

PETER WALL
INSTITUTE FOR
ADVANCED
STUDIES

ANNUAL REPORT
2001-2002

The Peter Wall Institute for Advanced Studies supports basic research through interdisciplinary initiatives that have the potential to make important advances in knowledge. The Institute brings together researchers from The University of British Columbia with distinguished scholars from around the world to conduct fundamental research drawing upon and contributing to a wide range of diverse disciplines. The Institute aims to create a community of scholars, composed of outstanding researchers across the whole campus, who will contribute significantly to the intellectual life of The University. Of overriding concern in all Institute activities is excellence in research characterized by being fundamental, interdisciplinary, innovative, and unique.

Board of Trustees
Peter Wall Institute
for Advanced Studies
April, 1998

PETER WALL INSTITUTE FOR ADVANCED STUDIES

Annual Report 2001 – 2002

(July 1, 2001 – June 30, 2002)

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DIRECTOR'S MESSAGE

THIS YEAR IS A GOOD TIME TO TAKE STOCK OF THE STATE OF THE INSTITUTE. IT HAS BEEN SIX YEARS SINCE I BECAME DIRECTOR AND I WILL BE LEAVING AT THE END OF THIS CALENDAR YEAR. IT HAS BEEN

a wonderful experience in many ways.

I am particularly happy about the outstanding researchers who have been drawn to the Institute and how we have provided unique research support through innovative programs. When Peter Wall made his original gift establishing the Institute, he stressed the importance of funding people and programs. I'd like to take a look at those key elements but they are so intertwined that it is difficult to sequence them. Great programs bring in excellent people; outstanding people create wonderful programs.

The people directly associated with the Institute represent the research elite of the University. There are currently about two hundred UBC Faculty Associates representing some of the most distinguished researchers at the University. One becomes a Faculty Associate by receiving a competitive thematic award, such as being Principal Investigator on an Exploratory Workshop, or being selected for an individual award, such as a Distinguished Scholar in Residence. Those researchers who serve on one of the Institute Committees also become Faculty Associates. Thus being a Faculty Associate is not a purely honorary position, it is earned. There are Associates from all twelve Faculties with 66 from the Faculty of Arts, 48 from the Faculty of Science, 31 from the Faculty of Medicine, and smaller numbers from the other Faculties. Remarkably, they are almost evenly balanced between faculty primarily oriented toward the Humanities and Social Sciences (94) and toward the Sciences

and Medicine (108). This balance of representation has naturally emerged and demonstrates the pervasive role of the Wall Institute across all disciplines. The table below gives approximate statistics, program-by-program, of the disciplinary distribution. Though some programs have emphasized the Arts (Humanities and Social Sciences) while others have had a higher involvement from the Sciences, overall there is a remarkable balance.

PROGRAM	ARTS	SCIENCE
Major Thematic Grant	15	35
Exploratory Workshops	17	16
Visiting Junior Scholars	33	14
Early Career Scholars	27	23
Distinguished Scholars in Residence	14	6
Faculty Associates	94	108
Talks by Faculty Associates	41	31

Another balance that is very important to the Institute, and is personally gratifying to me, is the distribution of senior and junior researchers associated with the Institute. Given that a key objective has been connecting to the most distinguished researchers, it should not be surprising that the Institute Associates include many of the outstanding senior researchers. However, it has been a personal mission of mine to also attract excellent junior scholars. So, to me, the most significant recent development has been the increasing emphasis on programs directed at scholars in the early stages of their careers. We have two such programs – one directed at UBC faculty and the other at visiting scholars. In previous reports I have enthusiastically described the Visiting Junior Scholars program so, in this message I provide some details about the UBC Early Career Scholars program.

During the period covered by this Report, the first year (2000-2001) of the Early Career Scholar (ECS) program came to a successful conclusion, the second year cohorts (2001-2002) have been particularly active, and the selections for the third year (2002-2003) are extremely promising. The 2001-2002 program started with separate two-day weekend retreats in September for the Assistant Professors and the Associate Professors. At the

retreat, each participant described his/her research and a lively discussion of each ensued. After further meetings in October and November of the separate cohorts at which various research issues were discussed, the two cohorts met together in January. At this joint session, very diverse groups were formed and challenged to come up with a research proposal that would involve everyone in the group. The four groups had the following mix of disciplines: (a) electrical engineering, landscape architecture, near-eastern studies, philosophy; (b) computer science, medical genetics, music; (c) law, mechanical engineering, medical family practice; and (d) economics, human kinetics, law, psychology. Not only did each group generate meaningful connections among their research but each also developed a very viable research proposal. In fact one of them (Maps: Here, Then, and Now) was subsequently submitted to our regular Exploratory Workshop competition, was reviewed highly, and was funded. Other exciting meetings were held during the spring and then in early June we had a lab crawl involving both the 2000-2001 and 2001-2002 cohorts. We started with Carolyn Brown (Medical Genetics), then we moved on to François Jean (Immunology), Karon MacLean (Computer Science), Elizabeth Croft (Mechanical Engineering), Patrick Keeling (Botany), Jorg Bohlmann (BioTech Lab), Alan Kingstone (Psychology), and ended with Richard Kurth (Music).

In the new ECS competition (to begin in September), we were overwhelmed with more than 30 applications at the Assistant Professor level and the quality was very high. However, despite the outstanding two previous cohorts of Associate Professors, we received only six applications at the Associate Professor level. The selection process would have reduced the program size to less than a critical mass, hence this part of the program was suspended for the year. This change made it possible to expand the Assistant Professor cohort. We initially planned to have 10, then moved it to 12 but the applicants were so good that we decided to appoint 16 Assistant Professors. Specific information on these individuals will appear in next year's Report.

