday

In retrospect, perhaps it all started when Nancy Doubleday began collecting interesting rocks at about age 10. Then, years later as an undergrad working as an Algonquin Park

naturalist, she shared messages “about the importance of ecology and natural history” with park visitors.

Now, decades and five degrees later, she is the Hope Chair in Peace and Health in the Humanities Faculty, which allows her to extend McMaster’s reach to the Inuit community in Northern Canada, to water supplies in Malawi (a landlocked nation in the south part of Africa), and to the problems of malnutrition, disappearing vegetation, social unrest, and other troubles that wrack the planet.

Her natural curiosity about biology, education, indigenous cultures, environmental studies, and the law seems made for someone in that endowed chair. The title, Peace and Health, is an intuitive recognition that peace and non-conflict occur when people and communities have secure legal and self-identities, personal dignity and social health, adequate food and water supplies, and protected environments.

Doubleday’s fluency in many disciplines makes her a natural to address such issues and to engage in the research needed to overcome such problems. Past research in Canada’s Far North provides a solid foundation for interdisciplinary work. In her International Polar Year research, spanning 2008-2009, Doubleday partnered with colleagues, students and Inuit community members to research vegetation changes, making collaborative research opportunities available and putting a human face on impacts of a changing climate.

The support that the Polar Year received from many governments and organizations was gratifying, she says.

The “real dilemma,” however, comes in securing the money tomorrow “to sustain these initiatives.” The problem is in linking all this evidence in the public’s mind with the needed legal, rehabilitative, and protective policies.

It was 30 or so years ago that she worked as legal counselor and environmental co-ordinator with the Inuit, as they sought legal and treaty recognition for their territories and way of life. She and Inuit leader Sam Raddi used both Western science and traditional ecological knowledge as they worked to overcome environmental concerns. Doubleday had a role in amending the Canadian Constitution to enshrine land claims in the western Arctic region. Today, she finds such research truly rewarding: “The interesting places are at the margins... You’re working on the challenges people face in dealing with constant uncertainty.”

Meeting those challenges requires interdisciplinary collaboration. Doubleday offers a nice illustration. McMaster engineering senior student Steven Gwartz took a second-year peace studies course as a credit. A member of the student-run chapter of Engineers Without Borders, he and fellow EWB students later put on a workshop for her class called “The Roots of Poverty.”

That drew in other students – Glen Prevost, Erica Barnes and Dhaval Bhavsar – to the links with Malawi, where EWB students were doing internships. In turn, the peace studies and engineering students provided research to help people in Malawi deal with the influx of non-governmental and donor organizations. And this led to Doubleday taking part in the national conference of the EWB in January.

This kind of hands-across-the-disciplines connection is a must, she says, to take on the complex issues that entangle people, cultures, and nations. Without resolution, these issues often lead to conflict and despair. “You’re dealing with deep problems and understanding them is not an easy thing,” says Doubleday. ■

HIGHLIGHT

Revealing an era of censorship 250 years ago

Squashing freedom of speech and thought 250 years ago in pre-Revolutionary France may seem totally disconnected from our often laissez-faire world of universal media.



William Hanley

But William Hanley sees clear parallels between his life’s work and today’s many different societies, authority structures, and systems of repression.

“I think the most obvious lesson here is that censorship is doomed to failure... It can’t succeed because people want to speak and to learn. It betrays a fear and perhaps at some level a lack of confidence in (a person’s, a system’s, or a state’s) own ideology.”

Hanley is probably the world’s expert on the hundreds of official state censors who monitored publications in l’Ancien Régime prior to the violent Revolution that began in 1789 and overthrew the French monarchy.

The censors were the Big Brothers of their time, overseeing works of art and philosophy, of science, of law and medicine. There was even a censor on the growing use of hydraulic systems. All of this happened in the Age of Enlightenment, which “intellectually was a period of great glory for the French”, says the Professor in the Department of French.

Some of the greatest thinkers – Voltaire, Rousseau, Montesquieu, and Diderot – were scrutinized. Voltaire and Diderot were both jailed.

But great thoughts have a way of getting out. Voltaire went to England and had his seminal work, *Lettres philosophiques* or also *Letters Concerning the English Nation*, published there. The book was also later printed in France.

“It was described once as the first bomb thrown against the ancien régime,” he says.

Hanley has authored *A Biographical Dictionary of French Censors (1742-1789)*. Volume One came out in 2005. He is working on the second of what may be four volumes.

The work has been detective-like. He has pored over archives in France and in other countries. He has read letters, journals, even post-mortem inventories of what some censors owned.

