



THE
UNIVERSITY OF
BRITISH
COLUMBIA

1995 President's Report

On Social Sciences
and Humanities

1995

*President's Report
on Social Sciences and
Humanities*





UBC's President David W. Strangway.

When asked for an attribute that great civilizations share, British art historian Kenneth Clark replied "a sense of permanence."

In a world driven by science and technology, humanities and social sciences create this sense of permanence by emphasizing the importance of human diversity. Through them we learn the values, norms and collective intelligence of society, and deepen our understanding of material, social and cultural phenomena.

There is a tendency to acknowledge that the world is in deep distress and then to proceed as if that information were of no immediate concern. That distress includes ecological crises, overpopulation, starvation and famine, serious inequalities in the distribution of wealth and health, ethical conflicts and anarchy or near-anarchy in many regions of the world. In our own country, unemployment levels are high and the gap between the rich and poor has increased over the past decade. Democracy, if worth defending, needs eloquent partisans in such a world. Faculty members in the humanities and social sciences provide research

and instruction upon which advanced industrial democracies depend.

The major issues of our time are social. Even problems in the physical and biological sciences have strong social dimensions. The development of new drugs, for example, must take into account cost, medical ethics and the relationship between patients and doctors. Likewise, the development of new materials depends on the organization of production, aesthetics and tastes of consumers.

The collaboration of arts and social sciences with the physical sciences is critical, and a fundamental part of UBC's mission. One such collaborative effort is centred in UBC's Westwater Research Centre. The Tri-Council Secretariat awarded \$2.4 million to 27 faculty from the natural, social, applied and medical sciences to examine issues of sustainability in the 500,000-hectare Lower Fraser Basin. Interdisciplinary initiatives such as this challenge orthodoxy and promote dynamism in the development of scholarship.

More than 25 years ago, UBC's Faculty of Arts introduced the Arts One Program. It has been widely copied elsewhere. Arts One challenges undergraduates to struggle with big ideas by

choosing courses in history, philosophy, anthropology, classics, English literature and other literatures in translation. The program instills in students the skills of critical and independent thinking. Arts One is one of more than 60 interdisciplinary units on campus spread across the faculties of Arts, Law, Education, Commerce and Graduate Studies.

In 1992, UBC produced the first inventory of its research in the humanities and social sciences.

The purpose of the report was to stimulate communication among faculty who share common research interests and to show the university community and beyond the magnitude and range of these research activities.

More than 300 faculty members in the faculties of Arts, Education and Law are involved in humanities research. Together they carry the heaviest teaching responsibilities and expectations in addressing, among other things, Canada's literacy deficit. The solution to the literacy problem is not simply a matter of grammar and spelling. It lies in the areas of critical thinking, inspired ideas and persuasive communication more than one language and culture.

UBC has been particularly vigilant over the last four decades in nurturing expertise in Pacific Rim studies. (See *President's Report, Towards the*

Pacific Century) The university recently established five centres devoted to Chinese, Japanese, Korean, South Asian and Southeast Asian research.

Humanists contribute to the rich world of thought, imagination and experience through interpretations of American, Asian, European and other traditions. Their ultimate goal is the creation of a more humane, tolerant and rational society. A prominent UBC professor noted recently that humanities research demonstrates how the relationships between knowledge, reality and value “construct cultures, direct history, permeate social customs and affect individual lives.” He also pointed out the value of humanists in encouraging students to read and evaluate language and their culture in context: to ask questions about why things are said and events take place, to enquire into the validity and the consequences of various choices, to examine their own responsibilities and those of others, and to consider the ramifications of actions and arguments.

Both humanists and social scientists toil in highly competitive and demanding arenas of enquiry, discovery, reporting and criticism in their respective disciplines. The image of a gentle scholar pursuing esoteric or eccentric subjects remote from the demands of students, peers or the public is no longer relevant. As British Columbians heed local, provincial, national and international concerns, they frequently seek the opinions of the province’s academics. Seldom does a day go by without one of UBC’s economists, historians, literary critics, education or law professors providing the media with informative articles or interviews. Whether it is the essentials of the Canadian Constitution, the breakup of the Soviet Empire, the works of Margaret Atwood or English-as-a-second-language programs, UBC humanists and social scientists can be tapped for insight. This report provides a glimpse of their expertise.



Deans

G. E. Robinson (1916-20)

H.T.J. Coleman (1921-29)

Daniel Buchanan (1929-49)

S.N.F. Chant (1949-64)

Kaspar Naegele (1964-65)

Dennis Healy (1965-69)

John Young (1969-70)

Douglas Kenny (1970-75)

Robert Will (1975-90)

Patricia Marchak (1990-)

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Within a Faculty of Arts one should be able to study human history and language, the nature of the arts including literature, philosophy, mathematics, and the diverse spheres of society from the economy to the polity. One should in the fullest sense be free to study human lives, sometimes one at a time, sometimes the interplay among them, sometimes human accomplishments considered in their own right...

A Faculty of Arts with this study of mankind as its enduring mandate must sustain more than one kind of intellectual effort. Unlike a Faculty of Science it is bound to be intellectually pluralistic, and, out of strength and not out of weakness, must be equally hospitable to a scholar observing children and to one studying French-Canadian literature. To maintain coherence about this diversity is itself part of the distinct task of a Faculty of Arts."

Discipline and Discovery—A Proposal to the Faculty of Arts of the University of British Columbia, 1965

Before UBC opened on September 30, 1915, President Frank Wesbrook summoned a meeting of all faculty members to outline administrative policy. It was his view that until the university was larger and required a measure of decentralization it would be unwise to hold separate faculty meetings. Said Wesbrook:

"Anything which divides faculties too definitely into groups which have a tendency to grow away from each other is to be discouraged."

On opening day, a UBC press release proclaimed an enrolment of 379 students studying 42 subjects in 123 classes. Of those enrolled, 318 students were

listed under Arts and the remainder Applied Science. Not until President John Macdonald's tenure a half century later did the original Faculty of Arts and Science split, a move described in the Alumni Chronicle as "in the interests of increasing intellectual stimulation and encouraging growth in blocks of related studies."

The founding arts and science faculty was certainly no stranger to growth. As with all great universities it was considered the core of the institution. Within its first decade, the faculty established departments of nursing and health, forestry and education. Course selection swelled to include Asian languages, fine arts, music, law, home economics, commerce and a two-year social service diploma course. By the early 1950s, the departments of Pharmacy, Education and Commerce had been granted faculty status while Physical Education, Social Work and Nursing were formed into schools. The latter two enterprises, together with the School of Library, Archival and Information Studies, now form a strong professional component in what might be termed the applied social sciences.

With almost 500 faculty belonging to 19 departments and three schools (Social Work, Music, Library, Archival and Informational Studies), today's Faculty of Arts is a vast and varied research enterprise. Seventy-four faculty in Creative and Performing Arts are spread among four departments or schools: Creative Writing, Fine Arts, Music, and Theatre and Film (See *President's Report on Creative and Performing Arts*, 1990). The six social science departments (anthropology and sociology, economics, geography, linguistics, political science and psychology) have approximately 170 faculty members who teach close to 3,000 undergraduates. Humanities research is carried out by 108 faculty based in the departments of English, History and Philosophy. Likewise, 84 scholars in Language and Literature Studies (Asian Studies, Classics, Religious Studies,

Russian Studies, French, Germanic, Hispanic and Italian) seek to preserve and transmit knowledge created over centuries in many lands.

Former Dean Kaspar Naegle championed the *Discipline and Discovery* proposal arguing that, above all else, the degree of Bachelor of Arts should make two requirements of every student: "mastery of some sphere of knowledge, and awareness of other areas of thought and activity, an awareness that includes a responsiveness to the unique qualities of other human beings and to those forces of vigour and greatness that underlie and relate all meaningful intellectual efforts." The proposal's call for coherence amidst diversity can be found in a number of key areas of research performed across the faculty.

ARTS AND THE CANADIAN LANDSCAPE

Cole Harris, a long-time resident of British Columbia, understands the Canadian landscape better than most. One of three UBC geographers named to the Royal Society of Canada (25 per cent of all Canadian geography fellows), Harris is perhaps best known for editing Volume One of the *Historical Atlas of Canada*. The atlas, published in 1987, outlines Canada's development from the end of the last ice age to the year 1800.

Harris is considered by many peers to be the best historical geographer in North America. He has devoted his career to understanding the expansion of European settlement in Eastern Canada before 1800 and in British Columbia since the gold rushes. After completing the atlas, Harris, along with colleague Robert Galois, took on the daunting task of writing a historical geography of B.C. from the beginning of European contact in the 1770s to the eve of the railway in the early 1880s. At the heart of their research is the dramatic clash of colonial power and aboriginal culture that took place along the lower Fraser River during the Gold Rush of 1858. "The worlds that ran into each other could

hardly have been more different," said Harris, who joined the geography department in 1971. "It was a huge collision of values and ways of life."

Harris' work is the first broad interpretation of early B.C. written in the last 30 years and the first written from a geographical perspective. Past research on the roots of early B.C. has been divided among a number of academic disciplines. Harris' goal was to pull some of these different strands together and present them in a more integrated regional framework. To do this, he and Galois combed through reams of resource materials including archaeological records, Hudson's Bay Company files, CPR surveys, and journals of early traders and missionaries. They also coded and analysed the nominal census of British Columbia of 1881, learning in the process how land was apportioned lot-by-lot. The census also showed the demographic characteristics of the early ranching society in the Nicola Valley, and Chinese railway workers in the Fraser Canyon.

But it is the underlying aboriginal presence, together with the European influx, that intrigued Harris most. He explains that aboriginal ways dominated life along the Fraser River until 1858 and then were quickly marginalized. The miners who poured into the new colony contributed to this, but the more decisive influence was a new regime of land ownership, backed by laws, courts, jails and, if necessary, gunboats. First Nations protests were not heard. By the time of the Indian Reserve Commission of 1878, the agricultural lands of the lower Fraser Valley had been allocated to whites. By then, writes Harris, "moving seasonally as they could through land they no longer controlled, Natives were everywhere and nowhere."

Related research:

- Exploration of the historical geography of the Maritime provinces from 1755-1955 (Graeme Wynn)

THE LITERARY LANDSCAPE

William New has helped open the doors to Canadian and Commonwealth literature as a research discipline. That Canadian and Commonwealth writings are major areas for scholarly investigation seems obvious enough; such recognition, however, came late and owes much to the insight of New, who was one of the earliest scholars to appreciate the critical significance of these fields. Long before it was fashionable to do so, he was pointing to the vitality of Canadian fiction and poetry and identifying the national and regional forces that characterize the work of Canadian writers.

He has been associated with the major journal of literary criticism in the country, the quarterly *Canadian Literature*, for more than two decades. The journal, affiliated with the Faculty of Graduate Studies, was first published in 1959 under the editorship of noted Canadian author George Woodcock, then an associate professor in the English department. Woodcock believed that the publication's first task was to keep readers informed about what was happening from year to year in the Canadian literary world. As Woodcock once said: "We have no intention of promoting the kind of cultural nationalism which suggests that being Canadian is an initial virtue in a piece of writing." New credits Woodcock, from whom he took over as editor in 1977, for establishing *Canadian Literature* as the foremost journal devoted to the study of Canadian writing.

New's dedication to the field of Canadian and Commonwealth literatures is evident in his own publication record. His first important book, *Articulating West* (1972), was a landmark in its charting of a regional consciousness in western Canadian writing and is cited in the Oxford Companion to Canadian Literature. New extended his influence when he edited the six volumes on Canadian writers for the *Dictionary of Literary Biography*, volume four of the *Literary History of*

Canada, and when he published his *History of Canadian Literature* (translated into Chinese in 1994). He was elected a fellow of the Royal Society of Canada in 1986.

After earning his Master's from UBC and a PhD from the University of Leeds, New was invited back to Point Grey in 1965 to set up a course in Commonwealth literature. When he was a UBC undergraduate, he took a double major in English and Geography and it is geography to which he has returned for his latest research project.

New is authoring *Land Sliding*, a book he says is "about why Canadians have for so long been fascinated by distance and scenery, property and region, their own part of the world and their own place in it." New says the book, which focuses on English-Canadian writing, demonstrates how differing approaches to these various concepts of land help illuminate Canadian cultural practice.

Like New, English Prof. Sherrill Grace is currently engaged in a cross-Canada project. Grace's work draws upon literary and other texts to explore the representation and significance of the Canadian north over approximately 150 years.

According to Grace, Glenn Gould's idea of North has been dominant in Canada for a long time. Canadians have constructed themselves as a northern nation through advertising, tourism and international affairs and have expressed this through literature, theatre, arts and film. Yet despite the pervasiveness of this northern notion, Grace contends that exactly what north means, where it is located and how it is used to shape both cultural identity and government policy has not been thoroughly examined. Moreover, the role literature plays in the creation of a mythology of north is not well understood. By bringing together and analysing a wide range of writing and other materials, Grace aims to isolate key elements in the construction of Canada's cultural identity.

The study serves not only to identify and chart a fascinating body of material for the first time, but also to demonstrate that the Canadian north is as enduring a myth of broad cultural and national significance as West has been for the United States.

Shortly after coming to UBC in 1977, Grace established herself as a major critic of Canadian literature, with books on Margaret Atwood and the life and work of British-born author Malcolm Lowry. Her doctoral work on Lowry culminated in a well-received book, *The Voyage That Never Ends: Malcolm Lowry's Fiction* (1982), part of which was reprinted in an English critical anthology on Lowry in 1987. In addition to editing a 1992 anthology of critical essays on Lowry, Grace, a fellow of the Royal Society of Canada, recently completed a two-volume critical edition of Lowry's collected letters. It is the largest enterprise of its kind dedicated to this writer. After four years of digging through private collections, British, American and French libraries and UBC's own Lowry Special Collections, Grace eventually gathered together more than 800 letters. Published for the first time, the letters range from elaborate discussions of literary form, philosophy and politics to passionate love letters and pleas for help.

By far Grace's most important publication to date is *Regression and Apocalypse: Studies in North American Expressionism* (1989). This work examines the influence of German Expressionism on the art, theatre and fiction of 20th century Canadians and Americans.

Related research:

- Rejean Beaudoin and Andre Lamontagne from the French department have set out to establish a collection of Canadian critical texts written in English on Quebecois literature from 1867-1989. The goal of their three-year project is to find out whether this critical reception coincides with the existing

canon of Quebecois literature and to assess the similarities and differences between the readings of Quebecois writers made in English Canada as opposed to the readings made by Quebecois critics. Except for a very few well known authors such as Roch Carrier, there has been no such study to date examining the critical reception of Quebecois literature in Canada.

- Eva-Marie Kroller is producing a cultural history of 20th century Canadian travel abroad, drawing on sources in English and French, and on selected sources in German and Italian. A sequel to her book *Canadian Travellers in Europe, 1851-1900* (1987), the research focuses on changing perceptions of Europe following World War One and charts the increasing attraction of non-European destinations. A major goal of the study is to determine characteristics of Canadian national identity as they were expressed in contact with other societies. Contacts in the areas of arts, politics, religion, and ordinary daily life are documented in the travel narratives of writers, painters, musicians, actors, theatre directors, journalists, lawyers, missionaries and average citizens. Kroller was appointed editor of *Canadian Studies* in July, 1995.
- Cross-border comparisons of literature provide the basis for studying several North American regional cultures. British Columbia, Washington and Oregon share many geographical features and have economies based on similar natural resources. By comparing stories and poems from both sides of the 49th parallel, English Prof. Laurie Ricou defines and elaborates on some primary characteristics and national differentiations of Pacific Northwest culture.

THE POLITICAL LANDSCAPE

Interests of the 24-member political science department range from comparative politics, international relations, political theory, public policy and political behaviour. Geographically, interests encompass Japan, China, North America, Southeast

Asia, South Asia, Africa and the former Soviet Union. Fully half the department's scholarship revolves around Canada.

In 1993, Alan Cairns became the first holder of the Brenda and David McLean Chair in Canadian Studies, an appropriate choice of a person widely considered to be one of the foremost political scientists on Canadian politics and the Constitution. His credentials for the position are impressive: fellow of the Royal Society of Canada, recipient of the Canada Council Molson Prize (1982), a founding editor of the *International Journal for Canadian Studies*; William Lyon Mackenzie King Visiting Professor of Canadian Politics, Harvard; visiting professor of Canadian Studies, University of Edinburgh; past president of the Canadian Political Science Association.

An author of 12 books on Canada's Constitution and political health, Cairns' publications record is studded with articles that have had a fundamental impact on Canadian political science scholarship. He was the first to understand the effect Canada's electoral system has had on the party system, helping to accentuate regional divisions in political loyalties and shaping the national policy agenda. He is credited with developing the concept of province-building, having recognized long before other scholars that post-war expansion of health, education and welfare programs was contributing to the development of strong provincial governments that would one day challenge the federal government in economic and social policy-making.

Cairns began his term as chair (which New assumed in July of 1995) exactly 33 years from his first appointment to UBC as professor of Canadian politics and federalism. Soon after joining the then joint Dept. of Economics and Political Science in 1960, he was chosen a senior research associate for a two-year government study looking into the social and economic conditions of

Canada's aboriginal peoples. His Oxford thesis on pre-imperial race relations in Central Africa caught the eye of Harry Hawthorn, UBC's first professor of anthropology, who was heading up the federal project. Cairns acted as one of three research directors for the Royal Commission on the Economic Union and Development Prospects for Canada for two and a half years in the mid-1980s. The commission produced a three-volume report and 71 volumes of research laying the intellectual groundwork for, among other things, the Canada-U.S. Free Trade agreement.

The Constitution has been Cairns' overriding obsession for the last two decades. Cairns introduced the notion of Charter Canadians, arguing that the entrenchment of the Charter of Rights and Freedoms in Canada's Constitution has enhanced the political profile of women, ethnocultural minorities and others, as well as the citizenry at large. Several parliamentary committees sought his advice while wrestling with constitutional reform in the buildups to both the Meech Lake and Charlottetown accords. How to resolve the basic conflict between competing concerns of the governments of federalism and citizens in formal constitutional change remains a primary research focus.

Says Cairns, "We're in the midst of an ongoing attempt to discover who we are as people, as Canadians, and what we have in common."

Polling has become an inescapable fact of election campaigns. In Canada, nobody knows more about the polling process and its effects on the electorate than Richard Johnston. According to Johnston there are generally two types of polls that emerge during a campaign: commercial polls for profit and those crafted for political gain. As principal investigator for a half-million dollar study of the 1992 federal election, Johnston promised the truest account of the election

proceedings. To deliver on his promise, Johnston and colleagues used a computer-assisted telephone survey to determine how voters were influenced during the course of the campaign. The wide-ranging survey included questions on Canada's social structure, attitudes towards the U.S., the union movement, the size of government and specific party policy. Johnston concedes that private pollsters may have talked to more Canadians during the campaign, but none talked to respondents for as long or were as consistent in their questioning.

By analysing the response of about 3,700 participants, Johnston got a sense of what issues affect the vote, the effect of media use during the campaign, an evaluation of the leaders, expectations of a party's chances of success and voter intentions. Close to half of the total sample also took part in two waves of interviewing during the 1992 referendum.

The project was the eighth such study funded by the Social Sciences and Humanities Research Council since 1965. Johnston, who directed the 1988 survey, says the purpose of the studies is to record an important part of Canadian political history, the data from which are made available to election researchers worldwide. Johnston added that information gathered by the federal election studies filters down to the taxpayers and makes them more aware of vote-getting tactics used in campaigns. Johnston used results from the 1988 National Election Study to co-author *Letting the People Decide: Dynamics of a Canadian Election*. The book, winner of the 1993 Harold Adams Innis Prize, has become required reading for political journalists and party organizers throughout the country. An earlier work by Johnston, *Public Opinion and Public Policy in Canada: Questions of Confidence* (1986), used various survey data dating back to 1960 to provide a 25-year analysis of Canadian public opinion on political institutions and policies.

Johnston, the 1994 visiting professor of Canadian Studies at Harvard, is preparing a new manuscript titled *The Challenge of Democracy: The 1992 Canadian Referendum*.



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Related research:

- Viewing Canada as a multi-national federation, Philip Resnick has explored the identity of Canadians who are neither Quebecois nor aboriginal. His book, *Thinking English Canada*, looks at the state of English-speaking Canadians who are often grouped under the general heading "rest of Canada." Building on his earlier writings on Quebec and Canada, Resnick analyses the dialectic of region and nation, jurisdiction and power and how Canadians define themselves. Resnick won the Harold Innis Book Award for *The Masks of Proteus: Canadian Reflections on the State*.
- Analysis of the differences in political attitudes and behaviour of public and private sector employees in western democracies (Donald Blake)

THE URBAN LANDSCAPE

UBC can lay claim to a number of distinctions with its research and teaching of geography. The discipline at UBC actually began as a half-year course in physical geography offered by the Department of Geology and Mineralogy in 1915. Today, that same course is the oldest continuing geography course in any Canadian university. In 1922, the introduction of a course in meteorology and climatology also became a Canadian first, as was the decision to make geography a separate academic division. Despite the growing number of subspecialties over the years, the goal of geographers remains constant: to describe how the physical environment affects humankind and vice versa.

UBC geographers approach the interactions between people and places from a number of perspectives: through climatology/atmospheric science, physical geography (hydrology and geomorphology), historical, cultural, economic and regional geography. Perhaps nowhere do these diverse interests come together more than in urban matters, whether through transportation planning, resource management, housing, labour market segmentation or social movements.

This was shown in the 1992 publication, *Vancouver and Its Region*, a collaborative project involving 19 of the department's 26 full-time faculty. Written for a general audience, the book chronicles social, demographic and technological transformations that have helped shape the city. It also examines the region's extraordinary environmental setting and looks to the ecological, economic and political challenges that lie ahead.

Graeme Wynn, historical geographer and associate dean of arts, said the project was prompted by a growing uneasiness that as geographers and other academics become more specialized, their research

becomes more isolated from the public. As Wynn noted in the book's preface: "From the first, we strove to develop an integrated set of accessible essays that would convey a sense of the broad range of fascinating and distinctive perspectives that geography offers for the understanding of places while demonstrating the subject's capacity to put the increasingly fragmented pieces of modern scholarship together in a compelling and informative manner."

Department Head Timothy Oke has helped make the field of urban climatology more accessible. Arguably the world's leading urban climatologist, Oke pioneered studies of energy and water balances in urban areas and how they differ from surrounding countryside. He and his students developed the first numerical models to simulate urban evaporation rates and heat storage, and developed algorithms to express the influence of city size and weather controls on the heat islands (excess warmth) of cities.

When he entered the field at the end of the 1960s, urban climatology was essentially a descriptive field of study. Oke successfully introduced rigorous experimental methods to the subdiscipline, methods which treated city climates as an aspect of general atmospheric boundary layer physics, and helped transform the field into a respected research enterprise.

A majority of Earth's population lives within urban climates which consist of intricate mosaics of energy, moisture and material exchanges. A major focus of Oke's research has been the remarkable changes induced by the presence of heat islands within cities. To study the extra warmth of Vancouver, Oke attached a thermometer and other measuring instruments to a pickup truck and drove across the city at night, when the phenomenon is best displayed. Air temperatures differed by as much as 11 degrees Celsius between areas in the delta and the city centre during the summer.

Said Oke: "When you spread it out over a whole year it might only come to a one degree difference but that's the kind of difference we're concerned about in global warming." For other studies, Oke has placed instruments atop towers in Vancouver, Mexico City, Tucson, and Sacramento to measure exchanges of heat, water vapour and momentum between the city surface and the atmosphere. The resulting measurements illustrated how the surface uses heat from the sun to heat the atmosphere and evaporate water.

The importance of Oke's work cannot be overstated in view of the rapid process of global urbanization and the associated deterioration of the atmospheric environment. He says that while the real and potential dangers of human effects on the global environment receive much public attention, effects on the urban climate may be even more significant. For more than 20 years, Oke has helped spread information about urban climate issues as a consultant for the World Meteorological Organization.

Related research:

- Together with atmospheric chemists at York University, Douw Steyn is developing a computer model capable of predicting when, where and in what concentration low-level ozone appears in B.C.'s Lower Fraser Valley. This will provide scientists with a tool to predict the effectiveness of various emission-reduction strategies proposed by government or industry.
- Interactions between clouds and the global climate are explored through models and satellite and aircraft measurements of cloud properties. These properties include reflexivity, precipitation and cloud cover. (Philip Austin, Geography)
- A study of the implications of climate change for surface hydrology and water quality in B.C. (Olav Slaymaker, Geography)

For two decades, David Ley has concerned himself with the development of inner cities, that ring of neighbourhoods which surrounds a downtown core.

Specifically, he has been investigating the movement of middle class professionals into older neighbourhoods, a process otherwise known as urban gentrification. What began with two interpretive papers on Vancouver soon mushroomed into a national study looking at the inner cities of Halifax, Montreal, Ottawa, Toronto and Edmonton.

The focus for Ley's work throughout the mid-1980s was threefold: to define and measure the phenomenon using census data; to extend the statistical explanation of gentrification into a broader theoretical discussion of urban restructuring; and to examine the creation of new urban landscapes, the erosion of low-cost housing, and the intersection of gentrification and civic politics.

Since the process first gained prominence as a research field in the late 1970s, emphasis has shifted from studies of single cities or neighbourhoods to looking at gentrification as a key element in a broad range of social processes. This shift has led Ley, author of *The New Middle Class and the Remaking of the Canadian City*, to examine the restructuring of downtown labour markets, the status of the new middle class and the accompanying politics of consumption. In Vancouver, this has given rise to what Ley calls leisure-based landscapes, exemplified by the new sports arena or the proposal for a waterfront casino.

ARTS AND THE ECONOMY

Research from UBC's Department of Economics provides insight into how various sectors of the economy operate and how governments can best achieve their economic objectives. These insights are gained through studies in macro- and microeconomics, game theory, economic development,

public finance, econometrics as well as international, comparative, labour and monetary economics.

Research by the 39-member department has led to new methods of measuring the extent of inequality and poverty and to innovative approaches to estimating demand and supply functions. Faculty have also made fundamental contributions to international trade theory, natural resource economics and taxation theory and policy. Apart from its research and policy-making expertise, the department has been a leading supplier of professors and professional economists to academia, industry and government.

ECONOMIC THEORY

Much of the credit for UBC's reputation for outstanding research in economic theory goes to Erwin Diewert. Born in Vancouver, Diewert received a Bachelors and Masters degree from UBC and a PhD from the University of California at Berkeley. After two years of teaching at the University of Chicago, he returned west to his alma mater in 1970. Diewert's pathbreaking work since then has been credited with turning microeconomic theory from a textbook exercise into a practical tool for applied economic research.

On the international scene, Diewert is easily among the best known and most highly cited Canadian economists. His first major professional accomplishment was the development of flexible functional forms, an approach which has come to dominate applied work in modeling producer and consumer behaviour. Diewert's approach provides a means of understanding the complex relationship between prices (the key element outside a firm's control) and how much labour and materials (input) firms use to make a product and the quantity (output) they produce for maximum profit.

Diewert's second major contribution is to the theoretical and practical use of index numbers, a tool used to measure general trends in the economy.

His 1976 paper on exact index numbers for flexible functional forms was the first to indicate how statistical information on prices and quantities could be processed to construct price indexes (such as the consumer price index) in a manner more consistent with economic theory; that is, Diewert suggested price indexes would allow for the fact that consumers tend to substitute away from more expensive goods. The approach itself has influenced the construction of systems of national accounts in Canada and the United States and promises to become the dominant method for practical construction of price and quantity index numbers. One of Diewert's most recent papers was used by the head of the U.S. Bureau of Labour Statistics to analyse possible biases in the U.S. consumer price index.

In the last decade, much of Diewert's attention has been focused on applied welfare economics. He has used duality theory—a method of determining how levels of production or demand for factors of production vary with prices—to measure inefficiencies in the economy due to taxation or tariffs. Given that taxes benefit or harm different groups in society, Diewert has helped develop methodologies for identifying beneficial changes in tax and tariff rates.

Recognizing the importance of his theoretical contributions in the area of measurement, Statistics Canada has utilized Diewert's expertise on two of its advisory committees as well as on the National Statistics Council. He is also a research associate of the U.S. National Bureau of Economic Research.

TESTING THEORY

It has been said that most economists either specialize in theory and risk divorce from reality, or concentrate on particular industries and are lost to the profession as consultants. UBC's Margaret Slade is among the few economists who have combined

technical and modeling skill with a willingness to undertake detailed analyses of particular industries based on best-practice economic and statistical theory.

After finishing a BA and MA in Mathematics, Slade earned a PhD in Economics from George Washington University in Washington, D.C.

Prior to joining UBC in 1981, she was employed by the U.S. Geological Survey for 12 years and spent a year as an economist at the U.S. Federal Trade Commission.

Much of Slade's early academic work dealt with natural resource economics and issues of recycling and resource taxation. The principal thrust of her research, however, was devoted to testing theoretical models of resource-commodity pricing. In particular, she assessed how prices changed over time and attempted to reconcile this change with the principal theories of resource-price formation. This work led to examinations of the producer-pricing system, major commodity exchanges and other institutions that underlie price formation. Slade believes that traditional theories of price formation, based mainly on supply considerations, are inadequate for explaining resource-price behaviour.

Slade is also one of the first to apply game-theoretic models to Industrial Organization (IO) research, a field which has come under attack for being too theoretical. Although her work in this area has many strands, one that stands out is her investigation of price competition in markets involving limited competition between a small number of producers or sellers. A common theme in this area is that economic interactions in imperfectly competitive markets can be modeled as games. Economists have developed game-theoretic models (models in which decision-makers must act strategically because the outcome depends on the actions of all parties)

to understand the give and take between players. Since data of this sort is hard to come by, Slade collected her own detailed data sets from a number of markets including nonferrous metals, packaged foods and, most notably, Vancouver's retail gasoline market.

An important aspect of the organization of markets is the relationship between manufacturers and retailers. Recently, Slade has been assessing when manufacturers choose to do their own retailing through an integrated subsidiary and when they choose to franchise or to sell through independent outlets.

Related research:

- The theory of auctions and bidding behaviour has been the subject of considerable theoretical research in the past decade. Since 1985, Ken Hendricks has been using field data from oil and gas explorations to test predictions of game-theoretic models. His pioneering work with these models, particularly as they relate to oil auctions, is regarded as the most innovative and influential anywhere. Hendricks is an expert in modern, noncooperative game theory which has been used by economists to model a variety of economic conflicts such as price wars and strikes. Most recently, Hendricks, along with colleagues Michele Piccione and Guofu Tan, has analysed the economics of the hub-spoke configuration of airlines. This issue has gained increasing importance with airline deregulation and has significant implications for Canadian policy.

INFLUENCING POLICY

UBC economists have played a significant role in advising governments on policy or acting as participants in public debate on economic and social issues. Three scholars of note are Robert Evans, John Helliwell and Jonathan Kesselman. Recognized as Canada's premier health economist, Evans was a key contributor to the B.C. Royal Commission on Health Care and Cost. Helliwell, one of Canada's leading

applied economists, was instrumental in drafting the final report of the Royal Commission on National Passenger Transportation. Kesselman is one of the country's best known experts in tax policy and income security programs.

Joining this distinguished company is department head Craig Riddell, who in the mid-1980s served as a principal research coordinator for the Royal Commission on the Economic Union and Development Prospects for Canada (the MacDonald Commission). As a labour economics specialist, Riddell co-authored a major text on the subject titled *Labour Market Economics: Theory, Evidence and Policy in Canada*. His more recent publications deal with the economic effects of unemployment insurance in Canada (with colleague David Green) and a comparative analysis of unemployment in Canada and the U.S. The latter study, undertaken with Princeton economist David Card, sought a better understanding of the reasons behind Canada's high levels of unemployment during the 1980s and the implications for the country's unemployment insurance scheme. This study was the inaugural winner of the Douglas D. Purvis Memorial Prize for a work of excellence in Canadian economic policy.

During the 1980s, unemployment in Canada increased sharply relative to previous decades and relative to the United States. Riddell and Card found that the amount of time Canadians and Americans spend working in a year is remarkably similar. However, Canadians who are not employed are more likely to be looking for work, while non-employed Americans are less likely to report that they are seeking work. "The gap," says Riddell "is associated with the different ways Canadians and Americans spend their non-work time." The researchers also discovered that an unemployed worker in Canada is more than three times as likely to receive unemployment insurance benefits than an unemployed American.

Riddell's future research will use data from a national survey of literacy skills used in daily life to determine whether the education system is providing young people with the literacy and numeracy skills needed in the modern workplace.

Related contemporary and historical research:

- Assessment of a Direct Consumption Tax to replace the Goods and Services Tax
- Analysis of the Child Tax Benefit that replaced the Family Allowances and other child-related tax provisions in 1993. The study examines reforms in terms of their effects on the distribution of benefits as well as their practical operation. It also discovers important deficiencies of the reformed system and suggests methods to correct them.
- A detailed examination of the key economic, structural and operational aspects of the four provincial and one territorial payroll taxes. In the provinces that operate them, payroll taxes are now the third or fourth largest source of taxation revenues. (Jonathan Kesselman)
- An evaluation of Canada's immigration policy which is targeted towards selecting immigrants with occupational skills perceived as matching needs in the Canadian economy. Findings indicate that, with the possible exception of engineers, there is no strong evidence of difficulties in immigrants getting recognition for educational credentials obtained outside Canada. Immigrants also appear to shift occupations more readily than Canadian-born workers. (David Green)
- Angela Redish analyses the causes of the Depression in Canada. Her work adds to an understanding of both macroeconomic behaviour in general, and the Canadian economy in particular.
- Ron Shearer and Donald Paterson are working on a macroeconomic history of mid-19th century Canada. Their study involves collecting quantitative evidence

about the aggregate economy and encompasses topics such as the spill-over effects of the U.S. Civil War on Canada, growth of the Canadian money supply, investment in the new railway sector, the cyclical behaviour of the economy and the evolution of export trades and financial markets.

MIXING POLITICS, ENVIRONMENT
AND THE ECONOMY

"...the environmental crisis we now confront is quantitatively and qualitatively different from anything before, simply because so many people have been inflicting damage on the world's ecosystem during the present century that the system as a whole- not simply its various parts—may be in danger.

Historian Paul Kennedy in *Preparing for the Twenty-First Century*

A number of UBC political scientists are shedding light on the politics of environmental regulation and the economic impact of environmental policy.

Kathryn Harrison first came to the political science department in 1988 armed with two Master of Science degrees, in chemical engineering and political science, from the Massachusetts Institute of Technology. After graduating from MIT she worked as a policy analyst for both the U.S. and Canadian governments looking at how environmental control technology could be applied to issues like acid rain and ground-level ozone. Harrison made the switch from engineering to political science when

she realized that solutions to these problems weren't lacking technological input, but political will. "Often it's not that we don't know how to solve environmental problems, rather we don't want to spend the money to do so," says Harrison, who received her doctorate from UBC in 1993. In the Canadian context, she believes a study of federal and provincial regulation of pulp mill effluents clearly illustrates that the provinces are reluctant to strengthen environmental standards for fear of placing local industry at a competitive disadvantage.

The majority of Harrison's research has dealt with comparative analyses of Canadian and U.S. environmental policy. Harrison recently wrote a book with departmental colleague George Hoberg comparing the regulation of toxic substances in the U.S. and Canada through case studies of seven controversial substances suspected of causing cancer in humans: the pesticides alar and alachlor, urea-formaldehyde foam insulation, radon gas, dioxin, saccharin and asbestos. The work explores the very different approaches to decision-making amid pervasive scientific uncertainty in the two countries. Harrison plans to continue her examination of these varying regulatory approaches with an aim to finding out which is more effective.

Hoberg shows why regulatory convergence is not inevitable in countries as closely tied as Canada and the U.S. in his paper, *Sleeping With An Elephant: The American Influence on Canadian Environmental Regulation* (delivered at the 1990 annual meeting of the American Political Science Association). Still, Hoberg emphasizes how important the American experience is for setting the Canadian environmental agenda. Hoberg is at work on a book comparing forest policy conflicts in British Columbia with those in the U.S. Pacific Northwest and Alaska.

Related research:

- Resource economics theory is used to document the process of economic development within the Fraser Valley basin and how it has influenced the

area's ecosystem structure and function since the era of European settlement. The objective is to provide an economic model describing why the valley developed as it did, and what effects current land-use policy may have on the future environmental composition of the valley. (Ron Shearer and Anthony Scott, Economics)

- Examination of environmental risk perceptions, levels of trust and confidence in environmental leaders, and views of ecological policy tradeoffs among members of various publics (Neil Guppy, Sociology; Donald Blake, Political Science)

RESURRECTING POLITICAL ECONOMY

In the late 1920s, political economist Harold Innis began a Canadian research tradition based on a better understanding of Canada's place on a continent dominated by the United States. For the past two decades, sociologist Patricia Marchak has helped re-establish this tradition. Like Innis, whose first major work dealt with the Canadian fur trade, Marchak has dedicated much of her academic career to investigating those industries which form the backbone of Canada—forestry and fisheries.

Marchak edited the *Ubysey* as an undergraduate. An invitation from Harry Hawthorn, then head of anthropology and sociology, brought Marchak back to campus for graduate work in the mid-1960s and an eventual teaching position.

Marchak quickly established herself as a leading figure in the generation of Canadian social scientists specializing in the sociology of Canada. Her first book, *Ideological Perspectives on Canada*, is a major work on Canadian political ideologies in an international context and was instrumental in orienting the field of Canadian sociology. She began research on *Green Gold* (1983) in the late 1970s, at a time

when both the forestry profession and the industry were much less interested in the social impact of forestry than they are today. Identified as one of the outstanding academic books of the year and winner of the John Porter Memorial Prize, *Green Gold* examines the historical changes in forest technology, the organization of production, marketing strategies and ownership, and the nature of the labour force and communities dependent on forestry. Marchak used the research strategies developed during the writing of *Green Gold* to help produce another seminal publication called *Uncommon Property: The Fishing and Fish Processing Industries in British Columbia*. This work, co-edited with UBC sociology colleagues Neil Guppy and John McMullan, charts the relationship over time of the processing companies, the fishing and canning labour forces, fishermen's associations, ethnic communities, banks and government agencies at all levels. Research of this "fish and ships" group also challenged the idea of common property in the fishery as well as the value of the tragedy of the commons (overfishing) argument in accounting for the industry's history.

In her most recent book, *For Whom the Tree Falls*, Marchak analyses changing investment, trade and labour force data in pulp and paper and other forestry sectors in Japan, Indonesia, Thailand, Brazil, Chile, Australia and New Zealand. This research probes the rise of fast-growing eucalyptus and pine plantation industries in the south, their impact in indigenous peoples and tropical forests and the effect on global markets.

Related research:

Geographers Trevor Barnes, Geraldine Pratt and Daniel Hiebert are investigating economic restructuring, social polarization and international labour migration through three case studies, each focused on a different employment sector within the Greater Vancouver Regional District (GVRD). The GVRD is experiencing several fundamental changes reflecting broader national and global patterns: an increasing internationalization

of its economy and society; the introduction of flexible labour strategies, including the use of temporary and subcontracted workers; and a growing demand for both consumer (i.e. restaurant) and producer (i.e. construction) services.

The growing polarization of the labour market is a primary focus of the study, particularly those workers in marginal, often service sectors of the economy, who have little or no chance of advancement. The three case studies look at foreign domestic workers, and those in the building and tourist industries.