The July 2001 Visiting Junior Scholars program was a particularly good one. All participants engaged fully with the program and there were very productive exchanges of ideas. As usual the composition was diverse in terms of both disciplinary interests and geography. An unanticipated outcome of this



Ken MacCrimmon, Director
Peter Wall Institute
for Advanced Studies

year's gathering was a different type of engagement – two of the participants, Grace Moore (Literature) from England and Andrew Robinson (Forestry) from Australia announced their plan to get married early in 2003. For July 2002, we have another excellent group of candidates. Again, being limited by the number of residential rooms (we can accommodate a maximum number of eleven) some excellent candidates could not be invited. There will be an extra bonus this summer for the Visiting Junior Scholar program. We have invited back all the previous VJS cohorts for a one-week interdisciplinary symposium/reunion at the end of July. We expect more than 50% of past VJS to participate.

It is worth re-emphasizing that these two programs (ECS and VJS) are completely non-thematic. We aim for the best and the brightest stars of the future, bringing them together to share ideas and research approaches without regard for fitting people to themes or disciplinary representation. It is always amazing to see how such diverse scholars find common ground and can benefit in the two-way exchange: telling others about their research and learning about that of others.

Another non-thematic program is our Distinguished UBC Scholars in Residence. Because this program runs on a calendar year, our Annual Report spans two cohorts. The 2001 cohort included Tony Barrett (Classical Studies), Jack Foster (English), Dale Rolfsen (Mathematics), and Linda Siegel (Education & Counselling Psychology). Our weekly meetings were very lively and it was great fun developing connections among very diverse research areas. An extra element that contributed to the interaction was the participation by the visiting Associates, chosen on a random basis from applicants to use, on a three month basis, the office that had been occupied by Michael Smith. The four Associates in residence during the period covered by this Report were: Mohan Matthen (Philosophy), Michael Healey (Earth & Ocean Sciences), Laurie Ricou (English), and Max Cameron (Political Science).

The new cohort of Distinguished UBC Scholars in Residence moved in at the beginning of 2002, despite threats from the 2001 cohort that they might chain themselves to their desks. The current group is composed of Michael Church (Geography), Dennis Danielson (English), David Jones (Zoology), and Dianne Newell (History). The

organized weekly discussion session, and the many informal ones, have ranged over many subjects and everyone feels that they learn a great deal from the research and perspectives of the others. Especially noteworthy in this cohort is that the arts people are involved in science topics and vice versa. Dianne's talk to the Associates was about science fiction and Mike's was on many aspects of river channels, specifically Fraser River. Dennis and David will give their talks in the fall, with Dennis talking about Copernicus and the cosmos, and David discussing English cathedrals. It is an amazing group.

In an exciting development, at the April Trustees' meeting, the Peter Wall Distinguished Professor program was reinstated. President Martha Piper, who is chair of our Trustees, made it clear that she considered this position to be the most prestigious faculty appointment at UBC. Brett Finlay was chosen for the position. Because the position will not formally begin until July 1, a detailed description of Brett will be deferred until next year's Annual Report but let me note here that his research record is remarkable. It is particularly appropriate, although not the basis for the choice, that Brett was brought to UBC by Michael Smith. As of July 1, Brett will move into the office formerly occupied by Michael Smith. Having him in residence should enhance the developments at the Institute, as it did when Michael was here.

The Faculty Associates gatherings held every two weeks continue to be a prime vehicle for distinguished researchers across the University to meet on a regular basis. Attendance has increased every year so that now we typically get 30 for lunch and 50 for dinner. In addition to the formal talks, the opportunity for informal conversation at the reception, during the meal, and over dessert and coffee after the talk is highly valued. It serves as a prime forum to bring together diverse disciplines and geographically dispersed Associates; for those at the Vancouver Hospital site it can be an important connection to the main campus.

The programs described so far are those that, for lack of a better label, we have been calling "residential". That is, they are people-based programs in which excellent researchers are invited to be in residence (of varying intensities) with others chosen on the same basis. While there are very specific activities intended to bring people together, there is no

*We can't solve problems by
using the same kind of thinking
we used when we created them.*

ALBERT EINSTEIN

specific joint end-product that is expected and there is no specific research topic or “theme” that binds them together.

The Major Thematic Grant program is at a critical stage. The “Crisis Points” and the “Electron Motion” projects have ended, the “Narratives” and the “Pathogenomics” will be concluding in the fall, and “Acoustic Ecology” has one more year to run. In many ways they have been very successful. Our \$500,000 grants over three years have allowed the creation of new interdisciplinary groups that otherwise would not have existed. A number of significant research contributions have been made and have had a broad impact. Our funding has provided the basis for major on-going projects. For example, just this spring the Pathogenomics group received an award from Genome Canada for \$27 million and various individuals on the project have received major funding that can be attributed to our “seed” money. That being said, it is important to consider whether we can afford that level of funding for a specific project when the budget we have to operate on has significantly decreased. Assuming the program continues, in the future it seems likely that instead of expecting to make one award a year (thus three projects in steady state) the target may be more like one award every two or three years. It has always been a competitive program with only about 10% of the applications funded but it is likely to become even more so.

The Catalytic Visitor program has been suspended due to financial limitations as well as the lack of viable applications.

The Exploratory Workshops, on the other hand, will probably continue at about the same level as in the past. This program is very cost effective with the average Workshop costing us about \$20,000 (i.e., our base level of \$15,000 and matching money of about \$5,000). We have been funding 8-10 per year and should be able to continue at that level. The application success rate is about 50%. It is important to note that we encourage applicants to submit drafts of proposals to us for feedback so that we can help them to be as strong as possible. Having the opportunity for prior review also helps to make the meetings of the Adjudication Committee more effective because there is some assurance that the issues of concern will be addressed. The Committee deliberations themselves are a great learning experience because all twelve UBC Faculties are represented on the Committee by some of their best researchers

(with larger Faculties having proportionately more members). Everyone on the Committee assesses all the proposals. It is quite amazing to observe the good questions raised by the Arts people on the Science proposals and vice versa. Some very exciting Workshops have been funded this year. Each one is described in detail later in this report so I will not elaborate on them here.