His biography tries to give many of the censors human faces. Some were successful in their own right; some were non-entities. Some were rigid Catholics who opposed thoughts and actions that seemed to threaten the church’s primacy – the so-called Faith vs Reason polarity. Many received little or no pay.

Hanley’s reference work is in libraries in Europe, the U.S., and Canada. ■

HIGHLIGHT

Bringing art to 'a wide range of audiences'

Sometimes, the **darnedest** insights come from kids. Take the time that multi-media artist Liss Platt was firing pucks at a goal-sized piece of



Liss Platt

plywood covered in layers of white paint. The marks made by the pucks formed a black-on-white pattern, a kind of made-in-Canada abstract for our national sport.

"My favourite quote (from that time) is from a 10-year

old, who said, 'You shoot pucks at it and it's art,'" said the Associate Professor of Communication Studies and Multimedia.

Platt likes that memory because it exemplifies so much of what she does. Her art may be in the form of digital video, photography, installation, interactive websites or even 16mm film. That last one brings up another piece of performance art.

Five years ago, her documentary – *You Can't Get There From Here*, about a 16-year-old's coming of age in a family crisis – took best-in-show at the United States Super 8mm Film + Digital Video Festival. Two years later, she created a Redux version of the piece where she actually pedals a bicycle to power a projector that displays the doc on a wall or screen. Her furious pedaling – she does it with viewers all around her – is a kind of living metaphor for the struggle faced by that 16-year-old (herself) so many years ago.

The insights from her palette are sometimes amusing, sometimes sad. A six-minute film explored the mystery and threat of what lies in women's purses. A silent 61-second film, shot at New York's Coney Island, is a lament for an iconic American amusement park that was being torn down.

The Digital Age has made do-it-yourself art more democratic. For example, anyone with digital fluency can make a video, says Platt. The trick is for students and would-be artists to go beyond that accessibility and "push themselves out of their comfort zones."

Platt has exhibited in New York, San Francisco, Toronto and Calgary. Her videos have been screened at festivals in Paris, Madrid, and Hong Kong.

"I do think a hallmark of my work is that I try to make it accessible to a wide range of audiences."

She's now working on a project with a musicologist about all-female tribute bands and is part of a team of Canadian scholars and media-makers developing a project on race and racism. ■

China-Canada study looks at **transnational** dislocation



Rachel Zhou

Viruses and bacteria don't respect borders. Nor are people rooted to one spot. Humans and diseases are mobile; they cross oceans and continents. SARS and HIV/AIDS

and H1N1 flu migrate just as people do.

In this age of fast-forward globalization, immigrants are among those who are most likely to be affected by health problems. Many recent immigrants from China are highly educated. But when they come to Canada, changes in living conditions, in finding jobs that relate to their education levels, in relationships, and in access to social support mean they may be vulnerable to health risks, including HIV risk. Often, they fall through the cracks of the host country's healthcare system.

Rachel Zhou is leading an international team – there are two other McMaster scholars – investigating this problem. The 10-member team includes other researchers from Canada and China, working in Toronto, Vancouver, Beijing and Shanghai. Their work – aided by a four-year Canadian Institutes of Health Research grant – is a classic example of transnational research ties.

The Assistant Professor in the School of Social Work and the Institute on Globalization and the Human Condition is meeting not only with Chinese immigrants but also civil society workers, service providers and government officials in both countries. (Census data tells us that China is the top source country for Canadian immigration.)

A key goal is to explore the idea of "transnational health governance" – health interventions in both countries. "Simply speaking, how should we rethink health risks (not only HIV risk but also other risks) and health interventions – for example, knowledge exchange, research collaboration, and global health policy – in this increasingly globalized world?"

The lives of the immigrants under study

are not limited to national borders. They may travel back and forth; they may keep in constant electronic touch with those in the home country. Staying in close contact with China, these immigrants, in a sense, live in a space between both countries. Their understanding of, and exposure to, HIV risks, and their ability to respond to such risks are shaped by their in-between positions.

Sometimes this means risks. A pilot study has revealed a sharp contrast between these immigrants' risky sexual behaviors and communal silence about related issues. Although changes in living environments expose them to risk factors they did not face back home, they seemed to lack sufficient knowledge about risk prevention.

"We want to understand the HIV risk facing Chinese immigrants in Canada, the knowledge about which is scarce. We'll explore a new model of transnational or global health intervention through the case of HIV/AIDS."