- Combining an interest in industrial archaeology, interdisciplinary studies and Canadian social and economic history, historian Dianne Newell's present research lays the groundwork for a major book on the history of technology in Canada. This work will address issues ranging from Canada as a wholesale borrower of innovations, to the impact of new technologies on women in the workplace to the international contributions of Canadians such as Ursula Franklin, Glenn Gould, Harold Innis and Marshall McLuhan. Since 1984, Newell has been researching West Coast fisheries, particularly the economic history of the salmon canning industry.
- Using Census data, sociologist Neil Guppy examines trends and future challenges facing education in Canada including current levels of education, international comparisons of education and training, recent historical trends in the Canadian educational system and opportunities and obstacles facing all Canadians in achieving higher levels of schooling.

ARTS AND FIRST NATIONS

The origins of First Nations research at UBC can be traced to the arrival of Harry and Audrey Hawthorn in 1947. Soon after completing his PhD studies at Yale University, Hawthorn received an invitation from President MacKenzie to establish a

separate department from the then combined enterprise of economics, political science, anthropology, sociology and criminology. The latter three subjects broke away and formed an entity in 1956. Hawthorn's mandate also included setting up a museum to house an ethnographic collection of some 700 items, mainly from Oceania. Before occupying the magnificent Arthur Erickson-designed building in 1976, the Museum of Anthropology (MOA) operated in the basement of the university library under the supervision of its first curator, Audrey Hawthorn.

The museum's involvement with First Nations artists and culture has shaped its own history. The Hawthorns' interest in salvaging totem poles, cedar houseframes and massive carvings, aided by such benefactors as Walter Koerner, led eventually to a renaissance of First Nations art in British Columbia. It began with the great Kwakwaka'wakw (Kwakiutl) chief Mungo Martin who came to campus in 1950 to repair old totems that the Hawthorns had gathered, and to carve new poles. Martin trained other carvers—his son and two nephews—and later helped internationally recog-



*Chief Mungo Martin pioneered the
re-creation of First Nations sculptures on campus.*

nized Haida artist Bill Reid. Both Martin and Reid (who worked with Kwakwaka'wakw artist Doug Cranmer) contributed to the re-creation of First Nations sculptures on campus. In a wooded section near the present Totem Park Residences, Martin supervised the erection of a Kwakwaka'wakw house-frame and 11 totem poles. Reid's yellow cedar sculpture, *The Raven and the First Men*, is a highlight for the museum's contemporary Northwest Coast Indian collection.

While the Hawthorns were working to save living, local cultures, pioneer UBC archaeologist Charles Borden began a series of landmark excavations of the prehistoric cultures of B.C. The archaeological collections are also part of MOA holdings.

At any time, about 80 per cent of the museum's holdings (except light-sensitive and archaeological materials) are on display to serious students or casual visitors who number more than 160,000 each year.

The MOA is, of course, a teaching museum devoted to academic research. Research projects initiated by Hawthorn early in his headship included the *Doukhobors of B.C.*, *Indians of B.C.*, and *Indians of Canada* (the latter co-directed by Marc Adelard-Tremblay). Apart from gaining international attention, these large-scale applied projects helped establish working relationships with B.C. First Nations artists and band councils—relationships which continue today.

One such collaborative effort is the ethnographic field school, introduced by Hawthorn in the 1950s and reintroduced by UBC anthropologists Bruce Miller and Julia Cruikshank this decade. At the request of local tribal councils, teams of UBC faculty and graduate students work with First Nations people to help with projects such as documenting a tribe's oral and archival history. UBC archaeologists have also been active in local

collaborative projects with First Nations groups. Two such projects, both near Mission, have involved excavating a semi-subterranean house dating back 5000 years as well as an ancient burial site opposite the Scowlitz Band reserve at the confluence of the Harrison and Fraser rivers. The museum has also developed special training programs for First Nations youth. The donation of the Walter and Mariana Koerner collection of Northwest Coast First Nations masterpieces was instrumental in acquiring funds for the Erickson building. Dr. Koerner worked closely with the Hawthorns from the beginning, and continues to support the museum to this day. The current Dept. of Anthropology and Sociology has a compliment of 34 faculty, six of whom are engaged in First Nations research.

One of the central challenges for cultural anthropologists is how to convey, in words, the experience of another culture. This becomes increasingly complex for anthropologists as people claim the right to control images of their culture that are presented to themselves and others. In the last two decades, Julia Cruikshank's research and writing about the Yukon has simultaneously contributed to scholarly debates in anthropology and has made the ethnography of the people of northwestern Canada meaningful to the local people and relevant to their concerns.

From 1969 to 1984, Cruikshank lived and worked in the Yukon where she developed her own collaborative research strategies designed to give anthropology legitimacy in the Yukon communities. Her writing describes the cultures of subarctic peoples through biography and oral history with particular focus on the role of aboriginal women, the politics of knowledge and oral and scientific approaches to knowledge.

In her first academic publication, *The Potential of Traditional Societies and of Anthropology Their Predator* (1971), Cruikshank argued that anthropo-

logists must integrate theory and practice, rather than continue what she described as an essentially predatory relationship with the people they study. Her subsequent work with the Yukon Native Language Centre contributed to documentation of oral history, place names, genealogies, life stories and to the development of Yukon school curriculum which incorporated indigenous voices.

Since she became a fulltime faculty member in 1988, Cruikshank has completed two books: *Life Lived Like a Story: Life Stories of Three Athapaskan Elders*, and *Reading Voices: Dan Dha Ts'edenintth'e*. The former deals with the life and culture of three women elders of the Tlingit and Athapaskan people. The latter work represents a major contribution to the developing field known as anthropological poetics by blending aboriginal and non-aboriginal texts and voices.

In 1993, Cruikshank was an invited speaker at two government-sponsored workshops dealing with indigenous oral tradition, the subject of her current research. Specifically, she is preparing a comparative analysis of the political use of oral traditions in North America and Europe. Cruikshank explains that interest in oral tradition emerges from romantic nationalism or attempts to reconstruct a lost or vanishing cultural heritage in order to unify a nation. This interest can, however, be appropriated as a tool of the state to extend political control. Says Cruikshank: "Examinations of how oral tradition has been used in other countries and during other periods of history suggests that models from elsewhere may provide some cautionary guidelines about the elastic promise often attributed to oral tradition in Canada."

Both Cruikshank's Master's and PhD theses were supervised by colleague Robin Ridington, whose work has set standards for Native American ethnography, particularly his studies of the

Dunne-za and Omaha peoples. Through more than 30 years of close co-operation with these tribes, Ridington has come to regard tribal elders as teachers who provide a perfect complement to the formal training of the anthropologist. Like other northern hunting people, the Dunne-za or Beaver People of northeastern B.C. emphasize personal experience as a source of knowledge.

Related research:

- A long-term study of the past and present adaptations of the Dene Indians in the Mackenzie Mountains and the Mackenzie River Valley, Northwest Territories. The goal is to understand how hunting and gathering bands adapt to mountain environments in the western subarctic.
- An evaluation of public perceptions of archaeological research and the significance of archaeological resources in contemporary society (David Pokotylo, Anthropology and Sociology)
- Religious systems and expressive art forms among the Coast Salish
- Organization of aboriginal economic activity and ideologies related to natural resources in Northwest coast and Plateau peoples (Michael Kew, Anthropology and Sociology)
- An on-going analysis of Coast Salish social organization, history and ethnic relations (Bruce Miller, Anthropology and Sociology)
- Exploration of the current and intended use of land and resources by First Nations (Bruce Miller, Michael Kew)
- A sociological study of conflicts revolving around environmental issues such as access to natural resources and the perceived effects of pollution. A case study of the first issue is focused on responses to the Aboriginal Fishing Strategy and the formation of a counter movement called the B.C. Fisheries Survival Coalition. (Brian Elliott, Anthropology and Sociology)

"I clearly remember us being asked to go up when I was five years old. We were transported by the ship C.D. Howe and I cried all the way. When we arrived, it was as if we landed on the moon it was so bare and desolate."

Extract from a submission by an Inuit elder to the 1990 House of Commons Committee on Aboriginal Affairs. She describes being relocated 1,800 km north from Inukjuaq, Quebec to the remote arctic settlement at Resolute Bay.

The rationale for the 1953 relocation to Resolute Bay, Cornwallis Island and to Craig Harbour on the southern tip of Ellesmere Island is the source on ongoing controversy today as the public re-focuses on the creation of an Inuit territory, Nunavut. Government sources claim Inuit were moved to address serious welfare problems and get them back to economic self-sufficiency. Others believe these people were pawns in a Canadian government attempt to secure sovereignty over the Arctic Islands.

Frank Tester, who has researched this and many other relocations following the Second World War, says the truth lies somewhere in between. "The civil servants who oversaw the relocations may have had good intentions but they certainly didn't have any understanding of the culture they were dealing with," says Tester, one of 14 faculty members with UBC's School of Social Work.

To increase understanding among Canadians today of the Inuit's current situation, Tester has co-authored a book, *Myths: Responsibility, Welfare*

and Relocation in the Eastern Arctic, 1939-1960.

For three years, Tester combed through archives in Ottawa and Yellowknife, examined private documents in attics and basements, and travelled the Eastern Arctic talking to people about their relocation experiences. "The analysis of government representatives in the field as to what was going on was pretty awful," Tester explains. "The economy and lifestyle of the people of the Eastern Arctic was put in total chaos as a result of their dependence on a faltering fur trade and the Hudson's Bay Company." Officials in charge, however, didn't see it that way. Instead, Tester claims that the colonial attitude among bureaucrats, RCMP officers and Hudson's Bay representatives branded Inuit as lazy and indolent, a myth which was perpetuated in the media. The standard Canadian image of Inuit was one of a happy, furry people living blissful lives in the cold north. As the 1950s developed, these images were challenged by epidemics of polio, tuberculosis and death by starvation.

Tester's book charts the history of the Canadian welfare state, starting with the Supreme Court of Canada ruling in 1939 which made Inuit wards of the Crown under the British North America Act. He notes, paradoxically, that it is the 1939 decision recognizing Inuit as Aboriginal people which made possible the land claim involving the current Inuit state, Nunavut.

Research initiatives underway in the School of Social Work (also see *President's Report on Health Sciences*) deal with aspects of family violence, the development of cross-cultural models for improving health care delivery for disadvantaged populations in the urban core, and numerous other projects investigating multicultural, health and sustainable development issues in community planning.

The first comprehensive analysis of the fur trade's impact on First Nations peoples was undertaken by UBC historian Arthur "Skip" Ray. Ray's first book, *Indians in the Fur Trade*, examined the changing environmental and economic conditions which

the fur trade introduced to central and western Canada and the wide-ranging responses which First Nations peoples made in adjusting to them. Now in its fourth printing, the work's most important contribution is that it placed First Nations peoples at the centre of its inquiry. In so doing it, it marked a sharp departure from the Eurocentric scholarly tradition of historical writing about native-European relations, a tradition which stretched back well into the 19th century.

For his second publication, *Give Us Good Measure*, Ray drew extensively on the business records of the Hudson's Bay Company, making him the first historian to analyse these sources in a systematic way. The work explored the complexities of the fur trade economy, both in its North American and trans-Atlantic contexts. This work overturned long-standing, erroneous assumptions about the ways in which a barter system of exchange was meshed with the economic imperatives of European commercial capitalism. It also shed light on the economic behaviour of both partners in the fur trade.

Ray's most recent book, *The Fur Trade in the Industrial Age*, once more pushes the subject of aboriginal-European economic and cultural relations into new territory. It begins in 1870, where all other histories of the fur trade have stopped, and pursues the subject up to 1945. During these years the balance of power in the trade shifted increasingly against First Nations peoples, making them more marginal and dependent upon institutions outside their societies. While it was not the author's intent to address contemporary public issues, the book provides valuable insight into the circumstances and aspirations of First Nations peoples in Canada today. Ray's current research efforts are an outgrowth of his earlier focus on First Nations as consumers in the 18th century; specifically, gender implications of fur returns and trade good sales before 1763. In the course of surveying the Hudson's Bay Company records in preparation for this work, Ray noticed a number of debt books for

company posts in Northern Ontario for the latter half of the nineteenth century. What he found was that a sampling of these documents revealed accounts for women. Using the accounting and narrative records of the company, he plans to examine the economic roles that women played in Cree and Ojibwa societies at the time of contact and how this influenced their participation in the early fur trade as producers, consumers and workers.

FIRST NATIONS AND LANGUAGE

The linguistic study of First Nations languages might properly be placed among the faculty's social sciences. Among linguists' primary research interests are the role of language within a society, how language reflects the culture, and how to encourage the re-learning of First Nations languages. Another linguistic interest is first language acquisition in children; this is shared with psychology and units in the faculties of Education and Medicine. However, linguistic enquiries also overlap with those of language and literature departments in areas of language analysis and recording of traditional oral literature.

UBC linguists develop theory about how language is structured, especially sentence (syntax), word (morphology), and sound (phonology) structure. In terms of specific languages, a large segment of departmental research centres around First Nations languages of the northwest coast, in particular Salishan and Tsimshianic languages. This area aims to contribute both to the revitalization of these languages and to a better understanding of the general nature of language. Apart from northwest coast languages, aspects of Haitian, Creole, Latvian, Swahili, and Yoruba are also investigated.

Patricia Shaw has been studying the languages of Canada's First Nations since the mid-1970s and marvels at their inherent richness, diversity and complexity. This complexity is particularly manifest

at the phonological level where many Northwest languages are characterized by unusual sequences of consonants and large inventories of speech sounds. She explains that most of our traditional understanding of how languages are structured, how they function and what universal properties they share was built on data from the world's so-called major languages and classical languages of eastern and western literary traditions. Consequently, study of First Nations languages can contribute significantly to defining a more broadly based model of human language.

For example Tahltanan Athapaskan language now spoken by fewer than 60 people in the Stikine and Spatzizi area of northern B.C. has one of the most elaborate and theoretically revealing consonant harmony systems in the world.

Shaw says that understanding the tightly constrained interactions within this system has contributed in several ways to our knowledge of the appropriate representation of speech sounds and characteristic constraints on how they can interact with one another. Other B.C. First Nations languages such as Nisgha (a Tsimshianic language, spoken in the Nass Valley) and Bella Coola (a Salish language spoken up the coast) are renowned for having extraordinarily long sequences of consonants in their words. Even more striking is the celebrated fact that some words in Bella Coola have absolutely no vowels.

Shaw became interested in linguistics after working as a foreign student advisor with the Ontario Institute for Studies in Education. Interacting with foreign students, particularly those from African and Southeast Asian countries, made her wonder if different language structures resulted in different modes of thought or cognition. This led to her realization that several of Canada's indigenous languages were not well documented and that many, under pressures of imminent extinction, might be lost with little or no record of the cultural and cognitive heritage they embody.

For her PhD thesis at the University of Toronto, Shaw examined the Canadian dialects of Dakota, a language spoken in southern Manitoba, as well as Assinaboine and Stoney dialects in Saskatchewan and Alberta. She found Canadian dialects weren't nearly as extensively recorded as some of their American counterparts. In part, this is due to the considerable linguistic diversity within Canada's borders. British Columbia alone has close to 30 First Nations languages classified into eight distinct, genetically unrelated language families. Shaw's research comparing various Northwest coast languages with each other and with other languages having unusual syllable structure has two major objectives: at a more specific level, ascertain the form and role of syllables in organizing sequences of sounds in languages with such unusual strings of consonants; and at a more general level, integrate these results into a coherent theoretical model of universal grammar.

The revitalization of indigenous languages is a major concern of linguists worldwide. Some experts predict that close to 90 per cent of the world's 5,000 languages may disappear in the coming century. The primary methods of keeping language alive are documentation, archiving and compiling dictionaries, grammars and texts, and implementing teaching programs.

In the last 16 years, UBC anthropological linguist Jay Powell has written 60 language books in 10 different First Nations languages for school children. He has produced student readers, exercise books and teacher training manuals for the Nitinat, Nuuchahnulth, Musqueam, Shuswap, Quileute, Kwakiutl, East and West Gitksan and Lillooet languages. He has also compiled two First Nations language dictionaries and is at work on a third.

Related research:

- Retranscription, editing and formatting into a contemporary form of a long, Upper Chehalis myth cycle collected in 1927 by Franz Boas; the same

will be done for the shorter myth texts collected by Boas and (later) Kinkade

- Sorting and arranging the vocabularies of Salishan languages into related sets toward reconstructing the vocabulary of the ancestral language from which the 23 modern languages have descended (Dale Kinkade, Linguistics)
- Learning Lillooet (Salish), analysing the syntax of the language, and developing teaching materials for use in the First Nations communities (Henry Davis, Linguistics)
- Learning Cree (Algonquian), analysing the syntax of the language and studying the interaction of Cree and French or English speakers (Rose-Marie Déchaine, Linguistics)

UNDERSTANDING OURSELVES AND OTHERS

UNDERSTANDING THROUGH PSYCHOLOGY

What makes people happy or afraid? How do children learn a language and what is the effect of having two languages spoken in the home? Why can some people cope easily with enormous amounts of stress while others have difficulty with small changes in their lives?

UBC's Dept. of Psychology has an international reputation for providing insightful answers to these and other questions posed by today's changing society. Close to one-third of the department's 103 graduate students are enrolled in professional programs in clinical psychology. Much of the practical training involved with clinical psychology occurs in the department clinic which serves an average of 65 clients each year. Research among 43 full-time faculty is split evenly between social science and medical or biological science (see *President's Report on the Health Sciences*). Faculty exploring social sciences are concentrated mainly in the developmental, social/personality, clinical, forensic and environmental areas.

Society faces a myriad of social and moral problems of increasing complexity. While programs of moral education in schools and correctional facilities help young people cope with interpersonal and societal challenges, the potential impact of other influences on a child's moral development is often overlooked.



Janet Werker, left, continues to look at the developmental changes that take place in the perception of speech sounds from infancy through adulthood. Her research shows that in the first year of life infants become attuned to the subtle but important nuances of their native language.

Developmental psychologist Lawrence Walker is grappling with the role parents and peers play in children's moral functioning. He contends that while both these sources of influence are powerful, the mechanisms and processes involved in each may be considerably different. Previous research by Walker explored the impact of parental styles of interaction and moral reasoning on children's development. Having provided evidence of parental influence, he

is now directly comparing these with those of peers. He is also examining the role of family structure in this process by comparing one- and two-parent families. The study involves 69 school-age children, each of whom participates with both a parent (father or mother) and a friend of the same sex. Initially, each person is interviewed separately and completes a questionnaire regarding their relationships. Then, in joint, video-recorded discussion sessions, pairings (either parent/child or peer/child) are asked to discuss and resolve a hypothetical moral dilemma and an actual moral conflict which they have identified in their own relationship. Participants' reasoning and behaviour in these sessions are used to assess styles of interaction, levels of moral reasoning and ego functioning. Walker intends to chart the changes in children's moral reasoning by reinterviewing subjects every 12 months over a five-year period. By examining patterns of moral reasoning across these sets of interviews, Walker hopes to determine whether the developmental process is continuous or marked by alternating periods of transition and consolidation in moral functioning.

This research provides valuable insights into the significant features of interactions within families and between friends. Walker's findings should also further our understanding of how to equip young people to handle more effectively the demands of living in a complex society.

Related research:

- Development of language and cognition during infancy and very early childhood (Janet Werker)
- Development of children's reasoning about both interpersonal and impersonal events (Michael Chandler)

Processes of socialization including the impact of television, attachment and gender role development (Tannis MacBeth Williams).

Forensic psychology is a relatively new and rapidly growing discipline. It involves the application of behavioural science to problems and issues of importance to the criminal justice system.

Robert Hare is one of the world's leading experts in the field of psychopathic behaviour. The UBC psychologist is author of *The Hare Psychopathy Checklist-Revised (PCL-R)*, an effective screening device that could help keep violent psychopaths off the streets. What started out in 1978 as a simple mimeographed handout for research purposes at UBC is now heralded as the best available method for assessing the mental disorder.

A decade of research by investigators in North America and Europe, involving thousands of prison inmates and criminal psychiatric patients, has shown the PCL-R to be a highly reliable and valid measure of psychopathy. Prisoners diagnosed as psychopaths by the checklist have shown to be between two and four times more likely to commit an offence after release than those diagnosed as non-psychopaths. Since decisions about sentencing, treatment and parole are influenced by a prisoner's clinical diagnosis, the PCL-R is increasingly being used to make predictions about which prisoners are most likely to return to crime after release.

"It's not good enough for clinicians to say it's their gut feeling that so-and-so is a psychopath," says Hare, whose research in the field spans 25 years. "The criteria for diagnosis and procedures followed in making it should be explicit and available for others to evaluate."

A PCL-R assessment, taking between two and four hours, consists of a semi-structured interview and painstaking cross-check of personal and criminal histories. The clinician or researcher then rates the individual on 20 items describing personality traits and behaviours relevant to psychopathy. The result is a score representing the extent to which

a subject matches the prototypical psychopath. A categorical diagnosis can also be given using a cutoff score provided in the PCL-R manual. Hare says about 20 per cent of prison inmates would rate a psychopathic diagnosis using PCL-R criteria.

As yet, there is no known treatment for psychopathy. Part of the problem, Hare explains, is that psychopaths don't suffer from the sort of personal or subjective distress that prompts others to seek treatment.

Related research:

- An analysis of characteristics and personality traits of chronic wife abusers (Donald Dutton, Psychology)
- A study to determine the nature of factors that deter men from using violence against their female partners
- Comparing the effectiveness of different approaches to reducing levels of physical and psychological abuse and increasing levels of psychological and interpersonal functioning in groups of assaultive husbands (Mary Russell, Social Work)
- Individual, group and family therapy for male adolescents who have sexually offended and are victims of abuse themselves
- Co-ordination of child sexual abuse services in rural communities (Kathryn McCannell, Social Work)
- Assessing the accuracy and detail of accounts by victims and witnesses of crime, including children's eyewitness accounts (John Yuille, Psychology)

There are hundreds of terms in the English language that serve to communicate, through correspondence or conversation, important information about a person's mood, temperament or interpersonal behaviour. Co-ordinator of the graduate program in personality psychology, Jerry Wiggins studies the way

in which people use words—such as kind, shy, or dependent—to describe themselves and their interpersonal relationships with others. Tests developed by Wiggins examining people's use of interpersonal terms have been effective in determining whether someone is extroverted, dominant, submissive or competitive.

Detailed statistical analyses of these interpersonal terms demonstrate that they are all related, in different degrees and combinations, to the two fundamental concepts of agency (dominance) and communion (nurturance). This finding led Wiggins to develop psychological tests, based on interpersonal word usage, which effectively measure an individual's level of agency or communion.

Among their many applications, the tests have been used by psychiatrists to study post-traumatic stress disorder in United Nations troops posted to Croatia and also in performance evaluations of U.S. army helicopter pilots. On a global scale, Wiggins' tests of interpersonal traits have been translated into Chinese, Dutch, Hebrew, German, Spanish and Swedish. Within the psychology department, Wiggins' work has been applied to the study of interpersonal problems (Lynn Alden), left-handedness (Stanley Coren), psychopathy (Robert Hare), social abilities (Del Paulhus), emotions (James Russell) and individual differences (James Steiger).

Related research:

- Study of children's understanding of emotion
- Cultural differences in emotional communication (James Russell, Psychology)
- Examination of cues people use to estimate the intelligence of others
- Analysis of the ways in which people deceive themselves (Del Paulhus, Psychology)
- Self concept and self esteem (Jennifer Campbell, Psychology)

- Social support for HIV positive men
- Processes of social comparison (Rebecca Collins, Psychology)
- Coping with stressful life experiences
- Cross cultural comparisons of social cognition (Darrin Lehman, Psychology)

Lynn Alden's research career at UBC involves two stages. When the clinical psychologist arrived at UBC in the early 1980s, a major thrust of her work was to examine treatment programs associated with alcohol abuse. From 1981 to 1984, Alden helped set up one of the finest alcohol treatment programs in North America for the City of Vancouver. Research publications stemming from the project have been a major influence on the development of institutional alcohol treatment programs elsewhere. While her work has since branched out into the field of interpersonal dysfunction, she continues to research in the area of behavioural medicine looking specifically at the effects of stress on cognitive functioning and stress management techniques.

The primary focus of her current research is understanding why some people are chronically afraid of social encounters. She has been a key player in the international effort to describe, characterize and treat the condition known as avoidant personality disorder. Alden has studied how peoples' thoughts about their own social behaviour cause them to act in particular ways and to elicit particular reactions from those around them. Through questionnaires and observations of social interactions in a lab setting, Alden has discovered that socially anxious individuals have a distinctive set of beliefs and expectations about what will happen in social situations.

"These people are convinced that if they allow others access to their real selves, they will be perceived as woefully inadequate and incompetent," says Alden. Moreover, to avoid social scrutiny, the anxious person often becomes passive, non-committal and nondisclosing, a manner which often leads to them being overlooked or avoided in social situations. The anxious person interprets this neglect as a sign of rejection and further fuels his or her sense of inadequacy.

Nor does praise help the anxiety problem. Alden's research shows that positive feedback causes the socially anxious person to worry about how much harder they will have to work in order to avoid the stigma of inadequacy. This research has changed the understanding and treatment of dysfunctional conditions such as shyness, non-assertiveness and depression.

Related research:

- How couples cope collectively and individually with daily stress. By assessing how well one individual's coping methods mesh with those of an involved other, this research provides practical insights into how to improve individual well-being (Anita DeLongis, Psychology)
- Understanding interactions between parents and children with behavioural problems (Charlotte Johnston, Psychology)
- An analysis of fear and courage under hazardous military conditions (Stanley Rachman, Psychology)
- Understanding the social context of pain (Ken Craig, Psychology)

UNDERSTANDING THROUGH LITERATURE

*"For at the heart of the Humanities is
human behaviour, in all its differences, all its
enquiries into the odd and the ordinary,
and all its expressions of disaster and desire.*

William New, Department of English, 1993

While psychology studies principles on which the human mind works, English examines productions of the mind and the way it expresses itself through imaginative literary forms.

English represents the largest department in the Faculty of Arts with some 65 scholars. Over the last five years faculty members have published more than 80 books. The list includes critical and biographical studies, scholarly editions of poetry, drama and fiction, anthologies, grammars, literary histories, language studies and works on folklore and children's literature.

Apart from its acclaimed Canadian and Commonwealth literature group, faculty research covers 12 centuries of writing from the anonymous poet of Beowulf to the latest works from Michael Ondaatje, Margaret Atwood and Leonard Cohen.

Perhaps nowhere is this breadth of research better exemplified than in the work of Ira B. Nadel whose principal scholarly publications divide into three categories: English literature of the 19th century; forms and conventions of biography; and studies of literary modernism, especially the works of James Joyce and Ezra Pound.

Nadel's doctoral work was in the area of Victorian fiction and his interest in the writings of the Victorians is amply reflected in the many books and articles he has produced on such figures as Dickens, Thackeray, Wilkie Collins and even Queen Victoria. Alone or with others, he has edited three collections of nineteenth-century critical essays, including the 39-volume edition, *The Victorian Muse, Selected Criticism and Parody of the Period* (1986). He also co-edited four volumes in the *Dictionary of Literary Biography* series, anthologies of current biographical and critical assessments of Victorian writers that have become standard works of reference.

Through the study of such 19th century writers as Walter Pater, Anthony Trollope and George Eliot, Nadel developed an extensive publications record on biography and autobiography. His book *Biography: Fiction, Fact & Form* (1984) has been acknowledged as one of the best modern examinations of biography as a literary genre, and praised for its contribution to the development of a poetics of biography. The book's importance was underlined soon after its publication by its nomination for the prestigious James Russell Lowell prize awarded by the Modern Language Association of America.

Over the last seven years, his interest in the varieties of personal writing have led him into fruitful examination of such major 20th century writers as Ezra Pound, Gertrude Stein, James Joyce and George Orwell. Working with unpublished letters and manuscripts, he has edited and published with the University of Texas Press the letters of Pound to magazine editor Alice Corbin Henderson (1993), letters which offer a new perspective upon the poet's views of emerging literary movements in the first half of this century. As for James Joyce, one of Ireland's pre-eminent men of letters, Nadel has written and lectured on many aspects of the author's life and work. Perhaps his best work to date is *Joyce and the Jews: Culture and Texts* (1989). In this study, Nadel draws on his considerable knowledge of Jewish writing and tradition to show significant parallels between

Jewish history and experience and Joyce's life and outlook in his self-imposed exile from Ireland.

Still other areas of Nadel's scholarly activity are his critical studies of Canadian writers such as Irving Layton and A. M. Klein, or his bibliographical account of Jewish Writers of North America. His critical work, *Leonard Cohen, A Life in Art* (1994) is a prelude to his comprehensive biography of Cohen now being researched. In addition to chairing the Graduate Program in the Dept. of English, Nadel is a book critic for CBC Radio.

On the subject of Elizabethan and Jacobean theatre, Paul Yachnin has published in most of the leading journals of Renaissance scholarship. These include *Renaissance and Reformation* (University of Toronto), *English Quarterly Renaissance* (University of Massachusetts) and *Shakespeare Quarterly*, the most prestigious publication in contemporary studies of the bard, housed in the Folger Shakespeare Library in Washington, D.C. One of Yachnin's special concerns is with the theatre as an institution: not only how it functioned within the culture of the day, but also how it contributed to the development of a modern brand of subjectivity. He argues that the Elizabethan theatre did not have the political power or influence that has traditionally been ascribed to it. Rather, the theatre turned interpretation over to the audience. Through close analyses of Shakespeare's plays, Yachnin found them to be deliberately ambiguous to contemporary political issues, and increasingly preoccupied with interior individual experience or the self. His article *Ideological Contradiction and the Creation of the Self in Shakespearean Tragedy* has been included in an important new anthology of critical essays on Shakespeare and modern theory.

In addition to his critical and theoretical writing, Yachnin, winner of the 1993 Alumni Prize for Research in the Humanities, has been involved in a large-scale editing project on works of playwright Thomas Middleton. He recently edited two texts by

Middleton, to be incorporated into the Oxford University Press edition on *The Complete Works of Thomas Middleton*.



Dante scholar Marguerite Chiarenza heads a 13-member Dept. of Hispanic and Italian Studies. Spanish research encompasses critical editions of medieval texts, the 17th century Spanish novel, 18th century philosophic and scientific literature, the modern Spanish novel and Spanish-American narrative, poetry and the essay. Italian scholarship includes examinations of centres of culture in Renaissance Italy, the language of pre-unification Italy and philosophical dimensions of Dante's thought.

Related research:

- Through the book *Theatre and Fashion: Oscar Wilde to the Suffragettes*, English Prof. Joel Kaplan (co-author) juxtaposes British fashion and social life with the country's West End theatre scene from the early 1890s to the years immediately preceding the First World War.
- Comparing the works of Spanish dramatist Lope de Vega, Spain's foremost playwright in the 16th and 17th century, with England's William Shakespeare (Isaac Rubio-Delgado, Hispanic and Italian Studies)
- Studies of contemporary Italian cinema, culture and literature (Carlo Testa, Hispanic and Italian Studies)

In the field of French literature, Ralph Sarkonak has established himself as a leading critic of Claude Simon, one of France's greatest 20th century writers. As Sarkonak observes in the 1990 book *Understanding Claude Simon*, novels by the French Nobel Prize winner "are part and parcel of the modern tradition of our century with its penchant for fragmentation, self-reflexivity, quotation, and textual weaving."

Recently, Sarkonak has turned his attention to the works of Herve Guibert and how he thematized the body in different ways. A writer/journalist who died from AIDS in 1991, Guibert's writings include autobiography, fictional diaries, phototexts, short stories and novels. One of the most significant thematic patterns underlying his work is that of the human body. Sarkonak notes that from the body of the child to that of a prematurely aged gay man dying of AIDS, Guibert wrote almost continuously of the body and its many guises.

UNDERSTANDING THROUGH RELIGION
Research in the Department of Religious Studies touches on diverse topics such as the spread of Chinese Buddhism, the early history of Jewry in Canada and the works of fourth-century writer Hilary of Poitiers, whose works were an important bridge between the Latin and Greek cultures of the time.

One of the most ambitious projects to date has been Hanna Kassis' concordance of the Qur'an, the Muslim sacred scriptures. The concordance, which was a 10-year undertaking that began in the mid-1970s, has been heralded as the most important and useful tool yet published for English-speaking students of the text.

For millions of English-speaking Muslims in Britain, Pakistan, South Africa, Canada and the United States, Kassis' work has brought new meaning to the Qur'an. Each entry in the 1,600 page concordance is supplied with a grammatical explanation, a dictionary commentary explaining its true meaning as used in the Qur'an as well as a list of all the places that a particular word appears. Kassis explains that a great deal of the Qur'an's message is lost in translation because readers cannot pick up the nuances of the Arabic language or the reason for the use of one word rather than another.

Together with Karl Kobbervig of Hispanic and Italian Studies, Kassis completed a second concordance of the Qur'an in Spanish. This was not simply a translation of the first concordance, but a new work based on Spanish versions of the Qur'an.

Muslim Spain continues to be a major research focus for Kassis, especially the interactions between Islam and Christianity. With an expertise on Islamic numismatics and Arabic literary sources, he has been able to examine the Christian-Muslim confrontation in Spain from the Muslim perspective. Kassis drew on original numismatic, epigraphical and literary sources to write a history of the Islamic response to and perceptions of Christianity in 11th century Spain, the century that terminated in the Crusades.

Related research:

- Research into relations between the ideology and institutions of Christian religion and the forms of literary activity in western culture, focusing on two decisive epochs: Late Antiquity (c200-600 CE), the age of Church Fathers such as Augustine and Jerome; and the Renaissance in Northern Europe, especially

England in the two centuries from Erasmus to Milton (c1500-1700 CE). The aim is to document ways in which readers and writers of the later period received, adapted and developed the literary practices of their predecessors. (Mark Vessey, English)

- A book about the theological significance of the English Reformation on certain literary figures in the late 16th century and early 17th century. This study describes the Elizabethan settlement as reflected in the works of John Jewel, Richard Hooker and John Donne by exploring the doctrine of the church, the nature of authority and sacramental theology as central issues of Anglicanism. (Paul Stanwood, English)

A study of the Gospel of Mark in light of late-first century Christian controversies, paying particular attention to how literary form articulates Mark's themes

The study *Myth, Mirror, Identity: Reflections on Genesis and Early Biblical Narrative* deals with archaeological evidence and mythic patterns in the literatures of the Semitic and Indo-European peoples with whom the Israelites are known to have traded. (Alexander Globe, English)

Critical edition and study of the anonymous 15th-century Castilian translation of Pierre Bersuire's *Ovidius moralizatus*. The document belongs to a long tradition of medieval commentaries on the Classics which interpret pagan mythology in terms of Christian allegory. The critical edition aims to make the Castilian text accessible to contemporary readers. (Derek Carr, Hispanic and Italian Studies)

- The history of Judaism in Canada (Richard Menkis, Religious Studies)

The history of ideas and institutions during the transformation of the late antique Roman period (Paul Burns, Religious Studies)

- The literary and conceptual integrity of the Book of Job and shorter studies on various aspects of biblical and related texts, including the Dead Sea Scrolls (Paul Mosca, Religious Studies)

UNDERSTANDING THROUGH CLASSICS

By studying the ancient civilizations of ancient Greece and Rome, Classical scholarship helps put contemporary society into philosophical, intellectual and literary context.

Work of UBC's 12 classicists has attracted attention not only of their peers but the wider reading public. Archaeological expeditions led by department members over several years have uncovered the Roman city of Anemurium on Turkey's south coast and traced its development into the early Byzantine period. Reaching its greatest prosperity during the second and third centuries A.D., Anemurium's major public buildings included two theatres, three public baths supplied by two aqueducts, and a civic basilica.

Several department members are involved in a project which scrutinizes the influence of Greco-Roman heritage on cultural development of both North and South America. One of these studies examines a classically educated Jesuit who, early in the 18th century, lived among the Mohawks. This same Jesuit recommended that the Mohawks settle at the Kahanawake Reserve, site of the 1990 Oka uprising. On the publications side, the work of Allan Evans, named to the Royal Society of Canada in 1993, is especially impressive. For 35 years, Evans has made significant contributions across a wide range of Classical Antiquity, most notably in three areas: Papyrology and the history of Graeco-Roman Egypt; Herodotus and fifth-century Athens; and Procopius and the Later Roman Empire.

From a corroded sliver of bronze the size of a floppy disc, Classics Prof. James Russell has pieced together a sizeable chunk of Roman military history. For 23

years, this Roman archaeologist has excavated a site in southern Turkey and displayed his findings at a nearby museum. In 1990, the museum curator casually pulled an unimpressive object from a desk drawer and asked Russell his opinion. The bronze fragment turned out to be one of a handful of remaining military diplomas granted to veterans who served in the eastern provinces of the Roman empire. A mere seven square centimetres, the tiny sheet was engraved with lettering on both sides. The fragment represented only a quarter of the original tablet. It took a year of dogged detective work before Russell could translate and reconstruct the missing portion of this particular veteran's story. Through a painstaking process of cross-referencing the Kalin Oren fragment with others found in Europe and elsewhere, Russell was able to reconstruct the entire auxiliary army of Palestine in the half century after the Bar Kokhba revolt. As the only major conflict of Hadrian's reign from 117-138, this military operation sowed the seed for today's Middle East tensions.

Romans were such precise record keepers that Russell says it isn't necessary to have a document perfectly intact. Most follow the same formulaic pattern. Discharge diplomas served much the same purpose as modern-day passports. They provided proof of citizenship for the soldier, his wife, his children and their descendants. They also contained an elaborate list of the reigning emperor's titles and offices as well as the name of the soldier's unit and his commanding officer.

But it is the lives of ordinary citizens which most interest Russell. By reconstructing the biographies of many ordinary people rather than one emperor, Russell says historians get a much clearer idea of life at the grassroots level. Russell is the first Canadian president of the Archaeological Institute of America.

ARTS AND TECHNOLOGY

"Increasing emphasis has been and will be placed upon the sciences and upon technology within our university and this, within limits, must not only be accepted but is right and proper. However, as one who was brought up in the humanities and social sciences, I would like to point out that while those of us who belong to these disciplines must become more familiar with science and the scientific spirit, the fact remains that human nature has not changed to any marked degree during the long march of history.

Norman MacKenzie, 1961

When President MacKenzie made these remarks during his retiring congregation address, the UBC computing centre was four years old, as was its centre-piece, the ALWAC electronic computer. Walter Gage, Dean of Administrative and Inter-Faculty Affairs, believed the ALWAC would provide the modern means of analyzing problems of both a scientific and social nature. At the outset, applications in social sciences weren't a high priority. As Basil Stuart-Stubbs, professor emeritus with the School of Library, Archival and Information Studies, recalls, "the machine was primarily a number cruncher used by mathematicians and scientists for their calculations, and not much else."

Few areas on campus better illustrate the profound impact that computer technology has had on university life than the library. By the mid-sixties,

UBC was one of the first major libraries in North America to have a large, computer-based system for circulating books. Gone were the paper slips and carbon copies. At last, librarians were able to identify who had a book and when it was due back. Records show circulation rates skyrocketing from 792,918 loaned items in 1964-65 (the year a computer-based system was introduced) to 1,069,894 the following year. But the ubiquitous computer is a double-edged tool with both negative and positive potential.