It is the thematic programs that provide the biggest international impact. For example, every Exploratory Workshop brings to UBC an average of ten non-UBC experts. In virtually every instance significant numbers of these outstanding researchers are brought from outside North America. A key push from the Director and the Adjudication Committee is to make sure that the best international experts are brought to UBC. Not uncommonly, the initial EW proposals list as proposed participants the past collaborators of the PIs. Before any proposal is funded, we try to establish that the best experts in the world are being drawn in, whether they have been past collaborators or not.

Before leaving the discussion of people and programs, I would like to pay special tribute to the Advisory Committee of the Institute. Shortly after becoming Director I asked some of the most outstanding researchers at UBC if they would form an advisory group that would provide advice on any academic matters facing the Institute. Michael Smith chaired the Committee from 1996 until his death in October 2000 and then Brett Finlay became Chair immediately after that. I have tried not to burden them with trivial matters but on the major issues, the Advisory Committee has provided excellent support throughout the whole period. It is my belief that academic concerns affecting the Institute should be dealt with by academics and this group has constantly been there when needed to reinforce the academic integrity of the Institute.

I noted in last year's Report that the budget of the Institute has shrunk due primarily to the shortfall in the dividends expected on the shares in the Peter Wall Endowment. Over the past year there has been another financial crunch. When the Wall Financial Corp. shares were donated in 1991 an associated debt had to be paid. The result was a loan that matured in June 2001 with the Institute facing the payment of \$5.5 million. It has been arranged to repay the loan over a period of ten years but the \$550,000 each year will only kick

*Today the gap between
"The Two Cultures" is wider
than ever. Experts rarely talk
outside their specialties, much
less across the cognitive divide.*

SCOTT MCLEEMEE

in if the level of WFC dividends exceeds our core funding of \$650,000 and there will be no interest charges that will be incurred. However, without funds from other sources, we may be able to fund only core programs in the near future.

The staff is unchanged. Katie Eliot continues to do an excellent job on the bookings and other secretarial tasks. Chris McGill is a superb administrator. Dale MacCrostie makes great contributions on all matters affecting computers and web sites. To some extent, everyone gets involved in all aspects of our academic and non-academic operations; it is a terrific team effort.

In April 2001 my term as Director, which had expired several weeks before, was extended to the end of December 2002, which is when I face mandatory retirement. Confronting the prospect of having to leave the Institute, I investigated some other options and applied for and was chosen as Director of the Social and Economic Sciences Division at the (U.S.) National Science Foundation. The plan had been for a gradual transition to NSF by July 2002 but experiences in long-distance working arrangements starting in Fall 2001 made it clear that it would be necessary to choose one or the other. I opted to return to UBC to remain as PWIAS Director through 2002. The search for a new Director will be initiated only this summer.

I look forward to the External Review of the Institute later this year that I hope will set the base for the recruitment of an outstanding Director who will take the Institute to new levels. The past six years have been a wonderful opportunity. The people have been remarkable. Supporting outstanding research has been gratifying. I hope that there will be some lasting impact. In the short run, the people that have been brought together and the projects that have been funded have had a significant impact on the research culture at UBC. Over the long run the impact could be much larger. For example, twenty years from now, if several hundred of the people who then form the research elite of the University have participated in our Early Career Scholars program and thus will have interacted across the campus from the beginning of their faculty careers, the University can be a very different and exciting place.

Thus, this is my last Director's message. The opportunities have been unique and I'm very grateful for being here.

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PROGRAMS

THE PROGRAMS OF THE INSTITUTE CAN BE GROUPED INTO TWO BROAD CATEGORIES: THEMATIC AND RESIDENTIAL. THEMATIC PROGRAMS INVOLVE ESTABLISHING AN OVERALL RESEARCH THEME IN WHICH SCHOLARS WITH THE RELEVANT EXPERTISE ARE GATHERED TOGETHER.

The Major Thematic Grant program provides funding of up to \$500,000 over three years to a broadly-based multi-disciplinary team. The first award was made in 1996; a total of five have been made to date.

In 1997 the Exploratory Workshop program was developed to lead into the Major Thematic Grant. Exploratory Workshops provide funding for top UBC researchers to come together with outstanding experts from around the world to explore the possibilities of developing a research agenda in a new field. This allows the UBC participants to draw upon, and perhaps draw in, the most outstanding researchers worldwide.

The Theme Development Workshops are the third thematic program. These sessions involve making our facilities available on an informal basis to groups of UBC faculty who want a focal point for attracting colleagues to work with them in the initial stages of probing a thematic topic. This sometimes occurs in preparation for an Exploratory Workshop application. It should be noted that all these thematic programs are of a “bottom up” form, in that UBC faculty are encouraged to propose the thematic topic that they want to work on – the themes are not created as fundable topics by the Institute.

*All great truths began as
blasphemies.*

GEORGE BERNARD SHAW

Major Thematic Grants

The Major Thematic Grant (MTG) provides \$500,000 over a three-year period to an interdisciplinary team of UBC and external scholars pursuing research in a new area. This research must be basic, and have the potential to provide new theoretical knowledge. Applications are accepted from UBC faculty in the spring and fall of each year, and are first appraised by an internal Adjudication Committee drawn from top researchers in all Faculties at UBC. Short-listed proposals are then evaluated by at least ten international external experts. It is expected that MTG applicants will have first applied for and received an Exploratory Workshop, or the equivalent.

Project Updates

Three major thematic grants were ongoing this year: *“Pathogenomics: An Interdisciplinary Approach for the Study of Infectious Diseases”*; *“An Interdisciplinary Inquiry into Narratives of Disease, Disability and Trauma”*; and *“Acoustic Ecology”*.