Chinese-born Zhou, who came to Canada to study at the University of Toronto, is familiar with such issues. She interviewed people with HIV/AIDS more than a decade ago in China. Later, she did her doctoral project on the life experiences of those with HIV/AIDS.

Similar issues also apply to transnational childcare-giving. Some Chinese skilled immigrants bring their parents here to look after their children. Sometimes, they send children to China to be raised there. Or, men return to China to work, leaving their spouse and children here.

In a study funded by the Social Sciences and Humanities Research Council, Zhou is looking at the dynamics and impacts of Chinese seniors' caregiving experiences in Canada. In particular, she is studying the effects of Canadian immigration and care policies as they affect transnational migrants outside the country and the policy connections between social welfare regimes in Canada and in China. ■

He travels the world on the road to peace



Bonny Ibhawoh

Sometimes, building peace and restoring health is best done one person at a time, not nation by nation. The personal touch is often the most enduring and the most rewarding.

So, it was heartening for Bonny Ibhawoh to see the impact of a six-month student internship in India sponsored by the McMaster Centre for Peace Studies, which he headed for five years. Students going to India work with women's groups in rural areas. The students gain academic credits through the program, which is funded by the Canadian International Development Agency.

"I saw how this program benefited both our students and the rural women of India who they worked with. Our students came back from India transformed. They learned from these women more about peacebuilding, environmental sustainability and human rights than they ever will in the classroom. I got letters from these Indian women saying how thankful they were to have our students work with them."

This is peacebuilding from the street up. It's easy to meet people in their towns and villages, not so easy to engage the halls of power, to get the ear of politicians and institutions that can really engineer changes in social justice, human conditions and security. That's "a major challenge for Peace Studies programs," says the Associate Professor in the Department of History.

"Everyone wants world peace but no one wants to pay the right price for it. We spend billions of dollars enforcing no-fly zones and sending peacekeeping missions to troubled parts of the world when a fraction of that money, if spent on understanding and promoting peace, can reduce the outbreak of wars in the first place."

Many people in the peace community criticize the focus on liberal market-based reforms that often go hand in hand with conflict-resolution efforts in troubled parts of the world. Not so, says Dr. Ibhawoh.

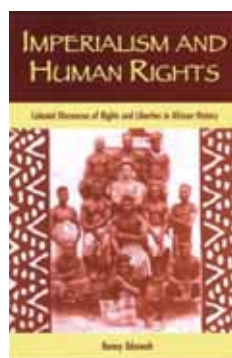
He points to "economic liberalization" in post-war Japan and Germany as successes. But he does oppose market-driven agendas that see "economic growth, profits and capital accumulation as ends in themselves".

Liberal economic reforms too often increase the gap between the very rich and very poor. They lead to social and political tensions in societies, he says.

He believes in keeping his passport and a packed bag handy. His links to various schools and institutes – for example, the Danish Institute for Human Rights, the Carnegie Council for Ethics and International Affairs in New York, and the University of London – have let him see "first-hand the practical aspects of human rights work."

Dr. Ibhawoh has written about peace work and human rights. His book, *Imperialism and Human Rights*, was named the American Library Association Choice Outstanding Academic Title in 2007. On sabbatical now, he is doing research and interviewing ex-soldiers and militants in Africa and the Middle East for a book on post-conflict peacebuilding.

Besides his academic duties and book-writing, he keeps his hand in the peace game. Last year, for example, the peace-studies centre partnered with the United Nations University in Japan to organize in Sarajevo, Bosnia Herzegovina, an international Workshop on Peace Building in Conflicted Societies. He's also consulting for the Canadian Human Rights Museum in Winnipeg, helping to



develop a global historical human rights timeline to guide museum displays. He also keeps a blog on human rights, social justice and peace: <http://giazilo.blogspot.com/>. ■

HIGHLIGHT

The changing face of Japanese Buddhism

Mark Rowe is about to embark on the adventure of a lifetime – 14 months exploring Buddhist temples in Japan. Not the opulent



Mark Rowe

temples favored – and much photographed – by vacationing Westerners or the sacred shrines revered by pilgrims, but the working temples in urban and rural pockets around the country where ordinary Japanese families mark the important rituals of daily life.

Rowe is hardly a newcomer to Japan. Just 43, the assistant professor of Religious Studies has already spent a quarter of his life in this fascinating country.

He first went there to study Japanese, then returned to do graduate work, attaining his Masters degree at Kyoto University before moving on to Princeton and a PhD in Asian Studies. The subject of his thesis, *Temples, Burial, and the Transformation of Contemporary Japanese Buddhism*, continues to drive his research, which focuses on changing burial forms and what they reveal about the ways temple Buddhism is perceived and propagated in contemporary Japan.