A quarter of a century later, the library school's 13 faculty members are wrestling with issues regarding access and control, dissent and free thought. Examples include how national, political, economic and cultural views affect indexers' identification of titles in library catalogues or the stocking of controversial books.

For the last 15 years, Peter Simmons has been tackling the problem of how to standardize scientific and technical information exchanged among international libraries. In the late 1960s the Library of Congress produced MARC, a standard computer format for the exchange of bibliographic records between U.S. libraries. MARC formats for Canadian libraries were published by the National Library of Canada in the mid-1970s, and by the early 1980s more than 20 countries produced their own national MARC formats, each with variations to meet unique national needs. By the late 1980s a number of national libraries had agreed on the international UNIMARC standard which allows the exchange of computer records between national libraries.

Although the MARC standards have permitted the widespread exchange of information among national government agencies, scientific and technical information has remained under the control of a small number of well-funded and well-equipped agencies, most in Canada, the United States and Europe.

Simmons says that it is taken for granted that if Canadians need information about Canadian education, medicine or aspects of Canadian technology, they must conduct costly searches in American databases. For researchers in less developed countries, inability to pay for these database services usually means they do not have access to scientific and technical information in the developed world. It also means that they often have no access to information produced in their own country.

Simmons explains that in fields such as public health, agriculture, water treatment or housing construction with local materials, international research results are efficiently acquired from technical reports. Often these are funded by international agencies and foreign aid from wealthy countries and then offered for sale back to countries that most need the information. "This situation will continue until standards exist to permit small research agencies in poor countries to exchange information using inexpensive computers and freely available software," says Simmons, who is working to produce and refine a standard for this kind of data exchange.

Simmons has developed The Common Communication Format (CCF), which has been published by UNESCO in a number of languages. In 1990, he produced a computer program for MS-DOS computers which makes it possible to convert bibliographic information to and from the CCF format, and between CCF and MARC. This allows small agencies not only to exchange information internationally, but also easily contribute information to and retrieve it from their own national library.

Simmons has travelled to countries in Asia, Africa, the Caribbean, Latin America and eastern and western Europe teaching technical support personnel how to adapt UNESCO materials for local use.

Related research:

- An ongoing survey describing the computer systems installed in school libraries to automate library functions
- A revised and expanded instructional manual and resource book to help teacher-librarians deal with the technical services aspects of their role as library managers (Lynne Lighthall, Library, Archival and Information Studies)
- A study defining the requirements for an electronic records system which guarantees accountability, provides authentic proof of actions and transactions carried out by administrations and businesses and ensures the preservation of records of continuing value (Luciana Duranti, Terence Eastwood; Library, Archival and Informational Studies)

TECHNOLOGY AND LANGUAGE

One of the key benefits derived from emerging CD-ROM technology is the collaborative learning it promotes between students and teachers. Perhaps nowhere is this benefit more pronounced than in the area of foreign language acquisition.

When Joerg Roche joined UBC's Dept. of Germanic Studies six years ago he would interview close to 200 students for 10 minutes each to determine their proficiency level. Today, thanks to a computerized placement program he devised, students are able to test themselves in the Faculty of Arts language laboratory. Roche's practical invention, now in use at other universities across the country, is just one example of technological tools which are changing the way languages are taught.

Installed in 1992, the Faculty of Arts language laboratory is a leading multi-media operation in the province. Twenty-four workstations (expanded by a 30-station lab and a 10-station drop-in lab in 1994) are equipped with light-weight headsets and microphones, audio cassette decks, PC and

Macintosh computers, VCR machines and video monitors, all connected to a master control panel in the instructor's booth. Using a file server, instructors can send separate programs to each station involving one or more of the available computer, video and audio options. The lab's modern, open concept is in stark contrast to the regimented rows of listening booths found in the previous audio laboratories. The third phase of the language laboratory expansion will eventually incorporate satellite programming, CD-ROMs, video, sound cards and personal computers for even greater multi-media integration.

The Faculty of Arts lab also provided crucial input into the design of a similar laboratory which has operated for four years in UBC-Ritsumeikan House, a residence with 200 UBC and Ritsumeikan University students from Japan. The Ritsumeikan setup integrates the functions of a traditional language laboratory with the data processing, text, graphic and video capabilities of 22 networked Macintosh computers.

For the purposes of their own teaching and research, Roche and colleague Peter Willmer say modern computer technology plays a crucial role in bridging subject matter and foreign language didactics.

Their goal is to increase specialized language instruction in areas such as forestry, ecology, science and business. Computer programs allow students to gain up-to-date access to research publications in various disciplines and languages. According to Roche, the practical application of language acquisition, versus more formal, literature-based language learning, has been talked about for well over 400 years. He and Willmer are simply carrying out a centuries-old idea which modern technology allows them to act on.

Their project, called Computer-Assisted Learning of Languages for Special Purposes (LSP), moves toward more specialized, immediately useable skills in foreign languages. "For business-minded students we can teach the business language of a country, what



Renaissance scholar Nancy Frelick and colleague

Bill Winder have created a database of 16th century French poetry. The database will be used to create a multimedia, critical edition of interest to linguistic and literary scholars.

that country's customs are, and how you should behave when negotiating contracts," says Roche. "Given the increasing trend to higher specialization and global co-operation in all disciplines, it is only logical to design courses or programs which offer the necessary often indispensable linguistic tools to meet today's challenging requirements."

A first set of program modules has been developed in the area of German for the Humanities. Other modules being developed include Business German, German for Economics and German for Social and Natural Sciences. Roche and Willmer have just completed the first set of a self-directed, fully-automated language program for special purposes. While basic instruction can be done either in a classroom or lab setting, individual special-purpose sections are self-taught mainly through computer.

Roche, with a background in linguistics and language didactics, has also been interested in natural sequences in second language acquisition. He often meets students who are adept at reciting prepositions and other structural properties of foreign languages but aren't able to use them productively. "It's dead information and modern didactics works on the premise that, above all, language should be useable and not left to stagnate," says Roche. Through intensive study of the sequences students follow in learning a language, Roche has devised a program which he believes is the optimal sequence covering the first two years of basic German grammar. This research constitutes the basis for a new generation of textbooks he and colleague Norma Wieland are designing.

Apart from second-language acquisition and linguistics, literary research among the eight-member Dept. of Germanic Studies ranges from the medieval period to the present and features histories of German literature, political theatre, literary anarchism and censorship in the Weimar Republic.

Related research:

- Development of software for automatically distinguishing the words of a natural language text. The software evaluates each word of a continuous text and decides in what grammatical category it belongs, according to the information contained in its associated database and the immediate context of the word being evaluated (William Winder, French)
- Construct a textual database of several 16th century texts looking at both their linguistic and literary aspects (Nancy Frelick, William Winder, French)
- To enrich, reorganize and computerize the French department's present collection of recorded and printed material of spoken French
- An analysis of spoken French in terms of administrative and explanatory language. The aim is to show how forms specific to written communication, such as punctuation and typography, can be relayed by specific syntactic structures in the spoken language. (Christine Rouget, French)

ARTS AND THE NET

"Open computer networks support a remarkable new form of evolution. Whole new institutions -BBSs, Internet Relay Chat, and e-mail—encapsulated in software, spread at the speed of an ftp/install cycle, and mutate when people modify them...Where software relates to people in new ways, each variation is a computer-mediated institution, an uncontrolled experiment in social change.

Peter Danielson, 1994

Peter Danielson came to UBC in 1990. Since then, a good portion of his research has concentrated on the ethical problems and potentials of information technology. An associate professor in the Dept. of Philosophy, Danielson introduced something he calls virtual seminars as part of his project, Computer Ethics Through Thick and Thin. As he explains it, computer-assisted communication is a plastic medium of interaction. It can be used to increase or decrease the amount of information available in a discussion.

An important open question in applied ethical theory is the amount of personal information that should be made available during ethical discussion and decision-making. Are there times when people ought to remain anonymous for the sake of whistle-blowing? Others might not feel free to discuss certain issues if their age, gender, weight or family status were known. Danielson's virtual seminars use a variety of computer-mediated communication modes (electronic mail lists, etc.) to engage in, evaluate and improve current professional practice.

The experiment has also enhanced computer-based tools for conducting ethical discussions. Prior to coming to UBC, Danielson taught philosophy as well as artificial intelligence and logic programming for 12 years at York University. In his 1992 book *Artificial Morality*, he uses robots paired in abstract games that model social problems (such as environmental pollution) by rewarding both co-operators and also those who exploit others' co-operative efforts.

The most recent versions of these computer simulations actually generate new players through genetic programming techniques drawn from artificial life research. The modeling and network research come together in a third project, which attempts to turn conventions in the Internet in an ethical direction. Says Danielson, "When we use the internet, we and our computer tools are

together something like the robot studies. What makes them evolve in an ethical direction may help us to evolve better conventions for computer-mediated communication."

Danielson is among eleven UBC philosophers who probe issues of moral freedom and responsibility as well as biomedical, professional and environmental ethics in a society preoccupied with material growth.

CONSIDERING GENDER IN THE ARTS

*.no woman by reason of her sex shall be
deprived of any advantage or privilege accorded to
male students of the University."*

University Act, 1908

Despite this lofty pronouncement, participation by women in B.C.'s post-secondary education system was confined mainly to the arts in the opening decades of this century. Early efforts sought to ensure a more equal treatment of women on UBC's campus. These efforts included the establishment in 1919 of the first degree-granting nursing program in the British Commonwealth, the appointment of a Dean of Women (1921), the introduction of a home economics course in 1943, and the erection of women's residences in 1951. Alongside these outward measures came changes to the status of women and their work, as well as an overall heightened feminist consciousness.

Over the last 20 years, UBC students and faculty have demonstrated steady interest in Women's Studies. The university established a Women's Studies program in 1991, after recognizing that the

field could not be covered adequately within traditional disciplines. With its own texts, journals and methodologies, Women's Studies crosses many departments and faculties.

WOMEN IN LITERATURE

The advent of Women's Studies has aroused a good deal of interest in the history of women in the 19th and early 20th century. Diaries by women are a major source of information on their lives and self-perception. Frequently, they are the only source giving the woman's perspective. Several studies have been produced of diaries written by women in North America and Britain.

Valerie Raoul, who heads 17 faculty in UBC's Dept. of French, is undertaking the first extensive study of diaries by women in French. The short-term objective is to analyse several published diaries written by women in France between 1850 and 1920. Raoul's long-term goal is to expand the project to incorporate French diaries by women in Quebec and other francophone areas and extend the time limit to the present. In each case, her analysis will consider four theoretical elements: contextual (situating the text in time and place); narrative (examining the structure of the text and the relationship of what is related to how and to whom); stylistic (use of rhetoric, imagery, pronouns, sentence structure); and psychoanalytic (re-evaluating the theory of narcissism, especially as it relates to self-other confusion and the use of language to regulate self esteem.)

Raoul also plans to study the relationship between the diary and dramatic works of French writer Marie Leneru. Her diary, written between 1893 and 1918 (when she died at the age of 43) is of interest for two reasons. Leneru was deaf from the age of 14, and the diary helps explain why this led her to imagine dialogues and write for theatre at a time when no other women were doing so successfully in France. Secondly, her deafness meant that she was unlikely to marry. Raoul notes that her

plays "address questions which are of great interest from a later feminist perspective, regarding self-definition and self-affirmation for women."

Raoul adds that there are now several studies by North American scholars on women's autobiography as a tradition different from men's. However, these works focus on retrospective autobiographical narration and do not address characteristics such as fragmentation and open-endedness which are particular to diary-writing.

Part of Raoul's research involves collaborating with specialists on diaries in other languages and other types of autobiography by women. English Asst. Prof. Susanna Egan, for example, is looking at women's problems of self-recognition, definition and projection in 19th century autobiography, poetry and prose fiction.

Asianist Tineke Hellwig's book, *In the Shadow of Change: Women in Indonesian Literature* (1994), is the culmination of four years of research. Through an examination of 25 novels and three long stories, the work analyses how women have been represented in fiction between 1937 and 1986. It is also a revision of Hellwig's Dutch PhD dissertation *Kodrat Wanita*, an Indonesian term which refers to a woman's innate destiny to nurture and sacrifice her own needs for the benefit of others.

The 50-year period that Hellwig studied was a time of historic change for Indonesian society. However, as the author points out, women took no part in bringing about those changes and their reactive role was consistently portrayed in the literature of the time. "The norms and values considering gender issues which emerge from these works of literature give us a good understanding of the society which produced them."

Born in Surabaya, Indonesia of a Dutch father and an Indonesian mother, Hellwig started studying Indonesian languages and cultures in 1976 and received her Master's degree in Indonesian and Malay language and literature from Leiden University

in The Netherlands. In 1990, a year after joining UBC's Dept. of Asian Studies, she finished her PhD on images of women in Indonesian novels. Her current research focuses on the interrelationship between colonial literature and women's status during the drastic political and social changes in the Dutch Indies around 1900.

Hellwig says Chinese Malay and Betawi Malay (Malay being the language which was renamed Indonesian in 1928) works of fiction from this era offer an abundance of themes dealing with women as institutionalized concubines and wives of men who belong to another class or race. The work deals with unexamined texts drawn from libraries and private collections in Jakarta, Kuala Lumpur, The Netherlands and France. By concentrating on the portrayal of women and on the role women have played as writers, Hellwig's study offers new insight into the development of Indonesian and Malay literature.

Related research:

The writings in Russian of contemporary women authors, poets, fiction writers and polemicists is explored by Barbara Heldt. Heldt has published chapters in *Perestroika and Soviet Women* (1992) and *Sexuality and the Body in Russian Culture* (1993). She is also contributing a chapter on gender and the Russian novel in the *Cambridge Companion to the Russian Novel*.

Asianist Joshua Mostow examines Japanese women's diaries from the 10th through 14th centuries

GENDER, JOBS AND SOCIAL CHANGE

Research among UBC's 14 sociologists focuses not only on issues in western industrialized countries but also in the rapidly industrializing areas of the Pacific Rim like south China, Korea and Sri Lanka. There are strong interests in comparative and historical research on work and unionism, gender relations, crime and justice, environmental issues

and the role of social movements in modern societies. Projects link sociologists to colleagues in law, forestry, natural resources, political science, Asian studies and genetics.

The division between men's and women's work is a predominant feature of Canada's labour market. In comparison to men, Canadian women work in a limited range of occupations, principally clerical or service, with fewer prospects for promotion, limited benefits, lower pay and fewer recognized skills. This situation has changed little during the last half century in spite of the rapid increase of women in the labour force. Gender segregation also continues despite the rapid transformation of work through the consolidation of corporate capital, technological change and the growth of white-collar occupations and accompanying managerial practices.

Sociologist Gillian Creese has been preoccupied with job gendering since completing her doctoral thesis on Vancouver's early labour movement from the late 19th century to the Second World War. Chair of the faculty's Women's Studies Program, Creese's research to date has centred on some of the structural dynamics of job gendering: historical trade union exclusion of women and women's issues; state policies such as gender-specific minimum wage legislation; and the contemporary role of unions in structuring gender divisions and hierarchies through labour negotiations with employers.

For her present research, Creese links the structural and individual experiences of women and men who work in a single but segregated workplace. Studies have shown that women and men employed in the same industry, even those working for the same employer, are unevenly effected by restructuring. Using a B.C.-based heavy equipment company as a case study, she will conduct biographical interviews with 60 men and women (30 each) from non-managerial positions documenting the effects that economic restructuring has had on their

expectations, opportunities and family obligations. She will compare interviews over three time periods: those hired in the 1950s and '60s, the 1970s, and the 1980s.

Creese said the project should provide "a window on men's and women's experiences of continuity and change in gendered work patterns, variation over one's life cycle and across generations, and the consequences of economic change on personal lives."

She also plans to explore further the internal dynamics of job gendering in union politics and labour negotiations. With women now constituting close to 40 per cent of union membership in Canada, Creese expects unions to play an increasing role in structuring gender work in the future.

Related research:

- The so-called new social movements (NSMs) that have emerged, especially in advanced industrialized societies since the 1960s, are regarded by some observers as the new emissaries of progressive change. Over the last few years, sociologist R. S. Ratner has examined the contradictions between the singular objectives of individual NSMs and their attempts to forge alliances.

Ratner's research is based on a study of 13 social movement organizations (including labour) in the Lower Mainland area of B.C. Approximately 300 in-depth interviews of organization leaders and members were conducted over a three-year period. These interviews identified tensions among the diverse social movement groups and their agendas concerning environmental, women's, peace, sexual liberation, anti-poverty and aboriginal issues. The ultimate aim of Ratner's research is to evaluate the claim that new social movements are the "contemporary carriers of the transformative role once attributed to the working class."

- For 20 years, research by sociologist Martha Foschi used elements of sociology and psychology to examine systems of social inequality and the per-

sonal and interpersonal processes that contribute to them. Much of Foschi's recent work addresses the problem of double standards, what role they play in the evaluation of performance, and under what conditions they are used.

MAKING INTERNATIONAL CONNECTIONS

ARTS AND THE PACIFIC

Described as one of the most important cultural resources in Canada, UBC's Dept. of Asian Studies explores Korea, China, Japan, South and Southeast Asia and those regions' links with Europe and North America (See *President's Report Toward the Pacific Century*). Asianists probe language, literature, thought and culture from the dawn of history to today in China and India.

Works by the 23 department members include: a multi-volume study of the Indian linguist-philosopher Bhartrhari; a definitive edition, with translations and commentaries, of the works of the medieval Indian poet Surdas; a controversial study of the 19th century origins of Sikhism; a prize-winning study of popular rebellions in China; a new interpretation of the origins of Neo-Confucianism; and a new study of relations between Japanese painting and poetry.

Certainly no topic of Asian research pre-dates that studied by Kenichi Takashima. He is helping unravel ancient mysteries in the exclusive field dealing with oracle bone inscriptions of China's Shang Dynasty. Since 1990, Takashima has been writing an annotated translation of inscriptions contained in the *Archaeologica Sinica*, considered the most comprehensive collection of surviving Shang texts.

The careful excavation of the collection's six thousand inscriptions guarantees their authenticity, unlike many of the traditional written sources purporting to deal with the state and society of Ancient China. The material is delicately inscribed

on tortoise shells, and describes in considerable detail the activities of the king, members of the royal family, the imperial diviners and officials, feudal lords, regional clans, soldiers and foreign powers. In the process, Takashima says the inscriptions reveal the aspirations and assumptions of Chinese during the third millennium B.C.

"These were the ancestors of what has become the world's oldest continuous civilization," says Takashima. "Many of the cultural attitudes shaping Chinese civilization derive directly from attitudes and practices already visible in these early societies."

Takashima is the only senior scholar outside China, and one of the very few anywhere, undertaking a careful examination of the morphology and syntax of the oracle bone inscriptions as a language. He says the *Archaeologica Sinica* inscriptions, which are written in a very early form of Chinese script, are virtually a closed book to those outside the field. These ongoing linguistic investigations are of keen interest to those studying the history and nature of Chinese and its relationship to other languages.

Takashima aims to find solutions to the linguistic puzzles presented by the archaic texts and make the data they contain more accessible to the needs of other scholars.

In the 21 years he has been at UBC, Takashima has written an impressive total of three books in Chinese palaeography, three book-length articles, 28 scholarly articles, five reviews and 11 scholarly translations.

While Takashima delves into China's ancient past, Michael S. Duke has his sights set firmly on the country's cultural future. His research on culture and ideology in contemporary (1978-1992) Chinese fiction consists of intellectual and literary analyses of works by 10 writers, many of whom he met while studying in Beijing in the late 1980s.

The Tiananmen Massacre prompted Duke to drop research on modern Chinese thought temporarily and write *The Iron House*, his eye witness report of the events of spring and summer 1989 in Beijing. He re-established contact with Chinese writers and intellectuals in Beijing, Changsha, Los Angeles and Chicago, and his current research goal is to answer questions such as: How do these writers characterize traditional Chinese culture in their fiction? What moral values are apparent in their works? What kinds of behaviour do their works enforce or undermine? What do they consider to be the role of traditional Chinese culture in Chinese life today?

In view of the role these works of fiction play in determining China's intellectual and popular climates of thought and opinion, Duke believes his project is even more relevant to understanding the future of China than it was before the massacre of June 4, 1989. "These writers' ideas count among a very large segment of the educated public in China today," says Duke. "After the demise of the current political regime, their ideas will once again assert a powerful influence on Chinese culture." Currently head of UBC's Dept. of Asian Studies, Duke is author of *Blooming and Contending: Chinese Literature in the Post-Mao Era*. He is also editor of *Contemporary Chinese Literature: An Anthology of Post-Mao Fiction and Poetry*, and translator of writer Su Tong's *Raise the Red Lantern: Three Novellas*.

In 1997 the People's Republic of China acquires sovereignty over Hong Kong. During the last decade, Canada has received a flood of Hong Kong immigrants wary of the advent of an authoritarian government after 150 years of free enterprise. The territory has emerged as Canada's largest single source of immigrants with more than 38,000 arriving in 1992 alone.

For the last six years, historian Diana Lary has co-directed a Canada-wide project examining the impact of Hong Kong migration to Canada and the process of acculturation of Hong Kong

immigrants. The collaborative study involves scholars from York, McMaster and Simon Fraser universities as well as the universities of Toronto and Hong Kong. UBC scholars involved in one or more of the project's 15 workshops held since 1991 have included Brian Job, (Institute of International Relations), Maurice Copithorne (Law) and Graham Johnson (Sociology). Impetus for the project began in the mid-1980s while Lary was serving a two-year term as resident sinologist and cultural attache at the Canadian Embassy in Peking. Lary explains that there has been enormous pressure for people to leave Hong Kong, and that the pressure increased after 1989. Canada was the prime destination.

"I think everyone realized then that we needed to know a lot more about why this was happening because it was clearly going to continue." Lary also realized the important role academics could play in the policy area. While there has been a great deal of scholarly attention paid to Canada's relationship with China, relatively little research has been done looking at Hong Kong as a distinct territory.

Lary chartered her academic career during her early years in the British school system. Not wanting to study German or French, she chose Chinese Studies, an interest she converted into a Bachelor's degree and PhD from the University of London. Her doctoral thesis was on Chinese warlords, a subject for which she still has more than a passing interest.

Since coming to UBC in 1992 from York, where she taught Chinese Studies for 15 years, Lary has taken a broad look at the process of change in Hong Kong and southern China. Her research looks at this change from a historical perspective, and at the way in which Hong Kong has acted as the link between the West and the rest of Asia. "Hong Kong is the pivot of two systems," says Lary. "One internal to China, stretching from Hong Kong

to Guangdong to Lingnan and then to the whole of China, and the other external to China, from Hong Kong to Nanyang to the Pacific Rim to the world."

Related research:

- Historian Bill Wray is writing three books on the history of Japan's largest shipping company. These include: *Riding a Tsunami: Japan's NYK Line in the World War I Era, 1914-1924*; *Staying Afloat: The NYK, 1921-1945*; and *The Postwar NYK: 1945-1975*. This research represents a continuation of Wray's previous work which looked at the NYK from 1870 to 1914. Wray examines NYK's corporate development and business strategies, setting them in the context of Japan's industrial expansion.

As a leading sector in Japan's spectacular industrialization during the period before the First World War, the shipping industry generally, and the NYK line specifically, were important stimulants to Japanese economic growth. Wray used archives in Japan and the West, and was the first to gain access to NYK's business archives. Wray's work is central to an understanding of Japanese economic growth as well as Japan's politics and international commerce before 1945.

- Richard Pearson is studying the booming ancient trade of Chinese and Southeast Asian high fired ceramics and other commodities from the China Coast to Japan and Southeast Asia. For 1,000 years before the coming of European gunboat traders, China engaged in various types of peaceful trade with her maritime neighbours. Pearson looks at the way trade stimulated economic development in offshore areas such as Okinawa, which became a trans-shipping city state when China closed its doors to Japan from 1372 to 1567. In 1994, research took Pearson to Quanzhou City, which, when visited by Marco Polo, was one of the world's greatest trading ports. Pearson has been doing co-operative projects in Okinawa since 1962, in addition to research on Japanese, Chinese and Korean prehistoric archaeology.

- A sociological study of Hong Kong immigrants and their families aimed at finding the causes and consequences of reverse migration (Brian Elliott, Anthropology and Sociology)

ARTS AND EUROPE

Canada's experience derives significantly from its European heritage, and the country's future will be conditioned by its relations with the rapidly changing Europe. Scholars in several disciplines research and teach this heritage and help interpret change.

Robert Allen joined the economics department 20 years ago and has established himself as one of the best economic historians of his generation and perhaps the best scholar working on European economic history. English agriculture, especially the role of 18th century enclosures, has been the primary focus of Allen's research over the past decade. His 1982 paper in the *Economic Journal* used data from a sample of several hundred farms to show that income redistribution in favour of landowners, rather than a rise in efficiency, was the primary reason for widespread rent increases at the time of the enclosures. Typical of Allen's further research was a 1988 paper which used data from three different sources: estate surveys and land tax assessments, surveys from 18th century farms and data on the history of yields from the middle ages to the 19th century. The results of Allen's painstaking analysis showed that enclosure and the movement to large farms reduced employment and also that labour productivity doubled between the late middle ages and the 19th century. Half of this doubling was due to the rise in yields and the other to the fall in employment per acre. The discoveries won Allen the Redlich Prize in 1989 for the best article published in any of the 15 major international journals of economic history.

Allen's mastery of broad currents and critical details of history are further shown in his seminal work, *Enclosure and the Yeoman: Agrarian Change and English Economic Development 1450-1850*, a work

that ranges across seven centuries of British agriculture. This monograph received the Rankin Prize by the Economic History Association as the best economic history book published in 1992-93.

John Wilson Foster has taught British and Irish Literature at UBC since 1974. Almost all of his scholarly research—five books, 55 articles or contributions to books, 27 conference papers—has been dedicated to the investigation of Irish culture, from the beginnings of Irish folklore and heroic romance to the literary and political controversies of modern Ulster and Eire. In terms of Irish literary tradition and its relation to modern writing, Foster's book, *Fictions of the Irish Literary Revival* (1987) has become a standard reference text for all scholars working in the field. His most recent work, *Colonial Consequences: Essays in Irish Literature and Culture*, received the 1992 American Conference for Irish Studies Book Prize for Literary Criticism. Foster is senior editor of the forthcoming volume, *Nature in Ireland: A Scientific and Cultural History* (1995). His recent scholarly interest in natural history is reflected also in a book, *Darkening the Sun*, on extinction in North American birds.

Along with a strong Canadian and Asian focus, UBC's 31-member Dept. of History stresses European research. Shipping is among the important themes in the economic history of Europe before the modern age. The shipping industry's development was central to the commercial, military and political growth in Western Europe and, more generally, to European overseas expansion from the late 15th century onward.

A scholar of late-medieval and early-modern European economic and social history, Richard Unger is an authority on shipping, shipbuilding and marine technology. His publications include *Dutch Shipbuilding before 1800: Ships and Guilds*

(1978); *The Ship in the Medieval Economy* (1980) and *The Art of Medieval Technology: Images of Noah the Shipbuilder* (1991). Together these volumes deal broadly with the economic, social, cultural, and technological facets of ship construction over more than a millennium.

His current research deals with medieval and early modern brewing and the related grain trades in the Netherlands. Apart from his writing, Unger has been organizer and participant in UBC's annual medieval workshop, now in its 25th year, which brings renowned specialists together to discuss topics as varied as kingship patterns and peasant protests. Unger's research efforts have won him a Guggenheim Fellowship and Killam Research Prize.

Related research:

- Publication of a comparative social history of medicine using birth-weight data from 19th century Montreal to measure the changing standard of living during times of industrialization. The project was subsequently broadened to include data from Boston, Scotland, Vienna and Australia. This research proved fundamental for understanding the phenomenon of industrialization and its social impact. (Peter Ward, History)
- Changes in Soviet thinking about East-West relations from 1917 to the present. The study provides a deeper understanding of the nature of Soviet foreign policy and of present and future opportunities for expanded co-operation between East and West (Paul Marantz, Political Science)
- Soviet youth cultures in the decade following the Russian revolution (Anne Gorsuch, History)
- Analysis of the second trial of Ernst Zundel
- Effects of Nazi policies on German and Austrian Jews prior to the Second World War (Leonidas Hill, History)

ARTS AND THE AMERICAS

For years, geographer and human ecologist Alfred Siemens has flown over the wetlands of meso-

america (from Mexico through to Belize) looking for patterned ground indicating areas of prehistoric agriculture, ancient transportation systems or the remains of possible fish farms.

Siemens and graduate students are in the process of examining prehistoric agriculture in the lowest areas of Central Veracruz, just inland from the sea. These wetlands are clearly lined with remains of ancient canals and planting platforms, relatively easy to see from the air but difficult to find on the ground. Once located, Siemens' excavations seek to clarify the physical environmental context of these unique agricultural incursions as well as the structure, function and chronology of the features themselves.

Findings point to a highly productive use of terrain which is subject to seasonal flooding. "Reactivating such systems would seem to offer attractive alternatives to marginalized rural people in the lowlands," says Siemens. "But the reversion to ancient ways is out of phase with present agricultural trends under NAFTA which encourages modernization of techniques, increases of scale and rationalization in all aspects of agriculture."

Another project has Siemens exploring canyons in eastern Mexico that slope toward the port of Veracruz. The canyons are interesting for their three-dimensional ecological diversity, especially the agricultural lands along the lower slopes and bottomlands. Siemens explains that the bottomlands, veined with an intricate network of paths, were refuges for Indians fleeing Spanish conquerors, and for escaped slaves and bandits.

Siemens chaired the Presidential Advisory Committee on a Strategy for the Americas. The committee was struck to clarify what UBC interests are and might be in view of Canada's rapidly expanding involvement in countries to the south.

Ten years ago, archaeologist Michael Blake started excavating a two-metre-high mound of earth in the

middle of a Mexican corn field. So far, his digging has uncovered a 3,300-year-old home which is one of at least six similar structures buried one on top of the other. Situated on a swampy coastal plain about 30 kilometres up the Pacific coast from Guatemala, the open-concept bungalow features 220 square metres of living space, a solid clay floor, two fireplaces and an impressive view of the local volcano. Blake believes the site belonged to a succession of village chiefs who shared the houses with several wives, children and younger siblings.

In 1993, the entire fifth floor was excavated in centimetre-thick layers and the scrapplings passed through a fine mesh screen. Among the micro-artifacts found trampled into the floor were carbonized beans, corn and avocado seeds, pottery fragments, volcanic glass used for making knives, and fish and other animal bones discarded from meals. The pres-



cence of jade, volcanic glass and fancy pottery, some of which match fragments found as far down the coast as El Salvador, supports the theory that residents of the house were the village's key players in local trade and politics. Blake's findings indicate villagers were developing complex social and political systems two or three centuries earlier than previously expected. Funded by SSHRC, Blake and several graduate students plan to return to the site in 1995 to excavate smaller mounds for more clues about the social hierarchy of the times.

Related research:

- The origin of the Pueblo Indians and Southwestern agriculture (R.G. Matson, Anthropology and Sociology)
- Project analysing the social structure of Brazil's ruling groups from 1808 to 1889. Work involves gathering biographical information in defined categories on some 15,000 individuals who were born in Brazil and/or attended an institution of post-secondary education and/or held certain posts of importance in Imperial Brazil
- A study of the development of Brazil as a nation state from the middle of the 19th century to the early 20th century (Roderick Barman, History)
- A case-study analysis of the complex relationship between technology and the work force in the Mexican mining industry (William French, History)

Archaeological excavation in Mexico indicates complex social and political systems developed three centuries earlier than previously expected.

FUNDRAISING INITIATIVES

David and Brenda McLean Chair in Canadian Studies

Funded through the generosity of David and Brenda McLean, appointments to this Chair are made for two year terms in recognition of superior achievements in the many aspects of Canadian Studies.

David and Brenda McLean Endowment for the University Singers

This endowment will provide funds for periodic major tours of the highly acclaimed UBC choir, University Singers.

Arnold and Nancy Cliff Writer-in-Residence Program

This exciting program will bring writers to UBC from the many genres within the Dept. of Creative Writing. Writers will range from younger scribes to established authors of national and international prominence. The program is made possible through the generosity of Nancy Cliff and the Province of British Columbia.

Hugh Keenleyside Chair in Canadian Diplomacy

Honouring a distinguished alumnus, Dr. Hugh Keenleyside, the Chair will strengthen the international and Canadian Studies programs and serve the growing interest in examining the role of Canada on the world stage.

Maclean Hunter Chair in Non-Fiction Business Writing

Funded through the generous support of McLean Hunter and the Province of British Columbia, the chair supports two sessional instructors in the Dept. of Creative Writing. The chair provides opportunities for students to gain exposure to all forms and creative techniques in non-fiction and business writing.

Travelling Research Fellow in Art History

This fellowship will assist graduate students in the study of works of art in galleries and museums

around the world. Each award will provide the opportunity to experience significant works of art and architecture in their cultural context.

Morris and Helen Belkin Art Gallery

Funded by the Morris and Helen Belkin Foundation, the gallery will promote understanding and discussion of contemporary art and issues in art history, criticism and curation. The gallery design was awarded the 42nd Annual Progressive Architecture Award. Scheduled to open in 1995, the gallery will house UBC's growing art collection and provide a venue for visiting exhibitions.

The Jack Bell Building

The Jack Bell Building opened on Sept. 17, 1993, providing a new home for the faculty's School of Social Work. Major funding came from Jack and John Bell.

ONGOING PROJECTS:

Art Gallery Endowment for Exhibitions and Acquisitions

Goal: 750,000 (endowment)

The endowment will finance exhibitions and acquisitions at the Morris and Helen Belkin Art Gallery. Activities will include the appointment of technicians and a curator, and programs of lectures and symposia.

Chair in South-North Studies

Goal: \$1.5 million (endowment)

The chair supports research and teaching on the complex interactions and relationships between the wealthy countries of the northern hemisphere and the poorer countries of the south. Issues range from trade and investment, to environment, migration and the development of models to sustain and improve these relationships. A network of institutions in Latin America, Asia and Canada is ready to launch research projects focusing on countries around the Pacific Basin. The chairholder is Ivan Head, former President of the International Development Research Centre, which has made a major contribution to the chair.

Teaching and Research in Aboriginal Languages
Goal: \$2 million (endowment)

British Columbia is home to more than half of Canada's 60 Aboriginal languages, making it one of the most linguistically diverse regions in the world. Many of these languages are in danger of disappearing forever. The Chair in Aboriginal Languages will promote the study of Aboriginal languages and contribute to their continuation and preservation. The chair will provide a focal point for teaching, research and public education on B.C.'s many Aboriginal languages.

The Centre for Creative Arts and Journalism
Goal: \$16 million (capital)

The 1,200-square-metre centre will provide a unique environment for artistic interaction and collaboration among students and faculty from the School of Music, the Dept. of Fine Arts, The Dept. of Theatre and Film Studies and the Dept. of Creative Writing. The journalism program, the only degree-granting program in B.C., will combine graduate study in academic disciplines with advanced training in the profession.

Renovation of the Outdoor Sculpture Complex
Goal: \$500,000 (capital)

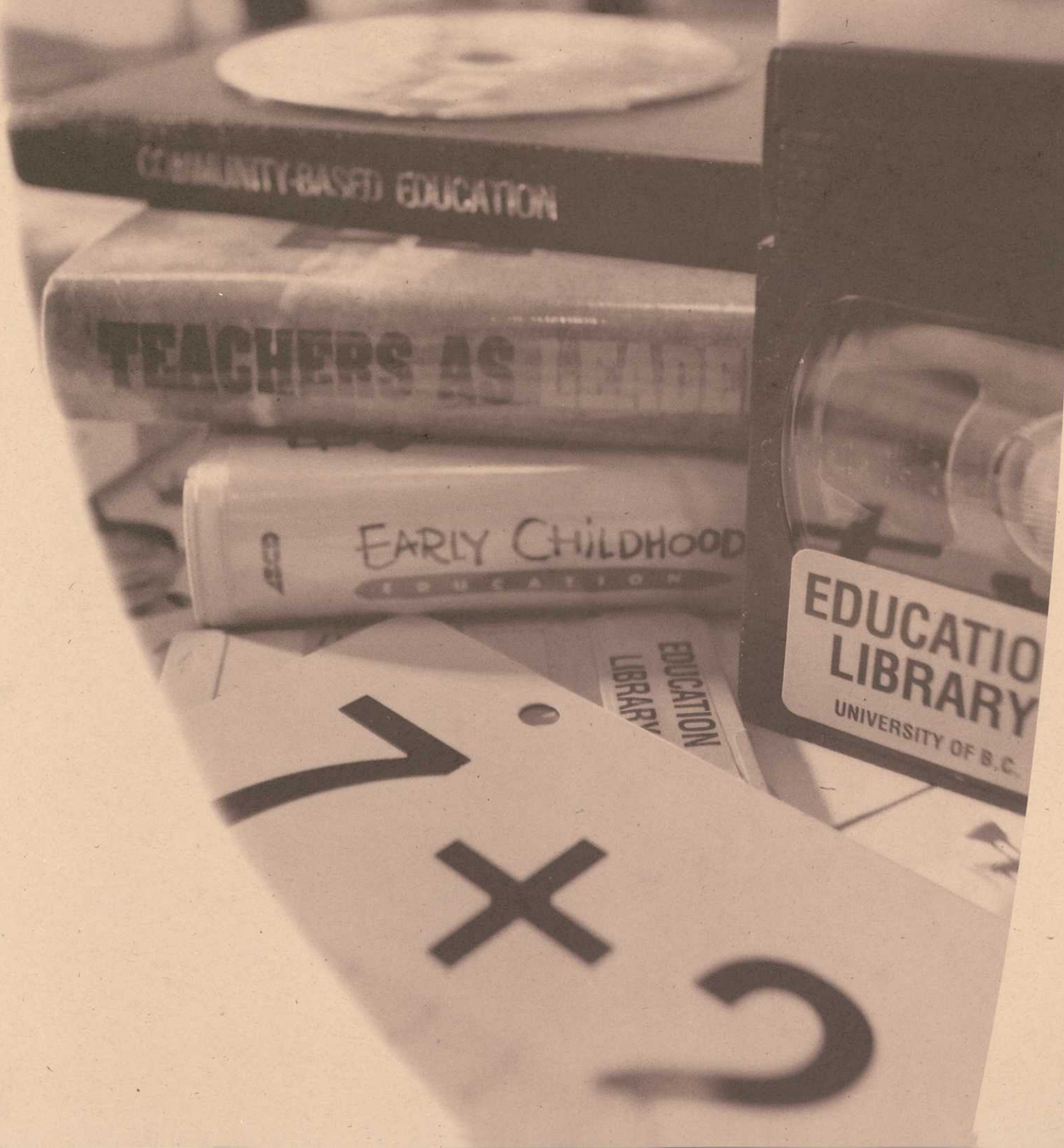
The Museum of Anthropology's Outdoor Sculpture Complex—sculptures and houses created in the 1950s and '60s by leading Northwest Coast First Nations artists—draws more than 100,000 visitors from around the world each year. Considered of great significance historically and artistically, the complex of carvings and structures offer an opportunity to view world-class sculpture in a spectacular and accessible outdoor setting.