“Pathogenomics”, led by Principal Investigator Ann Rose (Medical Genetics, UBC), is completing its third and final year (2002) of funding from the Peter Wall Institute. However, as a direct result of the research initiated under the Institute’s major thematic grant, the Pathogenomics research team has been awarded a \$27 million multi-year grant under the **Genome Canada Pathogenomics Project**, beginning in 2002.

Genomics and bioinformatics provide powerful new tools for the study of microbial pathogenicity, hence the development of a new field, Pathogenomics. This project utilizes a combination of informatics, evolutionary biology, microbiology and eukaryotic genetics to identify pathogen genes that are more similar to host genes than expected, and likely to interact with, or mimic, their host’s gene functions. In addition, potential pathogenicity islands in genomes are being identified. A database of these genes is being built, which will be updated in an automated fashion, based on the increasing number of pathogen



genomes being sequenced. Candidate functions identified by Pathogenomics informatics approach are tested in the laboratory to investigate their role in pathogen infection and host interaction. Tests include studies of both the pathogen gene and any homologous *C. elegans* gene, as *C. elegans* is used as a model host organism for some pathogens. Public databases of all analyses used and all genes identified using this approach are available on the Pathogenomics web site <http://www.pathogenomics.ca/>.

PhyloBLAST, the project's custom designed software, compares the user's protein sequence to a SWISSPROT/TREMBL database using WU-BLAST2 and then allows the user to perform user-defined phylogenetic analyses based on selected proteins listed in the BLAST output. PhyloBLAST is freely available through the Pathogenomics web site.

In addition, the *Pathogenomics* research team has modified a simple %G+C analysis to aid detection of potential pathogenicity islands/genomic islands, using their "**IslandPath**" software (the fully documented version of IslandPath will be released, pending publication).

They have also developed a tool, "**BAE-watch**", that facilitates the identification of bacterial genes with unusual similarity at the primary sequence level to eukaryotic genes (and also detects potential horizontal gene transfer across the three domains of life of Bacteria, Archaea and Eukarya, hence the name BAE-watch). More detailed analysis of this initial database is planned. This analysis is also being expanded to include analysis of tertiary level similarity, since preliminary analysis suggests that host-pathogen protein mimicry often involves such similarity (i.e., little primary sequence similarity but notable tertiary sequence similarity).

Among the articles published this year by or about the *Pathogenomics* project are:

- Brinkman, F.S.L., J.L. Blanchard, A. Cherkasov, Y. Av-Gay, R.C. Brunham, R.C. Fernandez, B.B. Finlay, S.P. Otto, B.F.F. Ouellette, P. Keeling, A.M. Rose, R.E.W. Hancock and S.J.M. Jones (2002). Evidence



that plant-like genes in Chlamydia species reflect an ancestral relationship between Chlamydiaceae, cyanobacteria and the chloroplast. *Genome Research*. 12: 1159 – 1167.

- Brinkman, F.S.L., E.L.A. Macfarlane, P. Warrener, and R.E.W. Hancock. (2001). Evolutionary relationships amongst virulence-associated histidine kinases. *Infection and Immunity*. 69:5207-11; profiled in the September 2001 issue of *ASM News*, the American Society for Microbiology newsletter.

The core researchers for the *Pathogenomics* project are (UBC faculty unless otherwise noted): Ann Rose (PI, Medical Genetics), Youssef Av-Gay (Infectious Diseases), David Baillie and Fiona Brinkman (Molecular Biology & Biochemistry, Simon Fraser U.), Robert Brunham (Centre for Disease Control), Artem Cherkasov (Genome Sequence Centre, BC Cancer Agency), Julian Davies and Rachael C. Fernandez (Microbiology), B. Brett Finlay (Biotechnology), Robert Hancock (Dir., Centre for Microbial Disease



Pathogenomics Project research team.

Ann Rose, Principal Investigator,
third from left.

Research), Steven J. Jones (Genome Sequence Centre, BC Cancer Agency), Patrick Keeling (Botany), Iain Taylor, Don Moerman and Sarah Otto (Zoology), and B. Francis Ouellette (Centre for Molecular Medicine & Therapeutics). A list of presentations and invited talks by *Pathogenomics* project researchers in 2001-2002 can be found in Appendix A.

The *Narratives of Disease, Disability and Trauma* project, Principal Investigator Valerie Raoul (Centre for Research in Women's Studies & Gender Relations, and French, UBC), is also coming to the end of its third year. However, the project leaders have chosen to extend the \$500,000 over four years.

The program of research in the *Narratives* project is concerned with individual narratives (in various forms) and the larger cultural narratives of which they are a part. The ways in which health and disease, disability and trauma are constructed and represented are being examined from comparative cross-cultural, trans-historical and interdisciplinary perspectives. The project team includes researchers in literary analysis and narrative theory, social sciences and health sciences.

The *Narratives* project explores, but is not limited to, the following issues in narratives of disease, disability, and trauma:

- their therapeutic, aesthetic, and didactic value
- embodiment
- gender, age, race, ethnicity, class, etc., in these narratives
- institutional relations and/or power structures (e.g., researcher-researched, patient-caregiver, state-citizen)
- ethical questions and dilemmas
- the roles of policy development and the education of health-care professionals
- historical, sociological, philosophical, and literary approaches to these narratives.



The major event this year for the *Narratives* project was their international Conference held at UBC May 9 – 11, 2002. The conference's two keynote papers were: '*Writing About Illness and Disability: Treatment or Testimony*', by Anne Hunsaker Hawkins, Humanities Dept, Penn State University, College of Medicine; and '*Seven Things to Do with Stories*' by Hilde Lindemann Nelson, Dept. of Philosophy, Michigan State University, and Visiting Professor, Center for the Study of Medical Ethics and Humanities, Duke University Medical Center.