"Most Westerners have an idealized image of Buddhist priests meditating in snow-covered mountain temples. The reality is that Japanese Buddhism is a funeral economy revolving around mortuary services," says Rowe. "But those practices are changing as traditional norms are being challenged by an increasingly modern Japanese society. The care of the dead has become the most fundamental challenge to the continued existence of Japanese temple Buddhism."

Armed with a SSHRC grant and a fellowship from the Japan Society of the Promotion of Science, Rowe will interview more than 100 Buddhist priests in what promises to be the first comprehensive study of contemporary temple priests, their lives, and their institutions. He calls them "non- eminent monks" to distinguish them from the so-called eminent monks, whose monastic zeal has been popularized by the literature to date.

"To be a temple priest today means having to deal with gritty realities – bills that have to be paid, numbers of parishioners falling, priests unable to produce sons who can take over for them, young people moving away from traditional relationships, and new forms of burial that challenge social norms. I want to explore how the tradition is lived, negotiated and fought over on the ground." ■

IQ research feature — An 'enthusiastic'



Jim Dunn likes to be a witness to history. Actually, it's more than that. He likes to design and direct interventions in beaten-down areas to assess their impact on the mental and physical health of residents.

Improve the area and you may well improve income levels, life expectancy, education scores, civic pride, property values, and all sorts of other things that contribute to a better life.

Dunn holds the Chair in Applied Public Health from the Canadian Institutes of Health Research and the Public Health Agency of Canada.

That appointment puts him face-to-face with glaring inequities, such as those revealed in a recent newspaper series on Hamilton neighbourhoods. *The Spectator's* Code Red series showed just how disadvantaged some residents in poorer areas really are. Code Red found, for example, that there is a 21-year life-expectancy gap between people in the best and the worst areas. Almost 50 per cent of babies born in one Hamilton neighbourhood are underweight.

Dunn hopes to play a key role in trying to reverse that inequity divide.

"Definitely, I'm enthusiastic," he says. "I've only been here (on McMaster's faculty) two years – I graduated from here almost 20 years ago – and one of the reasons I wanted to come here is that Hamilton neighbourhoods are poised

for change. My Chair looks at the health impacts of neighbourhood interventions."

For some time now, Dunn has been part of a CIHR-funded project that focuses on the impact of how neighbourhood characteristics affect the mental health and well-being of about 3,000 residents in 100 Toronto areas.

"We need to create the conditions for urban renewal and socially mixed communities, with a focus on meeting the housing needs of people from all walks of life."

He is leading a five-year CIHR project that asks whether disadvantaged people who are placed in rent-assisted housing experience improvements in mental health and healthy child development. This study is looking at areas in Toronto, Peel, Halton and Hamilton.

And he also heads a long-term study of what's happening as Toronto's multi-tower Regent Park area comes down and a new neighbourhood springs up on 69 acres.

While it's still early days in the five-year Toronto-to-Hamilton project, as people gradually come off wait-lists and enter their new housing, Dunn says there are positive signs that have gained the attention of the Ministry of Municipal Affairs and Housing.

His latest project hasn't even hit the road yet. Dunn has funding approval to buy digital video equipment to visually capture the changes in some Hamilton neighbourhoods as they get renewed under a new city program. (See the sidebar story.)

Before that happens some time next year, Dunn, who is co-Editor-in-Chief of the London-based *Journal of Epidemiology & Community Health*, will take a one-year sabbatical and hold the William Lyon Mackenzie King Visiting Chair in Canadian Studies at the Harvard School of Public Health.

He likes the attention that neighbourhood renewal is getting in Hamilton. The City has a new head of development strategies and Dunn is working hand-in-hand with city hall.

McMaster researchers will be able to document how changes in environments affect area residents. By capturing the changes in these evolving landscapes, and the residents within them, researchers may be able to offer valued input that can help guide some city and senior government policy decisions.

Sometimes, change takes observers by surprise.

agent of change to improve lives



For example, researchers have recently noticed some improved early childhood development scores in north Hamilton neighbourhoods. While it's too early to pin down the factors behind these gains, they do offer hope.

"The good thing about it is that it shows these things are not intractable," says Dunn. "To my mind, that's where the real paydirt is. If you want to see changes quickly, you're going to see them first in the kids."

That's why many school districts in North America offer breakfast programs and pre-school programs, as well as reallocate students to schools to achieve social mixes.