Persian Studies at UBC
Goal: \$3.75 million (endowment)

The creation of a program of Persian Studies will provide students with an opportunity to gain important cross-cultural knowledge and will address the educational needs of our region's growing Persian community. Persian civilization, with its cultural, artistic and political achievements, has had a profound impact on much of Europe, Asia and Africa. The development of Persian studies is a natural step in furthering an understanding of the Middle East.

Islamic Studies Endowment
Goal: \$3 million (endowment)

Islam is the second-largest religion in the world and continues to expand. The Islamic world comprises vast populations in Asia, Africa, the Middle East, Southern Europe and the Commonwealth of Independent Russian States. This endowment will create a program of study pertinent to contemporary society and designed to contribute to improved understanding and critical appreciation of Islamic societies and cultures.



Deans

Neville Scarfe (1956-73)

John H. M. Andrews (1973-80)

Daniel R. Birch (1981-86)

Nancy M. Sheehan (1987-)

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“The Faculty of Education is committed to preparing teachers, other educational professionals and individuals interested in health and fitness; conducting research that will help us understand and improve education in British Columbia and elsewhere; and disseminating what we and the rest of the world-wide research community have discovered about the educational enterprise. We believe that research and practice are interdependent. We want to know what works, what doesn’t, and wherever possible, why. There can be no long-term improvement of practice that is not rooted in systematic and sustained inquiry.”

Nancy Sheehan, 1994

Preparations for university based teacher education in B.C. took root in the UBC philosophy department 22 years before the Faculty of Education was created in 1956.

At the time of Leonard Klinck’s appointment as UBC’s second president in 1919, B.C. elementary school teachers required few credentials. Grade 11 graduates could attend a provincial normal school in Victoria or Vancouver and receive training for two, 15-week terms. Summer-school was also available in Victoria to vacationing teachers looking to upgrade their skills. High school teachers,

many of whom were recruited from Ontario or Great Britain, were exempt from any such schooling by virtue of their “superior scholarship.”

It was while touring north-eastern B.C. in his former role as dean of agriculture that Klinck realized secondary-level education needed a dramatic overhaul if children from remote regions were to attend university. Moreover, he found compelling evidence that large numbers of UBC graduates were choosing teaching as a career. Records from the alumni directory showed 11 of the 36-member class of 1916 had taken up teaching, school administration or college lecturing posts. In 1917, the ratio was eight of 33; in 1918, nine of 32; and in 1919, 19 of 46.

Klinck's first move was to appoint H.T.J. Coleman Dean of Arts and Science and head of philosophy. A philosopher, poet and writer on major educational concepts, Coleman introduced the study of education at UBC with two courses: Introduction to Education, which dealt with educational movements since the beginning of the 19th century, and Educational Psychology, which focused on learning theory and educational measurement.

Another guiding force behind the university's first, full-time teacher education program was its first professor of education, George Moir Weir. A year after his appointment in 1924, Weir co-authored an appraisal of B.C.'s education system which included this stinging litany:



*Present at the opening of the Scarfe Building in 1962
were (from left to right) UBC President
John Macdonald, Education Minister Leslie Peterson,
Dean Neville Scarfe and Chancellor Phyllis Ross.*

"Too many married teachers; the immaturity of the teachers, especially in the rural schools; lack of vision and professional pride; deficient academic

and professional qualifications, unwillingness to take additional professional training beyond the legal minimum; lack of experience; inability adequately to profit from experience; tendency to change schools too frequently."

UBC's Department of Education opened in 1926. Coleman's introductory offerings had been augmented by courses in school administration and law, educational tests, measurements and statistics, psychology of elementary school subjects, observation, and practice teaching and methods in elementary and high-school subjects. This was also the year that a Master of Arts with a minor in Education was listed in the university calendar, supplemented a decade later with a major in education.

As teacher education expanded in the late 1940s to meet the post-war, baby-boom demand, secondary school teachers were expected to have a bachelor's degree followed by a one-year post-baccalaureate course leading to certification.

Universities finally took full responsibility for teacher education with the government's approval of the four-year BEd (elementary) and a five-year BEd (secondary) programs in 1955. The decision promptly led to the erection of temporary buildings for 812 students and the combined staffs from UBC's then School of Education and instructors from the Vancouver Normal School. With government support, the faculty grew at a dizzying pace. Seven years later, 2,415 students registered, the highest enrolment among similar institutions across Canada. By the late 1970s, registration topped 5,000 and the faculty had more than 250 full time professors teaching as many as 175 different undergraduate courses.

As for graduate offerings, a Master of Education (MEd) was first listed in the 1957 calendar, followed five years later by a Doctor of Education (EdD) and a PhD in 1982. _____

Today the faculty complement is 170. A number of sessionals and seconded teachers are also hired each year to work in post-baccalaureate teacher education programs, and in support lab and activity courses in the School of Human Kinetics. The faculty is organized into departments of Counselling Psychology, Curriculum Studies, Educational Psychology and Special Education, Educational Studies and Language Education as well as six teaching/research centres. Renovations and additions to the Scarfe complex, expected to be completed in late 1996, will consolidate research and teaching currently spread across campus.

The faculty has a three-fold commitment to research: fostering basic and applied research; acting as a professional research and development resource; and enhancing the professional research capabilities of B.C. and Canadian educators. Scholarship interests stretch from daycare and early childhood education to gerontology education and exercise science. Research is carried out in schools, district offices, professional organizations, local communities and reserves. As well, faculty provide research and policy advice to various levels of government on an ongoing basis. The varied interests of faculty members have led to valuable cross-disciplinary approaches to emergent themes.

PERSPECTIVES ON LEARNING AND TEACHING

Galen Erickson believes that students, far from being empty vessels or blank slates to be written on, come to class loaded with their own base of knowledge drawn from past experience and events. The key to improved learning and teaching in classrooms, he contends, is recognizing this fact.

A professor in the Dept. of Curriculum Studies, Erickson has been studying the extent to which students use their intuitive knowledge to make sense of science topics. Since 1978, his work has focused on describing and cataloguing

students' intuitions about the scientific concepts of motion, force, sound, heat and temperature.

This initial research on constructivist learning—the idea that students construct their own meaning from what happens in a classroom which is often quite different from that intended by a teacher—has spawned close to a dozen doctoral dissertations and nine masters' theses. Furthermore, he has published articles in numerous academic and professional journals describing this research program and has co-edited a book on the application of this view of learning in teacher education.

In the last few years, Erickson has incorporated the constructivist view into UBC's pre-service science teachers' program. His project, called Investigating Science Teacher Education Using a Collaborative Approach, includes a group of experienced teachers from three Vancouver schools, beginning (pre-service) teachers and university educators. Each participant plays a prominent role in the teacher preparation program either as a methods instructor or advisor in a classroom practicum.

Erickson is especially interested in how student teachers' conceptions about teaching, learning and the nature of science change during their preparation program and their initial professional years. According to Erickson, the initial year is critical because new teachers tend to get socialized into using the more traditional transmission mode of teaching whereby information is simply made available to students. "It isn't that people can't learn from a transmission model," says Erickson, "but ideally teachers should check before beginning to teach something to see what students already know and continue making checks on student learning along the way."

Case studies of methods and techniques used by teachers in the project enable others to see how they might implement a constructivist approach in their own classrooms.

Erickson, director of UBC's Centre for the Study of Teacher Education, is quick to point out that the project's research can be applied to subject areas other than science. Faculty, graduate students and field personnel use the centre as a forum to discuss issues in teacher education. Erickson is a recipient of both a University Teaching Award and an Outstanding Service Award from the B.C. Science Teachers Association.

Peter Seixas, also with Curriculum Studies, has applied constructivist perspectives to the relatively unexplored area of history education. In a series of small-scale, qualitative studies Seixas has assessed high school students' sense of history and their place in it. Like Erickson's views on mathematics and science, Seixas argues that family experiences and other sources of information outside school strongly influence the way students understand history. He has explored some of the problems generated when the complexities of historical meaning remain unrecognized in school social studies. Seixas has suggested advantages, particularly in the multicultural classroom, of shaping curriculum content and classroom activities to enable students to build upon prior historical knowledge. For his efforts, Seixas won the Exemplary Research Award from the U.S. National Council for Social Studies.

Another line of research by Seixas involves an investigation of collaborative efforts between teachers and university based scholars. This work looks at relations between historians and teachers in the massive, state-funded California Subject Matter Project. It also examines school-university collaboration in the British Columbia Consortium for Humanities and Social Sciences which links the Ministry of Education, the B.C. Teachers Federation, UBC Faculty of Arts, UBC Faculty of Education and four school districts.

Developing collaborative relationships among B.C. schools and universities is nothing new for

UBC's Faculty of Education. In 1969, the Commission on the Future of the Faculty of Education (COFFE) issued a 125-page report urging faculty to "feed into the centre of the university the live problems of school and community..." The faculty has a long and distinguished record in doing this by offering coursework all over the province.

One of the major challenges facing educators today is getting students to think critically about events in their academic and personal lives. To this end, the faculties of education at UBC, Simon Fraser University and the University of Victoria have established a tri-university group called The Critical Thinking Cooperative.

UBC's LeRoi Daniels and Jerrold Coombs of the Dept. of Educational Studies join government, college and school district officials, and educational publishers in the cooperative's five-year partnership. The goal, says Daniels, "is to get students thinking through problematic situations about what to believe or how to act based on reasoned judgments." Elements of the partnership include: develop field-based programs (credit and non-credit) on teaching and assessing critical thinking for teachers of all levels and subjects; develop, pilot and publish teacher and student resources (print and other media) related to specific subject areas; establish measures to assess critical thinking from Kindergarten to grade 12; conduct conceptual and empirical research and large-scale assessments of critical thinking; and establish a network of international connections to support critical thinking in the province.

Daniels says professional development efforts are directed to regular classroom teachers and educators who assume leadership roles in resource development, in-service and assessment. The first annual summer institute was offered in August 1994, as were two credit courses one each at UBC and SFU during the summer session.

Patricia Arlin of the Dept. of Educational Psychology and Special Education is investigating how teachers formulate problems in instruction and gradually develop expertise from their first years of teaching forward. Arlin says that wisdom, in the context of her research, "entails good judgment and advice about the difficult but uncertain matters of the classroom."

Arlin applies the same set of criteria she uses to judge wisdom in everyday life to the specific case of wisdom in teaching. She judges the richness of factual knowledge about teaching; the awareness of the relativism associated with values and priorities of peers and students; and the uncertainty of the effects of specific teaching decisions, their recognition and management.

Arlin's Wisdom and Expertise in Teaching project has student teachers perform a series of tasks they may encounter in an instructional setting. A student teacher is asked to think about a task from a student's point of view, then formulate the problem as the student would see it. They then suggest questions the teacher might ask and plan the next steps to take on the students' behalf. Arlin says these tasks represent actual classroom situations where teachers had defined a specific instructional problem as a well-defined problem. However, many classroom problems are ill-defined or discovered problems arising from a student's unexpected response.

"It is the working hypothesis of the project that the more adequately the student teacher formulates the instructional problem and is able to take the student's point of view, the sooner the teacher will move toward wisdom and expertise," Arlin writes. The Wisdom and Expertise in Teaching project may ultimately provide a new way to describe how wisdom and expertise in teaching are acquired and how teachers are taught.

The project evolved from Arlin's earlier work in problem finding and her initial proposal of a fifth stage in cognitive development. Arlin used this construct to describe late adolescent and young

adult cognition in terms of their ability to formulate problems and questions rather than simply solve problems presented to them. This early work has contributed significantly to studies of positive adult cognitive development.

Related research:

- An exploration of conceptions of teaching among instructors who work with adults in different cultural settings, particularly the teaching differences between adult educators in China and Canada (Daniel Pratt, Educational Studies)

FIRST NATIONS EDUCATION

THE RAVEN RETURNS

The Native Indian Teacher Education Program (NITEP) is the oldest of UBC's First Nations program offerings. When it began in 1974, there were about two dozen First Nations teachers in the whole of B.C. That number has since grown to roughly 250 with the majority of these teachers former NITEP students or graduates of the 10-year-old Ts'kel graduate program. Still, co-ordinators at NITEP's four field centres (Duncan, Kamloops, Chilliwack, UBC) point out that with First Nations representing five per cent of the population, there should be closer to five times that many teachers.

The program logo, a raven holding the sun in its beak, comes from a legend originating in the Northwest coast of the province. Legend has it that at a time of complete darkness, Raven flew through a hole in the sky, snatched the sun and brought it back to earth. NITEP Director Rod McCormick says the Raven image symbolizes the return of education and culture to First Nations. McCormick and Jo-ann Archibald, director of the First Nations House of Learning, explore this theme of returning culture to the people in their own research.

McCormick drew on his previous counselling experience in the Yukon and B.C. for his doctoral research which looked at developing a theoretical framework for counselling First Nations people. Western coun-



*Jo-ann Archibald along with elders Minnie Croft,
(far right) Simon Baker (far left) and Vince Stogan help
preserve aboriginal languages
and literatures at the First Nations Longhouse*

selling therapy, he contends, often does not work among First Nations groups because it is based on a world view that stresses concepts such as strengthening a person's ego to master the environment.

"The goal of First Nations healing techniques is to transcend ego, to get outside yourself, to connect with family, community and culture. First Nations healing involves the mental, physical, emotional and spiritual. It differs from western healing because it focuses on balance, belonging, expression and cleansing." By interviewing 50 First Nations adults from around B.C., McCormick analysed the healing techniques people turned to for help. He intends to use the 450 healing events documented to produce a map of healing which could be used by counselling professionals and educators across Canada.

Archibald, a member of the Sto:lo Nation, worked her way from being a teacher, curriculum consultant, NITEP co-ordinator and supervisor to her present position as director of the First Nations House of Learning.

Her research explores how teachers can incorporate First Nations storytelling into the curriculum. Says Archibald, "When you deal with our culture you can't escape stories because they are at the core of who we are." Working with the Law Courts Education Society, Archibald is part of a collaborative project to develop a justice-based curriculum dealing with various aspects of the law for Kindergarten to Grade 7 students. She says storytelling challenges a learner to dig beneath the surface of an issue or subject and gain a deeper understanding of it.

Archibald is also overseeing the development of two qualitative case studies on First Nations schools within a national examination of 21 exemplary secondary schools. Community members, administration, teachers and students have worked with research teams to identify factors of success from an

insider's viewpoint. Archibald is president of Mokakit, a national First Nations education research association which addresses issues of authority, perspectives and research methodology.

The three decades following British Columbia's entry into Confederation in 1871 have been largely overlooked by historians, says Jean Barman from Educational Studies. Apart from the drama of the Canadian Pacific Railway and emergence of Vancouver, little is known about events in the west coast province. Yet, as Barman points out, it was between 1871 and 1901 that B.C.'s non-First Nations population mushroomed from just 10,000 to 150,000.

Barman, winner of the 1992 UBC Alumni Prize in the Social Sciences and a former Killam Research Fellow, is examining this critical time period from two perspectives, both centring on everyday life. A study of teachers and teaching provides a window into the changing world of parents and children. Her second project focuses on personal relationships between First Nations and non-First Nations people.

Barman is looking specifically at pioneer British Columbians of mixed Native and non-Native descent who, as the numbers of newcomers grew, became known pejoratively as halfbreeds.

Says Barman, "I cannot legitimately write about such specifics as pioneer teachers' relationships with local families or the easy dismissal of some British Columbians as inferior without relating such findings to the larger context in which these children and adults made their lives."

While firmly based on British Columbia data, Barman's work addresses broader themes in Canadian history, including the pace and character of professionalization, the feminization of teaching, the nature of ongoing contact between First Nations and First Nations people and gender

relations on the frontier. Barman is author of the prize-winning book, *The West Beyond the West: A History of British Columbia*.

Related research:

- Research suggests that the notion of art may be a western concept and therefore has little place within some traditional aboriginal cultures. A collaborative project, linking aboriginal peoples in South Australia, the Ojibway People in Northern Ontario and the Sechelt People of B.C., examines how the art and creativity of specific indigenous peoples on two continents have been affected by white intrusion. (Rita Irwin, Curriculum Studies)

EDUCATION AND GENDER

WOMEN, WORK AND CHILDREN

Barman identifies five categories of teachers in B.C. at the turn of the century: girls just out of school, often marking time before anticipated marriage; young people using teaching as means of getting ahead in law, medicine or the clergy; women forced to fend for themselves for one reason or another; men who moved in and out of the profession for ready cash; and experienced teachers who made a lifelong commitment to teaching. Another interesting observation was that women could join the teaching ranks at age 16 while men had to wait two more years. Marriage, according to Barman, remained the ultimate goal for most girls.

As a member of UBC's Dept. of Educational Studies, Allison Tom's research specialty has been the relationship among women, employment and education. In North America, Tom notes that the study of women's work has been dominated by a cultural dichotomy between the male and female realms. For example, women's employment has been seen as a contradiction and a challenge to their traditional family and household roles. Indeed, the right of married women to continue teaching in

British Columbia schools was not confirmed until 1950. In those days, a woman's true vocation was seen to be in the home, not the school.

According to Tom, the notion of opposing feminine and masculine roles, paralleled by similarly opposing domestic and public environments, is central to North American culture and a major stress point in women's lives. This divide merits closer, more critical study. For her part, Tom is using three B.C. child care centres and the early childhood education program of a community college to explore the interaction and conflicting ideologies of the domestic and public spheres.

Child care has traditionally been carried out in the domestic sphere, especially in industrialized North America. Increasingly, this work is being moved to the more public space of child care centres. Says Tom, "When it is located in centres rather than homes, and is carried out for pay rather than love, the interactions of individuals acting in these realms demonstrate and challenge the symbolic dichotomy of women's work and lives." By illustrating ways in which this dichotomy affects the valuing of women's work, Tom's study addresses the broader issue of the subordination and undervaluing of women's labour. The research team is designing child care workshops for educators, practitioners and parents.

Tom's latest effort follows in the wake of an extensive national child care study co-investigated by colleague Hillel Goelman of UBC's Centre for the Study of Curriculum and Instruction. Based on interviews conducted by Statistics Canada in 1988, the study profiled the child-care needs of more than two million families with at least one child under 13. Drawing information from one in every 90 Canadian households, it is the most extensive research project of its kind undertaken anywhere. Goelman contributed reports dealing with infant

child care, unlicensed child care, parental preferences for care, child care availability and affordability and an overview of child care arrangements in Canada.

Since 1989, Deirdre Kelly has examined why students drop out of school. When she took a closer look at gender aspects of the issue, her focus soon turned to pregnancy and a study she calls *School Responses to Teenage Pregnancy and Motherhood: The Politics of Interpreting Needs and Lessening Stigma*.

Kelly, of Educational Studies, says the study looks at how education leaders integrate pregnant girls and young mothers into regular secondary school classes and activities. Changing public attitudes, new educational theories and the passage of special education legislation in B.C. place the province at a juncture. Kelly argues that schools now implementing new forms of integration, such as main-streaming of school-age mothers, are sure to be emulated and therefore need closer scrutiny. Her research examines assumptions that underlie the debate between mainstreaming and the provision of separate facilities for pregnant and mothering teens.

Are pregnant teens more likely to be stigmatized if they remain in large school settings or if they are removed? The dilemma, according to Kelly, is that separate facilities "focus on the special needs of pregnant teens and mothering girls and risk stigmatizing them, while the mainstream approach often fails to support students fully and risks losing them."

By focusing on two schools committed to a strategy of supported mainstreaming, Kelly's research identifies and analyses practices that promote inclusion as well as obstacles that remain or arise in reaction to inclusion policy. Her research also contributes to literature on dropouts, which

until recently, has neglected the gender dimension, and furthers feminist theories about gender and education by suggesting guidelines for the construction of a gender-sensitive curriculum.

TOWARDS A GENDER-SENSITIVE CURRICULUM

At the turn of this century, many school practitioners held gender-bound views of the curriculum: they perceived categorical differences between males and females that seemed to justify providing each sex a different course of study. Views have since moved from this perspective to a relatively gender-blind one. Scholars note that the problem with ignoring gender is that, like ethnicity, it continues to shape classroom interaction in ways that are sometimes missed or unwittingly reinforced.

Low participation rates of B.C. girls in senior-level mathematics and science courses prompted an investigation by UBC science education professor James Gaskell. Launched in 1990, *The British Columbia Mathematics Assessment: Gender Issues in Student Choice in Mathematics and Science* made 35 recommendations aimed at attracting more girls to mathematics and physical sciences courses.

Gaskell, one of four co-investigators of the study, said principals, teachers and counsellors he spoke with wanted to downplay the gender issues because they believed that to highlight them would only reinforce stereotypes. Gaskell's research suggested that such a gender-neutral approach perpetuated biases contributing to fewer girls than boys enrolling in these courses. Many of the girls interviewed for the study described sciences as frightening or just for smart people. Some girls also felt math and science teachers were only interested in smart students, which often meant the smart boys. Says Gaskell, "There is nothing inherently more difficult about math or physics. It's how they're treated in schools that makes them appear that way."

The study recommended that schools develop a variety of gender-sensitive strategies to make mathematics and science more attractive to girls. These include: encouraging curricula revisions that take into account the particular interests of girls; hiring more women to teach senior physical science and math courses; re-writing course descriptions of mathematics and science in school calendars to avoid over-emphasizing the difficulty and sophistication of these topics; having schools communicate with parents about the significance of science, mathematics and gender; and helping teachers through professional development programs develop ways of incorporating gender issues into class without causing backlash among boys.

As a follow-up to the 1990 assessment, Gaskell is documenting student reactions to gender-sensitive instructional materials and assessment tasks introduced in a Grade 10 physics course dealing with electricity. Gaskell says the study will produce sample instructional materials emphasizing the social context of physics and a description of how they were developed through student interviews. Other relevant items of use to teachers are a description of the change process and student responses to the changes, sample tasks that assess knowledge in context and promote gender equity, and an account of student achievement on various tasks and their perception of the tasks' difficulty and fairness.

Gaskell's research has implications for the promotion of all forms of equity in the classroom as well as for the construction of provincial examinations, provincial assessments and curriculum documents.

Other gender-related research in the faculty include:

- Understanding how women cope with work stress has been a research focus for UBC counselling psychologists. Specific studies monitor and document workplace stress as experienced by women clerical workers and managers. This research program seeks to lessen workplace stress either

through enhanced coping strategies or by modifications to organizational policies and structures. (Bonnie Long, Sharon Kahn Counselling Psychology)

- Almost daily, newspaper and magazine reports describe the difficulty of combining parenthood and the dual-earner lifestyle. A collaborative study examines 100 couples who are making the transition to parenthood and intending to resume the dual-earner lifestyle after the birth of their infants. The program helps clarify some of the confusion over factors that relate to the physical and psychological distress associated with multiple roles. (Bonnie Long, Counselling Psychology; Wendy Hall, School of Nursing)
- Research on gender and technology considers the social construction of knowledge as it shapes the development of key educational tools such as computers. The analysis of educational tools in these studies is approached through feminist theory and applied psychology. (Mary Bryson, Educational Psych./Special Ed.)
- A study of the relationship among gender, science and multimedia tools. The premise is that young women drop out of the sciences because the field is not presented to them as relevant, personal or hands-on. (Ricki Goldman-Segall, Curriculum Studies)
- Studies indicate one in six couples are affected by infertility either in terms of conceiving or carrying a viable pregnancy to term. Research underway looks at the long-term physical and emotional impacts of infertility on couples. (Judith Daniluk, Counselling Psychology)
- Examination of gendered and racial representations in popular culture (Leslie Roman, Educational Studies)

GENDER AND SPORT

In 1993, the School of Physical Education and Recreation at UBC was renamed the School of Human Kinetics. The new name, which refers to the study of human movement, reflects significant changes underway in the school. In addition to

traditional physical education, research and professional activities have expanded to cover emerging requirements in exercise science, health and fitness, leisure and sports management.

Equity issues in physical education and youth sports programs are the subject of ongoing research by faculty in the School of Human Kinetics. Researchers look at challenges facing feminist sociology of sport, issues of old age, gender and physical activity and the relationship of gender, class and race to levels and types of participation in sport and exercise.

Patricia Vertinsky refers to herself as a sport historian though her research successfully combines knowledge and theoretical perspectives from social, biological and medical sciences.

Her book, *The Eternally Wounded Woman: Doctors, Women and Exercise in the Late Nineteenth Century* (1990), has helped people understand the experiences of girls and women in medical practices, sports and exercise during the last century. Research reported in this work (revised and released in paperback in 1994) has been extended to a multi-faceted study of the aging female body in exercise and sport. Vertinsky continues to document the role played by shifting medical paradigms in shaping cultural images of old women's physical capabilities. Says Vertinsky, "The biomedicalization of aging, forged well over a century ago by socially constructing old age as a diseased, dependent and inactive stage of life, encouraged women to take on negative stereotyped characteristics of aging more readily than men."

Vertinsky's research demonstrates that this view of old age has had lasting implications on 20th century perceptions of female competencies in aging, exercise and sport. In spite of claims that changing perceptions of age in industrialized societies are

leading to profound changes in sport and exercise behaviour, Vertinsky says there are numerous barriers to exercise which continue to stand between the vast majority of older women and their ability to achieve a better quality of life. Vertinsky is the only Canadian woman elected to the American Academy of Physical Education.

Related research:

- The influence of organizational culture on the delivery of community-based physical activity programs for girls and women (Wendy Frisby, Human Kinetics)

LANGUAGE AND LITERACY

In 1981, education faculty studying librarianship, modern language, reading and English education were brought together in one department. UBC's Department of Language Education is now one of the largest of its kind in North America with 30 full-time faculty and 50 sessionals and seconded teachers. It is also one of the most diverse with specialists in second language acquisition, french immersion, adult and early literacy, early childhood education, language assessment, reading literacy, vocabulary development, Canadian and international children's literature and curriculum assessment and evaluation.

THE WHOLE LANGUAGE DEBATE

The principal of Sunnybank School was clearly flustered. "You say children were making noise in class," the defence lawyer repeated. "What kind of noise, exactly?" After an awkward pause, Basil Ford sheepishly admitted that the disruptive clamor coming from a Grade 1 classroom had, in fact, been children talking about their studies. "Yes... well...they were talking about their work," Ford stuttered. "But they should have been doing it."

Ford's admission was a turning point in Whole Language on Trial, a video skit written and performed by a group of nine UBC language education

professors. Presented in the late 1980s at a national conference of English teachers, the production highlighted the pros and cons of whole language, a non-traditional approach to language instruction. Supporters of this approach, however, stress that it is very much a research-based methodology. "The process has evolved over many years," explains Victor Froese, head of UBC's Dept. of Language Education. "It is not something that just landed."

What was deemed a radical approach six years ago has spread around the world. From 1982-87 there were only 26 dissertations on whole language. In the following five years, whole language was the topic for 126 dissertations. Fifty dissertations were devoted to the teaching method in 1993 alone. Froese explains that the term whole-language should not be confused with whole-word method which is often contrasted with phonics. Whole language advocates teaching sound-symbol relationships, or phonics, in context (i.e. holistically) when needed.

Roughly a third of the UBC's language education department is involved with some aspect of whole language research. Froese and his colleagues rewrote ideas presented in their video production and published them in 1990. *Whole-Language, Practice and Theory* is currently being used as a textbook at universities across Canada for prospective Kindergarten through Grade 8 teachers. The first 4,000 copies sold out and the book has had two successive printings. An updated Canadian version appeared in 1994 and a second American edition is in progress.

Whole-language has been defined as a child-centred, literature-based approach to language teaching that immerses students in real communication situations whenever possible. Rather than have children sit in rows taking notes from standardized texts (Ford's notion of doing it), whole language promotes active communication. Students might be asked to observe an activity outside, perform a skit or watch a news program, then be asked to talk or write about what they witnessed.

Whereas the traditional method of teaching depends on a series of books isolating different skills, whole language brings these skills together in a real-life context making language more familiar. Froese emphasizes that as a literature-based (from informational books to fiction) approach, students are encouraged to read as much as possible.

UBC was recently the site for Canada's largest study of pre-school language development. Based at the Child Study Centre, university researchers followed the oral language development of 60 three- and four-year-olds for three years. Forty-three of the children were then followed for another two years into Grades 1, 2 or 3. The study's findings clearly linked children's early language development to success in learning to read and write.

In Canada, virtually every province has adopted an integrated curriculum where reading, writing, speaking and listening are taught together. But Froese and others are working hard to see that whole language is adopted further by gradually shifting the responsibility for learning to the children themselves.

Says Froese: "If you believe that language is a social process, then you have to arrange for the process to happen in class. That may require a different view of school."

Related research:

- Co-ordination of B.C.'s participation in the four-year International Reading Literacy Study which tested the reading and writing skills of 210,000 students in grades 3-5 and 8-10. The study findings were published in the book, *How In the World Do Students Read?*, produced by the International Association for the Evaluation of Educational Achievement. Local findings will be presented in a work tentatively titled *The Puzzle of Literacy*, produced by the Ministry of Education. (Victor Froese, Language Education)

- UBC's Department of Language Education is the centre of a five-year research project on children's literature. Sponsored by the National Council of Teachers of English, UBC receives all the new children's publications in North America each year, sends them out for review and compiles abstracts of the best works for research purposes. The department has also started a collection of children's books translated from other languages into English. (Wendy Sutton, Language Education)
- An examination of classroom language used by teachers in all areas of specialization whether through talking, reading or writing. For the benefit of preservice and inservice teachers, the research looks at the structure of language, language acquisition in first and second languages, the language of specific disciplines and strategies for teaching second language students. Work resulted in the publication of *Language and Learning Across the Curriculum* (1994), a textbook showing student teachers how to use language in all subject areas. (Marion Crowhurst, Language Education)
- A world-wide survey was recently completed of past and present assessment procedures used in evaluating educational fine arts programs. The report, which made recommendations to the Ministry of Education with respect to fine arts assessment, covered the fields of dance, drama, music and visual art in education. (Patrick Verriour, Curriculum Studies)

ENGLISH AS A SECOND LANGUAGE

For children learning English as a second language, pictures may indeed be worth a thousand words. In fact, some educators believe key visuals such as charts, graphs and diagrams may provide an essential link between language and academic learning.

Today, more than half of Vancouver's 50,000 school-age children speak a language other than English at home and receive some form of ESL support. But while they may be learning enough English to converse with friends in the playground, these ESL students may lag behind their English-speaking

counterparts in the academic English needed in the classroom. "The English that's learned quickly is the kind needed for chat," said Margaret Early. "But you have to go beyond simple conversation to be successful in school and that takes a particular kind of help."

For the last decade, Early and Bernard Mohan have been working with the Vancouver School Board (VSB) to develop new methods of ESL instruction. They argue that if ESL students are to keep up with English-speaking peers, they must learn language skills in conjunction with academic subjects, not in isolation. And they believe key visuals will go a long way towards achieving this goal. Early says visuals are an effective way of showing how information is organized. They allow students to explore the hows and whys of a subject while eliminating the need for isolated language exercises.

According to Mohan, information can be organized into at least six areas: classification (classifying, defining), principles (explaining, predicting), description (observing, naming, labelling), evaluation (judging, appreciating), sequence (predicting, planning, arranging) and choice (decision-making, selecting, identifying). Each area of this knowledge framework comes with its own language which can be gradually introduced to students. Areas also have their own conventional illustrations which can be used by teachers as springboards to other class activities involving language comprehension (listening and reading) or expression (speaking and writing). For Mohan, there is no sense putting a child's development of knowledge on hold to teach English for English's sake. "Classification of countries in social studies, forms of energy in science, vertebrates in biology or muffins in home economics they can all be discussed at an early stage of language learning."

Mohan and Early add that it often takes immigrant students up to seven years to acquire the language skills needed in a mainstream classroom. However, students have traditionally been given just two years of basic ESL instruction before being placed in a reg-

ular class. With some Vancouver schools having up to 50 different first languages spoken by students, bilingual education in the classroom raises a number of practical issues. According to Early, Mohan's approach does away with the need for an entirely different curriculum for ESL students and has been used effectively with both first and second language students.

The VSB designated 10 schools (six elementary and four secondary) to take part in a four-year project to develop the social and academic integration of ESL students. The project currently has 100 educators using an integrated approach to teaching language and academic subject material. Teams of ESL and regular classroom teachers, particularly those with expertise in social studies, science and computers, are working together testing and evaluating new ESL teaching methods and materials. This work is being followed up in detail, thanks to a grant from SSHRC.

Vancouver's ESL student population represents about 80 countries and 66 languages. These students are taught in 62 separate ESL classes in elementary schools and 87 classes in secondary schools. The remainder are either offered some form of in-class support or attend transitional classes which focus on the teaching of language with regular class content.

Related research:

- Analysis of factors associated with achievement of ESL students from Kindergarten to Grade 12 (Lee Gunderson, Language Education)

CHILDREN UP CLOSE

UBC'S Child Study Centre (CSC) was founded in 1961 by Dean Neville Scarfe as an interdisciplinary centre for research in child development and early childhood education. More than 30 years later, the centre is recognized internationally as Canada's leading campus-based child development laboratory research and demonstration facility.

Since moving into its new building in 1990, the centre continues to serve as a demonstration laboratory school where undergraduate and graduate students, as well as students and teachers from the community, can observe and learn more about young children, curriculum innovation and teaching strategies.

Although the CSC is probably best known among members of the general public as an outstanding preschool, research is its primary function within the university context. Studies focus on language, aesthetic and mathematical development, artistic skills, psychological development, children's understanding of emotion and special education at the preschool level.

By recognizing the close relationship between home and school, the centre also encourages a great deal of parent involvement. Perhaps its best known program is the ANCHOR Project (Addressing the Needs of Children Through Observation and Response), an innovative approach to parent-teacher collaboration. Developed 10 years ago by the centre's director Glen Dixon, the ANCHOR Project lets parents observe and discuss live video transmissions of their children's activities in an adjacent preschool classroom. "It's a highly motivating exercise because the parents are like researchers themselves and their own kids are the subjects," says Dixon. "It's also interesting to see that as the children come together, so too do the parents." By illustrating individual child behaviours and child/teacher interactions, the tapes are useful for students in early childhood education courses. The ANCHOR model has been adapted at eight sites throughout Canada as well as at sites in Slovakia and Denmark.

Other areas of inquiry at the centre either recently completed or underway include:

- A linguistic investigation of how young children develop an ability to infer meaning from what they are told (Kenneth Reeder)
- How children develop a preference for realism in artistic images (Anna Kindler, Curriculum Studies)

- The relationship between children's literacy experience at home and their emerging knowledge and attitudes toward reading and writing (James Anderson, Language Education)
- Interpersonal sensitivity and adeptness at social role-playing (Marion Porath, Educational Psych\ Special Ed.)
- Development of language and literacy in early school years, the largest-scale longitudinal study of its kind undertaken in Canada (Jon Shapiro, Kenneth Reeder, Rita Watson)



Canadians who grew up before the invention of television often view their childhood as a golden age. It was also an incredibly busy time, filled with a seemingly endless cycle of schooling and chores. While these chores might have differed from east to west, the lives of children across the country were full of work from dawn to dusk.

So says Neil Sutherland, one of Canada's pre-eminent scholars of Canadian childhood history and professor in the Dept. of Educational Studies. Sutherland's 1994 book, *Growing Up in Modern Canada The Children's Perspective*, is one of a series written by UBC education faculty as part of the Canadian Childhood History Project.

Started in the mid-1980s, the project has also produced a *Bibliography of Canadian Childhood*, a one-of-a-kind resource compiled by Sutherland, department colleague Jean Barman and bibliographer Linda Hale. Working with about two dozen graduate students, the three scholars surveyed every known academic and professional journal in which articles dealing with Canadian children from the earliest times to 1990 might have appeared. The bibliography's two, 500-page volumes, containing roughly 16,000 entries, have been distributed in libraries and universities across North America. "If

The Bibliography of Canadian Childhood contains roughly 16,000 entries on legal, medical social and other topics pertaining to children and their history in Canada

you're interested in any aspect of Canadian childhood, be it legal, medical, social or otherwise, it's here. It's an area that's never been systematically recorded," says Sutherland.

As for the project's research component, Sutherland's work was based largely on some 200 interviews with people born in Canada between 1910 and 1950. He is currently writing a follow-up book dealing with Canadian childhood since the Second World War. Barman looked at the relationship between families and schools, particularly how parents have tried to exert control over education in the private and public school systems.

Nancy Sheehan's contribution to the project explored the role of voluntary organizations in the development of educational policy and curriculum. She looked at community involvement in late afternoon, evening and Saturday activities for children, sponsored by such voluntary groups as

the Junior Red Cross, the Imperial Order of the Daughters of the Empire and the Woman's Christian Temperance Union.

EDUCATION AND THE PACIFIC RIM

CROSSING CULTURAL BOUNDARIES

The cultural literacy of teenagers from six developed nations in the Pacific Basin (Australia, Canada, Japan, Singapore, Solomon Islands, USA) is a research focus for Language Education's John Willinsky. Called *Living in the Pacific*, Willinsky's project assesses high school students' knowledge of geographical and cultural factors in the region, establishes their awareness of how other communities around the Pacific basin contribute to their own community and explores with students the concept of a Pacific community.

The project is an outgrowth of UBC's participation in the Pacific Circle Consortium, an association of educational researchers and officials from the OECD (Organization for Economic Cooperation and Development) countries in the Pacific. The project's first phase consists of a survey asking 623 secondary school students aged 15 to 17 to write about different aspects of life in their respective regions.

"This pilot phase establishes the best means for tapping into students' understanding of the people, history and geography of the Pacific region and their community's place within it," says Willinsky, who is also director of UBC's Centre for the Study of Curriculum and Instruction. Willinsky hopes to expand the survey to include about 1,500 students in 10 or more nations. The eventual goal is to get student-created materials circulating among participating nations' classrooms to foster co-operative learning. Together with colleagues James Gaskell and Stephen Carey, Willinsky organized the 1995 conference "Imagining a Pacific Community: Representation and Education."

Willinsky's previous research looked at a wide range of issues in literacy and literature teaching which resulted in three books and numerous articles. His latest publication, *Empire of Words* (1994), examines the history of the Oxford English Dictionary and its contribution to English as a world language and the building of an English canon between the Victorian era and our own time.

EXPANDING MODERN LANGUAGES AND THE MULTICULTURAL CURRICULUM

Early in the 1990s, UBC's Modern Languages Education Program was focused primarily on French education. Stephen Carey, director of UBC's Modern Languages Education Program, says that with an immediate need for about 300 teachers in B.C.'s immersion and FSL courses, French continues to be a priority. But for more than 50 per cent of school-age students in Vancouver, neither French nor English is a first language.

Since 1991, enrolment for all Modern Languages Education programs (BEd, MA, MEd, DEd or PhD) has grown from 15 students to 90. This increase is due in large part to a new initiative called Asia Pacific Educational Studies in Language, Culture and Curriculum. The program has established linkages with the Beijing Language Institute and similar organizations in Japan and Thailand. Students from around the world have come to UBC to research and/or teach in their culture and language.