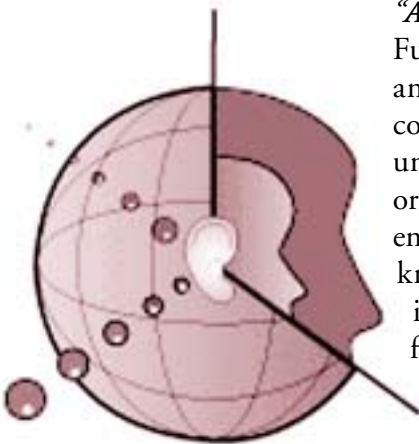
The conference presentations and discussions were organized under the following themes:

- Chronic Illness: Issues of Narrativity and Disability
- Parental Narratives: Decisions and Dilemmas
- The 'Past' in Narratives of Illness
- Disability, Disaster and Visual Narratives
- Implications of Working with Trauma
- Approaches to Narrative Inquiry
- Contesting Age as/and Disability
- Performing Trauma and Illness
- Narrative, Literature and Health
- Trauma, Art and Performance
- Children, Care-giving and Disability
- Autobiography and Memoir
- The Rhetoric and Politics of Stories

- Women, Agency and Writing
- Mental Illness, Self and Identity
- War Trauma
- Psychiatric Narratives and Mental Health
- Narrative, Disability and Health Care Practice
- Narrative and Ethics
- Discipline, Scholarship and Narrative
- Masculinity and Disability
- Meanings, Politics and Metaphors
- Considering Subjectivity and Disability

The complete conference program, including talks given, can be found on the Narratives web site at <http://www.wallnarratives.pwias.ubc.ca/stats/conference/confer.htm>. The Narratives research team plans to publish a volume of essays based on this conference.

Principal UBC researchers in the *Narratives* project are: Valerie Roaul (PI, Centre for Research in Women's Studies & Gender Relations, and French), Connie Canam (Nursing), Isabel Dyck (Rehabilitation Sciences), Susanna Egan (English), Janice Graham (Anthropology & Sociology), Angela Henderson (Nursing), Gloria Onyeoziri (French), Susan Penfold (Psychiatry), Judy Segal (English), and Patricia Vertinsky (Educational Studies).



“Acoustic Ecology”, Principal Investigator Kathy Pichora-Fuller (Director, Institute for Hearing Accessibility Research, and School of Audiology & Speech Sciences, UBC), has completed its second year. The goal of the research team is to understand how humans of all ages, who have either normal or impaired hearing, listen in the realistic situations they encounter in everyday life. The aim is to incorporate new knowledge about how people process auditory information into a more general cognitive science model that accounts for how multi-modal sensory inputs (auditory, visual) are coordinated during information processing and how sensory and motor processing are coordinated during perception and production of sound. To be complete, such a meta-model would also need to take into account how information processing is modulated by the demands or constraints associated with the social and physical context.

Understanding how people process information will enable researchers to define and measure the ‘successful’ listener, and to design environments with appropriate physical, technological, and social features to enhance or facilitate the performance/experience of listeners in everyday life. This knowledge will also inform the design of human-computer communication where the computer acts as the listener.

Acoustic Ecology is a term that captures the project’s new conceptual approach to human auditory information processing. It builds on traditional disciplinary research foundations, with the key novel feature being that this interdisciplinary research reinstates the listener in the listening environment. Specifically, the *Acoustic Ecology* approach combines traditional disciplinary research focusing on listeners (e.g., audiology, linguistics, neuroscience, otolaryngology, psychology) with research focusing on the physical environments (room design, computer science, engineering) and the social situations (anthropology, education, linguistics) in which listening occurs.



The project has three research areas: 1. the psychology of listening; 2. synthesis of complex human and environmental sounds; and 3. ethnographies of acoustic ecologies. Research in the first area comprises four inter-related studies of the cognitive processing in listening: examining the acquisition of the listening abilities necessary to distinguish linguistic units, studies of the temporal processing of speech and noise, examination of multi-modal communication and the relation of visual and auditory attention, and development of procedures to measure perceptual quality of percussive contact sounds in preparation for development of contact sound synthesis research in another portion of the AE program.

The second area of research is concerned with the synthesis of environmental sounds, particularly percussive or contact sounds in artificial and natural settings, and the synthesis of the vocal tract to model human speech production. This work contributes to the understanding of variations in the production of sounds for human and computer perception. It is also concerned with the impact of the acoustical properties of the settings in which sounds are produced.

The focus of the ethnographic studies of acoustic ecologies is examining the complex social and cultural settings in which communication occurs by examining two common communication settings in which noise is a common feature: a restaurant setting and four classes in



Acoustic Ecology Project
data gathering session.

a local elementary school. Work continues on the analysis of this rich data and the development of a soundscape archive. Initial analysis of the data gathered in a naturalistic setting indicates that the acoustical properties of communication heard/produced by individuals in noisy settings is similar to speech produced by people who are hard of hearing, suggesting that rooms with poor acoustics are hearing impairing. It builds upon psychological studies of attention,

language processing and an understanding of the physical acoustical properties of rooms.

Foundational research conducted under the *Acoustic Ecology* Major Thematic Grant was critical to the award of two Canadian Foundation for Innovation project grants on which *Acoustic Ecology* members are project leaders and core investigators: Hearing Accessibility, Assistive Technology and Acoustic Design, \$2.4 million (including matching funds from the Vancouver Rotary Club and the Vancouver Hospital and Health Sciences Centre); and the Institute of Computing Information and Cognitive Systems, \$22.1 million.