The danger, of course, is that such interventions can be targeted by opponents, who cite that families are coming under the thumb of a nanny-state operation.

These changes, says Dunn, are all about trying to reduce the spatial concentration of poverty in Hamilton neighborhoods and its negative effects. People with low incomes, poor education, or other disadvantages tend to have even worse outcomes when they live in neighbourhoods with high levels of similarly disadvantaged people.

"We need to create the conditions for urban renewal and socially mixed communities, with a focus on meeting the housing needs of people from all walks of life," he says.

DISCOVER – Seeking 'the most innovative facility' in the world

It will be the **smartest little car** on the road. No, really. It likely will be one of those two-seater 'smart'-model cars, made by Daimler AG, the people behind Mercedes-Benz. And it will have roof-mounted digital cameras, giving a 360-degree view.

The researchers in this digital paradise will have wireless mobile tablet computer units for door-to-door interviewing. They'll use computer-assisted telephone-interviewing pods. And they will be able to create a virtual reality in high definition.

McMaster's smart squad probably will take to Hamilton streets next year. The aim is to gain high-quality data at both the citizen and neighbourhood levels, data that will allow researchers to track cityscape improvements and the health and social well-being of residents. All this data will be housed in a special lab at the university.

"McMaster will unquestionably be the home of the world's most innovative facility for research into systematic social observation of neighbourhoods," states a document describing the Canada Foundation for Innovation funded project.

Social scientists are very interested in the many impacts that neighbourhoods have on their residents. For example, a graffiti-ridden, broken-windowed, cracked-sidewalk area reeks of neglect. People easily make the connections with poverty, crime, and despair.

But if cityscapes are improved, if hope and pride of place take hold, the thinking is that such changes have an impact on health, on children's education scores, on mental health. So, for example, new housing or a new health clinic may go in. Sidewalks

may get fixed up. Or residents may take part in new job-skills programs or there may be a large turnover in families moving in or out.

The McMaster data-collection plan will visually capture neighbourhood gains. And in turn, the data can be analyzed to assess correlations with improvements seen by residents.

"Major change is coming to Hamilton neighbourhoods," says James Dunn, holder of the Canadian Institutes of Health Research and the Public Health Agency of Canada Chair in Applied Public Health. He is the guiding light behind the project. The City has launched a major neighbourhood development initiative, GO service is planned for the LIUNA-Station area, light rail transit may come, and the city will see Pan-Am Games infrastructure gains.

McMaster's project will record baseline video data in neighbourhoods and then update the images at regular intervals as they change, both socially and physically. This work is expected to go on for some years.

The university benefits in getting a kind of video data archive of city neighbourhoods-in-transition. This digital data will be housed and interpreted in an internationally unique new lab in the Faculty of Social Sciences – a lab that will allow for virtual reality re-creations of the neighbourhoods.

"This will be an enormous resource for researchers and policymakers across Canada, effectively creating an accelerated knowledge-creation (and) knowledge-application cycle," the document reads. ■

This requires investments in social housing, as well as better co-ordination of policies and programs in troubled neighbourhoods.

"There are many 'capital assets' in Hamilton – natural, social, cultural, economic and in the built environment – and it's critical to ask how we can leverage them for betterment of health and the reduction of avoidable inequalities."

Despite signs of a large and growing gap between rich and poor, Dunn remains an optimist that he and other social scientists can help effect positive changes.

He points to strong attendance figures at a post-Code Red speaker series he organized in Hamilton.

"We've had huge turnouts. There are many people who can see that reducing inequality may be in their enlightened self-interest." ■

IQ research feature — McMaster's CRCs

McMaster's **Canada Research Chairs** from the Faculties of Humanities and Social Sciences



MEGAN BRICKLEY
Canada Research Chair
in Bioarchaeology of
Human Disease

Megan Brickley
(Anthropology)

straddles the worlds of biology and archaeology, examining human skeletal remains of centuries-old communities to shed light on how they lived and died. Whether testing bone fragments of soldiers who died in the Battle of Stoney Creek or detailing dietary problems in 19th century England, her detective work may yield clues to present-day diseases ranging from osteoporosis to diabetes.



DANIEL COLEMAN
Canada Research Chair
in Critical Ethnicity and
Race Studies

Daniel Coleman (English) is doing just that. His research on how literature has reinforced British-based white culture in Canada is making us re-think what it means to be Canadian.