Related research:

- Ongoing research on controversies surrounding Canadian multiculturalism and immigration, particularly the changing educational policies toward the multicultural classroom in light of continuing immigration and demands for innovative policy on equity
- Responses of educational institutions to racial integration within the context of the new politics of ethnicity in South Africa (Kogila Adam-Moodley, Educational Studies; David Lam Chair in Multicultural Education)

- The Adult Literacy National Demonstration project is an ethnographic evaluation of two highly regarded adult literacy programs in the Lower Mainland. It describes ways in which programs achieve results, and serves as a model for future qualitative program evaluations. The project is funded by the Ministry of Citizenship and Multiculturalism. (Allison Tom, Educational Studies)
- Development of attitudes and beliefs regarding visual arts among French and Chinese Canadians. These beliefs are compared with those shared by people in France and Taiwan as well as those represented within the Anglo-Saxon tradition which permeates current Canadian art education. (Anna Kindler, Curriculum Studies)
- Ways in which discipline-based art education can respond to cultural pluralism (Graeme Chalmers, Curriculum Studies)

THE GROWING NEEDS OF SPECIAL EDUCATION

There is a growing demand for educational services for children with behaviour disorders, visual, hearing or physical impairments and those who are gifted. To help meet this demand, provincial legislation was passed in 1989 to integrate special education students more fully into regular classes. Improved educational practice in the area is a main research emphasis for a third of the faculty in the 27-member Department of Educational Psychology and Special Education. New faculty initiatives include the Dorothy Lam Chair in Special Education and the Chris Spencer Foundation Professorship in Dyslexia.

The Faculty of Education admits about 10 students annually into its Master's program in Education of the Deaf and Hard of Hearing. In the B.C. school system, demand for teachers of hearing impaired

students far outstrips supply. Roughly 10,000 children across Canada between the age of three and 21 receive special education services because of hearing loss.

Likewise, a dozen certified teachers enrol annually for UBC's Master's program for the visually impaired, the only full-time academic offering of its kind in Canada. These classroom and itinerant specialist teachers help students from pre-school to Grade 12 adapt to blindness by teaching braille, computer skills and how to walk with a cane. They also help teachers adjust in the classroom, meet with parents at home and supply students with technological aids and reading materials with large print.

Janet Jamieson became involved with the education of hearing impaired children by chance. Studying speech and language pathology at the University of Western Ontario, Jamieson enrolled in a sign language course for fun. A year later, she was accepted as one of a handful of hearing graduate students at Gallaudet College in Washington, D.C., the world's only liberal arts college for the deaf. From Oregon and later to Gallaudet, Jamieson moved to Montreal where she established an early intervention program for families of deaf children. Working with small groups of parents, Jamieson began noticing dramatic differences in the way deaf and hearing mothers interacted with their children: hearing mothers appeared much more controlling, dominant and intrusive whereas deaf mothers had a more natural, patient manner of communicating.

For five years at UBC, Jamieson has led a three-stage research program: to identify the effective teaching strategies used by deaf mothers when interacting with their deaf children; to teach these

strategies to hearing mothers of deaf children, and then to measure the cognitive and emotional benefits, if any, to their young deaf children.

Jamieson has found that by four years old, deaf children of hearing mothers show less initiative and are up to seven times more likely than deaf children of deaf parents to stop and ask for assistance with a problem-solving task. "They've learned because their mothers are so controlling that it is more advantageous to sit back and wait for someone to intervene than it is for them to take risks on their own."

Jamieson's research has involved videotaping parent-child interactions in the homes of deaf parents with deaf children, hearing parents with hearing children, and hearing parents of deaf children. Each video has been broken down frame-by-frame isolating such things as how parents first elicit their child's attention or how they relay information. Hearing mothers tend to give auditory and visual information simultaneously. Deaf mothers first provide language input then direct their child's visual attention to an object. Jamieson's research characterizes deaf children as visual processors of language rather than as cognitively deficient learners.

The next phase of research will monitor 20 hearing mothers with their preschool deaf children, half of whom will be counselled on various intervention strategies. Jamieson's research will lead to a better understanding of children's cognitive development in general and enhanced problem-solving abilities in young deaf children.

Department members also approach problems in regular and special classrooms from a psychological standpoint to look at:

- The prevalence and incidence of suicidal behaviour and the relationship of these behaviours to psychological problems in a school-based sample of close to 3,000 adolescents (William Reynolds, Educational Psych/Special Ed.)

- The academic and social development of gifted children through adolescence (Marion Porath, Educational Psych/Special Ed.)
- Peer relationships, social behaviour, and the development of moral reasoning during pre- and early adolescence (Kim Schonert-Reichl, Educational Psych/Special Ed.)

EDUCATION EVALUATION AND ASSESSMENT

Canada's ability to compete in the international marketplace is inextricably linked to the quality of education. It is not surprising, therefore, that large-scale assessments and other tools designed to monitor educational systems have become increasingly popular in recent years, particularly with policy-makers.

In 1989, UBC was chosen to co-ordinate the biggest international study in education ever launched. The Third International Mathematics and Science Study (TIMSS) will compare curricula and teaching methods of school systems as well as achievement scores and attitudes of roughly one million school-age students in 50 countries. The global survey tests the knowledge and skill of nine- and 13-year-olds and students in their last year of secondary school. Organizers estimate that up to 25,000 teachers will also be questioned during the decade-long research study. David Robitaille, international co-ordinator of the study and head of UBC's Dept. of Curriculum Studies, says the study should prove an effective means of gauging a country's educational strengths and weaknesses.

From the basement of the Scarfe Building, Robitaille's 15-member team spent two years developing timelines, translation systems and instruments for collecting the TIMSS data. Most of the information is drawn from questionnaires filled out by students, teachers and government officials. By viewing the world as an educational laboratory, Robitaille says the study enables countries to see where they stand internationally in terms of

mathematics and science education. The study also includes the first-ever national sample of Canadian students from every province and territory. "The way education works in Canada, we often end up knowing more about schools in California than Alberta," says Robitaille. "Hopefully, TIMSS opens lines of communication within our own borders."

Other areas examined in the \$4-million project include methods for measuring student achievement, effects of technology on teaching, how children are selected for math and science courses and the participation of women in senior secondary science. The project is sponsored by the International Association for the Evaluation of Educational Achievement (IEA), and funding for the first five years has come mainly through grants from the U.S. and Canadian governments. Graduate students are also being funded for related research which provides B.C. teachers with new techniques for evaluating student achievement.

The IEA's last study of math and science examined 20 countries in the early 1980s. The IEA is a non-governmental organization created in 1960 when it began the First International Mathematics Study. Robitaille says repeating this type of project establishes trends which give policy-makers an idea of the direction their educational systems are heading.

UBC faculty have also conducted numerous learning assessments at the provincial level including the 1990 Mathematics Assessment and the 1991 British Columbia Science Assessment Report. The latter, co-ordinated by UBC's David Bateson, won the 1993 best overall program evaluation publication award from the American Educational Research Association (AERA). Data was collected from 3,390 teachers and 45,508 students from Grade 3 to 10. The study consisted of hands-on student performances, student reasoning and thinking about socio-scientific issues, an account of teachers' classroom practices and extensive student and teacher background information.

Related research:

- Extensive surveys of evaluation practices in the fine arts, pointing out why assessment is difficult and looking for commonalities among fine arts educators. (Ron MacGregor, Curriculum Studies)

The TIMSS project, although the biggest by far, is not the only comparative study of Canadian schools being carried out by UBC scholars. Jane Gaskell, with the Dept. of Educational Studies, is co-ordinator of a study looking at 21 exemplary secondary schools across Canada.

Schools were nominated by a variety of local groups drawn from business, school boards, parents or art councils. The final list includes a diversity of Canadian school communities ranging from a tiny outport school in Newfoundland, to an Inuit community school in the Northwest Territories, to a minority francophone school in Ontario. It includes schools in every province except Prince Edward Island and emphasizes those where students are at risk of leaving before completing a high school diploma. The idea, says Gaskell, is to examine schools in very different Canadian communities to find out how they work, what others might learn from them and what the lessons are for policy-makers.

Gaskell was picked to head the project because of her previous research on vocational programs and students' transition from school to work. As a graduate student at Harvard, Gaskell studied the sociology of education. Since then, she has done research on the organization of school programs, on young peoples' aspirations for the future and on how secondary schools stream students, especially by gender, into the labour force. Her book, *Gender Matters from School to Work* (1992) won a Critics Award from the American Educational Studies Association.

Gaskell says the exemplary school study uses a case-study approach to examine how people understand school success in various communities.

"We're looking to see how good schools define success, how they recognize it, and how they try to bring it about." To do this, teams of researchers spent four weeks in and around each school interviewing students, parents, teachers, principals and community members.

Questions the study hopes to answer include: What expectations are there within the community for students graduating from a local school? What skills and competencies are articulated as important by people outside the school? What are students' and teachers' views about what it means to be successful in school? How do they decide if they are succeeding?

The study was organized through the Canadian Education Association and funded by the Federal Dept. of Human Resources and Labour.

Related research:

- The Centre for Policy Studies in Education is conducting a study of all B.C. elementary schools. A 19-page questionnaire sent to school principals asks about the academic and disciplinary climate of the school, the implementation of ministry initiatives and methods used to assess student achievement. The three-year study also includes a detailed investigation of school life at 40 selected schools. Particular attention will be paid to such things as: how students are organized for instruction; formal and informal rules governing the school's operation, the nature of interactions among teachers, students and principals and the values, attitudes and expectations of each. (Douglas Willms, Centre for Policy Studies in Education)
- How have changes in education-related legislation in B.C. since 1987 affected the work of school superintendents? What implications does the answer to this question carry for superintendents' pre- and in-service education? These are the central questions Graham Kelsey addresses in a survey of all provincial

superintendents he is conducting in collaboration with the provincial Superintendents' Association. Kelsey argues that little attention has been paid to understanding how legislative change might affect the work of the senior official whose job is both to manage change and ensure stability. "The job of superintendent has changed in the last five years," says Kelsey. "Superintendents, in many cases, feel ill-prepared for much of the work they now find themselves doing." UBC's administrator-in-residence program brings the knowledge of practising senior administrators into the faculty to collaborate on research and teaching.

- Government cutbacks have prompted many elementary and secondary schools in B.C. to seek private funds through various enterprise activities. For the last decade, Daniel Brown, from Educational Studies, has studied how people donate time and money, what the effects are and what influences such enterprise.

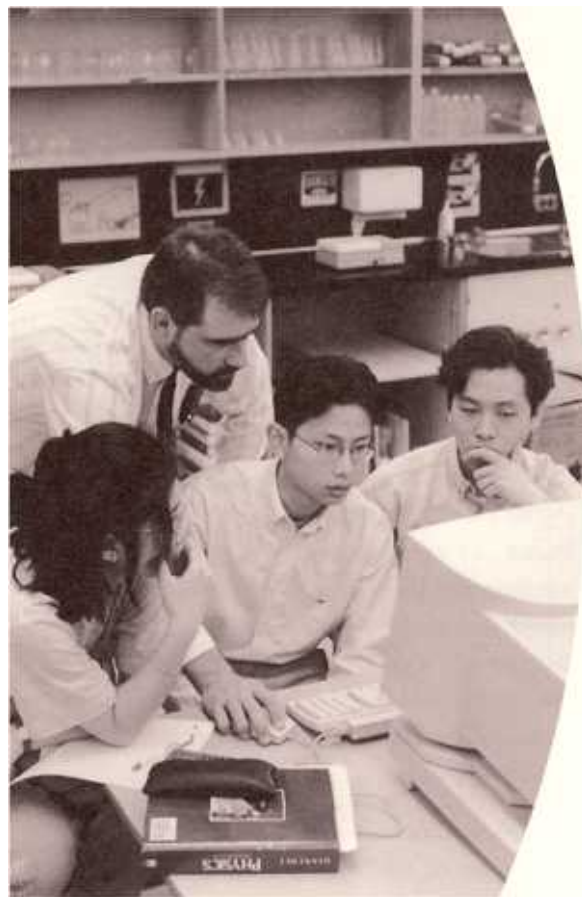
TECHNOLOGY: LINKING SCHOOLS
WITH THE FUTURE

Educational technology has advanced to the degree that all aspects of computer capability must be totally integrated into the curricula of instruction. Prof. Janice Woodrow has developed this premise into what many educational scholars are considering the most innovative and comprehensive technology-enhanced science instruction program ever applied in a Canadian classroom.

Woodrow, whose UBC doctorate is in astrophysics, conceptualized and helped carry out the transformation of two physics classrooms at D. W. Poppy and H. D. Stafford secondary schools in Langley, B.C. into advanced models of technology enhanced instruction. While researchers continue to discuss the promise of technology in education, Woodrow says that "the sophistication and ease is at a stage where application of technology as an integral classroom function is not only possible but essential."

Working from eight Macintosh workstations, Langley students and teachers use simulations, interactive laserdiscs, probes and sensors for laboratory data collection and projection panels to present information and examples. By making physics more visually concrete and animated, Woodrow says simulations motivate students, broaden their understanding of scientific principles and encourage them to enter and remain in science courses. While the focus of the project is the implementation of computer-based simulations, it is the incorporation of other technologies that makes the Langley classrooms unique. Other experiments with computer-based instruction have been piecemeal efforts, not comprehensive packages.

Woodrow explains that physics students normally collect data in class, go home and translate the data into a form which really doesn't mean much when finished. Computer technology allows for instantaneous feedback. From a pedagogical stand-point, transmissive teaching has given way to individualized instruction and group attention. Students are provided with an extensive study guide for each section of coursework as well as guides for specific activities. Guides include information about the topic and computer-based tests, assigned readings from the text, sample and assigned problems, computer simulation activities, experiments, demonstrations and multimedia activities. Most students work in pairs or triads at the computer, constantly interacting with each other and the technology. Woodrow remarked that one particular simulation sparked a 10-minute debate among a group of Physics 12 students over whether or not mass would affect the motion of an object sliding down an inclined plane. "These students were thinking and talking physics. Such discussions are virtually non-existent in traditional lab exercises." The courses are so popular that the computers are in constant demand before, during and after class for as long as the teacher is willing to stay.



*Technological simulations make physics more
visually concrete and animated*

Having led the development of this instructional approach, Woodrow is now monitoring the results. She plans to compare the attitudes and test results of the Langley students with peers from traditional physics classes. Eventually she will produce a video of technology based instructional strategies to be used in workshops for teachers across the province.

Not only is Woodrow's application of technology to science teaching a public school phenomenon,

she has also developed (and has in operation) multi media technology in three courses in the Dept. of Geophysics and Astronomy at UBC. This cross-disciplinary applied research demonstrates the necessity to incorporate sophisticated teaching programs at all levels.

Virtual Clayoquot is the name given a computer-based science and social studies project developed by Ricki Goldman-Segall. The project has students and teachers of Bayside Middle School on Vancouver Island investigating issues surrounding the Clayoquot Sound dispute. Students have visited sites to videotape their impressions of the forests and interview loggers, protesters, community members and government officials. They also collect relevant articles from newspapers, magazines and scientific journals, consult with expert resource persons and interpret the data from perspectives such as employment needs, First Nations claims and wildlife issues.

The Virtual Clayoquot project will be delivered to schools across Canada in a series of CD-ROM discs. Using a software package developed by Goldman-Segall called Constellations, the Bayside junior high school students are able to classify, categorize, link and analyse multimedia data. The package also allows them to search through large databases, build constellations or groups of data, and construct interpretations based on their own findings. Goldman-Segall has been director of the Multimedia Ethnographic Research Laboratory (MERlin) since 1991. The lab designs and builds tools, such as Constellations, which analyse video data for research purposes. The Virtual Clayquot data is one of several video databases analysed in MERlin. Another project, conducted by doctoral student Akosua Addo, analyses children's singing from Ghana.

MUSIC AND THE MEDIA

Mass media—in the form of radio, television, motion pictures, telephones and computer-controlled information systems—have defined modern culture

on a global scale since the 1940s. According to UBC music educator Peter Gouzouasis, the new wave of communications media lies with videophones and videoconferencing systems and interactive multimedia. He looks at the recent mergers of large communications giants as forever changing the way people communicate, both in everyday life and in educational settings. Gouzouasis' own research on these technologies provides a glimpse of how video conferencing could revolutionize education, particularly music instruction.

Video conferencing involves the use of both video and telephone technologies. In the typical video conference, people use audio to lecture and discuss issues, and visuals to see participants and project a variety of diagrams and illustrations. Gouzouasis' study in 1994 concluded that video conferencing proved a cost-effective communications tool and effective distance education device in the delivery of music instruction from Vancouver to preschool children in Sydney, Australia. He argued that, even in its most sophisticated forms, children's television programming is essentially non-interactive. "That children in Sydney were able to demonstrate singing exercises and communicate them to children in Vancouver is evidence of the tremendous power of interactive exchanges among children in hot media," says Gouzouasis.

In the realm of multimedia, Gouzouasis has studied how children construct multimedia with computers. Since acoustic and visual media constitute multimedia, they are rooted in the performing and visual arts. When given a choice, children who participated in the studies unanimously believed that they would learn more, have more fun drawing, making animations and creating sounds than they would learning other computer functions. Along with his research interests, Gouzouasis contributed to a 1994 project of the Canadian Association for Media Education called Conceptual Framework for Media Education and Cross-Curricular Learning Outcomes and Opportunities for Teaching and Assessment.

Related research completed or underway:

- To explore new ways of fostering literacy, the UBC-based Learning Connections Project linked Grade 11 students from a local high school via computer with 28 employees at a Vancouver computer-software company. The unique twinning project had the two groups correspond through E-mail for six weeks, at the end of which students wrote profiles of the employees. The exercise infused a sense of responsibility into the student writers while incorporating elements of fiction, non-fiction, journalism and rhetoric. Another segment of the project succeeded in hooking up 100 Vancouver students with 100 high school counterparts in Halifax through the international computer network, Internet. (John Willinsky, Language Education)
- Working with several hundred elementary school students and teachers in 12 schools throughout B.C., a 10-member research team studied the obstacles and opportunities created when multimedia technology is introduced at the primary level. (Mary Bryson, David Robitaille, Curriculum Studies)

TECHNOLOGY AND SPORT

Ian Franks joined the School of Human Kinetics in 1980 as a researcher in the general area of motor learning and movement control. In addition to his interests in the life sciences, Franks coached Canada's Olympic soccer team between 1980 and 1983.

During a game, Franks would often have up to 10 volunteers roaming the sidelines with clipboards collecting data on game elements such as shot opportunities, corner kicks, throw-ins, tackles, and time of ball control. He soon realized that there had to be an easier method of information gathering.

By 1985, he had come up with one of the first interactive computer-assisted analysis systems designed specifically for sport. The clipboard was replaced by a microcomputer loaded with special programs for data collection. Linked to a video camcorder and digitized touchpad to record specific elements, the microcomputer time-

coded each element on video allowing for faster searches of good and bad play. Today, coaches can get digital images directly from video straight onto CD-ROM discs.

Franks says the system allows for objective collection of relevant details about an individual's performance and acts as an external memory aid for both the athlete and coach.

Franks has also extended the systems to provide feedback to coaches about their behaviour. The coach is videotaped during practice with each comment coded, tabulated and stored. Franks says 42 pieces of information can be drawn from a single utterance. The system notes if the coach talks to groups or individuals, when advice is given and whether it is descriptive or prescriptive, delivered with authority or nonchalance. This concept is now used with many different sports, such as ice hockey, field hockey, squash, volleyball, fencing, Australian Rules Football and cricket.

Related research:

- The Leisure and Sport Management Laboratory supports a variety of socio-managerial research focused on sport, leisure and the mass media, and studies in sport history. Facilities include three cable television units, three computer workstations, a computer-controlled video playback unit and microform readers. Funded research projects examine such topics as: gender messages in lifestyle beer commercials; strategic planning of senior citizen centres; leisure service provision for low income women and their families; tobacco sponsorship of broadcast sport events; employment equity and career patterns in newspaper sport journalism; and strategic planning in national sport organizations. (Robert Sparks, Wendy Frisby, Barbara Schrod, Human Kinetics)

CAREERS AND THE WORLD OF WORK

Counselling psychologists Bill Borgen and Norm Amundson have been studying careers and employment issues since the late 1970s. Their initial

qualitative studies of people's psychological experience of unemployment have led to new approaches to counselling unemployed people in Canada, Sweden and Hungary. Their present research interest lies with youth and the post high-school transition.

Borgen and Amundson believe high school students need better advice before setting off in search of a career. The two professors recently co-ordinated a two-year survey tracking the experiences of 1,600 high school graduates across Canada.

Nearly 80 per cent of Grade 12 students interviewed were confident they'd be able to follow the career path of their choice. However, when many of these students discovered that their first choice was blocked, most had no alternate plan to fall back on and became confused about how to proceed. Amundson says students leave high school with a positive mindset and then seem to hit a wall of confusion and depression after a few months when things don't work out.

Students need better preparation while they are still in school to face the reality of a changing job market, and support services should be established to help re-energize students who remain unemployed in the four- to eight-month period following graduation.

Borgen said counselling methods have to be more aware of the evolving job market. While counsellors may be successful in identifying a student's abilities, likes and dislikes, they often assume that matching jobs are available. Tougher college admission requirements, fewer jobs and a host of other factors combine to make career choices moving targets for students.

Richard Young came to UBC in 1977 and has studied adolescent career development from both conceptual and practical perspectives. Dissatisfied with what he thought were narrow psychological views of career development and their focus on individual aptitudes, Young chose to look at ecological

models which offer broader perspectives. Since 1985, Young has researched the family "as one ecological domain that influences where career ideas are hatched." A particular fascination is the active role parents play in the career development of their adolescent children.

Several aspects of this area—the intentions and plans of parents and adolescents in their interactions, their meaning, how influence is constructed as a story, and sources of conflict—have been investigated using a variety of methods. Most recently, Young used a video camera to capture actual parent-adolescent conversations, and to help parents and adolescents recall their thoughts and feelings during their exchanges. This method has enhanced the understanding of conversations as intentional, goal-directed actions which are steered and directed by the parents and children. The success of this research has led Health and Welfare Canada to fund Young and Prof. Judith Lynam in the School of Nursing to investigate parent-adolescent conversations about health.

Related research:

- Larry Cochrane has touched on three major aspects of career development. Through the study of autobiographies, he has investigated the way lives achieve a narrative unity sometimes referred to as a sense of vocation. His analyses of major life decisions have identified patterns of decision-making and their significance in shaping courses of life. He has studied a sense of agency in career, how it is cultivated and how it matters. Cochrane's present research focuses on the factors that hinder or facilitate becoming an entrepreneur.
- Studies of play therapy and counselling interventions with children in elementary schools (John Allan, Counselling Psychology)

Canada's ability to compete in the world market does not hinge solely on elementary and high school education. Western economies are undergoing rapid

structural changes highlighted by technological breakthroughs in micro-electronics and telecommunications. As a result, the quality of adult higher education is becoming a vital concern.

UBC's Kjell Rubenson has devoted the last 23 years to researching aspects of adult higher education. Born and educated in Goteborg, Sweden, Rubenson's interest in this area was sparked by a 1969 speech given by former Swedish Prime Minister Olav Palme. When he delivered the speech in Versailles, France, Palme was among the first to introduce the concept of life-long learning. By expounding on the notion that learning never stops and that countries need to design education systems with this in mind, says Rubenson, Palme's talk had an enormous impact on educational thinking around the industrialized world. Today, issues of access extend across the life-span beyond the traditional purview of 18 to 24 year olds.

Rubenson arrived at UBC in 1982 after a decade of educational research at the Stockholm Institute of Education. As director at the Centre for Policy Studies in Education, he continues to research and inform policy-makers about connections between education and the Canadian economy and the role universities play in preparing the labour market.

His recent research compares technological change and training in Canada and Sweden. Looking specifically at the forest industry in both countries, Rubenson examines the impact of new technology in the workplace and the relation between work and adult education. He also explores the dynamics of labour's participation in education and training related to technological change.

One of his findings is that the flatter, less hierarchical organizational structure in Swedish saw mills gives them a distinct advantage over Canadian competitors. This advantage is enhanced by Sweden's industry-specific system for education and training. Together with colleagues at the centre,

Rubenson is also reviewing how B.C. universities respond to the skill requirements of an information-driven labour market.

What are the technical demands that must be met by education? What is its relation to the organizational contexts in which it occurs? What are the broader social and economic implications? These are some questions Rubenson hopes to answer.

Closely related to these questions is the observation that we know too little about the role of science and technology programs in regional economic development. According to Hans Schuetze, one of the reasons for this "is the lack of appropriate data or indicators to assess and monitor the economic impact of science and technology programs and investments at the regional level."

In a comparative study of British Columbia and four European regions—Brittany (France), Lower Saxony (Germany), Valencia (Spain) and Scotland (UK)—Schuetze analyses the science and technology policies of each region and assesses their impact on economic development. His study describes the policies, programs and mechanisms that have been implemented in the respective regions by provincial, state or national governments, or under joint national-regional ventures.

Related research:

- The origins, complexities and future development of Canada's community colleges (John Dennison, Educational Studies)
- Educational perspectives on fishboat safety: an analysis of a Transportation Safety Board database to identify vulnerabilities and how they might be addressed (Roger Boshier, Educational Studies)
- Analysis of academic-industry relations in Canada, Mexico and the U.S. aimed at understanding how linkages are made and how knowledge and innovation are managed (Don Fisher, Educational Studies)

FUNDRAISING INITIATIVES

Chair in the Application of Media and Technology in Mathematics, Science and Technology Education

Goal: \$2 million (endowment)

The chair will provide a focus for research, testing and development of instructional techniques and curriculum design that incorporate media and technology into the learning process. The impact of these developments on a person's ability to acquire and retain knowledge will also be studied. Beyond the classroom, opportunities will be pursued to apply techniques and findings to skill development and re-training programs within business and industry.

Dean's Endowment Fund

Goal: \$10,000 (endowment)

Within the education community at large there is an expectation that UBC's Faculty of Education will provide educational opportunities, research, assistance and advice on a wide variety of professional issues associated with teaching and learning. Established in 1991, the Dean's Endowment Fund provides funding for the innovation, research, development and diffusion of new ideas necessary to meet these expectations.

John M. Buchanan Exercise Science Lab Equipment Enhancements

Goal: \$170,000 (operating)

Operating since 1980, the John M. Buchanan Exercise Science Lab emphasizes research in metabolics, sport physiology, fitness and bioenergetics. The lab provides a service to athletes and coaches across Canada. Olympic, provincial and professional athletes are tested and monitored. Faculty, staff, students and the general public are assessed for their fitness levels.



Deans

H.F. Angus (1947-56)

Gordon M. Shrum (1956-62)

F.H. Soward (1962-64)

Ian McTaggart-Cowan (1964-75)

Peter Larkin (1975-84)

Peter Suedfeld (1984-90)

John Grace (1990-)

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FACULTY OF Graduate Studies

“The more knowledge we acquire in our field, the less we are apt to have in our neighbour’s. Inevitably we shall become incapacitated from overspecialization unless we develop our social nervous system to the corresponding degree. The dreamer needs the doer, the artist needs the artisan, the poet needs the planner, the scholar needs the statesman.

Frank Wesbrook, 1913

“Among the most important of the contributions the Faculty of Graduate Studies can bring to the university is the elimination of traditional undergraduate and professional boundaries. Within its compass new alignments are fostered, disciplinary barriers should be crossed with ease and the development of new inter-disciplinary areas of study facilitated.”

Review of UBC Faculty of Graduate Studies, 1966

It was with these sentiments that the Faculty of Graduate Studies was created in 1947 under founding Dean Henry Angus. At the outset, the faculty’s main function was to co-ordinate and supervise graduate degrees sought by students from any faculty. At the start of Angus’ nine-year tenure, UBC offered courses leading to a Master’s degree in Arts and Science (MA), Social Work (MSW), Applied Science (MASC), and Agriculture (MSA). The first doctoral degrees were awarded in the spring

congregation of 1950 to T.L. Collins in Physics and M.M.R. Khan in Zoology. When Gordon Shrum took over the deanship in 1956, registration had reached 457 (of whom 80 were pursuing PhDs), and research interests were heavily oriented toward the sciences. A major research focus during Shrum’s time revolved around the Van de Graaf generator (precursor to today’s TRIUMF facility) which was purchased through a National Research Council Fund for the development of nuclear physics.

Faculty administration shifted significantly in the mid-1960s. Ian McTaggart-Cowan became the first dean of Graduate Studies who did not hold a simultaneous second administrative post. His predecessors Angus, Shrum and Frederick Soward had been heads of sociology and anthropology, physics and history respectively. When Soward stepped down in 1964, McTaggart-Cowan recalls inheriting three apple crates of student documentation. In his faculty review two years later, McTaggart-Cowan predicted that by 1972, graduate studies would encompass about 25 per cent (roughly 4,000 students) of the total university enrolment. He based this prediction on the understanding that social sciences and humanities would receive a corresponding boost in research activity. "There is no doubt that, on this campus, graduate work in the Humanities has lagged behind that in the Sciences," he wrote. "There must be a drastic change in the methods of supporting graduate students...if the Humanities are to prosper in the Faculty of Graduate Studies." While his overall enrolment predictions for Graduate Studies fell short by about 1,000 students, McTaggart-Cowan did see registration in Arts-related subjects triple from 341 in the mid-1960s to 865 in 1975.

Dean John Grace currently oversees a registration approaching 6,500 students spread through all faculties of the university and its various institutes and centres. Grace, former head of chemical engineering and a world authority on fluid-particle interactions, says the faculty is the fastest-growing on campus. During the past decade, the number of doctoral candidates has grown almost 100 per cent and the number of Master's students by 33 per cent. Over the same period, interdisciplinary units (programs, centres, institutes, schools, journals) have increased from 14 to 25.

The opening of Green College in 1993 added an exciting new dimension to graduate studies at

UBC. Green College is the university's first residential college for graduate students, and has become a focal point for interdisciplinary scholarship. The college stimulates academic inquiry on topics ranging from science and society, to comparative literature and 19th-century studies. Through initiatives such as the Cecil and Ida Green Visiting Professors Program, speakers series and special lectures, college residents interact among themselves and with UBC faculty and community representatives.

The college's founding principal is Richard Ericson, a criminologist who has spent two decades studying relations among police, the courts, mass media and society. Formerly director at the University of Toronto's Centre for Criminology, Ericson has two degrees each in criminology and sociology. Landmark is the term most often used to describe his research contributions in these fields.

In 1982, Ericson completed the final instalment of his first trilogy—*Making Crime* (1981), *Reproducing Order* (1982) and *The Ordering of Justice* (1982). In the five-year project he explored the criminal justice process on a scale and scope unheard of then or since. Ericson and his colleagues, supported by SSHRC, accompanied patrol officers on 348 shifts, shadowed detectives for 11 months and compiled 2,500 pages of transcriptions from plea bargaining sessions tape-recorded in crown attorney offices.

After 15 years peering inside the criminal justice system, Ericson turned his attention in the mid-1980s to the mass media and its influence in defining crime and creating perceptions of justice. "There are major cases where due process does get displayed and accused are acquitted, but for the most part the mass media have joined with the criminal justice system in making little

pretence about presumption of innocence," he said. "Mass media show the world as being rife with people who are not innocent."

Ericson's research team used first-hand observation to complete a massive study of TV, newspaper and radio crime news, how it was gathered and reported. The probe took them through news-rooms, public relations firms, media relations departments, political parties and interest groups and resulted in the publication of a second trilogy - *Visualizing Deviance* (1987), *Negotiating Control* (1989) and *Representing Order* (1991). Ericson successfully submitted this and his earlier series to Cambridge's Faculty of Law for a Doctor of Letters (Litt.D.) in 1991.

Today, in between lectures to graduates in the Faculties of Arts and Law (where he is the only faculty member who is not a professionally trained lawyer), Ericson continues to add to and mine his rich data collection. Since 1992, he has turned attention again to matters of policing, security and the notion of risk profiling.

Policing the Risk Society is the tentative title for Ericson's forthcoming book, scheduled for completion in 1996. Its main premise is that understanding crime is first and foremost a matter of understanding how institutions classify crime and, through their classifications, react to it. The author contends that the role of police has turned from law enforcement to that of highly formatted knowledge brokers for these institutions.

SCHOOL OF COMMUNITY AND REGIONAL PLANNING

In the autumn of 1950, the Central Mortgage and Housing Corporation of Ottawa chose UBC as the site for a two-year post graduate diploma course in community and regional planning. As Harry Logan noted in *Tuum Est: A History of The University of British Columbia*: "Because of the spectacular population growth in British Columbia and the expansion of her cities, towns and rural

communities, the university was thought to be the logical centre for study of the problems arising from such conditions and for instruction in methods of dealing with them."

The magnitude of B.C.'s growth is not lost on the 14 full-time faculty and 120 students who make up UBC's School of Community and Regional Planning (SCARP). In 1990, former director Alan Artibise and colleague Michael Seelig interpreted this phenomenal growth and change in a series of seven newspaper articles which were later published in the book, *From Desolation to Hope: The Pacific Fraser Region in 2010*. Their work received an award for excellence from the Planning Institute of B.C. and the Media Club of Canada. Concurrent to Seelig and Artibise's study, present Director William Rees served as a key member on the City of Vancouver's task force on atmospheric change. The task force's landmark report, *Clouds of Change*, made 35 sweeping recommendations aimed at reducing the use of automobiles and energy and improving transportation and land use efficiency throughout the Lower Mainland.

As one of the largest graduate planning programs in Canada and one of only two Canadian doctoral programs recognized by the Canadian Institute of Planners, SCARP research is not limited to the local scene. While Rees strives to get B.C. motorists driving less, colleague Setty Pendakur has been engaged in a worldwide promotion of walking and cycling. As past chair of the Global Task Force on Non-Motorized Transport, Pendakur follows the credo "feet first, pedal next, motor maybe." Pendakur has lectured on transportation issues at the SCARP for 28 years and says the world's cities are running out of room to move and clean air to breathe largely because of an overabundance of inner-city traffic. Locally, Pendakur is chair of BC Transit Authority's Environmental Committee and a member of the Advisory Council to the Provincial Transportation Plan.

Related research:

- Examination of regional diversification and metropolitan restructuring issues for the B.C. Round Table on the Environment and the Economy (Craig Davis, Tom Hutton)
- Completion of experimental workshops to test methods for eliciting people's values for wilderness preservation in British Columbia (Tim McDaniels)
- Development of a summer program for First Nations leaders and staff linking First Nations insights and issues with perspectives of professional planners (Peter Boothroyd)

THE CENTRE FOR HUMAN SETTLEMENTS: THE ASIAN CONNECTION
The Centre for Human Settlements (CHS) is SCARP's multidisciplinary research arm for settlements planning. Established following the UN Habitat Conference on Human Settlements held in Vancouver in 1976, CHS was designated a CIDA Centre of Excellence in International Development in 1990. Most of the SCARP's faculty, together with more than a dozen faculty members from other departments and schools, are involved in CHS research.

To launch a program in international human settlements planning, CIDA provided a grant of \$5.8 million over five years to link CHS with five partner institutions in Asia—Tsinghua University in Beijing, Tongji University in Shanghai, Zhongshan University in Guangzhou, Chulalongkorn University in Bangkok, and the Institute of Technology in Bandung. Research teams in each city have since focused on three types of settlement: a rapidly urbanizing small town; an inner city neighborhood characterized by poor housing and urban congestion, and a city-centered or metropolitan region. Using these settlements as physical frameworks, the study examined community organization and participation, the accessibility of housing and services to urban poor, how gender considerations enter

the planning and management process, and the role non-governmental organizations play in urban management.

CHS AND VIETNAM

Since 1991, Peter Boothroyd has directed one of Canada's first government-sponsored development projects in Vietnam. Together with colleagues at UBC's Institute of Asian Research, Boothroyd has used a one-million dollar CIDA grant to help Vietnam enhance its teaching and research on development planning. "UBC is in the unique and exciting position of helping build and support a new relationship," says Boothroyd. "It gives us the chance to help Vietnamese scholars and at the same time make suggestions to the Canadian government on its assistance policy."

Ten faculty from seven departments have participated in the project with the collective goal of enhancing research programming and graduate training at the National Centre for Social Sciences and Humanities (NCSSH) in Hanoi. The UBC team has assisted the Vietnamese in acquiring and interpreting literature in the areas of rural development, urbanization, household economy and social policy. UBC librarians have also helped make the Vietnamese library system more accessible while UBC teachers have strengthened the English-language skills of NCSS faculty. "For political, economic and linguistic reasons, Vietnam hasn't been operating in the English-speaking world," says Boothroyd. "They now want to learn to communicate effectively and be made aware of the kind of thinking that is going on in Canada and elsewhere on sustainable development issues."

As the centre for graduate education, the NCSSH consists of 19 institutes which provide teaching, research and policy analysis for the Vietnamese government. The UBC-Vietnam linkage project was one of 19 university proposals chosen from 120 applications. Boothroyd is also co-ordinator of

a parallel project between the NCSSH and UBC looking into the socio-economic impacts of renovation (doi moi) funded by the IDRC.

In 1993, UBC researchers conducted a workshop in Hanoi introducing issues related to housing in Third World market economies and Eastern Europe's transitional economies. These areas are of popular relevance to Vietnamese planners who must deal with the rapid shift to market socialism under the government's economic policy of doi moi.

Related research:

- SCARP member Henry Hightower leads research on earthquakes, hurricanes, oil spills, forest fires, flash-floods and mudslides at the CHS-based Disaster Preparedness Resource Centre. This centre is electronically linked to similar organizations in the U.S., Australia, Britain, Indonesia and the Pacific Rim.
- Planning for growth management in the context of structural change and sustainable development in the Vancouver Region (Tom Hutton, SCARP)
- Trans-national networks of Chinese capitalism in the age of globalization
- Regional restructuring and strategies of overseas investment in Southern China (You-tien Hsing, CHS)
- Housing in Third-world cities
- Inner city redevelopment in large Chinese cities (Michael Leaf, CHS)
- Trade, industrial and agricultural policies in the economic development of Indonesia and Vietnam (Richard Barichello, Agricultural Economics)
- Economic/environmental/social implications of accelerated industrialization in Indonesia and the country's agricultural prospects (Geoffrey Hainsworth, Economics)

CHS director Aprodicio Laquian, hired in 1991 to co-ordinate the multi-million-dollar CIDA project, came from a United Nations posting in New York and an international career that had taken him to 86 countries. An expert on urban housing issues, Laquian was chief evaluator for the UN's \$240-million-a-year population fund and also managed the organization's population program in China, Mongolia and North Korea. In the early 1970s, the International Development Research Centre (IDRC) and the World Bank commissioned Laquian to turn his critical eye on the slums of six cities in Latin America, Africa and Asia. His findings showed that many projects sponsored by the international agencies didn't reach the bottom 20 per cent of the populations they were trying to help. The five-year study resulted in his 11th book, *Basic Housing: Policies for Sites, Services and Shelters in Developing Countries*, since translated into four languages.

Laquian said the proliferation of urban slums in and around cities of developing countries started around the Second World War and has accelerated dramatically. By the year 2000, urban planners predict 23 world cities will have populations of more than 10 million people, with 17 of these megacities in developing countries. Says Laquian: "It's a global phenomenon. People are born, they move and they eventually end up in the city. Our job is to understand their way of life, what kind of jobs they have, and what they are capable of doing for themselves."

Laquian recently edited *Planning and Development of Metropolitan Regions*, the first in a series of CHS reports analyzing the planning and governance of the Asian megacities Bangkok, Bandung, Beijing, Guangzhou and Shanghai. These cities range in size from eight to 12 million, and are expanding so rapidly that they have sprawled beyond their political boundaries.