A listing of recent Acoustic Ecology published papers and presentations can be found in Appendix A. The core UBC researchers in the Acoustic Ecology Project are: Kathy Pichora-Fuller (PI, IHEAR and School of Audiology & Speech Sciences), Andre-Pierre Benguerel, Barbara Bernhardt, Dan Paccioretti, Rusen Shi and Jeff Small (Audiology & Speech Sciences); Bill McKellin (Anthropology & Sociology); Max Cyander (Brain Research Centre); Kelly Booth and Dinesh Pai (Computer Science); Sid Fels and Charles Laszlo (Electrical & Computer Engineering); Bryan Gick (Linguistics); Murray Hodgson

(Mechanical Engineering and Occupational Hygiene); Pierre Zakarauskas (Ophthalmology); Alan Kingstone and Janet Werker (Psychology); and Janet Jamieson (Educational & Counselling Psychology and Special Education). Further details on the project can be found at <http://www.cs.ubc.ca/%7Ekvdoel/acel/acel.html>.

Fall 2001 Major Thematic Competition

No Major Thematic Grant applications were received at the October competition.

Spring 2002 Major Thematic Competition

No Major Thematic Grant applications were received at the March competition.

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Exploratory Workshops

The Exploratory Workshops program supports interdisciplinary teams of outstanding UBC researchers who wish to investigate the potential for developing a research agenda around a new theme. The Institute's workshop grant allows the team to bring to UBC, for what is typically a three or four day period, the top international experts in the field to collaborate on exploring the research possibilities. The terms of PWIAS Exploratory Workshops grants require that a majority of the proceedings be open to the University community. At the Fall 2001 Thematic Competition four Exploratory Workshop applications were received. The Adjudication Committee chose one for an award. At the Spring 2002 competition nine applications were received and four were selected for awards. The following seven Exploratory Workshops were held this year.

"White Dwarfs as Dark Matter", Principal Investigators Harvey Richer and Douglas Scott (Physics & Astronomy, UBC). August 19 - 22, 2001.

The composition of the dark matter halo of our Milky Way Galaxy remains one of the fundamental unanswered

More than 70 years since the discovery of the expansion of the universe...evidence is now mounting that our universe may actually be accelerating! If true, this finding would mark the beginning of a new era in cosmology and force scientists to revise our theories about the birth of our universe.

MICHAEL TURNER

mysteries of modern astronomy. Thanks to its gravitational effect upon the luminous matter we can see (e.g., stars and gas), we know that there is at least ten times as much mass tied up in the form of matter we have thus far been unable to identify compared to the matter that we actually “see”. Theorists have spent the last several decades attempting to provide an *a priori* solution as to the form of this matter, while observers have worked just as hard attempting to quantify the amount and distribution of this matter based upon the indirect gravitational effects. Because it is the dominant form of matter in the universe, driving the formation and evolution of galaxies as well as the ultimate fate of the universe as a whole, identifying its exact form is crucial. This workshop explored a candidate for what may be an important fraction of our galaxy’s dark matter – old white dwarfs, the burnt out cores of stars that have completed their nuclear evolution. Theoreticians, observers and contrarians came together to explore this area of astrophysics based on the original observational impetus of UBC scientists.

The identification of about a dozen high proper motion blue objects in various surveys with colours and luminosities which fit this scenario (that the baryonic content of the Milky Way is dominated by a large population of ancient white dwarfs), in conjunction with the statistics of microlensing events seen toward the Large Magellanic Cloud, has led to the suggestion that upwards of 20% of our Galaxy’s dark matter resides in these stellar remnants. The ramifications (and indeed, veracity) of these remarkable claims provided the framework for the workshop program. Topics covered in the workshop included the need for dark matter in our Galaxy, microlensing observations, ground- and space-based searches for high proper motion Galactic halo white dwarfs, models of old white dwarfs and tests of these models, galactic chemical abundance constraints, galaxy formation issues and cosmological implications. Details on the program of the workshop and on the papers presented are available on the workshop web site at http://www.astro.ubc.ca/WD_workshop/.

A highlight of the workshop was a public debate, attended by approximately 500 people, entitled “The Dark Energy of the Universe: Myth or Reality?”, with Craig Hogan (Dept. of Astronomy and Dean of Natural Sciences,

U. of Washington), and Michael Turner (Chair, Astronomy & Astrophysics, U. of Chicago).

External participants in the Dark Matter workshop included: Eric Aubourg (CEA), Gilles Chabrier (U. Lyon), Masashi Chiba (NAOJ), Greg Fahlman (CFHT), Chris Flynn (Tuorla), Gilles Fontaine (U. Montréal), Evalyn Gates (U. Chicago), Brad Gibson (Swinburne U.), Kim Griest (UCSD), Geza Gyuk (U. Chicago), Nigel Hambly (U. Edinburgh), Brad Hansen (Princeton U.), Craig Hogan (U. Washington), Rodrigo Ibata (U. Strasbourg), Jelt de Jong (U. Groningen), Leon Koopmans (Caltech), Konrad Kuijken (U. Groningen), James Liebert (U. Arizona), Jeremy Mould (NOAO), Ben Oppenheimer (UC Berkeley), Michael Rich (UCLA), Kailash Sahu (STScI), Didier Saumon (Vanderbilt U.), and Michael Turner (U. Chicago).

“Canadian Historical Consciousness in an International Context: Theoretical Frameworks”, Principal Investigator Peter Sexias (Curriculum Studies, UBC). August 26 – 28, 2001.

Historical consciousness, distinct from both historical research and historiographic research, can be defined as individual and collective understandings of the past, the cognitive and cultural factors which shape those understandings, as well as the relations of historical understandings to those of the present and the future. The investigation of historical consciousness includes the study of cultural products including monuments and memorials, films, museum displays, textbooks and curricula. It also involves the empirical examination of people’s ideas about the uses of the past, examining their responses to those cultural products. Further, it involves investigation of those institutions whose purposes are to construct, reconstruct, and deconstruct ideas about the past, most central among which are schools and museums.