KATHERINE CUFF
Canada Research Chair
in Public Economic Theory

Katherine Cuff
(Economics) uses
economic theory and
mathematical models

to test the impact of economic policies before they are implemented. Her work on taxation, rent control, minimum wage and health care is helping governments make better choices for Canadians, and contributing to Canada's economic growth and well-being.



PHILIP DeCICCA
Canada Research Chair
in Public Economics

Philip DeCicca (Economics) has found that higher cigarette taxes lead smokers to smuggle cigarettes from other jurisdictions where prices are lower. His research on cigarette prices and where smokers make their purchases will help governments develop a more coordinated approach to cigarette taxation.

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NICHOLAS GRIFFIN
Canada Research Chair on
Bertrand Russell, Peace and
the 20th Century

Nicholas Griffin
(Philosophy) has
written five books

on philosopher, mathematician and renowned 20th-century peace activist Bertrand Russell. He also oversees one of the world's major collections (housed at McMaster) of the philosopher's work. Now, in what may be one of the largest scholarly editing projects ever undertaken, he's making this material accessible online – a treasure trove for researchers worldwide.



STEPHEN McBRIDE
Canada Research Chair
in Public Policy and
Globalization

Stephen McBride
(Political Science) is
studying how public

policy changes in a globalizing world can impact and influence the economy, the environment and the political landscape. By focusing on two major world events – the 2008 economic meltdown and global climate change – he hopes to help governments better manage these and future world crises.



HENDRIK POINAR
Canada Research Chair
in Paleogenetics

Hendrik Poinar
(Anthropology)
specializes in ancient
DNA – looking at

the past to inform the present and the future. Poinar's work will lead to better understanding of the evolution of pandemic infections, thereby helping researchers track the spread of future infectious disease. It will also have major impacts on the recovery of DNA from forensic, archaeological and fossil samples, letting us look into the past and watch evolution in real time.

From climate change to cigarette taxes, from archaeological digs to economics labs, McMaster's seven Canada Research Chairs in Social Sciences and in Humanities are advancing knowledge in ways that are improving our economy, our health, and our understanding of the world around us.

The Canada Research Chairs program stands at the centre of a national strategy to make Canada one of the world's top countries in research and development. Launched by the federal government in 2000, the program helps Canadian universities attract and retain the world's best researchers. McMaster has the third highest number of Chairs allocated in the province of Ontario and the ninth highest in Canada.

IQ faculty feature

MEGAN BRICKLEY The bone detective

In a lab full of shelves laden with skulls and skeletons, Megan Brickley gestures to three long tables that hold 770 bones and fragments, each representing the human cost of a battle fought in 1812 at Smith's Knoll in Stoney Creek. Some pieces are dime-sized, while others are recognizable as the longer bones of the arm and leg.

"We have human remains from across the skeleton, but almost no complete bones," she explains, "so we're going to try to determine the minimum number of individuals using the maximum number of tests."

Megan Brickley knows bones. She has studied human skeletal remains from the collective tombs of Neolithic peoples, examined skeletons from 18th- and 19th-century churchyards in Britain and assisted criminal investigations with her forensic work.

Brickley is a biological anthropologist, a world-class expert who left her native England last year to come to our country as McMaster's Canada Research Chair in the Bioarchaeology of Human Disease.

Her understanding of early populations has helped to reconstruct past human life, and detailed the dietary problems and diseases encountered in the Old World. McMaster has provided her with a springboard from the Old World to the New World, extending her research program to include work on the societies from Canada's past.

Brickley's research expertise has been tapped to assess the human remains found at Smith's Knoll, a parcel of land designated as a War of 1812 historic site. The City of Hamilton is hoping for answers about the bones and fragments found there which might be American or British soldiers who died in the Battle of Stoney Creek.

Brickley will be using a variety of techniques – sophisticated imaging technologies and innovative methodological approaches – to tease out some answers to



■ Megan Brickley in her research lab at McMaster. Photo courtesy of Faculty of Social Sciences.

questions about the individuals. What sort of diet did they eat? What age did they live to? How did they die?

She has utilized the skills of the researchers and technicians at the Canadian Centre for Electron Microscopy to use McMaster's powerful Titan electron microscope to learn more about the human remains she's been charged with, and linked up with faculty from science and medicine to begin answering some questions. Colleague and fellow anthropologist Tracy Prowse will also help with the bone analysis, recommending where and how the better specimens will be sampled.

One of Brickley's first tasks was to determine just what weapons had caused the trauma evident on some of the bones. To find those answers, she enlisted the help of Jarred Picher, the resident weapons expert at historic Fort George in Niagara-on-the-Lake. On grocery-store-purchased pig ribs and cow leg bones, staff at the Fort used a bayonet, a tomahawk and swords from the period to illustrate their effect on the animal bones.