INSTITUTE OF ASIAN RESEARCH

UBC's academic interest in Asia began more than a half century ago when renowned peace advocate and internationalist Inazo Nitobe lectured on campus about Japan's role in the Pacific. The following year, in 1934, UBC offered its first full time course on Asia Pacific Affairs. Much later, in 1961, the Institute of Pacific Relations (IPR) moved with its director, Bill Holland, from New York City to UBC. This transfer, together with the leading academic journal, *Pacific Affairs* (see *Towards the Pacific Century*), succeeded in catapulting UBC into the front rank of universities with serious intellectual commitment to research on Asia.

Activities with an Asian focus were paired with Eastern European and Russian studies for a short time until the emergence of the Institute of Asian Research (IAR) in 1978. In 1992, founding director Terence McGee relinquished his directorship to Mark Fruin after 14 years as director. By then, more than 100 faculty members were teaching 150 courses on the region in the faculties of Arts, Education, Law, Forestry and Commerce and Business Administration.

When he isn't attending to administrative duties as IAR director, Fruin pursues his own research interests relating to Japan. With an undergraduate degree in history, an MA in East Asian regional studies and a doctorate in Japanese social and economic history, Fruin has a solid grounding in Asia's traditional past. Added to this is a 20-year teaching career in five countries focused on contemporary issues of international and comparative management, business and economic history.

Fruin's most recent book in the business field, *The Japanese Enterprise System—Competitive Strategies and Co-operative Structures*, deals with the evolution of large industrial enterprises in Japan since the beginning of the 19th century. His 1994 publication, *Knowledge Works*, delves into the

differences in the forms and meanings of work, especially value-added, design and development work among advanced industrial nations.

Fruin notes that people are becoming more open-minded about learning from Asia. They recognize that it takes a certain kind of knowledge to understand what is going on in the region and to benefit from developments there. He sees the institute as the mechanism through which persons interested in Asia, traditional and modern, can get together and explore the more contemporary policy and research concerns. Through interdisciplinary and multidisciplinary research projects, Fruin adds that the institute "is preparing us now for what we'll need to know 10 years from now."

The institute has evolved into a multi-faceted research organization with an impressive array of functions. These include: carrying out and sponsoring research relating to Asia and the Asia Pacific region; studying and recommending policy measures with reference to Asia for academic, government, industry and public service organizations; organizing seminars and public speaking forums on Asia for faculty, students and interested community members; worldwide networking and information-sharing through publications, conferences and database development; and encouraging lively interaction among visiting scholars and dignitaries. Recent conferences and workshops sponsored by the institute and its centres have dealt with Women and Politics in Korea, Gender and Development in India, network forms of organization in Asia and North America, theories of the firm in Japan, and Southeast Asian Studies.

These various initiatives were strengthened in 1991 through a \$20-million restructuring plan featuring the establishment of five regionally based centres for Chinese Research, Korean Research, South Asian

Research, Southeast Asian Research and Japanese Research. The IAR, together with the five centres, moves into the new C.K. Choi Building in early 1996.

Each centre brings together faculty members, graduate students and other researchers from across campus who have research and teaching interests related to the given region of Asia. To channel program development and foster collaboration, research activities have been grouped into six themes: human values and expression; culture learning and behaviour; political economy and organizational innovation; globalism, regionalism and localism; science, technology and environment; and policy futures and the Asia Pacific.

First appointees to endowed chairs within the IAR are: Political Scientist Kyung Ae Park (Centre

for Korean Research) whose interests include inter-Korean relations and women and politics in North and South Korea; Economist Masao Nakamura (Centre For Japanese Research) co-author (with Ilan Vertinsky) of *Japanese Economic Policies and Growth: Implications for Businesses in Canada and North America (1994)*; and Nina Halpern (Centre for Chinese Research) who examines economic reform and socio-political change in Post-Mao China.

While the scope of IAR research is regional in a geographic sense, it seeks to explore issues of global as well as local importance. With this in mind, the institute established a public policy program called CAPRI (Canada Asia Pacific Research Initiatives) to explore policy research of universal and comparative interest. This is fostered through visits to campus by corporate leaders, government officials and academics from the Asia Pacific region. Visitations began in 1993 with Japan's Junichi Wada, from the Ministry of International Trade and Industry and Takahiko Iwaya from the Ministry of Welfare and Health.



Masao Nakamura (far left), Nina Halpern, Kyung Ae Park and Mark Fruin: "preparing us now for what we'll need to know 10 years from now."

Urbanization is one issue of global concern scrutinized by IAR faculty members.

As a leading authority on Asian urbanization and development, Terence McGee has spent much of the past quarter century in some of the most crowded places on the planet. Since 1967, he has written or co-written six books on Third World urbanization and related issues of urban poverty, rural-urban migration and food distribution.

Predictions are that by the end of the 1990s, for the first time in history, more people will live in and around cities than in rural areas. Asia holds more than half of the world's population, a considerable portion of which is concentrated in densely-settled plains and urban cores. Yet, while the region contains some of the world's largest cities, McGee says the level of urbanization actually remains

low. This means that as development occurs and the rural population moves to the cities, there is great potential for the emergence of megacities on a scale never seen before.

However, McGee does not believe this urban transition, with the attendant problems of housing, energy and infrastructure, will necessarily persist in the face of advancing industrialization. In his opinion, "increased urban concentration need not occur in the wake of intense industrial growth, and the validity of rural and urban distinctions may become blurred as the various regions of Asia become incorporated in the global economy."

Along with UBC sociologist Graham Johnson and Claude Comtois, McGee suggests an alternative to megacities might be the growth of huge urban areas he calls Extended Metropolitan Regions (EMRs). Such regions, as exemplified by Japan's Tokyo-Osaka corridor, are linked by fast transportation and characterized by a mixture of industry, services and agriculture.

McGee's research team has been analysing the roles and functions of three Asian EMRs: Hong Kong-Guangzhou-Macau (pop. 25 million); Shanghai-Nanjing (90 million); and Singapore-Johore which numbers a little more than 3.5 million. McGee explains that these areas have been the focus of growth and development since the late 19th century, growth which has accelerated dramatically over the last four decades. All were characterized by small-holding peasant cultivators engaged in a combination of wet-rice and cash-crop agriculture. A flexible labour force allowed for the emergence of petty commodity production and close economic and cultural links with urban settlements, links which remain intact. When new forms of economic activity were introduced in the modern period they were readily absorbed into existing cultural structures without the massive disruption experienced during the European transition.

McGee points out that the two Chinese regions of his project have only five per cent of the total

population yet account for over 30 per cent of the total value of the agricultural and industrial sectors. Likewise, the central region of Thailand, with 10 per cent of the population, produces 50 per cent of its Gross Domestic Product. McGee's insights into the emergence of EMRs have profound implications for theory and applications to planning, labour force formation, patterns of food consumption, industrialization and the changing economy of the entire Pacific Basin.

CANADA AND THE WEST

Many UBC scholars involved in the study of Canada and British Columbia present their scholarship in either the quarterly journals *Canadian Literature* or *BC Studies*.

BC Studies recently published volume 100, a special issue celebrating its 25th anniversary. Since its founding in 1969, this interdisciplinary enterprise has published articles by more than 300 authors commenting on issues of historical, geographic, cultural, economic, environmental and political importance. The idea for *BC Studies* was hatched by founding co-editors, Walter Young from political science and historian Margaret Prang. As Prang noted in an anniversary retrospective: "We believed that an increasing volume of scholarly work relating to this province done by our colleagues and their graduate students in history and social studies was worthy of publication. Regrettably, national and international journals tended to take the view that local subjects were necessarily parochial subjects, and therefore did not warrant publication."

The journal was inspired in great part by the work of Margaret Ormsby, Prang's predecessor as head of the history department and the undisputed doyenne of B.C. history. Ormsby completed her UBC honours thesis in 1935 on the Okanagan fruit industry, went to the U.S. for doctoral work and returned to B.C. to continue her pursuit of the local past. Ormsby wrote the first history of B.C. in 1958, a work which set the standard in the

field. The initial release of Ormsby's book *British Columbia: A History* coincided with the final appearance of the 21-year-old publication, *British Columbia Historical Quarterly*. *BC Studies* has more than filled the void.

Under the guidance of Allan Smith, editor since 1983, *BC Studies* has broadened its scope to include literature and fine arts. Smith, a historian of culture and ideas in Canada, has expanded the tradition of theme issues which delve further into western viewpoints on archaeology, historical geography and the national economy.

First Nations have been a dominant theme over the years, beginning with the 1973 issue, *Indians in British Columbia*. Other issues included: *British Columbia: A Place for Aboriginal Peoples?* edited by political scientist Paul Tennant (also author of the award-winning book *Aboriginal Peoples and Politics*); *In Celebration of Our Survival: The First Nations of British Columbia* edited by Doreen Jensen and Cheryl Brooks in Spring 1991, and *Anthropology and the Courts*, edited by UBC anthropologist Bruce Miller in Autumn 1992.

In the preface to the 25th anniversary issue, Smith wrote: "Profound change is occurring in the way scholarship in the humanities and social sciences is being seen and understood, and the very variety and the range of the material with which *BC Studies* has presented its readers implicates it with scholarly publications generally in that fundamentally important process."

GRADUATE STUDIES, GENDER AND ETHNICITY

As part of its commitment to furthering equity in scholarship, research and teaching, UBC established the Centre for Research in Women's Studies and Gender Relations in 1991. In so doing, the university joined other institutions in supporting a multi-disciplinary field of scholarship that promises to have profound impact on traditional ways of thinking in humanities and social sciences research. Founding director Veronica Strong-Boag says the

centre fosters graduate education, community liaison and interdisciplinary research. One indicator of success is the second edition of the centre's directory of researchers in women's studies and gender relations which has entries from more than 60 scholars campus-wide.

A historian, Strong-Boag's own research interests include women in post-confederation Canada and women, family and suburban development from 1945 to 1960. One on-going initiative is a collaborative effort with English Prof. Sherrill Grace, nurse-sociologist Joan Anderson and political scientist Avigail Eisenberg.

The project, called *The Construction of Canada: The Changing Meaning of Race and Gender 1860s to 1990s*, aims to help Canadians better understand the "malestream" authorities who have shaped this country's culture, politics and social policy. Strong-Boag, past president of the Canadian Historical Association (CHA), says viewpoints that routinely ignore or distort the experience of non-European racial and ethnic groups and women have been a powerful influence in moulding present-day Canada. Despite claims of impartiality, she adds that Canadians' impressions have been guided by historians, writers and policy-makers who have shared a narrow view of the country's best interests.

"The development of laws and programs guaranteeing the right of women to equality cannot proceed without a full recognition of the problematic nature of this dominating view," says Strong-Boag. "So long as the bias of much history, literature, politics and public policy remains unexplored, its failings cannot be addressed."

Strong-Boag's previous work has provided a much more complex characterization of Canadian experience. Her 1988 publication, *The New Day Recalled: Lives of Girls and Women in English Canada 1919-1939*, won the Sir John A. Macdonald Prize for the best book in Canadian history. A year earlier, she was co-winner of the Laura Jamieson Prize for best feminist book (*Rethinking Canada*) by a Canadian

author, presented by the Canadian Research Institute for the Advancement of Women. As for the Construction of Canada project, Strong-Boag says the research team is evaluating an "anti-racist, feminist vision of Canada" which has emerged recently in writing and debate on history, politics, culture and health care.

NETWORKING WOMEN

UN statistics indicate that while women represent half the global population, one-third of the labour force and are responsible for two-thirds of all working hours, they receive only one-tenth of the world income and own less than one per cent of world property. Though they make up half of the electorate, very few women reach the highest levels of political participation in their countries and even fewer become public decision-makers.

To address these issues, SCARP faculty member Penny Gurstein and sociologist Dawn Currie have set up a global network of researchers to develop new policies to increase women's participation in all facets of socio-political life and improve the quality of women's lives in general. Gurstein says that while there is a considerable body of research on the inclusion of women in development, the research network brings together researchers who are committed to articulating the often unaddressed transition from research to policy.

"Research has found that women and their concerns generally have been left out of the decision-making process on development issues", said Gurstein, the network project's principal investigator. "Clearly there is a need to redefine the framework of current approaches to development and recognize the unique contributions women make economically, socially and culturally."

The network is made up of researchers from Canada, Asia, the Caribbean, Latin America and Africa, and examines topics such as the changing nature of

home-based economic activities for women; alleviation of poverty among female disadvantaged groups in urban and rural areas; women and the improvement of health conditions in low-income communities; and the role of women in community development and decision-making. The network started with the research work of four founding network members as a base, and has expanded and translated this research into a form suited to policy. Papers from the first workshop held in May, 1994, have been edited for a book on research directions in gender and development.

Gurstein's recent research involves issues of sustainable urban design and gender-sensitive planning. The network is funded by the SSHRC and administered through the Centre for Human Settlements with additional support through the Centre for Research in Women's Studies and Gender Relations.

IN SEARCH OF A SUSTAINABLE FUTURE

"It is more important that we appreciate our responsibilities for the heritage which has been given us. We must not be intoxicated by the realization of nature's prodigality. In the exuberance of our youth, we must not sow national wild oats for our children and our children's children to reap"

Frank Wesbrook, 1913

Following in Wesbrook's footsteps, urban geographer Walter Hardwick is credited with forcefully bringing home the concept of sustainability in the Lower Mainland when he coined the phrase 'liveable region' in 1974. SCARP director Rees, an urban planner and resource ecologist,

joins Hardwick as one of UBC's and Canada's pioneers in the ongoing international debate over sustainable development.

For 25 years, Rees has investigated the ecological basis for economic development in a research career that has taken him from the Peruvian Andes to the Arctic. Rees joined SCARP in 1969 with a PhD in bioecology from the University of Toronto. That was also the year he helped found Pollution Probe, one of Canada's first environmental groups.

Until the mid-1980s, Rees' major focus was the ecological and socioeconomic impact of industrialization in the Canadian North. Since then, his attention has turned to global environmental trends. Rees and a group of graduate students organized the first national symposium on sustainable development in 1989. The background documentation and proceedings of the symposium won the American Institute of Certified Planners' prestigious Student Project Award for helping translate planning knowledge into policy action.

The issue of sustainability came to world attention two years prior to the UBC symposium after the World Commission on Environment and Development published its findings in the Brundtland Report. The report noted that in order to have any kind of healthy environment for future generations, people had to start making development decisions based on sustainability; to paraphrase Wesbrook, they could not keep using today what they were going to need tomorrow.

At the request of government, President Strangway chaired a provincial task force on environment and economy in 1989 to see how the concept of sustainable development could be applied in the provincial context. Four years later the Tri-Council secretariat (SSHRC, MRC, NSERC) awarded UBC \$2.4 million to carry out a study called Prospects for Sustainability: Integrative Approaches to Sustaining the Ecosystem Function of the Lower Fraser Basin. Otherwise known as the Basin Ecosystem Study, the project has 27 UBC faculty and 35 students from nine faculties,



Fourteen faculty associated with the UBC Fisheries Centre draw on research from both the applied and social sciences to assess and forecast the impacts of human and natural processes on fish habitat. Among its initiatives, the centre sponsors the Common Ground Fisheries Forum. By bringing fisheries participants together from federal and provincial governments, First Nations, sport fishing and the commercial sector, centre director Tony Pitcher and SCARP research associate Evelyn Pinkerton (above) hope to redirect energy from sectoral conflict to the common cause of achieving sustainable fisheries.

centres and schools exploring four components. Led by Michael Healey of UBC's Westwater Research Centre, the study tackles a myriad of sustainability challenges in the 500,000-hectare region stretching from Richmond inland to Hope; challenges brought on by population growth, urbanization, pollution and increasing land use conflicts among industry, recreational groups, agriculture, forestry and wildlife.

Related Fraser Basin eco-research:

- The levels of contamination from domestic, agricultural and industrial wastes in the river and their effects on salmon and other living resources (River and Its Margins Component)
- Global demands on ecological and other resources that are inherent in modern urban lifestyles and how to reduce those demands (Urban Systems Component)
- Environmental and economic history of the Fraser Valley and the interrelations between economy and environment in rural communities (Terrestrial Systems Component)
- Forces driving the changing demography of the basin and developing tools for designing and exploring future options for the basin (Whole Basin Component)

**SUSTAINABLE DEVELOPMENT
RESEARCH INSTITUTE**

According to John Robinson, one of the biggest challenges researchers face is redefining the term consumption to make it relevant to the needs of the earth's five billion inhabitants. The founding director of UBC's Sustainable Development Research Institute (SDRI) refers to a colleague's calculation that if everyone consumed at the level of the average Canadian, two additional earths would be needed to support the current population on a sustainable basis. This scenario, Robinson adds, assumes that Canada and other developed nations stop growing.

The SDRI was established in 1991 to foster multidisciplinary research linkages between environmental, economic and social equity issues. A major SDRI initiative since Robinson's arrival in May 1992 has been to model a Canadian society in the year 2030 that is sustainable in environmental, social, economic and political terms. Highlights of the Sustainable Society Project (SSP) include a 27.5 hour work week, a 40 per cent decrease in total energy use and a 62 per cent reduction in

CO₂ emission with all electricity produced from renewable sources (primarily methanol from organic waste products). The scenario also calls for an older (half over 45) Canadian population of 30 million consuming 82 per cent less meat, living in dense urban communities of efficient apartments and row houses, and moving around primarily on bicycle, public transit or small electric automobiles. SDRI researchers are currently analysing the socio-political requirements for implementing the plan as well as building a network of committed groups and individuals to further the process.

This project is one of more than 30 SDRI research initiatives involving some 60 academics from 11 faculties. Robinson says SDRI collaborative projects show how universities are redefining their own structures to meet society's changing needs. "Our problems don't fit into nice neat boxes. It's a painful process, but in order to tackle new problems with new approaches, academics in all disciplines must somehow learn to speak the same language."

Robinson is cross-appointed in the Geography department where he co-teaches undergraduate courses on environmental thought and the geography of resource industries. After 11 years of experience in the Waterloo's Dept. of Environment and Resource Studies, Robinson came to UBC loaded with practical knowledge of public policy gained through consulting work with public utilities in Canada and abroad.

Among his appointments was chair of the Canadian Options for Greenhouse Gas Emission Reduction (COGGER) Panel. The panel's report garnered national attention by outlining the economic benefits of increasing energy efficiency and the use of alternate fuels. Robinson is co-leading the Whole Basin Component of the Lower Fraser Basin Eco-Research Project. The component involves developing a scenario generation tool that will be used to integrate other components of the project.



Anthony Dorsey, of the Westwater Research Centre, edited "Perspectives on Sustainable Development in Water Management (1991)." The book is the first of a two-volume set on the environment of the Fraser River Basin. Dorsey was first chair of the Fraser Basin Management Board from 1992-94.

Related SDRI projects:

- Completion of a 10-part study of hazardous, toxic and special wastes
- Production of an annual series of easy-to-read reports on sustainable development
- Formation of a Canada-wide sustainable communities network
- Energy policy analysis and modelling in B.C.
- Evaluating the potential of large-scale greenhouse gas emission reductions
- Development of a sustainable futures computer game tied to state-of-the-environment database development

PLANNING HEALTHY COMMUNITIES

Rees and Dr. Robert Woollard of the Dept. of Family Practice have led a group of five research associates in the Urban Systems component of the Fraser Basin Study. Also known as the Task Force on Planning Sustainable and Healthy Communities, research has focused on the City of Richmond where the group has devised a method for helping residents understand the social and ecological consequences of downtown development.

The current city plan calls for for 40,000 residents to move to Richmond during the next 15 years. Task force members have used two tools, developed by Rees and his students, to help citizens make sense of the overwhelming amount of data on which the city's future depends. One, called the ecological footprint (and its companion concept of Appropriated Carrying Capacity), allows people to gauge the amount of land needed to support a particular plan or development, including the waste it generates. The second tool, referred to as the social caring capacity, relates a development to quality of life issues such as equity, safety, education, household stress and ethnic diversity. Woollard says the two tools, when taken together, provide a matrix into which people can plug their particular

concerns or issues. "These tools provide a simple means by which citizens can confront the ecological, social and economic trade-offs inherent in any urban plan," says Woollard.

Lawrence Green, task force member and director of UBC's Institute for Health Promotion and Research (see *President's Report on the Health Sciences* for further IHPR and health-policy research) adds that just as gross national product and interest rates affect economic decision-making, health considerations must also be included. The UBC team examined indicators such as infant mortality rates, longevity figures, incidence of disease and strains on environmental habitats. They also looked at the time people spend commuting and fossil fuels consumed in the process.

With its implications for global sustainability, the ecological footprint concept has attracted significant attention in Canada, the U.S., the U.K., Sweden, Germany and Austria. The idea was also explored in detail during the Commonwealth Human Ecology Council's 1994 meeting and the concurrent Global Forum '94, the urban-oriented followup to the Rio Summit two years earlier.

Related research:

- Soil degradation and water quality have been directly linked to current unsustainable agricultural practices in Vancouver's Lower Mainland region. Research is underway exploring the economic instruments—tradable permits, taxes, cross compliance, property rights—which could be used to curb soil degradation and resulting water contamination and to advance the notion of sustainable agricultural practices in the Lower Mainland. (Casey van Kooten, Agricultural Economics)

In December of 1989, Health and Welfare Canada held national consultation meetings to address the specific needs of ethnocultural communities in

the fight against HIV, the virus that leads to AIDS. Since then, Sharon Manson-Singer, a faculty member with the School of Social Work and research associate at the Centre for Human Settlements, has taken part in a \$1-million national study examining how attitudes, behaviours and sexual practices of various ethnocultural groups in Canada are linked to HIV transmission.

As a member of a multi-disciplinary team of six researchers in three sites (Vancouver, Toronto and Montreal) Manson-Singer looked at specific risk behaviours in Vancouver's Chinese and South Asian populations. "When we started this project we really didn't have a good handle on what beliefs contributed to what behaviours," said Manson-Singer, who oversaw focus groups and indepth interviews involving 135 people. The study is unique in that members of the community are actively engaged in advising the researchers on how to gain access to the communities, and how results are reported. "In areas of sexuality, and with a disease like HIV, advice from visible minorities must be respected so that their communities are protected from violence or immigration quotas related to HIV status," Manson-Singer added. The study has three phases—epidemiological, socio-cultural and behavioural—showing each phase building on the previous work.

Chinese and South Asian Canadians are reluctant to acknowledge AIDS: denial is based on cultural taboos prohibiting homosexuality and sexual activity outside marriage; women feel powerless to instigate condom use particularly in marriage; youth do not have adequate sexual education in the home as sex and homosexuality are not discussed. Manson-Singer concluded that the South Asian and Chinese communities need culturally appropriate AIDS education materials targeted at specific risk groups. She added that denial must be countered through community awareness programs and information sharing via the electronic media and

telephone help lines. These results received wide attention at the 10th Annual International AIDS Conference in Yokohama, Japan.

Related health research:

- Evaluation of the Federal-Provincial Heart Health Initiative aimed at mobilizing people to improve their own heart health and that of their communities (Lawrence Green, James Frankish, IHPR)
- Evaluation of B.C.'s school-based prevention project which provides alcohol and drug misuse prevention services in approximately 40 secondary schools throughout the province (Marjorie MacDonald, Margaret Cargo, Lawrence Green, IHPR)

CREATING ETHICAL ENVIRONMENTS

Like the SDRI, the Centre for Applied Ethics at UBC is interdisciplinary by nature, and provides opportunities for academics, practitioners and others to engage in systematic and rational reflection on significant moral issues with practical implications.

Director Michael McDonald holds the Maurice Young Chair in Applied Ethics and is a key figure in Canadian applied ethics research. He was principal author of a 1989 report presented to SSHRC which outlined the council's current strategic theme for applied ethics. According to McDonald, "Morality is the glue that holds or fails to hold communities together. My work centres on the shared moral understandings that make social interactions beneficial and desirable." Through research and teaching, he aims to increase peoples' ability to recognize and meet moral challenges.

Many of the centre's research projects address major world issues. Since sound moral judgements must take into account social, political, economic, legal and other relevant features of choice situations, applied ethics research requires the expertise of numerous disciplines. Soon after his arrival in 1990, McDonald established a team of research fellows and associates at the centre drawn from economics, commerce, medicine, education, nursing,

dentistry, philosophy, political science and forestry. Each year, this group is augmented by visiting international scholars on leave from their home institutions. Together, centre researchers have examined topical issues such as the value of life in policy-making, moral expertise among accountants, computer-mediated ethical discourse, liberalism and the family, the ethics of global climate change, population growth and resource consumption and the ethical assessment of the risks of nuclear power.

The centre draws on the rich academic resources from virtually all faculties on Point Grey, and engages in frequent collaborations with other institutions. In 1992, McDonald and colleagues co-sponsored a Conference on Sustainability and Forestry with the Goethe Institute of Vancouver. UBC ethicists are currently investigating a cross-cultural approach to health care ethics in Canada with the University of Victoria's Centre for Studies in Religion and Society, and with partners in Bangkok, Singapore, the Philippines and other centres in Canada. The centre has established major SSHRC-funded computer networks in applied ethics used by researchers from many disciplines at Canadian and foreign universities. Without these networks, many researchers would have difficulty connecting with each other as they are scattered across disciplines, professions and lands. McDonald notes also that graduate students are involved in all major research projects at the centre.

MAKING INTERNATIONAL CONNECTIONS

President MacKenzie, an international lawyer, was certain that Canada's rising status in international affairs necessitated a more concentrated approach to international relations. To this end, he chose historian Frederick Soward, in 1946, to direct campus-wide efforts in the field of international studies. A quarter century later, the multidisciplinary Institute of International Relations (IIR) was established with a mandate to concentrate on international politics and organization, diplomatic history, strategic

studies, international legal problems, trade and development and social science theory as it pertains to international relationships.

UBC will further broaden the scope of its international projects and programs. Plans are underway for the construction of St. John's College, a residential graduate college promoting international exchanges and understanding. Adjacent to the college, the Liu Centre for International Studies will house research activities and continuing education efforts with an international focus.

Brian Job, director of UBC's Institute of International Relations (IIR), is principal investigator for a project called, *Uncertain Transition: Canada in the Post Cold War Asia Pacific*. Working with colleagues at York University, University of Toronto and External Affairs, Job explores the nature of the evolving post Cold War Asia Pacific security order and reflects upon the potential for Canada to play an effective role in its development. Job says the project assesses the extent to which principles and practices of cooperative security (as defined by Canada) are relevant to the security problems of the Asia Pacific. Job adds that the project emphasizes the ways in which national definitions of security and security policies are shaped by the perceptions of policy-makers. Said Job: "This approach provides an opportunity to relate Canadian views, interests and capabilities concerning international and regional security with the emerging security nexus within the Asia Pacific." Along with colleagues at York, Job has also established a consortium of Canadian experts in Canada and abroad on matters related to Asia Pacific security relations.

Kalevi Holsti is considered Canada's most distinguished scholar of international relations. His textbook (and first major publication) *International Relations: A Framework for Analysis*, has survived 25 years in six editions and continues to dominate the

market. He followed this best-selling textbook with a major monograph entitled *Why Nations Re-Align: Foreign Policy Re-Structuring in the Postwar World*. With this work, Holsti explores the dynamics of change in foreign policy and draws upon comparative cases to advance a novel theoretical explanation for this change.

Perhaps his most influential contribution to the development of international relations is the book, *Peace and War: Armed Contests and International Order*. The book was one of five nominees for the 1991 Lionel Gelber Prize for best English-language book in International Relations. In it, Holsti uses historical perspective, scholarly description and theory to explain the causes of war and peace over the last 300 years. Holsti's present research probes sources of war in the Third World and a project entitled *Creating Threats*, a comparison of British visions of Germany in the early 20th century with American perspectives of Japan in the 1990s.

Elected to the Royal Society of Canada in 1983, Holsti is the only Canadian to have been president of both the Canadian Political Science Association and the International Studies Association. He is also a past National Killam Fellow.

Related research:

- Since co-authoring the prize-winning book *Pollution, Politics and International Law* (1979), much of Mark Zacher's research has focused on problems of economic and environmental regulation. Zacher, IIR director from 1971-1991, says that over the last decade many scholars and officials have spoken of the problems of international environmental security. His current work surveys the evolving damages and threats of damages perpetrated by certain countries on others as a result of various economic activities. Zacher examines the types of

international strategic responses needed to manage problems such as the dumping of wastes at sea, destruction of plant biodiversity, movement of hazardous wastes or agricultural practices that affect weather. Zacher is author of *Governing Global Networks: International Regimes for Transportation and Communications*. (1995)

- Drawing on 13 years of experience as president of the International Development Research Centre, Ivan Head's interest in international relations lies in the interdependency of westernized nations in the North and developing countries in the South. His 1991 book, *On a Hinge of History*, outlines how population growth, spiralling debt and pollution inextricably links the futures of South and North. Head is also co-ordinating Canadian efforts in an innovative program which links researchers at the University of Peking, Tsinghua University and Nankai University with counterparts at UBC, McGill University and the Universities of Toronto and Montreal. Head has a joint appointment in the Faculty of Law and the Dept. of Political Science at UBC.
- Robert Jackson continues to write on the condition of Third World states in the international system and has recently published on the question of humanitarian intervention. His next book is titled *The Global Covenant: International Ethics After the Cold War*.

FUNDRAISING INITIATIVES

Sustainable Development Research

Institute Endowment

Goal: \$2 million (endowment)

An endowment for the Sustainable Development Research Institute will enable the institute to develop current initiatives to their full potential, act on new opportunities as they arise and plan for future research activities.

Chair in Ethics and Information Technologies

Goal: \$2 million (endowment)

Rapidly expanding information technologies have raised serious issues of privacy, intellectual property rights and competing interests. A Chair in Ethics and Information Technologies will focus attention toward innovative uses of communication technologies to enhance ethical understanding. Methods would be developed to allow technology to protect privacy through good policies and encryption and enhance social understanding through better communication. The chair will be based within UBC's Centre for Applied Ethics, with linkages to other units such as Computer Science, Applied Science, Forestry, Medicine, Pharmacy, Education, Law and Philosophy. The Centre for Applied Ethics was created through generous donations by Clark Bentall, Western Pulp Partnership and W. Maurice Young.

Institute for Hearing Accessibility Research

Goal: \$1.5 million (endowment)

The institute was established in July, 1994, to foster research into hearing accessibility and to help people with hearing problems in everyday life. Institute research will focus on areas such as hearing accessibility issues within the educational setting, at the workplace and for the elderly; hearing aids and other devices and technologies; psycho-social issues associated with hearing accessibility and hard-of-hearing people; and physiological and medical issues.

Chair in Environmental Exposure and Human Health

Goal: \$2 million (endowment)

Despite massive public attention on environment and health, the evaluation of environmental stressors or toxins for the assessment of human health risks has not received significant attention. Establishing a Chair in Environmental Exposure and Human Health will enable UBC and its industrial partners to conduct research on aspects of human exposures and the evaluation of their health risks. An important outcome will be the training of exposure assessment scientists who will fill industrial and governmental positions in British Columbia, elsewhere in Canada and internationally. The Chair will be part of the Occupational Hygiene program which was funded by the Workers' Compensation Board of B.C.

Professorship in Health Promotion**Goal: \$750,000 (endowment)**

The professorship will examine how environmental, lifestyle, social and economic factors affect health. Research will be directed at developing methods for promoting health through education and behaviour modification. Standard Life Assurance Company, The Manufacturers Life Insurance Company and North West Life Assurance Company have made generous contributions to the professorship.

Endowment for the Centre for Research in Women's Studies and Gender Relations**Goal: Visiting Professorship (\$1 million)
\$500,000 (endowment)**

An endowment for the Centre for Research in Women's Studies and Gender Relations will enrich and diversify opportunities for distinguished scholars, prominent community members, students and the general public to study, research, meet and interact around a variety of pressing contemporary issues that affect women and the relationships between women and men. The endowment will support a visiting professorship, a distinguished community visitor program and lecture series, a reading and resource centre, and one post-doctoral scholarship.

Chair in Biomedical Ethics

The Chair in Biomedical Ethics, an integral part of the Centre for Applied Ethics, will enable UBC to respond to the needs of health care practitioners by building a resource of expertise in ethical issues, as they relate to the health sciences. B.C.'s Children's Hospital, Vancouver Hospital and Health Sciences Centre, St. Paul's Hospital Foundation, the College of Pharmacists of B.C., the College of Physicians and Surgeons of B.C., and individuals from the College of Dental Surgeons of B.C., have made major contributions to the chair.

Vocational Rehabilitation Counselling Program**Goal: \$5 million (endowment)**

Vocational rehabilitation counselling incorporates knowledge from a number of disciplines, including counselling psychology, special education, rehabilitation sciences and psychology. A master's program in vocational rehabilitation counselling, the first of its kind in Canada, has been developed in response to a growing need in the community for counsellors who can provide service, research and leadership to help disabled workers return to work and have maximum effectiveness in the workplace.

**BUILDINGS, CENTRES, INSTITUTES,
AND SCHOOLS****Green College**

Green College, Western Canada's first residential graduate college, opened on Nov. 22, 1993. Funded by UBC benefactor Cecil H. Green, the college operates as a centre for advanced interdisciplinary scholarship by bringing together the best minds to confront issues from over-population and pollution to political philosophy and medical ethics. The college includes accommodation for 85 graduate students, 15 post-doctoral researchers and visiting scholars, five short-term visitors and a principal. In addition, there are 40 UBC faculty members and 20 members of the wider Vancouver community. Principal Richard Ericson credits the enthusiasm of residents, university colleagues and off-campus members for making the college a current hotbed of activity. Through its various lectureships, workshops, and eight interdisciplinary programs, the college serves well-beyond the boundaries of its residents.

C.K. Choi Building for the Institute of Asian Research

The \$6.25-million C.K. Choi Building for the Institute for Asian Research will house the centres of Chinese, Japanese, Korean, Southeast Asian and South Asian Research with two endowed chairs in each. The building is supported by contributions from a number of major donors, including a generous donation from C.K. Choi and family. The Chair for the director of the institute, held currently by Mark Fruin, has been funded fully through government matching funds and a \$1-million gift from the Hongkong Bank of Canada.

The Centre for Chinese Research

The centre serves as a catalyst for intensifying the study of China, Taiwan and Hong Kong, and Canada's relationship with these areas. Already the governments and communities of these regions have made significant contributions to the centre. The project received major donations from an anonymous donor in Hong Kong and the Government of Taiwan. The latter is the first gift of its kind to any university in North America.

The Centre for Japanese Research

The centre promotes dialogue on major issues of common concern to Japan and Canada. It has been funded thanks to the efforts of the Vancouver Japanese Businessmen's Association (Konwakai) and friends, and the Government of British Columbia. UBC appreciates the many donations to the project by members of Konwakai and Keidanren (Japanese Federation of Economic Organizations) and other donors from Japan.

Centre for Korean Research

Korean studies is a relatively recent addition to UBC's Asian studies program. Specialized courses on Korea were first offered at UBC in 1982 with the sponsorship of the Korean Ministry of Foreign Affairs and later the Korean Research Foundation. Subsequent funding has come from Canada and the Republic of Korea, in co-operation with the Korean Consulate General in Vancouver, and the Korea Foundation. The new Centre for Korean Research strengthens UBC's 10-year commitment to research on Korea and Canada-Korea issues.

Centre for South Asian Research

Goal: \$1 million (capital) \$3 million (endowment)

South Asia has played an important part in the history and development of Asian studies at UBC. The first UBC course in South Asian studies was introduced in 1943, and by the 1960s, interest in South Asian research at the university had grown remarkably. The combination of interdisciplinary courses with South Asian literature, pre-modern history and language courses led to the introduction of an undergraduate major and graduate specializations. The centre will increase UBC's research on South Asia (India, Pakistan, Nepal, Bhutan, Sri Lanka and Bangladesh) and on Canada-South Asia issues.

Centre for Southeast Asian Research

Goal: \$1 million (capital) \$3 million (endowment)

UBC began offering courses on Southeast Asia in the early 1960s. Various UBC faculties, schools and departments offer courses: Anthropology and Sociology, Asian Studies, Commerce, Community and Regional Planning, Economics, Geography, History, Political Science and Religious Studies. In 1988, UBC established an undergraduate specialization in Southeast Asian studies. The centre will heighten UBC's focus on Southeast Asia (Indonesia, Malaysia, Singapore, Thailand, Philippines, Brunei, Myanmar, Kampuchea, Laos and Vietnam) and on Canada-Southeast Asia issues.

The Centre for Applied Ethics

The Centre for Applied Ethics stimulates exploration of ethical questions in medicine, business, law, science, engineering and other disciplines. Chairs in the Centre endowed through major gifts from W. Maurice Young and Robert C. Rodgers include the Maurice Young Chair in Applied Ethics, to which Michael McDonald has been appointed; an endowment to fund the centre's visiting scholars and seconded faculty members, also donated by W. Maurice Young; and the Patricia F. Rodgers Chair in Applied Ethics.

ONGOING PROJECTS

St. John's College at UBC

Phase I Goal: \$10 million

Phase II Goal: \$5 million

St. John's College at UBC will focus on international studies, fostering global understanding among students in all disciplines as they live and work together. The interaction of post-graduate students from many countries will enhance international understanding and result in a new generation of Johannians world-wide. With the support of the St. John's Alumni Association in Hong Kong, the first eight St. John's Scholarships were awarded at UBC in September, 1993.

The initial phase for St. John's College at UBC includes construction of the college and establishment of an endowment to support the operating expenses associated with the college, including the principal's position, scholarships, visiting lecturers and their travel, program co-ordination and enrichment activities.

Completion of the Liu Centre for International Studies

Remaining Goal: \$1 million (capital)

The Liu Centre for International Studies will build on UBC's distinguished history of teaching and research in the field. It will house new and existing research institutes which draw on UBC's strength in international studies, plus some existing units which are currently in various campus locations. The centre's mandate will be to prepare professionals from many countries to act as knowledgeable and responsible citizens in a world community characterized by growing economic, social and political independence among diverse societies and cultures.

Mr. Liou Jieh Jow has made a major contribution to the centre.

Peter Wall Institute for Advanced Studies

UBC will use a \$15 million gift from Peter Wall to establish Canada's first Institute for Advanced Studies. The institute will attract renowned scholars to UBC allowing them to study and conduct research in a wide range of fields spanning the humanities, social sciences, life sciences and physical sciences.

University Graduate Fellowships

Goal: \$20 million (endowment)

Since 1990, the number of students enrolled in graduate programs at UBC has increased by 43 per cent. Currently there are more than 6,000 graduate students working toward advanced degrees in nearly 100 academic disciplines. Graduate fellowships are an effective means of attracting graduate students with superior academic qualifications to UBC.

Graduate scholarships and fellowships established through UBC's World of Opportunity Campaign include:

- Bank of Montreal Graduate Fellowships
Canadian National Graduate Transportation Scholarships
- Du Pont Graduate Fellowship in Pulp and Paper
- Hong Kong-Canada Business Association Graduate Scholarship in Commerce
- Hong Kong-Canada Business Association Graduate Scholarship
- Asa Johal Fellowship in Asian Studies
- Asa Johal Graduate Fellowship in Forestry
- Endowed Graduate Scholarships in Chemistry, funded through the Estate of Gladys E. Laird
- Fletcher Challenge Fellowships
- Peter and Penny Lusztig Commerce Graduate Fellowship

- Northern Telecom Graduate Fellowships

- AD Scott Fellowship in Economics

- Scott Paper Graduate Fellowships

- The Simons Foundation Doctoral Scholarships for Women

- Webster Graduate Fellows Fund

Interdisciplinary Graduate Fellowships

Goal: \$1 million (endowment)

Interdisciplinary Graduate Fellowships will provide scholarships for students, enabling them to study in areas that bridge a variety of traditional academic disciplines.