This exploratory workshop brought together an interdisciplinary group of scholars from UBC, across Canada and internationally, to construct a robust framework for international comparative research on historical consciousness. This emerging field lies at the intersection of the vibrant areas of cultural studies, studies in collective memory, and history education. The workshop occurred at a critical time, as the UBC researchers involved were working towards the opening



*The Mouth is wind, but
the pen leaves tracks.*

CHINESE PROVERB

of a UBC Centre for the Study of Historical Consciousness, anchored by a Canada Research Chair in Education: those researchers from beyond UBC are co-investigators in a SSHRC Major Collaborative Research Initiative. This workshop enabled the two groups to come together for the first time to shape a research framework, which will be used to conduct research in Canada and stimulate work internationally, and ultimately, to articulate policy implications for the development of historical consciousness.

A featured public event at the workshop was a lecture by Sam Wineburg (Cognitive Studies and History, U. of Washington), entitled “Historical Thinking and Other Unnatural Acts”.

External participants in the Historical Consciousness workshop included: Rosa Bruno-Jofre, (Education, Queen’s U.); Margaret Conrad (History, Acadia U.); Christian Laville, (l’enseignement et l’apprentissage, U. Laval); Peter Lee (History Education, Institute of Education); Jocelyn Létourneau (histoire, U. Laval); Chris Lorenz (History, Free University Amsterdam); Kevin Oneill (Education, Simon Fraser U.); Joern Ruesen (Director, Kulturwissenschaftliches Institut in Essen); Roger Simon (Ontario Institute for Studies in Education, U. Toronto); Tony Taylor (Education, Monash U.); Jonathan F. Vance (History, U. of Western Ontario); James Wertsch (Education, Washington U.); and Sam Wineburg (Education and History, U. Washington).

For a full outline of the workshop program and papers visit the Centre for Study of Historical Consciousness web site at <http://www.cshc.ubc.ca/pwias/overview.php>.

“Reparations for Historical Injustices”, Principal Investigator John Torpey (Anthropology & Sociology and Institute for European Studies, UBC). November 2 - 4, 2001.

The rallying-cry of “reparations,” though originating in the specific context of responses to the Holocaust, has come to be a profoundly novel way of talking about politics for many other groups in the era of globalization. The various campaigns for reparations for past injustices bespeak the dawning of a new phase in relations between states and the groups that they have victimized historically, and these campaigns may well serve to deter the oppression of other groups in the future.

In short, the stakes involved in the proliferation of reparations claims are very substantial indeed.

The aim of this Workshop was to develop an analytical framework for understanding the origins, nature, and consequences of the variety of campaigns for reparations currently afoot across the globe. So far, there have been three principal sources of claims for reparations. First are those cases arising from acts of injustice perpetrated during World War II. These include claims arising from state-sponsored mass killing, forced labor, and sexual exploitation on the part of the Axis powers (Germany and Japan, but also Austria), as well as from the unjust wartime incarceration of those of Japanese descent in Allied countries (the United States and Canada) and from economic or other kinds of collaboration in Nazi crimes by putatively neutral countries (Switzerland, France, the Netherlands).

Next are those claims ensuing, in the aftermath of “transitions to democracy,” from “state terrorism” and other authoritarian practices in Latin America, Eastern Europe, and South Africa in recent years. These contexts, however, have been more notable for generating quasi-legal inquiries into past complicity with the old regime (“truth commissions”) and purges of collaborators than demands for monetary compensation as such. Material reparations claims arising in these contexts tend to be concerned with the restoration of property or other assets to individuals, rather than with the return of broad domains to groups or with compensation for non-concrete harms that is typical of other reparations claims. The South African case is a mixed one, combining aspects of this second source of reparations claims with the third, namely, demands for reparations stemming from colonialism. Reparations arising from colonialism can be broken down further, depending on whether the variant of colonialism referred to is the “classical” European version, one or another variant of “internal colonialism” (e.g., slavery, Jim Crow, apartheid), or more recent “neo-colonial” structures and institutions.

There are two basic types of reparations claims. First are those that seek to compensate persons whose physical victimization took place in the past and who now suffer principally psychological scars. These claims can best be characterized as commemorative in nature. In these cases, reparations are largely



Exploratory Workshop:
Reparations for Historical Injustices

symbolic attempts to give official recognition to the recipients' past victimization. Commemorative reparations projects tend to be backward-looking and dependent on the cultivation of a consciousness of victimhood among both so-called "survivors" and the broader public.

Claims for reparations may be rooted in the assertion that a past system of domination (colonialism, apartheid, slavery, segregation) was unjust and is the cause of continuing economic disadvantage for those who lived under these systems or their descendants. Claims related to the various forms of colonialism are generally of this latter type. Rather than being solely commemorative, however, these reparations movements may be also transformative in nature.

Transformative reparations movements are more forward-looking in character; they view reparations as a means of improving the current conditions of deprivation suffered by the groups in question; and are more frequently connected to broader projects of social transformation than are commemorative projects. The spread of demands for reparations for historical injustices has brought history and historical scholarship into an unwanted position at the center of political controversy. Historians are now frequently called upon as expert witnesses by one side or the other in legal and other kinds of official proceedings. To the extent that one of the aims of reparations campaigns is a truer, better, more generally acceptable version of history, these undertakings pose significant challenges to scholarship. What risks does the politicization of history pose for scholars and scholarship?

External participants in the *Reparations* workshop were: Heribert Adam (Sociology, Simon Fraser U.); Roy Brooks (Law, U. San Diego); Ariel Colonomos (CNRS and Institut d'Études Politiques de Paris); Chris Cuneen (Law and Institute of Criminology, U. of Sydney); Dan Gottesman (Aboriginal land claims researcher); Laura Hein (History, Northwestern U.); Michael Marrus (Holocaust Studies, U. of Toronto); Lukas Meyer (Center for Ethics and the Professions, Harvard U., and Philosophy, U. Bremen); Jeff Olick (Sociology, Columbia U.); Nicholas Tavuchis (Sociology, U. Manitoba); and Daqing Yang (History and International Relations, George Washington U.). Further details are available on the workshop web site at www.digitalstudio.educ.ubc.ca/exploratory_workshop/.