"The tomahawk completely severed the bones, while the bayonet strikes most

closely duplicated wounds analyzed so far on the bones from Smith's Knoll," explains Brickley.

The next steps of her investigation will be to determine how many individuals are represented by the hundreds of bones in the collection – narrowing down the numbers by first identifying those bones that humans only have one of and determining the left and right aspects of those bones that come in pairs in the human body.

Brickley will also use the bones and teeth to determine where the individuals grew up, using isotope analysis that will reveal things like diet – one of the very basic differentiators between American and British soldiers.

"Maize was far more common and prevalent in the North American diet of the 19th-century soldier versus the diet eaten by the men who came from Great Britain," notes Brickley.

When the bicentennial of the War of 1812 is commemorated next year, Brickley hopes to have all of the research completed, providing a clear picture of the life – and cause of death – of the soldiers who perished on Smith's Knoll. ■

IQ faculty feature

MELANIE HEATH Exploring gender, sexuality and family



Melanie Heath

In 1967, defending the decriminalization of homosexuality, then-Prime Minister Pierre Elliott Trudeau uttered his now-famous claim that “the state has no place in the bedrooms of the nation”. Today, what happens in our bedrooms has become fodder for American political candidates, Supreme Court challenges, and even reality TV shows.

Just ask Melanie Heath. The assistant professor of sociology has been examining everything from marriage promotion politics and polygamy to conservative new religious movements like the Promise Keepers and the growth of multipartnered relationships like polyamory. And she’s finding that the rules governing gender, sexuality and family are being redefined with contradictory and unstable effects.

Her soon-to-be-released book, *One Marriage Under God: Inequality and the Promotion of Marriage in America*, is the first in-depth study of contemporary

American marriage promotion politics, a pervasive government strategy designed to ensure the propagation of traditional, heterosexual, dual-parent families.

“There’s not a single state in the U.S. that doesn’t practice marriage promotion politics in some way,” says Heath. “Many provide discounts on marriage licenses if you take a marriage training class. Others mandate single mothers to take the class as a condition of receiving welfare.”

Heath spent 10 months in Oklahoma studying its statewide marriage initiative, a \$10 million effort that had pastors committing to a four- to six-month “preparation period” before performing a wedding and vowing to promote “unconditional love, reconciliation, and sexual purity.”

“But the policy was self-defeating,” says Heath. “It funnelled welfare funds away from poor single mothers to white, middle-class, heterosexual couples.”

Continuing her interest in “the idea of competing values and what a democratic society allows,” Heath received a SSHRC grant that will allow her to conduct

a comparative historical analysis of government regulation of polygamous marriage in three countries – Canada, France and the U.S. Her focus is on the fundamentalist Mormon communities of Bountiful, B.C., and the U.S., evangelical polygamists, African-American Muslims, and the Muslim populations, notably west and north African, living in France.

“I’m interested in how it is that this ancient practice, viewed as backward and harmful by so many, still exists in modern societies despite the clash of values with women’s rights, free choice and present day conceptions of love and intimacy.”

The issues are different in each country, as are each country’s approaches. “In the U.S., where the number of polygamous families is large, many states have laws against polygamy but they’ve mainly chosen not to prosecute,” says Heath.

In Canada, it’s illegal, but the law has never been challenged – until now. The B.C. Supreme Court will rule later this year on whether Canada’s current laws declaring polygamy a criminal offense are constitutionally valid. ■

ELISABETH GEDGE Debating the philosophy behind the law



Elisabeth Gedge

Law, philosophy and ethics are part of the same branch on the tree of life and knowledge. In mid-May, the tree came to McMaster. The school’s philosophy department hosted a conference that attracted thinkers from around the world to debate ‘The Nature of Law.’ The gathering was the latest illustration of McMaster’s philosophical contribution to the law.

“In terms of ‘applied’ expertise, we are best known for Philosophy of Law,” says Elisabeth Gedge, chair of the philosophy department. “A number of

our faculty members, most notably Dr. Wil Waluchow, who holds the Senator William McMaster Chair in Constitutional Studies, are active in shaping the direction of jurisprudential thought in Canada.”

Gedge herself has also been at the forefront in stimulating public discussion on philosophy and the law. Among her special areas of interest – especially in the wake of the Canadian Charter of Rights and Freedoms – is feminist bioethics. She speaks at venues around the world.