New

Commerce

Deans

Earle D. McPhee (1956-60)

Neil Perry (1960-65)

Philip White (1966-73)

Noel Hall (1974-76)

Peter Lusztig (1977-91)

Michael Goldberg (1991-)

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Faculty records list James W. Horne as the first UBC student to graduate with a Bachelor of Commerce. His degree was bestowed in May, 1930, 14 years after newly appointed professor Theodore Boggs proposed the establishment of a BCom to Senate.

Boggs became known as the father of the BCom for spearheading the campaign to get a commerce offering at UBC. Topics listed in his original Senate proposal, which form the basis of present-day research, included: principles in economics, economic history, labour problems, money and banking, government finance, international trade and tariffs, corporate economics, provincial and local finance, history of economic thought.

Financial support for commerce courses was finally approved in 1929. Boggs, a graduate of Yale with a Masters and PhD in philosophy, became head of a combined Department of Economics, Political Science, Commerce and Sociology. Joseph Friend Day was among the first appointments in the modest four-member department. Day directed lectures in both economics and commerce throughout the next decade of slow but steady growth. The commerce division finally became a department in 1939 (under the headship of E.H. Morrow) and a school 11 years

later with Earle McPhee as director. In the 1950s, when most other Canadian commerce departments were in their infancy, UBC was diversifying the scope of its commerce activity. Courses in life insurance and investment were among the first for a Canadian university. The department introduced public utility problems and business research, as well as off-campus seminars delivered to the business community on location or by correspondence. The university authorized degrees of Master of Commerce and Master of Business Administration in 1952 and 1955 respectively. Everything

seemed in place when the school changed to a Faculty of Commerce and Business Administration in 1957.

Despite its new-found status, the most profound changes to UBC efforts in the field came 10 years later. During Dean Philip White's seven-year tenure (1966-1973), the number of faculty quadrupled from 23 to 92. More importantly, these new recruits from Berkeley, UCLA, Michigan, MIT, Chicago and Stanford came armed with PhDs, until then a rarity at Point Grey. Along with their doctorates, the new members infused the faculty with an orientation to research and a research methodology upon which current success is based. Present Dean Michael Goldberg said picking research over the case method was a sensible choice. "Knowledge is a wasting asset which like anything else depreciates over time," he says. "If you don't do research you aren't renewing yourself, and if you aren't renewing yourself, your courses get stale. Research is the means by which we keep current and serve our students and the community."

UBC's Faculty of Commerce and Business Administration has approximately 100 faculty teaching close to 1,200 undergraduates and 500 graduates enrolled in MBA, MSc and PhD programs. Since 1972, the faculty has graduated 125 PhD students, the most of any Canadian university offering doctoral business programs.

COMMUNITY TIES

A 1940 report to President Leonard Klinck listed the salient features of a proposed commerce program. The first of these was to introduce methods used in the Harvard Business School. Though the faculty ultimately deviated from this path, it followed through with the report's second feature of encouraging close ties with the local business community.

Today's faculty remains focused on disseminating the results of ongoing research into fundamental and evolving business issues. In 1990, for instance, the faculty formed the Bureau of Asset Management (BAM) to aid communications between practitioners and academics on the management of financial assets and real estate asset management. Led by Robert Heinkel, an internationally recognized scholar from the Finance Division, the bureau supports efforts aimed at raising the profile of B.C. as an international business centre. Heinkel also leads the flagship of the faculty's summer internship programs, the Portfolio Management Society. The unique two-year, extracurricular program, offers theoretical and practical investment experience in the U.S., Canada and Europe to a select group of undergraduates.

Through its Executive Programs, the faculty shares the most up-to-date management research with business and government. Peter Frost, associate dean of Professional Programs, says the combination of volatile financial markets, the dramatic shifts in North American business culture and burgeoning global competition create a constant need for executive development programs. Managing Drug and Alcohol Abuse in the Workplace; Developing Negotiating and Bargaining Skills; The Cutting Edge of Leadership; Structuring for and Implementing Self-Managing Work Teams are among some of the new programs offered. Frost says there is a growing need for in-house, customized programs for organizations ranging from one-day offerings to three-week residential programs.

As global competitiveness increased throughout the 1980s, so too did concern about the confrontational nature of union-management relations, stagnant productivity and uncompetitive labour cost structures. The Charter of Rights and Freedoms, together with human rights, labour standards,



Maurice Levi, right, Bank of Montreal Chair in International Finance, and Robert Heinkel are part of a 16-member Finance Division looking into issues of financial regulation, security pricing, the effects of free trade and mergers, acquisitions and corporate finance.

health and safety, employment and pay equity legislation, have created a whole new set of concerns for policy-makers, litigants and academics.

The establishment of UBC's Centre for Labour and Management Studies (CLAMS) in September 1993 has helped focus local efforts on labour management relations. Centre director Tom Knight, from the faculty's Industrial Relations Management Division,

says the enterprise is the only one of its kind in Western Canada and is unique in its dealings with the community. "Our employment practices and labour force are in constant need of innovation and adaptation," he says. "This centre takes the basic functions of the university education and research and focuses them on real problems having to do with work and the workplace."

Among the centre's research projects to date are: creation of expanded databases to provide better access to B.C.'s labour relations code; examinations of how front-line managers handle unionized employees; and a study of the internal grievance appeal process at the B.C. Government and Service Employees Union.

Related CLAMS research:

- A conceptual and research literature-based study of the variety of values present in the workplace and in workplace relations. The study considers conflicts between employee and organizational value sets. (Craig Pinder, Richard Stackman, IRM)
- Addressing the role of women in organizations and women's professional career paths. The study examines differences between male and female career preferences and systematic differentials between male and female compensation and career opportunities. (Nancy Langton, IRM)
- Analysis of the role and functioning of the organizational ombudsperson as an alternative method for resolving conflicts within organizations. (Richard Stackman, IRM)
- Production of an annotated bibliography on managing cultural diversity and follow-up examination of the practices B.C. managers and organizations use in this area. (Larry Moore, Merle Ace, IRM)

COMMERCE AND THE URBAN ENVIRONMENT

The genesis of the Urban Land Economics Division dates back to 1958 and the passing of the provincial government's revised Real Estate Act. The new act provided for the formation of a Real Estate Council designed to professionalize the education of agents and salespeople. UBC President MacKenzie, Dean McPhee and Attorney-General Robert Bonner (a UBC alumnus) agreed that the council would pay the university \$50,000 to establish a Chair in Urban Land Economics. Prof. White,

from the College of Estate Management in London, was asked to head a Estate Management Division to oversee real estate pre-licensing education as well as a full undergraduate and graduate program. In 1966, Estate Management became the Urban Land Economics Division responsible only for undergraduate and graduate work.

UBC's Urban Land Economics Division has grown into the largest centre of research in urban economics and real estate in Canada. Internationally, it ranks alongside similar research centres at the University of Pennsylvania, the University of California at Berkeley and the Massachusetts Institute of Technology. Prof. Goldberg joined the division in 1968 and has written several influential books on housing policy, comparisons of Canadian and U.S. cities and an introductory textbook on urban land economics. He is also a fellow of the Urban Land Institute and past president of the American Real Estate and Urban Economics Association.

UBC researchers link academic and professional work through the Canadian Real Estate Research Bureau (CRERB), created in 1988. What separates UBC's Urban Land Economics Division from similar organizations elsewhere is the size and breadth of its studies. Research in urban economics includes models of land value determination, the role of external forces in housing markets, the effects of wealth and taxation on housing demand and the role of scale economies in the development of cities. Real estate research covers the demand for mortgage debt, credit rationing in mortgage markets, alternative mortgage instruments and real estate price formation.

Division Chair Robert Helsley came to UBC in 1984 after completing doctoral work in economics at Princeton. His research focuses on theoretical issues in urban economics and local public finance. Within the general area of urban economics, he has

published studies on the location of international financial activity across cities, the location of firms within cities and the formation of urban subcentres. He has also studied the effects of urban growth and uncertainty on land prices and urban development patterns as well as the effects of public policies designed to control this growth. In the area of local public finance, Helsley has published several studies of the privatization of government services. This work examines the advantages and disadvantages of having the private sector provide some previously public-funded services.

Helsley and colleague Stuart Rosenthal recently completed a study of urban development in Vancouver. The study uses a new methodology for estimating vacant urban land prices in areas where most urban land has already been developed. Using data on single family detached homes sold in Vancouver, the researchers estimated the price of vacant land based on properties that were sold and redeveloped. They also estimated the price of developed land based on properties that were sold and not redeveloped. The difference between the developed and vacant land prices was then used to evaluate the probability of redevelopment. Tests overwhelmingly support the hypothesis that housing is demolished when the price of vacant land exceeds the price of land in its current use. Helsley and Rosenthal's work represents an important methodological advance over previous studies in urban economics that estimate land prices from models of house value, or those that rely on property assessments.

Related research:

- Development of a theoretical model isolating the effects of urban growth on land prices. This model shows that the rate at which an urban area grows can have an important effect on the overall level of land and housing prices. Results indicate that urban growth may account for up to one half of the price of land in a rapidly growing city. This helps explain

why prices differ radically between cities of different sizes. (Helsley)

- Effects of airport noise on housing prices in unstable markets (Stanley Hamilton, Dean Uyeno)
- The ability of large city developers to provide the correct amount of infrastructure
- A look at the effects on urban growth of the time lag between the beginning of a construction project and the period when it begins generating revenue (William Strange, Real Estate Foundation Jr. Professor of Urban Land Economics)
- Wealth and housing demand
- To model the demand for debt and empirically estimate the model (Lawrence Jones)

COMMERCE, CANADA AND B.C

Since 1988, UBC has outranked all other Canadian business schools in research grants awarded by the Social Sciences and Humanities Research Council (SSHRC). Apart from the major SSHRC awards, half of the 95-member commerce faculty also hold smaller HSS grants.

In 1993, SSHRC awarded one of the largest grants ever (more than \$2 million over five years) to a team headed by Raphael Amit, director of the W. Maurice Young Entrepreneurship and Venture Capital Research Centre. Consisting of 20 leading scholars from UBC and five other Canadian universities, the Entrepreneurship Research Alliance (ERA) program seeks to understand why some business ventures succeed while others fail. "This collaborative network provides the most comprehensive examination yet of entrepreneurial success and failure," says Amit. "The partnership among practitioners, academics and policy makers enhances the relevance and usefulness of research and can only lead to more successful ventures in Canada."

Statistics indicate that more than 2.1 million jobs (81 per cent of all net new jobs in Canada) were established by emerging enterprises from 1979 to 1989. While new business initiatives substantially increased during this decade, failure rates of start-ups were alarmingly high. Amit says the ERA program provides analysis in five main areas:

- The extent to which success or failure of ventures is due to the characteristics and behaviours of entrepreneurs themselves. Visions of the future, creativity, willingness to take risk, control and adaptability are among the characteristics under review (Ken MacCrimmon, Raphael Amit)
- How best the entrepreneurial sector of the economy can be financed in order to compete successfully in product markets. Issues addressed include supply and demand for venture capital, contracting issues between entrepreneurs and venture capitalists, pricing methods for valuing knowledge-based ventures and the competitive strategies of emerging enterprises (James Brander, Margaret Slade, Raphael Amit)
- The role of innovation and new technologies in the success and failure of entrepreneurial firms with specific attention on the creation, adoption and diffusion of commercially attractive innovations and on innovation as an organizational process (Iain Cockburn, Peter Frost, Michael Gerlach, Mihkel Tombak, Kenneth Hendricks, Guofu Tan, Peter Lawrence)

How government policy and direct intervention affects new firms and how trade liberalization, barriers to entry and buyer/seller coalitions create opportunities for new ventures (Barbara Spencer, Thomas Ross, Mihkel Tombak)

Questions regarding gender differences, leadership and succession in family businesses and their influence on the success of entrepreneurial ventures (Nancy Langton)

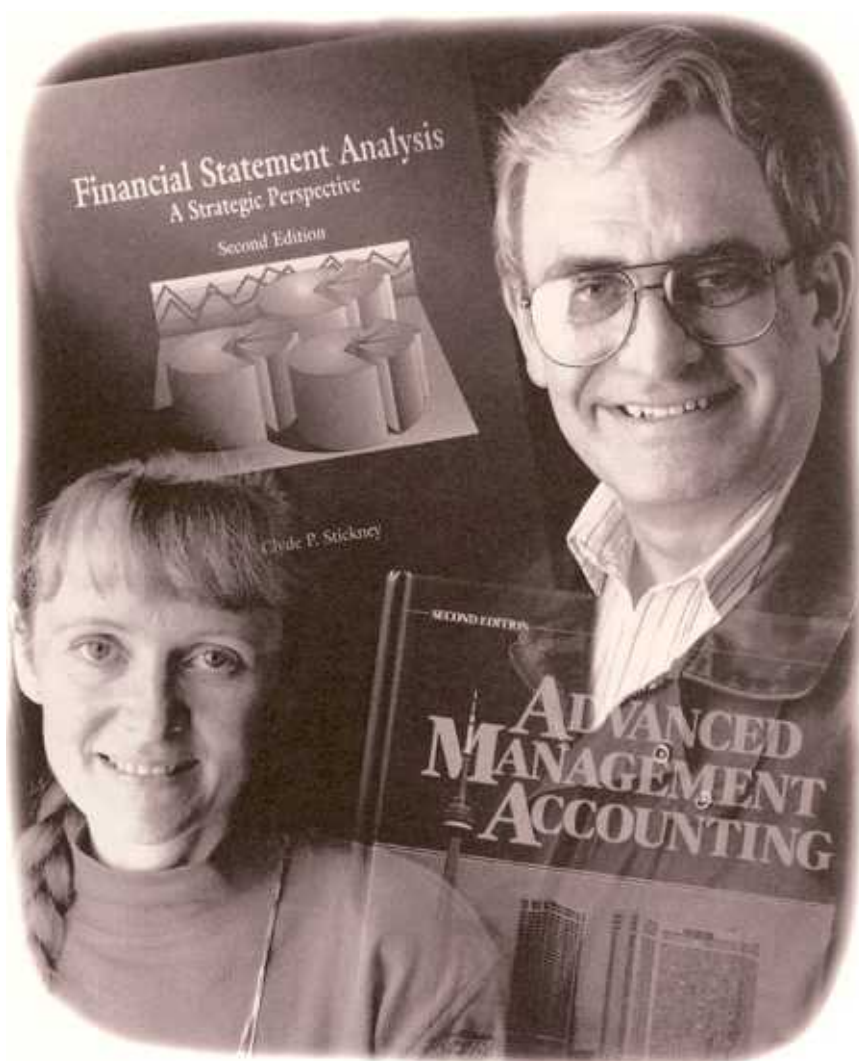
AN EYE ON TRANSPORT

Since its inception, UBC has maintained and developed expertise in transportation studies. Economics of Transportation was one of the few required courses outlined in Boggs' 1916 commerce proposal. He also suggested Transportation Statistics as an elective for those wishing to specialize in the field. Faculty in the present Division of Transportation and Logistics study the key economic issues surrounding transportation and public utility industries. Analyses of public policy encompass all modes of passenger and freight transportation including air, rail, bus, trucking, private automobile and ocean shipping. Since the late 1980s, faculty research has shifted gradually from national transportation policy issues to those dealing with international transportation and logistics systems management.

Tae Oum (Van Dusen Professor of Management), along with colleague Michael Tretheway, is one of North America's most noted scholars on the economics of transportation deregulation, and perhaps the most cited scholar on airline industry issues. Oum received a BCom from Sung Kyun University in Seoul, Korea, then came to UBC for his master's and doctoral work. He joined the faculty in 1983.

Oum worked with Tretheway to produce a study that showed how rigid airline regulation in Canada was responsible for a significant loss of the airline industry's productivity. This report helped convince senior policy makers of the unworkability of airline regulations and influenced work on deregulation.

Apart from his work on costs and productivity he recently completed a study comparing productive efficiency of passenger railway systems in 21 OECD countries. Oum's research can be broken down into three inter-related areas: transportation industries (especially airlines and railways);



Gerald Feltham and Joy Begley are examining the interrelation among the terms under which firms borrow money, the characteristics of firms (e.g. size, leverage) and factors that influence managers' incentives in operating the firm (e.g. stock ownership, compensation, age). They are among eight researchers in the Accounting Division who probe aspects of auditing and the economics of information and contracting.

demand modeling and pricing issues. In the latter category, he was one of the first academics to devise a methodology for incorporating quality attributes of transportation services (such as travel time and reliability) into a customer demand model. This work helped analyse and forecast the demand for service, and improved the accuracy of pricing such demands. As a result of his work on demand analysis, Oum was invited to conduct related research by the Economic Council of Canada, various federal government branches and the Loblaw's supermarket chain. He has also advised the Dutch government on how best to prepare for an integrated European transportation system. This involved forecasting traffic flow patterns to and from the Netherlands within the European Community and evaluating alternative roles of Amsterdam as a hub airport.

Oum's latest book, *Airline Economics* (co-authored with Tretheway) is the first publication to deal with the post deregulation reality of the airline industry.

For his current research, Tretheway is investigating whether economies of scale exist in airport operations, and if so, to what degree. Tretheway says while there is ample literature on airline economics, there has been almost nothing written on the fundamental issue of airport economics. Tretheway provided testimony to the Competition Tribunal and the National Transportation Agency on hearings associated with American Airlines plan to acquire 25 per cent of Canadian Airlines.

Related research:

- Documenting important changes in the international liner shipping industry including the growing role of Asian carriers, new consortia arrangements and space sharing among lines and the provision of logistics services (Trevor Heaver Director, Centre for Transportation Studies in the Faculty of Graduate Studies; UPS Foundation Professor of Transportation)

- Labour payouts and the measurement of productivity (William Waters)

TRACKING TRADE

Before stepping down in 1950 after 11 years as department head, Professor E.H. Morrow reported that all the aspects of a commerce program he identified at the beginning of his term had been substantially carried out. Among these was the introduction of advanced courses, particularly in transportation and international trade. UBC's current high profile in the latter category is due in large part to research by Barbara Spencer.



Barbara Spencer has emerged as one of the leading scholars of international trade theory and policy.

Initially, Spencer wanted to become a chemist but a flair for statistics prompted a change in plan. Some 25 years after entering Australian National University, where she was the only woman in a class of 70 economics students, Spencer has emerged as one of the leading scholars of international trade theory and policy.

Spencer came to UBC in 1985 following a decade at the University of Manitoba and five years at Boston College. Four years prior to her arrival on Point Grey, Spencer teamed up with UBC colleague James Brander to win the prestigious Harry Johnson Prize awarded annually for the best paper published in the Canadian Journal of Economics.

Spencer, with Brander, analysed trade policy under conditions of imperfect, or limited, competition. Following investigations on the impact of tariffs when foreign suppliers have monopoly power, the two scholars came up with the idea of strategic trade policy—government interventions that alter the terms of such oligopolistic competition. Spencer pursued this concept in a number of influential papers and also applied simple game theory to related issues in international trade and industrial organization. The results of her research have often contradicted conventional wisdom.

An example is the 1985 paper dealing with the critical policy issue of export subsidies. Traditional international trade theory clearly implied that such policies were ill-advised. Using a model with a home and a foreign-based firm, Spencer showed that these traditional conclusions were exactly reversed: a home export subsidy could commit the home firm to a higher level of output and so raise its market share and profits at the expense of the foreign competitor.

More recently, Spencer has explored trade policy issues that arise when a country exports vertically related products, such as raw lumber and processed wood. One issue is to explain why

a country that is rich in a product at the raw stage might restrict export of the raw material but encourage export of processed versions of the same product. Another strand of Spencer's research looks into the relationship between international competition and the formation of domestic research and production joint ventures. Spencer says such ventures have become important phenomena in North American high technology industries such as computers, electronic components and communication systems. Her particular interest has been with joint ventures within industries facing substantial competition from imports.

Related research:

- Relationship between international trade policy and environmental policy (James Brander, Asia Pacific Professor of International Business and Public Policy)
- Development of a model of the Mexican forest products sector which will help predict the changing patterns of demand, production and trade. The study also looks at possible Canadian policy responses to increase the ability of Canadian forest product firms to benefit from the North American Free Trade Agreement. (Ilan Vertinsky)
- Financial distress in banking looking particularly at the determinants of bank failures
- Investigation of stock-market volatility (Glen Donaldson, Finance)
- Logistics in the international competitiveness of Canadian industry (Trevor Heaver, Garland Chow, Dean Uyeno)
- Impact of ownership structure on dividend policies of Canadian corporations (Espen Eckbo, Finance)

THE BUSINESS OF MAKING DECISIONS

"Every business has a production or purchase problem, a marketing problem, a finance problem, a transportation problem and an accounting problem; in every instance a person or many persons make decisions, with or without adequate knowledge of the factors involved, with or without assistance from other executives, and with or without measures of the success of these individual decisions.

Earle McPhee

As the E.D. McPhee Professor of Management, Kenneth R. MacCrimmon has been intrigued by the way people make decisions and solve problems. His doctoral thesis at the University of California, Los Angeles, was based on an experimental study of how decisions of business executives conformed to basic theory. This work led to a stream of research projects designed to discover anomalies and biases in people's decision-making behaviour and to develop new theories better explaining observed decisions.

A key element of decision-making is how people deal with multiple objectives. MacCrimmon conducted some of the early work in this area including the development of techniques to assess tradeoffs. He and his colleagues also carried out an extensive study of risk-taking among top-level managers, both in business and personal decisions. This latter research culminated in the book (co-authored with colleague Donald Wehrung) *Taking Risks: The Management of Uncertainty* (1986).

In group decision making, MacCrimmon has focused on questions about how groups can act more rationally than any one of the group members.

Conversely, he has examined the conditions under which a group of seemingly rational people can act irrationally.

Over time, MacCrimmon's research interest has turned to the less well formulated aspects of problem solving and creativity. "Everyone agrees that creative problem solving is important but there are no widely accepted theories and as a result the empirical work is fragmented," he says. Together with colleague Chris Wagner, MacCrimmon has developed a series of software programs designed to enhance people's ability to find creative solutions to problems. Tests have shown that when participants were given a problem and then prompted through MacCrimmon's programs, they came up with more original and workable solutions. MacCrimmon recently compared the creative processes of novelists, composers and other artists at the Rockefeller Institute's Bellagio Centre for a forthcoming book on creativity.

"Threats and counter threats can push two people or two groups toward mutual destruction. The legendary feuds of the Hatfield's and the McCoy's is a pertinent example. Once they began threatening and retaliating, they had real difficulties backing down. Generations later, family members didn't even know why the feud had begun.

Keith Murnighan in *Bargaining Games*.

Since the summer of 1993, Keith Murnighan has studied under the faculty wide banner of Van Dusen Professor of Management. Coming from the University of Illinois, where he directed the Program on Conflict and Negotiation Research, Murnighan's work at UBC bridges research in several divisions including industrial relations management, policy, finance and marketing. Educated in social psychology at Purdue University, his research involves work on bargaining, conflict resolution and the dynamics of groups. He recently published back-to-back books on conflict resolution: *The Dynamics of Bargaining Games* (1991) and *Bargaining Games: A New Approach to Strategic Thinking in Negotiations* (1992). He also edited the volume, *Social Psychology in Organizations: Advances in Theory and Research* (1993).

His recent research addresses a variety of topics including altruism, fairness, complex co-operation schemes, uncertainty, third party interventions, deadlines, the dilemma of releasing information in negotiations, ultimatums and the competitive urge.

With his research on volunteering, Murnighan notes that the choice to volunteer presents an individual with a dilemma: everyone within a group is better off if someone volunteers, but the volunteer, due to his or her efforts, most often ends up less well off than the others. "The question, then, becomes how systems can promote voluntary action which we suggest are essential contributions that help companies run smoothly," says Murnighan. In four experiments, Murnighan and two colleagues investigated a number of volunteer dilemma scenarios set in strictly financial contexts and found that people only tended to volunteer when it paid. However, a new experiment suggests that interpersonal factors may lead to a significant increase in voluntary action. These findings have led Murnighan to current research on the concept of group allegiances and their influence in increasing volunteerism.

Related research:

- A review of employment standards in British Columbia prepared for the Minister of Skills, Training and Labour (Mark Thompson, W.M. Hamilton Professor of Industrial Relations)
- Analysis of collective bargaining settlements over a 35-year period to determine whether there is evidence of a structural shift in the outcomes of bargaining during the 1980s
- Information gathering on management industrial relations policies and practices in major Canadian corporations (Mark Thompson, IRM)
- Continuation of decade-long research into employee mobility and transfers with emphasis on role of social support, the special features of job changes that make adjustment difficult, and the nature of learning and development that takes place when people undergo career transitions. (Craig Pinder, IRM)

- Studies of the politics and sustainability of innovations in organizations. (Peter Frost, Edgar F. Kaiser chair of Organizational Behaviour)
- Grievance initiation, decision-making in grievance procedures, and the satisfaction of grievants, union and management officials with grievance procedures. (Brian Bemmels, IRM)

AN EYE ON MARKETING

At the request of the National Sales Executives Club in the spring of 1950, UBC began offering a three-year sales executive training program which was later renamed Marketing and Sales Management. The course provided an introduction to sales management in the first year, emphasized financial analysis and management in the second and focused on specific functions of management, such as motivating and goal-setting, in the final year.

Executives today turn to UBC marketing division research for a better understanding of how products and services are developed, how distribution systems are managed and how advertising, promotion and pricing issues are handled. Faculty use mathematical models to understand marketing problems, formulate public policies that affect market behaviour and to study the effects of cultural differences on consumer behaviour in international markets.

Since joining UBC's marketing division in 1980, social psychologist Gerald Gorn has helped spark research interest in consumer behaviour. Gorn first established himself as a major contributor through his work on children's responses to advertising, a highly charged public policy issue in the 1970s. Several of his journal articles on the subject have been reprinted in books. His work with children is also impressive because of the innovative ways he measures advertising effectiveness. For

example, by embedding TV commercials in regular programming and incorporating the programs into regularly scheduled activities, children are seldom aware that they are participating in an experiment.

Gorn has made major contributions to other aspects of consumer research. His 1982 article, *The Effects of Music in Advertising on Choice Behaviour*, caused scholars to reapply classical conditioning principles to understand advertising effects. The paper's appearance in the *Journal of Marketing* came at a time when the field was dominated by a heavy cognitive psychological approach. It is frequently cited by other researchers.

The Journal of Consumer Research (JCR), begun in 1974, has become the premier outlet for high quality research on consumer behaviour. Gorn has been on the journal's editorial board since 1984, and is one of its most prolific authors. His contributions include *The Contextual Effect of Programs on Responses to Commercials* (1987), *The Impact of Comparative Advertising on Perception and Attitude* (1984) and *Behavioural Evidence of the Effects of TV Food Messages on Children* (1982).

Gorn's research in recent years has focused on social marketing. Using questionnaire responses from university students, he has investigated the role of wine coolers (a relatively new and sweeter alcoholic beverage) in teenage drinking.

Consumer behaviour is just one aspect of Charles Weinberg's marketing research. A UBC faculty member since 1979, Weinberg works on mathematical modeling, econometric analysis and public and non-profit marketing. He is recognized in the latter area as one of the top scholars in North America and has co-authored several key texts and casebooks. He has also helped build conceptual foundations in the field, and contributed to studies of marketing effects. Among his more prominent contributions was a model-based system for planning a performing arts series.

Weinberg's influence extends to other important areas including sales force productivity and territory sales response, strategic intelligence systems, procedures for estimating the duration of the effects of advertising, and studies of expenditure patterns for labour-saving devices in dual versus single-income families.

Weinberg is currently researching competitive dynamics, looking at issues such as a firm's competitive positioning, whether a firm should emphasize product features or service and the impact of retail innovations.

Related research:

- A leading scholar on the effects of advertising on tobacco sales, Richard Pollay has been an expert witness in most of the critical cases in North America brought against tobacco companies by the estates of individuals who have died from tobacco-related illnesses.
- James Forbes has compared the effects of structures, rules and procedures on the regulatory performance of the Canadian Radio-Television and Telecommunications Commission, the National Transportation Agency and the National Farm Products Marketing Council.
- Robert Kelly specializes in helping arts organizations and museums in Canada and around the world find the means to organize and market their services.

COMMERCE AND THE ASIA PACIFIC REGION

Faculty ties to the Pacific date back more than a quarter century when UBC helped establish the first business programs at the University of Malaya and the University of Singapore. As outlined in the 1988 President's Report, *Toward the Pacific Century*, UBC has continued to build the Asia-Pacific tradition through extensive commerce networks in Japan, Korea, Hong Kong, Southeast Asia and China.

Not surprisingly, Chinese research has become a critical area of study within the faculty. The country's transformation from an agricultural to an industrial-based economy has resulted in an average economic growth rate of 10 per cent a year for the last decade. China's skilled low cost labour and foreign investment has made it the major force in world trade.

UBC linkages with the Peoples' Republic of China (PRC) began in 1979 with the visit of Rong Yiren, former Chairman of China International Trust and Investment Corporation. A year later, Prof. Liu Chaojin, negotiator of the first wheat sales agreement and the first pulp and paper agreements between Canada and China, visited the university. Beginning in 1983, UBC continues to participate in the Canadian International Development Agency's (CIDA) management education linkage program, connecting UBC faculty with Shanghai Jiao Tong University (SJTU).

Under the first phase of the program, the faculty trained eight doctoral students, 12 masters students and nine visiting scholars. In addition, 14 UBC faculty taught or conducted research at SJTU. The program's second phase started in 1989 with UBC faculty helping create SJTU's Centre for Management Research and Executive Training.

UBC's Keith Head has been engaged in research with SJTU colleagues looking at the competition for foreign investment among China's coastal open cities. China, with a population of 1.2 billion and annual double-digit income growth rates, has become a favoured site for foreign investment. Foreign-funded joint ventures provide China with an infusion of capital and a source of technological and managerial expertise.

As part of the opening process, the central government has granted increased autonomy to a number of provinces and cities. One result is increased competition between these liberalized areas to

attract foreign manufacturers. By offering superior combinations of infrastructure and tax incentives, each of these special economic zones hopes to secure a large share of the new investment. For Head, this raises a number of interesting questions. What types of infrastructure matter most to foreign investors? Did the first liberalized areas benefit from sustained first-mover advantages in attracting investment? Did the fastest growing cities encounter barriers to further growth in the form of rising wages and land prices? Head tackles these issues by estimating an econometric model of the location decision of joint venture enterprises. "Study results are of interest to both policy-makers in search of the most effective ways to attract investments and potential investors hoping to learn about China's policies," says Head. "From an academic perspective, looking at firms' location decisions sheds light on the variation of growth between regions."

Since the early 1980s, Michael Goldberg's research has converged on the Asia Pacific region. Prior to becoming dean, Goldberg made extensive eastern connections as Executive Director of International Financial Centre Vancouver, a non-profit, provincially chartered society dedicated to promoting the city worldwide as a centre for international finance. Author of *The Chinese Connection: Getting Plugged in to the Pacific Rim Real Estate, Trade and Capital Markets* (1985), Goldberg and colleague Maurice Levi use immigration data to help explain the flow of foreign direct investment into Canada.

Traditionally, international direct investments are explained using economic factors, inflation rates, estimates of risk, expected rates of return and exchange rates in the destination country. Goldberg and Levi say there are good reasons to expect

personal ties can be just as important, because they provide hard-to-find information on local economic and business conditions. Given the growing importance of immigration and investment for the B.C. economy, and given the significant media and public policy attention paid to this area, Goldberg and Levi hope to shed new light on these issues.

During the 1980s, many governments adopted policies designed to spur rapid increases in foreign direct investment (FDI). Efforts included easing restrictions on investments, providing labour and capital subsidies and creating investment promotion offices. Many of these efforts were directed towards Japan which, by the end of the decade, had become the most important source of foreign direct investment. The proliferation of policies aimed at attracting foreign investors has heightened competition between individual investment destinations. Some locations, such as Georgia in the U.S., have had their efforts rewarded while other would-be hosts are still investment backwaters.

John Ries (together with Head) is using Japanese data to identify factors influencing multinational foreign investment. The goal is to test theories of FDI and assess the importance of government promotional policies in influencing a firm's choice of location. Two papers (written with Deborah Swenson) examine the location of Japanese investment in the United States. The first (forthcoming in the *Journal of International Economics*) establishes the importance of Japanese firms locating in close geographic proximity to one another, and the second examines the influence of state promotional policies on location choices. The latter paper reveals that individual policies on their own do influence location decisions, but competing state programs largely offset one another.

Ries previously studied the effect of voluntary export restraints (VERs) on profits and product choice of Japanese auto firms. This research developed a

model that was tested in a study using Japanese stock price data. While previous theoretical research explored the consequences of VERs, their effect on profits had not yet been tested empirically. The theoretical portion of Ries' research was accepted in the *Canadian Journal of Economics* and the empirical study appeared in the *Journal of Industrial Economics*.

Related research:

- As the Hongkong Bank of Canada Chair in Asian Commerce, Michael Gerlach's research interests lie primarily in the areas of Japanese organization and management.

Gerlach is author of *Alliance Capitalism: The Social Organization of Japanese Business* (1992) and *The Organization of Business Networks in Japan and the U.S.* These works are an outgrowth of a large-scale database Gerlach developed on inter-organizational networks in Japan and the U.S. which form the basis for ongoing research.

- In-depth analysis of human resource management practices in selected Pacific Rim countries with a specific focus on the existence of bureaucratic type regimes underlying the employment relationship (Devereaux Jennings, IRM)
- The impact of rapid economic change on the health and environment of Shanghai and scheduling of a flexible manufacturing system (Derek Atkins, Management Science)
- A study of the role of primary commodities in strategies for economic integration in the Pacific Rim (Peter Nemetz, Policy)
- Investigation of how immigrant consumers from Hong Kong change their purchase behaviour, retail shopping behaviour, mass media consumption and social values after they immigrate to Canada (David Tse, Marketing)



Ilan Vertinsky directs research at the Centre for International Business Studies, one of eight, federally funded centres in Canada. Vertinsky recently used an External Affairs grant to study the long-term bilateral economic relationship between Canada and Korea. Together with colleagues Masao Nakamura and Bill Ziemba, he has also looked at the implications of Japanese business practices on global competitiveness.

COMMERCE AND TECHNOLOGY

Just as mechanization and steam power revolutionized the global economy during the early days of industrialization, today's economies rely heavily on computer technology. The steady integration of international markets is driven by sophisticated equipment that allows for huge capital sums to be moved instantaneously. Computerized financial markets have led businesses to streamline operations and adopt ever more efficient, low-cost approaches. Corporate downsizing has left white-collar workers and middle managers, as well as low-skilled workers, scrambling to adapt to the new technological reality.

Led by research director Izak Benbasat, seven members of the Management Information Systems (MIS) Division explore the various impacts of information technology on individuals, groups and organizations. Researchers also examine the efficient and effective design, delivery and control of information technology.

When UBC installed its ALWAC computer in 1957, it was only the second university in Canada to do so. Ten years later, when a separate Dept. of Computer Science was established, many departments and faculties (including commerce) already had their own computing equipment. Today, commerce and computer science carry out a great deal of integrated research. Work by MIS division member Carson Woo illustrates the bridge between these two areas.

According to Woo, an associate member of the Centre for Integrated Computer Systems Research (CICSR), MIS research takes some of the basic research of computer science—computer communications, integrated system design, databases, numerical computation and artificial intelligence—and applies it to fundamental business concerns.

BUSINESS APPLICATION SOFTWARE

Computing activities within organizations change continually. This evolution started with centralized computing centres running a fixed set of applications provided by in-house MIS departments. Now, with inexpensive personal computers and networks, client/server computing solutions are becoming increasingly popular. While the latter approach offers performance, flexibility and cost benefits, it is not without problems. The complex administration of networks means information may be difficult to find, and services may be duplicated. To construct enterprise-wide applications that draw on information spread throughout an organization means first accessing that information in different places and in different formats.

Woo began configuring an inter-organizational computing system in 1979 while working as a summer student in Gulf Canada's strategic planning department. He went on to study the problem throughout university, earning an MSc in computer science and then his PhD at the University of Toronto. He began work at UBC in 1988 to develop a workflow software system. Funding from the Federal Network of Centres of Excellence resulted in a prototype called OASIS (Organization Activity Support and Information System). Woo says that as a computer-based information system, OASIS communicates across different hardware and software and across centralized computing environments and branch locations. Typical applications, he adds, might be tracking inquiries within a multi-branch organization, complicated travel requests from organization employees or client-server computing.

"OASIS was designed to allow autonomy in the workplace, even on networks," says Woo.

"It allows one person, one department or one group to work independently within any computing environment."

DEALING WITH EXPERT SYSTEMS

Expert systems are computer programs which apply the techniques of artificial intelligence to the solution of real-world problems.

Systems have been built that possess a high degree of expertise about particular subjects. These systems know little about anything outside their specific area of expertise. This characteristic, known as brittleness, means they do not perform as well as a human, even though they may have greater expert knowledge.

For several years, Robert Goldstein has been working to add a common sense reasoning component to expert systems in an effort to make them less brittle. Together with colleague Veda Storey, from the University of Rochester, and a group of graduate students, Goldstein uses a small model of the business world which includes only a dozen or so well-known business concepts. This model is manipulated by a common sense business reasoner—a software system capable of finding parallels between facts it comes across in a specific task and concepts in the general model. The system also includes a framework for classifying terms that serves as a surrogate dictionary.

Goldstein has been at UBC since 1974. In the late 1960s, while working at MIT, he designed and implemented what is generally considered the first complete relational database management system. Later, he applied expert system techniques to automate much of the database design process. In the 1970s, Goldstein developed a series of models for estimating the impact, financial and otherwise, of altering information systems to protect personal privacy. This work resulted in two books: *The Cost of Privacy* and *Modeling Privacy Costs*.

Related research:

- Investigation of the linkages between business objectives and information system objectives
- Evaluation of the costs and benefits of alternative ways of communicating with computer systems comparing direct manipulation interfaces with menu and command-based interfaces
- A study of the use, contributions and impacts of information systems in public sector organizations (Izak Benbasat)
- Applications of expert system technology to forestry to predict the possible effects of site preparation treatments on future tree growth (Yair Wand)
- Exploration of MIS issues in a representative transitional socialist economy
- Explanation of the role public accountants play in the introduction and adoption of information technology in small businesses (Albert Dexter)
- Completion of a study examining the government's role in fostering knowledge-based companies in B.C. (Mihkel Tombak, Raphael Amit)

FUNDRAISING INITIATIVES

Commerce Career Centre

Goal: \$2 million (endowments)

Having grown from a small placement office in the early 1980s, the Commerce Career Centre now strives to provide the best career educational services of any business school in Canada. By endowing the centre's activities, the faculty can enhance essential student services like the Practice Interview, Career Advisory and Professional Development Programs. A Student Internship Program will provide support for divisionally based internship programs that give students significant work experience and the opportunity to put theoretical education into practice before graduating. The Commerce Career Centre will continue to help the faculty respond to emerging needs and changing trends in on- and off-campus recruiting and the job market.