“I regularly present my research at the Canadian Bioethics Society meetings and at international organizations, such as the Feminist Approaches to Bioethics

Network, the Philosophy of Law and Social Philosophy Association, and the Law and Medicine Colloquium.”

Philosophical issues in the law have taken on great import with the Charter’s passage in 1982, and with the acceleration of scientific and technological advances of the past 30 years.

“We’ve seen lively debate about the relation between science, technology and human values, around issues such as genetically modified food, reproductive rights, and physician-assisted death,” says Gedge. “Philosophers and other humanists remind us that these technologies are value-laden, and can enhance human lives, promote equity

IQ faculty feature

SPENCER POPE New insights into old societies



Spencer Pope

Head downtown to 1 Main Street West and take a look at what was Hamilton's first Bank of Montreal. Constructed in 1928, the building features four graceful Corinthian columns

and architectural elements that echo those found in ancient Greek temples.

Now answer the question Spencer Pope asks his undergraduate Classics students: "How does this building make you feel and why does it look like this?"

The most common answer is that the structure inspires a sense of trust, security and permanence – all good things if you're in the banking business.

According to Pope, the classically inspired composition of this and so many other buildings found throughout Ontario reinforce the value of Classics and how they influence so many of our traditions, because "the ancient world is a laboratory for understanding the societies of today."

Whether it's architecture that harkens back to 600 B.C., Greece, a city's Roman-

inspired grid patterns, sculpture, art or a coin's design – Pope helps his students build a 'metaphorical toolbox' to better understand the ancient societies that inform so much around us.

Pope's own interest in Classics was first ignited as an undergraduate at Middlebury College in Vermont, where he gravitated to archaeology then headed to Brown University in Rhode Island to pursue his PhD.

In 2006 he was excavating a site in Sicily when he got the call offering him a job in McMaster's department of Classics and, since then, "it's been one pleasant surprise after another."

Chief among those surprises has been Pope's unique collaboration with researchers from the department of medical radiation physics who contribute a new dimension to his research on the coinage used in ancient Greece and Rome.

The scientists use multiple systems to provide Pope with a metallurgical thumbprint or profile of some of the ancient coins from the McMaster Museum of Art's collection. They then use the university's nuclear reactor to penetrate deeper to

determine whether or not the coin was plated with a different material. What excites Pope about this particular aspect of his research is the opportunity to match the material evidence provided by the compositional profiles of the coins with what is known about the ancient economy.

"We're getting answers to questions about the origin of the coins – what percentage of tin, bronze, lead and copper was used in their manufacture – and now, I'm able to examine what these coins tell us about ancient Greece or Rome when they were in a time of war or crisis," explains Pope. "For example, what we're finding is that in periods of enormous debt, the treasuries were stretching prized materials like gold and silver with less valuable metals, which allowed them to do things such as pay more soldiers."

And the flip side of that coin? Pope gets this new information from the artifact itself.

"Coins are great tools for exploring antiquity. The processes we're using here at McMaster have become a reference point for researchers across Canada and other parts of the world." ■

and dignity, or run away with us."

So it was that, in the 1990s, a royal commission on new reproductive technologies – using a combination of prohibition and regulation – tried to create a balance between supporting important scientific research and protecting human health and dignity. Gedge was among the Canadian ethicists who consulted with the commission.

The Charter, says Gedge, is a fundamental cornerstone "for debate in political morality". It offers "strong protection for individual conscience and autonomy, while allowing that sometimes the good of the community comes first."

Academics in philosophy, humanities,

and the law enter into seemingly abstract issues that bear greatly on everyday life and death. So they debate the meaning of dignity. They talk about patients who are receiving care before death and how they should be treated with respect. They argue about doctor-assisted death. They discuss a dying person's needs – social, emotional, spiritual and physical. Ethicists "have expertise in unpacking the complex concepts of choice, well-being, and equality and therefore contribute richly to these debates."

Feminist jurisprudence issues are among these complex concepts of choice. For example, the Charter prohibits discrimination under the law, and in its

impact. This wording bears on group discrimination as well as disparities in the material circumstances faced by citizens. Feminist legal thinkers "have turned their attention to how the so-called 'turn to dignity' in constitutional jurisprudence has affected the claims of women and minority groups."

They welcome the concept of human dignity and how it is harmed when some people are marginalized, ignored, or devalued. But they "worry about the vagueness of 'dignity' and wonder whether those who complain of discrimination will have to show that they have suffered indignity as well as being denied "fair treatment" in society." ■



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