Asia Pacific Innovations Campaign (\$1 million)

This initiative will lead to the creation of Canada's pre-eminent centre for teaching and research on the dynamic business links that exist between North America and East and Southeast Asia today. The centre will encourage educational innovations in three main areas: curriculum revisions and

teaching techniques that integrate an Asia Pacific focus; research projects focusing on the region's dynamic economies; and outreach and exchange activities with Asia Pacific businesses, institutions and their leaders.

Affiliates Partnership Program

Goal: \$225,000 (annual operating)

Since 1984, the Faculty of Commerce and Business Administration's Affiliates Partnership Program has provided an opportunity for the business community to support excellence and innovation in business education. The program is now being expanded to provide a wider range of opportunities for support and recognition. Partner firms, alumni and other business friends are invited to support three crucial areas: the Dean's Innovation Fund, the Commerce Career Centre Operating Fund and the Teaching and Learning Enhancement Fund.

PROFESSORSHIPS

- Affiliates Professor of Management
(Daniel Granot)
- Canfor Corporation Professor of Management
Information Systems (Izak Benbasat)
- Finning Ltd. Jr. Professorship in Marketing
(S. Siddarth)
- Alumni Professor of Marketing
(Charles Weinberg)
- Advisory Council Professor of Marketing
(Gerald Gorn)
- Ghert Family Foundation Jr. Professor of Finance
(Raman Uppal)
- Ronald L. Cliff Jr. Professor of Accounting
(Joy Begley)
- Arthur Andersen Professor of Accounting
(Gerald Feltham)
- CGA Professor of Accounting (Dan Simunic)
- Edgar Kaiser Professor of Industrial Relations
(Peter Frost)
- Advisory Council Professor of Finance
(Alan Kraus)
- Bank of Montreal Professor of Finance
(Maurice Levi)
- A. E. Hall Professor of Finance
(Robert Heinkel)
- Finning Ltd. Junior Professor of Finance
(Vasant Naik)
- Ghert Family Foundation Jr. Professor of Finance
(Raman Uppal)
- W. J. Van Dusen Professor of Management
(Keith Murnighan)
- E. D. McPhee Professor of Management
(Kenneth MacCrimmon)
- Alumni Professor of Management Science
(William Ziemba)
- Advisory Council Professor of Management Science
(Frieda Granot)
- Advisory Council Professor of Management
(Martin Puterman)
- Asia Pacific Professor of International Business and
Public Policy (James Brander)

- Vinod Sood Professor of International Business Studies
(Ilan Vertinsky)
- Van Dusen Professor of Business Administration
(Tae Oum)
- Asia Pacific Professor of Trade Policy
(Barbara Spencer)
- UPS Foundation Professor of Regulation and Competition Policy
(William Stanbury)
- UPS Professor of Transportation
(Trevor Heaver)
- Hongkong Bank Professor of Asian Commerce
(Michael Gerlach)
- Peter Wall Distinguished Professor of Entrepreneurship and Venture Capital
(Raphael Amit)
- Herbert R. Fullerton Professor of Urban Land Policy
(Michael Goldberg)
- Real Estate Foundation Jr. Professor of Urban Land Economics (William Strange)
- William M. Hamilton Professor of Industrial Relations
(Mark Thompson)



STATUTES
OF
BRITISH
COLUMBIA
1891

STATUTES
OF
BRITISH
COLUMBIA
1892-93

STATUTES
OF
BRITISH
COLUMBIA

Law

Deans

George F. Curtis (1945-71)

Albert McClean (1971-76)

Kenneth Lysyk (1976-82)

Peter Burns (1982-92)

Lynn Smith (1992-)

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When UBC's first Dean of Law, George Curtis, came to campus from Nova Scotia in August, 1945, it was with the understanding that he would have a year to set things up. As it turned out, he had a little less than one month. His acceptance of President Norman Mackenzie's offer to build a law school in western Canada coincided with the end of the war and a subsequent flood of veterans to Point Grey. Said Curtis: "No sooner had I sat down than they were banging on my door. I tried to tell them to head east because we had nothing but they said they'd prefer to stick it out and take a chance here."

Justice Lloyd MacKenzie, former Attorney-General Robert Bonner and B.C. Lt.-Gov. Garde Gardom were among the first class of 86 students Curtis lectured in the university drama society's practice theatre located in Brock Hall North. Seven years later, Prime Minister Louis St. Laurent stood at the north end of campus and presided over the official opening of Canada's first building designed specifically for a faculty of law.

The George F. Curtis Building is now home to the second largest common law school in Canada. The school draws 180 students a year from across the country into its LLB program and about 50

students into its master's and PhD programs. Consistent with UBC's goal of contributing original intellectual thought to each of its academic offerings, the university introduced a rigorous, interdisciplinary PhD program in 1994.

At the time of Curtis's appointment, time and resources permitted little more than a bare-bones selection of course work and little in the way of faculty research. The faculty was ahead of its time introducing taxation and labour law in 1946. By the late 1960s, when first-year enrolment in law doubled to 236, economic and social pressures called for a revamping of the 23-subject curriculum

approved by the Law Society of Upper Canada a decade earlier. At UBC, these changes have resulted in one of the broadest legal curricula in the country. In 1995, the faculty celebrates its 50th anniversary.



"If you're not able to stand back from a body of knowledge and question basic assumptions in an area then you're not going to be innovative. Lynn Smith

Law Dean Lynn Smith says the present national and international character of the student population is a direct result of the breadth and depth of faculty research. Interests among the 44 full-time faculty run the spectrum of juridical categories and pertain to matters of provincial, national and international

concern. Research includes all traditional areas of public and private law, as well as new and more interdisciplinary fields. Legal systems as a whole, as well as particular aspects of legal systems, are investigated and analysed from various theoretical perspectives.

INTERDISCIPLINARY APPROACHES TO LAW

While Smith acknowledges that the primary function of law schools remains that of preparing students for legal practice, she believes the public's understanding of what law is, and what makes a good practitioner, has changed. Faculties of Law, she asserts, have an obligation to provide a healthy mix of interdisciplinary, comparative and theoretical legal study along with conventional legal scholarship. This requires a knowledge of legal doctrine, and an understanding of the social context in which legal concepts and principles are created, interpreted and applied. Says Smith: "If you're not able to stand back from a body of knowledge and question basic assumptions in an area then you're not going to be innovative. You may be a faithful craftsman, but you won't be at the cutting edge."

Joel Bakan is a faculty innovator whose work challenges critical legal theorists to incorporate elements of general social theory, as well as legal theory, in their analyses of liberalism in the law. At the age of 35, he is already one of the most accomplished constitutional scholars in the country.

Since coming to UBC from Osgoode Hall in 1989, Bakan has received a Teaching Excellence Award and a Killam Research Prize. A Rhodes scholar, Bakan's only time away from a university setting was during a 12-month stint as clerk for Chief Justice Brian Dickson in 1985, followed by a year with a law firm. It was during his period at the Supreme Court of Canada that the young scholar became

embroiled in constitutional legal theory, particularly as it relates to the Charter of Rights. Bakan's arrival in Ottawa was timed perfectly as decisions were pending on the major initial charter cases. Issues surrounding the right to strike, cruise missile tests and Sunday shopping were important not only for their social implications, but because it was through them that the court defined how the Charter should be approached.

In his Master's thesis from Harvard Law School, *Constitutional Arguments: Interpretation and Legitimacy in Canadian Constitutional Thought*, he examined the inherent problems of a non-elected judiciary making decisions about what elected branches of government can and cannot do. By using a critical legal studies approach, Bakan focused on the relationship between judicial decisions under the charter and the social dimensions of power within society.

Bakan's constitutional legal scholarship continues to deconstruct both traditional and modern theories of constitutional law and interpretation. Bakan's current research melds critical legal studies with Canada's tradition of political economy.

"I'm asking what it is about the social order that constrains the judicial interpretation process to come out with results that go one way rather than another given that the text of law could bear either interpretation," he says. These ideas are to be published in a book tentatively titled *Interrogating Rights: The Limits of Charter Litigation*.

INVESTIGATING CRIME

The faculty's research and publication strength in Criminal Law was confirmed in 1990 by the establishment of the International Centre for Criminal Law Reform and Criminal Justice Policy, a joint project of UBC, Simon Fraser University and the Society for the Reform of Criminal Law. Peter Burns, law dean from 1982-1991, says the initiative gives UBC a chance to help other nations develop

the criminal law sections of their legal systems. "It has been an enormous opportunity for our faculty members to be engaged in all aspects of the field," says Burns, a member of the United Nations Committee Against Torture. The centre is intended to be a world centre for criminal law, justice policy reform and learning, and has already attracted a steady stream of judges, scholars, community activists and legislators to campus for conferences and research. In 1993, for example, the centre hosted a gathering of top international policy-makers who discussed options for prosecuting alleged war crimes in the former Yugoslavia. The centre is the eighth co-operating institute in the United Nations' network of crime prevention and criminal justice, and draws heavily on UBC's law library. The library, a prime resource for faculty research, boasts a comprehensive criminal law collection among some 265,000 volumes of primary and secondary materials, including statutes, law reports and subordinate legislation from all Canadian jurisdictions, Great Britain, Australia and New Zealand.

The arrival of Richard Ericson, former director of the Centre of Criminology at the University of Toronto, has further strengthened criminal legal research on campus.

After a summer-long study of life at a B.C. federal prison in 1972, Prof. Michael Jackson deemed the Canadian penitentiary "an outlaw of the criminal justice system." Operating under their own set of legal rules, Jackson said prison officials meted out justice as they saw fit. Cancellation of visitor privileges, strip searches, transfers and lockups in "the hole" were often ordered on suspicion without reasonable cause.

On paper, prisons have undergone positive change since Jackson first began investigating the human rights cases of inmates 20 years ago. In 1993, Jackson took a 12 month sabbatical to see if purported changes have been adopted in practice.

"Prisons have their own folklore and customs which are very hard to change," said Jackson, whose study was funded through a Bora Laskin National Fellowship in Human Rights Research. "Time and time again I've observed that although a court may say things have been done differently, prison officials figure out a way to get around the law or interpret it at its minimal level."

Two developments—the enactment of the Canadian Charter of Rights and Freedoms in 1982 and the passage of an integrated act (Bill C-36) governing both corrections and parole—have had positive effects on the liberties and privileges of prisoners. Still, Jackson says most reforms addressing issues of fairness have been at the federal level. For the most part, provincial institutions still have their own officers deciding disciplinary measures rather than outside panels.

The big change in B.C. has been the introduction of four new prisons. By sitting in on disciplinary hearings, interviewing prisoners, guards, wardens and observing prison life, Jackson sought to find out if this new living environment translated into a new attitude towards human rights. Jackson's study focused on three federal and two provincial institutions in B.C., including the new correctional centre for women in Burnaby. He also visited the federal high maximum security institutions in Quebec and Saskatchewan which he calls "the deep end" of Canada's prison system.

Related criminal law research:

- The creation of a computer database on the Supreme Court of Canada Charter cases (Jerome Atrens)
- A sentencing database and electronic text on the law of sentencing (John Hogarth)
- Text on the Law of Homicide (Isabel Grant and Christine Boyle, SFU's Dorothy Chunn)

- Theoretical analysis of the processes of proof and decision-making (Marilyn MacCrimmon)
- Text on the law of evidence (Tony Sheppard)
- Text on criminal injuries compensation (Peter Burns)

WOMEN AND THE LAW

Lynn Smith, one of 11 women in the faculty, is UBC's first female dean of law. She has also helped open the field of feminist legal theory in Canada. Her own scholarly work during the last decade has centred on constitutional equality and human rights, civil litigation and evidence.

FEMINIST LEGAL STUDIES

Susan Boyd's route to becoming UBC's first Chair in Feminist Legal Studies was circuitous to say the least. Initially, it was history and sociology, not law, that captured Boyd's imagination as an undergraduate at Bishop's University. After finishing a paper on Canadian author, legislator, suffragist, and reformer Nellie McClung, Boyd was primed to pursue an academic career exploring the social history of women. However, a declining market for academic historians pushed her into law school at McGill. She was called to the Bar in Ontario, then opted for graduate study at the LLM level in International and Comparative Law at the University of London.

Boyd came into contact with the emerging literature on women and the law after she received an offer to teach law at Carleton University. Since then, she has co-edited an annotated bibliography of Canadian feminist perspectives on law, a publication she is currently updating. She has other published works in feminist legal theory, family law and especially child custody law.

Boyd came to UBC as the Visiting Chair in Women and the Law in 1992-93. She found a faculty in the process of change. There were no course offerings on women's issues or social theory during



*Susan Boyd, UBC's first
Chair in Feminist Legal Studies*

her student years, but at UBC she found growing research and curriculum in these areas. A compulsory first-year course, Perspectives on Law, features sections on historical, feminist, sociological, First Nations, comparative, economic and other theoretical approaches. Further study of feminist approaches is available in second and third year through a Feminist Legal Studies survey course as well as advanced seminars in feminist legal theory.

Boyd views her role as Chair of Feminist Legal Studies as reinforcing and strengthening what is already in place. "There is a perception that this area has been studied in detail and we've solved all the problems," she says. "It's true that women's issues have been examined for more

than a decade but there is still a lot of work to be done." Boyd is principal investigator for a three-year, SSHRC-funded project entitled, Challenging the Public/Private Divide: Women, Law and Social Change.

Related research:

- Ways that pregnancy and parental leave benefits reinforce traditional female roles within the family, while tending to exclude women who depart from traditional expectations of good mothering (Nitya Iyer)
- Examination of the relationship between childcare responsibilities, workplace supports, and career mobility for women and men in legal practice (Fiona Kay)
- Analysis of privatizing and gendered effect of funding social programs through the tax system, with particular attention to child support, child care and pension plans (Claire Young)
- The way in which the psychiatric paradigm operates when women with mental health histories come into contact with the child welfare system (Judith Mosoff)
- How mothers who are employed in the paid labor force are assessed in terms of their commitment to mothering when child custody disputes arise (Susan Boyd)
- Gender issues and the judiciary (Lynn Smith)

A LEGAL PERSPECTIVE OF THE PACIFIC RIM

UBC's Centre for Asian Legal Studies is a focal point for research in international and comparative law. As Canada expands its social, cultural and economic ties with East and Southeast Asia, it must also learn to deal with radically different systems of law and legal traditions. The centre provides courses in Japanese, Chinese and Southeast Asian legal studies.

The faculty inaugurated the program in Japanese legal studies in 1980. A first in Canada, the program

has developed rapidly and was recognized in 1986 by the provincial government under the Funds for Excellence in Education Program. The program has been under the directorship of Stephan Salzberg since 1987. Current research includes examinations of Japanese mental health law, the country's legal response to AIDS and a critical description of the Japanese juvenile legal system.

In 1994-95, Judge Asami Tejma of the Sapporo District Court became the fifth Japanese judge to take up a one-year residency at the faculty. UBC is among the small number of law faculties worldwide chosen by the Supreme Court of Japan to receive Japanese judges. They take part in course work, field observation and research in the courts. UBC's law library has the distinction of housing Canada's only Japanese language law collection.

The Chinese Legal Studies Program promotes scholarly exchanges with outside institutions. Under an agreement with the Faculty of Law at Beijing University, graduate students and professors from China visit UBC to conduct research on topics such as China and the GATT, Chinese and Canadian contract law and international legal issues related to Hong Kong. UBC recently finalized an exchange program with National Taiwan University. The program also has close ties with the law Institutes of both the Chinese Academy of Social Sciences and the Shanghai Academy of Social Sciences. Program director Pitman Potter, a Killam Research Prize winner, has an international reputation in the field and has written many articles and books on the Chinese legal system. His research focuses on administrative law in the PRC, Taiwan civil law, the development of securities markets in the PRC and Taiwan and conceptions of justice in urban Chinese communities of Shanghai, Hong Kong, Taiwan and Vancouver.

Ian Townsend-Gault, the centre's director, supervises the most recent focus of research, Southeast Asia. The program brings legal experts to campus for one semester from Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam. Townsend-Gault says most of the region's 10 countries are easily accessible to tourists but not necessarily to those wishing to do business. The program, funded by the Max Bell Foundation, helps the Canadian government and others to get answers to legal questions on environmental protection, exporting profits or joint ventures.

Since 1989, Ian Townsend-Gault has quietly helped ease tensions in the South China Sea where China, Taiwan, Vietnam, Brunei, Malaysia and the Philippines have staked claims to a curious outcropping of reefs, shoals and sand banks called the Spratly Islands. Friction over these islands is based on an unsubstantiated notion that they hide rich gas and oil reserves. Of international concern, especially to the neighbouring countries of Laos, Indonesia, Thailand and Singapore, is that the islands lie dangerously close to a major shipping lane linking the Indian and Pacific Oceans.

For Townsend-Gault, the situation poses an intriguing mix of environmental, international, marine and resource-based law, all areas in which he teaches and does research. He has led a six-member UBC team for four years on a project called Managing Potential Conflicts in the South China Sea. The project has spawned five informal workshops and four technical meetings on marine scientific research, resource assessment, ways of development and environmental protection. Talks on technical subjects will continue while meetings on legal matters and safety of navigation in the South China Sea have been approved. Despite keen interest from Australia, the U.S. and Japan, Canada remains the only non-regional participant allowed at the meetings. Townsend-Gault and his associates looked

after funding and research support across a range of international ocean law and policy issues. As the current phase of the project winds down, two further CIDA-sponsored opportunities have cropped up for Townsend-Gault. First, he has helped the Vietnamese government draft laws governing marine legislation in fisheries, petroleum, marine traffic, Law of the Sea and other issues. Through a second grant, Townsend-Gault will help Vietnamese officials use the legal system to protect human rights as the country moves toward a market economy.



Toasting the 1994 passage of the Law of the Sea Treaty are (from left to right): Dean emeritus George Curtis, a pioneer in Law of the Sea issues and 1995 recipient of The Ramon John Hnatyshyn Award for Law; Richard Paisley and Karin Mickelson, each of whom teach and conduct research in the field; and Ivan Head who, as foreign policy advisor to former Prime Minister Pierre Trudeau, was heavily involved in negotiating the United Nations treaty.

Related research in international law:

- Laws and policy regarding the repatriation of cultural property, including the art of indigenous peoples (Robert Paterson)
- Examination of current trends in international environmental law (Karin Mickelson)

FIRST NATIONS AND THE LAW

As with the faculty's Asian law initiatives, UBC's First Nations Law Program is unrivaled in Canada. Since 1975, UBC has graduated more than 100 Aboriginal LLB students. This represents approximately one-third of all First Nations law graduates in Canada. Forty-eight of the more than 700 students currently enrolled are of First Nations descent.

Retired provincial court judge Alfred Scow, winner of the 1995 National Aboriginal Achievement Award, was UBC's first aboriginal law graduate. Subsequent graduates include a negotiator for the Yukon Indians, a member of the B.C. Treaty Commission task force, a former vice-chief of the Assembly of First Nations in B.C., a legal advisor for the NCC during the Charlottetown Accord, tribal council lawyers and numerous private practitioners.

Lynn Smith sees the First Nations Law Program, as focused not only on Native students, their ideas and concerns, but also on the study of law related to First Nations issues. Her own concern is that the name of the program is often misleading. "Some think that aboriginal students somehow get a Native law degree however there is no such thing," says Smith. "They have to take the same courses, the same requirements to earn the same degree as any other student." Smith adds that course offerings relevant to First Nations communities, touching on international, criminal, self-government, treaty rights and economic development, are open to all students and not tailored specifically to First Nations students.

The recent additions of a First Nations clinical option and a national aboriginal law moot have further enriched the curriculum.

Related Research

Sentencing and the impact of the criminal justice system on First Nations people (Michael Jackson)

- How the Canadian child welfare system reinforces the privatized nuclear, heterosexual family in a manner that has a negative effect on the ability of First Nations mothers and poor mothers to retain custody of their children (Marlee Kline)
- Application of human rights law to tribal problems of indigenous peoples of the Chittagong Hill Tracts of Bangladesh as well as to tribal refugee camps in India and the State of Tripura (Douglas Sanders)

LAW AND TECHNOLOGY

The faculty began applying computer technology to law in 1986 with a co-operative venture between UBC and IBM. Today, research at the Faculty of Law Artificial Intelligence Research Project (FLAIR) is developing legal expert systems and new techniques of automatic legal text analysis, retrieval and generation. One program, in particular, may soon give lawyers instant access to every legal case in Canada.

The FLEXICON (Fast Legal Expert Information Consultant) receives cases on hard disc from the courts and instantly produces a summary of each case highlighting relevant areas of law. Given that all this information can then be copied onto a compact disc and that a single disc holds up to 400,000 pages of case material, lawyers could use a laptop computer to call up any Canadian case anywhere, anytime. "We look at the lawyer and this program as an integrated system," said Prof. Joseph "J.C." Smith. "The database can be seen as an extension of a lawyer's own memory of cases."

Smith, who has an LLB and a Secondary Teaching Certificate from UBC as well as a LL.M. from Yale, leads the FLAIR team of computer programmers and legal experts. He says that with so much legal

information already on hand, and so much more generated daily, it just isn't practical for lawyers to hunt through texts themselves. The legal profession, however, is still stuck in a paper world. Rather than receive monthly published reports of cases, Smith suggests firms update their own CD library every two weeks through a single service at minimal cost. He added that all Canadian cases cited since 1900 would probably fit onto about 10 compact discs.

Smith's research has centred for 30 years on connecting law and cognitive science. His work brings together aspects of philosophy, psychology, anthropology, linguistics and computer science and links them with the mind's conceptual processes. Apart from his work in legal reasoning and artificial intelligence, Smith is pre-eminent in the field of psychoanalytical jurisprudence. His fifth and most recent book in this area, *The Neurotic Foundations of Social Order*, brings to bear a feminist and psychoanalytical perspective on fundamental questions about our present social arrangements.

It was Smith's in-depth analysis of legal structures that formed the basis for the FLAIR project research in 1986. He devised a database capable of dissecting nebulous rules of law making them relate directly to the facts of a case. "By breaking it down into a hundred little rules, you can turn a fuzzy legal rule into a factual one," he explains. "That's what makes this form of analysis so effective."

While FLEXICON is a generic program adaptable to any kind of law, the UBC team has also developed expert computer systems that focus on whiplash, nervous shock, malicious prosecution, impaired driving, loss of future earnings and other areas of litigation. These expert systems determine possible causes of action based on factual information supplied by the user, and assess the likelihood of success and display relevant cases that support its predictions.

FUNDRAISING INITIATIVE

Support Endowment for the Chair in Feminist Legal Studies

Goal: \$300,000 (endowment)

The Chair in Feminist Legal Studies is one of only two such chairs in Canada. The chair strengthens the base of expertise in the Faculty of Law related to women and the law by expanding research and teaching in the area. The objective is to examine ways in which the legal system may fail to recognize or deal with the experiences of diverse groups of women, and to analyse possible social and legal change. A Support Endowment for the Chair in Feminist Legal Studies will fund activities of the chairholder, Prof. Susan Boyd.

Donors who contributed to establish the Chair in Feminist Legal Studies are Arthur Fouks, Q.C., Vancouver-area law firms, the judiciary and members of the legal community. Major donations to the chair were made through the John Grot Memorial Fund and the Estate of Mona Leith.

Support Endowment for the Nemetz Chair in Legal History

Goal: \$300,000 (endowment)

The Nemetz Chair in Legal History was established to conduct research, teach and publish on issues relating to legal history and the perspectives it offers contemporary law and society. The chair is named in honour of The Honourable Nathan T. Nemetz, retired chief justice of British Columbia and former chancellor of UBC. A Support Endowment for the Nemetz Chair in Legal History will fund activities of the chairholder, Prof. Wesley Pue. Scholarly work of the chair has direct relevance to public policy formation in areas such as labour law, federalism and the Charter of Rights. Teaching activities help produce better-informed law graduates, able to understand the importance of legal history and its impact on today's laws.

Donors to the Nemetz Chair in Legal History include Vancouver area law firms, the judiciary, members of the legal community and interested individuals and businesses.

Centre for Communications Law and Cultural Studies

Goal: \$5.5 million (endowment)

\$250,000 (operating)

The prime purpose of the Centre for Communications Law and Cultural Studies will be to find solutions to the new challenges facing the legal system in the face of technological innovation and social change. The centre will foster exploration, in research and teaching, of the intersection between law and communications and between law and cultural transmission.

First Nations Law Program

Goal: \$150,000 (endowment) \$ 50,000 (operating)

The First Nations Law Program allows the faculty to be more accessible and relevant to First Nations students and others who want to understand the broader implications of First Nations issues in Canada. A \$150,000 endowment, combined with an operating goal of \$50,000, will help provide funding for an administrator, an academic support officer and a resource centre, in support of the program maintaining and enhancing its strengths. The administrator position will enable the director of the program to devote less time to administration and more to the program's academic core. Given the different cultural approach First Nations students bring to the study of law, an academic support officer will make a tremendous difference via tutorial and other assistance.

Clinical Program**Goal: \$225,000 (endowment)**

A new Clinical Program will provide students with an opportunity to explore, in a clinical setting, the functioning of law and the legal system in relation to those members of society who are socially, economically or politically disadvantaged. Under the supervision of the clinical faculty, students will work with individuals and groups on test cases, planning issues and individual service cases. The two initial themes for this program are First Nations and immigration and refugee law.

Endowment for Graduate Fellowships**Goal: \$750,000 (endowment)**

The faculty's graduate complement has risen to 35 LLM students and seven doctoral students, and will expand further. With the growing number of graduate students, the faculty must increase funding available for fellowships or risk losing good students to other, better-funded programs. In order to meet these objectives, the faculty will seek funding for an Endowment for Graduate Fellowships.

Faculty Scholars Awards**Goal: \$168,000 (endowment)**

The Law Class of 1968 has made a commitment to provide an award of \$5,000 to allow a faculty member to defray research expenses. This award is made by the dean on the advice of the Research Committee. The faculty encourages Faculty Scholars Awards as a means of recognizing the faculty's commitment to research and as a vehicle for supporting modest research projects.

Endowment to Support Visiting Scholars**Goal: \$165,000 (endowment)**

An Endowment to Support Visiting Scholars will provide funding for visits by academics who enrich programs of teaching and research. The Faculty Seminar Program will be greatly enhanced by a regular source of funds to pay the travel expenses of visitors who present seminar papers to faculty members and graduate students. The endowment will also support guest lectures on topics of general interest or special presentations in particular courses.

The visiting scholar program currently includes the Mc.K. Brown and Walter S. Owen visiting professorships.

Faculty Endowment Fund**Goal: \$1 million (endowment)**

The Faculty Endowment Fund will provide support for projects of general benefit to the faculty. These include student activities, such as conferences and the competitive moot program; faculty research projects; equipment purchases; and other needs.



“For some reason, it seems to be easier to make the case for the advancement of knowledge in the natural sciences as the mission of the university than it is to assert that research and scholarly discovery in the humanistic disciplines are necessary parts of the same mission, and easier still to make the case for applied research in medicine or in engineering than for the basic research underlying these professional activities.”

The Idea of the University: A Re-examination (1992), Jaroslav Pelikan

Universities give students the opportunity to study with scholars who are extending the frontiers of knowledge. UBC's recognized success in research is directly related to the spirit of collegiality that has existed among students and faculty for the last 80 years. If social sciences and humanities represent the core of university research, then it is essential that we nurture this collegial spirit in the midst of new realities created by science and technology. This report gives a snapshot of how social sciences and humanities research provides society with guidelines for adapting to change.

During the last decade, UBC has maintained a top ranking in Social Sciences and Humanities Research Council grants awarded to full time faculty. We will continue to increase the scope and intensity of research in these areas by completing endowments for various centres and appointments to endowed chairs, and by continuing to raise

funds in support of academic priorities. Priorities have taken physical shape in projects such as the Morris and Helen Belkin Art Gallery and the Jack Bell Building for the School of Social Work. Ground-breaking ceremonies were held at the end of 1994 for the Chan Centre for the Performing Arts and the Walter C. Koerner Library, enterprises that promise to invigorate the academic, cultural and social life on campus.

On April 29, 1992, the David Lam Management Research Centre became the first building opened under the World of Opportunity Campaign banner. It is just one of the many campaign projects that benefited from the Universities Matching Program initiated by the government of British Columbia. Support from the provincial government, the single largest donor to the campaign, was crucial to ensuring that the private sector became full partners in our efforts.

The campaign's success has initiated a period of growth on campus not seen since the post-war boom under President Norman MacKenzie.

The World of Opportunity Campaign was instrumental in increasing endowments, chiefly in scholarships and in the faculties. Funding is now complete for 53 chairs at \$1 million each and 20 professorships at a minimum of \$250,000 each. Endowments provide faculties with more than \$10 million in annual revenue. These endowments ensure a legacy of first-rate scholarship, teaching and learning.

The Hampton Place residential development, through the UBC Real Estate Corporation, has donated \$36 million to the university. Of this, \$15 million has been allotted to an endowment fund for research in the social sciences and humanities. Of the remainder, \$10 million has been assigned as endowment principle to support activities in the Institute of Advanced Studies.

One of nearly 100 academic initiatives produced by the campaign is a \$15-million gift from Vancouver financier Peter Wall to establish an Institute for Advanced Studies. The first of its kind in Canada, the institute will have renowned scholars undertaking thematic enquiries into topical cross-disciplinary issues. A call for proposals has been circulated on campus for thematic research programs to be associated with the institute. Major chairs (\$3 million each) will be funded as the first element of the Peter Wall gift. The first chair will be held by Nobel Laureate Michael Smith and the second by Raphael Amit. They will be known as Peter Wall Distinguished professors.

Yet another exciting development is the establishment of a School of Journalism. Journalists need specialized knowledge and sophisticated research skills to complement their technical writing abilities. The school's graduate program will combine graduate study in established academic disciplines with advanced training in the profession. Emphasis will be placed on scholarly understanding, critical thinking and ethical responsibility to achieve the highest professional standards.

UBC, in its changing relationship with government, industry, educators and community groups, must continue to demonstrate that social sciences and humanities research is essential to solving today's most pressing problems. One challenge is the promotion of critical human sciences within traditional disciplines to produce a thoughtful and informed society. So too, interdisciplinary research must be recognized as an insightful and sensitive way to address society's problems.

UBC's Visiting Scholars Programs—the J. V. Clyne Lecture, Dal Grauer Memorial Lectureships, Leon and Thea Koerner Lectureship, Hugh Bostock Memorial Lectureship, Cecil and Ida Green Visiting Professorships and others—serve as a key resource for intellectual stimulation and community outreach. Visiting scholars provide new insights and new ideas from cultures around the world.

UBC Press has been keeping the campus and wider community in touch with topics pertinent to British Columbia, the Pacific Rim, Canada and the Canadian North for nearly 25 years. It is Canada's third largest university press, having published close to 400 books and adding between 20 to 25 new titles each year. The press's publishing program reflects the diversity and vigour of UBC's faculty.

On the interdisciplinary front, the university is undergoing processes of internationalization, knowledge and technology transfer, policy oriented research and greening the campus. A proposed Risk Studies Institute illustrates the university's commitment to innovative research. This initiative will link practitioners who deal with issues surrounding drug therapy or environmental hazards with researchers who are actively studying how people perceive, evaluate and manage risks. The creation of a Life Skills Motivation Centre, headed by Rick Hansen in the Institute for Health Promotion Research, is yet another example of UBC innovation. Centre programs will include workshops, seminars, a public school program and speaking tours to help people in the community improve the quality of their lives.

Universities exist for the pursuit of excellence as defined by international standards of scholarship. *The President's Report on Social Sciences and Humanities*, representing only a portion of research in associated fields, exhibits UBC's success in this pursuit. It also demonstrates that societal challenges and academic opportunities bear little relationship to our present academic structure. The report shows how activities in one faculty are enriched through knowledge and information sharing with those in others. Some of the most important research in modern times is conducted in areas that bridge traditional academic disciplines. Ethics, health economics, agri-business, hi-tech management, women's studies, race relations, First Nations—successful research in these and other developing areas of inquiry depend on resources and knowledge drawn from scholars campus-wide. A current project called Electronic Games for Education in Math and Science (E-GEMS) is a prime example. Linking education faculty with colleagues in the Department of Computer Science, it brings

together scientists, mathematicians, educators, professional game developers, children and classroom teachers to learn more about electronic games and their potential in Grades 4 to 8.

The same holds true for those professional schools that share intellectual and scholarly affinities with other faculties. Law and First Nations issues or the linking of computer science technology with fundamental business concerns in commerce are two such cases.

The introduction to this report states that the purpose of humanities and social sciences is to provide people with a deeper understanding of themselves and others. The 1965 Discipline and Discovery document alluded to a critical need for diversity and richness of understanding in post-secondary education. If biodiversity is a valid objective for environmental conservation, then human diversity is equally valid for maintaining earth as a home for all people.

UBC's Mission Statement promises that the university will carry out research at the forefront of human knowledge in a wide range of fields. UBC is dedicated to continuing its role as a prime resource in social sciences and humanities research for the province and the nation.

*"To be a world renowned
institution of higher education
and research"*



INSTITUTIONAL INITIATIVES

Completion of Phase One of The Walter C. Koerner Library

The UBC Library is one of the top research libraries in Canada and has the highest circulation rate of any research library in North America. As well as providing a key resource to students and faculty, the Library is an important link between UBC and the community. Non-UBC users account for a significant portion of the Library's use. The collection is valued at \$400 million, but much of it is irreplaceable.

To keep pace with advancing knowledge, the Library adds 90,000 volumes annually, equivalent to one additional mile of storage each year. The new \$24-million Walter C. Koerner Library, designed by world-renowned architects Aitken Wreglesworth/Arthur Erickson, will help address the urgent need for more space to house the expanding collection, for new storage systems and for technology to help users access the Library's world-wide networks.

Major donors to the Walter C. Koerner Library include: Walter C. Koerner, Imperial Oil Ltd., Placer Dome Inc., BC Hydro, CIBC, Bank of Nova Scotia, Shell Canada Limited, Toronto Dominion Bank, RBC Dominion Securities Pemberton, Canada Trust, BC Gas Inc., Sun Life Assurance Company of Canada, Mr. and Mrs. Vicwood K.T. Chong, Pratt & Whitney Canada and BC Sugar.

Chan Centre for the Performing Arts

The Chan Centre for the Performing Arts will draw local and international audiences to the UBC campus. Adjacent to the heritage rose garden at the north end of campus, it will feature: the Chan Shun Auditorium, a concert hall with a seating capacity of 1400; a studio theatre, with 200 seats; and a 150-seat film cinema. The Chan Family Foundation has funded the new facility. In addition, BC Tel, the Royal Bank and Falconbridge Ltd. have made major gifts in support of the centre.

First Nations Longhouse

The First Nations Longhouse, the focus of First Nations student activities at UBC, opened May 25, 1993. Since the 1970s, UBC has been working to increase the representation of First Nations students on campus through programs such as the Native Indian Teacher Education Program, the Native Law Program, the First Nations Health Care Professions Program and the Ts'kel Graduate Program at the First Nations House of Learning. Currently, there are approximately 250 First Nations students at UBC, primarily in the faculties of Education and Law. That figure is expected to reach 1,000 by the next decade. The First Nations Longhouse is the first west coast longhouse constructed as an integral part of a university campus. It is the focus of First Nations student activities at UBC. Jack Bell and June and Bill Bellman are major contributors to the project.

First Nations House of Learning Library Goal: \$900,000 million (equipment endowment and collections)

UBC's goal is to increase the current First Nations student population of 300 to 1,000 by the next decade, while promoting the sharing of knowledge between First Nation cultures and other cultures. One means of accomplishing this goal is through expanding and improving the educational and research resources of the library.

The First Nations House of Learning Library is one of a very few of its kind in Canada which collects and houses materials produced by First Nations. The library, which is responsible for providing curriculum and research support for UBC First Nations programs, as well as information and assistance to UBC students, faculty and staff, will expand services to First Nations communities and the community at large.

Elders in Residence Endowment

First Nations House of Learning

Goal: \$1.5 million (endowment)

First Nations Elders are considered the keepers of traditional cultural knowledge, and are greatly respected for their role as teachers and mentors.

Through an Elders in Residence Endowment, First Nations Elders will be invited to campus to teach and counsel using the oral traditions. The program will provide for the oral transfer and documentation of history, culture, language and spirituality; counselling and advising services as traditionally provided by the elders; an informational resource for non-First Nations students, faculty and staff; and living archives to complement the paper archives presently being developed by the First Nations House of Learning.

Computer Laboratory

First Nations House of Learning

Goal: \$100,000 (equipment)

Quality post-secondary education requires access to computers and international computer networks. The First Nations Longhouse, home to the House of Learning, has allocated space for the necessary hardware, software and connection required to equip First Nations students to access the UBCNET.

Establishing a computer laboratory will ensure that First Nations students advance with their non-First Nations peers in the area of computer and information literacy. It will also ensure that faculty and staff of the House of Learning develop the essential skills to provide maximum assistance to students.

PREVIOUS PRESIDENT'S REPORTS

- 1986
Engine of Recovery
- 1987
Report on the Library
- 1989
Toward the Pacific Century
- 1990
Creative and Performing Arts
- 1992
UBC: B.C.'s Centre of Teaching and Research in the Health Sciences

AREAS COVERED IN THIS REPORT

FACULTY OF ARTS

Departments and schools

Anthropology and Sociology
Asian Studies
Classics*
Economics
English
French
Geography
Germanic Studies
Hispanic and Italian Studies
History
Linguistics
Philosophy
Political Science
Psychology
Religious Studies*
School of Library, Archival and Information Studies
School of Social Work

* Combined into Department of Classical, Near Eastern and Religious Studies as of July 1, 1995

Interdisciplinary Initiatives

Arts One Program
Centre for Research in Economic and Social Policy
Women's Studies Program
Museum of Anthropology

FACULTY OF EDUCATION**Schools and departments**

Educational Studies
Curriculum Studies
Counselling Psychology
Educational Psychology and Special Education
Language Education
School of Human Kinetics

Interdisciplinary Initiatives

Centre for Applied Studies in Evaluation
Centre for the Study of Curriculum and Instruction
Centre for the Study of Teacher Education
Centre for Policy Studies in Education
Child Study Centre

FACULTY OF GRADUATE STUDIES**Schools, Institutes and Centres**

Institute of Asian Research
Centre for Japanese Research
Centre for Chinese Research
Centre for Korean Research
Centre for South Asian Research
Centre for Southeast Asian Research
Centre for Applied Ethics
Centre for Human Settlements
Westwater Research Centre
School of Community and Regional Planning
Institute of Health Promotion Research
Life Skills Motivation Centre
Institute of International Relations
Sustainable Development Research Institute
Center for Transportation Studies
Fisheries Centre

Peter Wall Institute for Advanced Studies
International Relations Program
Centre for Research in Women's Studies
and Gender Relations
Green College

Journals

B.C. Studies
Canadian Literature
Pacific Affairs

**FACULTY OF COMMERCE AND
BUSINESS ADMINISTRATION****Divisions**

Accounting
Finance
Industrial Relations Management
Management Information Systems
Management Science
Marketing
Policy Analysis
Transportation
Urban Land Economics

Centres and Bureaus

Centre for International Business Studies
W. Maurice Young Entrepreneurship and
Venture Capital Research Centre
Centre for Labour and Management Studies
Bureau of Asset Management
Canadian Real Estate Research Bureau

FACULTY OF LAW

Centre for Asian Legal Studies
The International Centre for Criminal Law Reform
and Criminal Justice Policy
First Nations Law Program
Feminist Legal Studies
Faculty of Law Artificial Intelligence
Research Project

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