*We look at the present
through a rear-view mirror.
We march backwards
into the future.*

MARSHALL MCLUHAN

“Service Industries and New Models of Urban Change within the Asia-Pacific Region”, Principal Investigators Peter Daniels (Service Sector Research Unit, U. of Birmingham, UK) and Tom Hutton (Centre for Human Settlements, UBC). March 25 – 26, 2002.

Although industrialization has constituted the dominant development paradigm for Asia-Pacific nations and regions for much of the past half-century, service industries are now playing more important and in some cases decisive roles in urban growth, development, and transformation. At the same time, the experience of service industry growth (or tertiarization) within the Asia-Pacific has not followed the paradigm of service sector expansion based on the patterns of the old ‘Atlantic core’. This has generated important theoretical questions and normative issues that are at the social science research frontier.

There are at least three ways of referencing these issues:

1. Propulsive and transformational impacts; 2. Services as drivers of changes in the internal form of city-regions; and 3. Services and urban social change.

The purpose of this workshop was to bring together leading Asian urban studies scholars and internationally-recognized service industry specialists to explore the implications of accelerated tertiarization (that is, specialized service industry growth associated with intermediate market demand, but also induced by public policy initiatives) for cities of the Asia-Pacific, and to develop a research agenda that would lead directly to a strategic collaborative project that will influence scholarship in this field over the next decade.

The Workshop was organized around the following objectives:

- overview the contours of urban tertiarization within the Asia-Pacific, emphasizing growth rates, employment formation and divisions of labour, lead sectors, industries and firms, and patterns of trade and exchange;
- examine the role of (especially advanced) services in developmental transition within Asia-Pacific city-regions, including the transformation of urban structure and form, occupational divisions, and the reformation of social class;

- identify the most salient scholarly issues prompted by the urban tertiarization experience within the region, emphasizing theoretical questions (including the re-consideration of extant urban theory embedded within the industrialization paradigm as well as the possibilities for new conceptualizations of urban growth and change that properly acknowledge, and incorporate, the influence of service industries and labour);
- develop both a research agenda and an implementation plan for a strategic-level collaborative project which addresses the intersections between services growth and urban development within the Asia-Pacific.

Further details are available through the workshop's web site www.chs.ubc.ca/Peterwall/splash.htm.

External participants in this workshop were: Peter W. Daniels (Director Service Sector Research Unit, U. Birmingham); William Beyers (U. Washington); Hiro Haga (Fukuoka U.); Kong Chong Ho (National U. Singapore); Reginald Yin-Wang Kwok (U. Hawaii); George C.S. Lin (U. Hong Kong); Andrew Marton (Nottingham U.); Larissa Muller (UC Berkeley); Kevin O'Connor (U. Melbourne); Sam Ock Park (Seoul National U.); Douglas Webster (Stanford U.); and Anthony Gar-on Yeh (U. Hong Kong).

"Automation and Robotics: The Key For Computer Integrated Health Care Delivery", Principal Investigators Guy Dumont and Mihai Huzmezan (Electrical & Computer Engineering, UBC). April 10 – 12, 2002.

The *Automation and Robotics* workshop program focused on two leading-edge areas of biomedical engineering in which there is particular strength at UBC, Automatic Drug Delivery Systems and Robotic/Haptic interfaces for surgery. Researchers from both areas came together to discuss the potential for computer-mediated intervention in health care, notably in the operating room. The aim of the workshop participants was to investigate the potential for developing tools to augment certain functions performed by a medical doctor in the surgical operation theatre, with the goals of reducing the workload in the operating room, increasing patient safety, reducing the potential for human

errors, minimizing the patient time spent in the hospital and providing treatment patterns that can be followed in a reliable and predictable manner. Research in these areas draws on fields as varied as anesthesiology, pharmacology, control theory, signal processing, neuroscience, surgery, robotics, mechanical engineering and computer science, all of which were represented at this workshop.

The success of the workshop is expected to reveal itself in the form of a major collaborative research project involving UBC researchers and participants from teaching hospitals, local medical device companies and some of the invited foreign experts.

External participants in the Automation and Robotics workshop were: B. Wayne Bequette (Chemical Engineering, Rensselaer Polytechnic Institute); Russell H. Taylor (Computer Science, Johns Hopkins U.); Jack A. Tuszynski (Physics, U. Alberta); Derek Linkens, (Control Dept., U. of Sheffield); Manfred Morari (Automatic Control Laboratory, Swiss Federal Institute of Technology); Gilles Plourde (Anesthesia, McGill U.); Lucia Santoso (Electrical & Electronic Engineering, U. Melbourne); and Mark Ansermino (BC Children's Hospital, Vancouver). Details on the workshop program including abstracts of the presentations are available at www.pharmacology.ubc.ca/cspt/workshop/index.htm.

“Beyond Postmodernism”, Principal Investigators Graham Good (English, UBC) and Linda Siegel (Educational & Counselling Psychology and Special Education, UBC). May 16 – 18, 2002.

The aim of this workshop was to discuss the impact of Postmodernism in the last twenty to thirty years, both on academic disciplines and on the wider culture and society, and to speculate about what new developments might take the place of Postmodernism, both inside and outside the academy.

What is (or was) Postmodernism? As a philosophy, a style, an attitude, it has dominated the culture of the last thirty years, and has had a substantial impact on many academic disciplines. Its core is a skepticism about the possibility of truth, an abandonment of the quest for foundations of knowledge, and a belief that knowledge is always in complicity or negotiation with power; reality is “socially constructed.”

*A text employs its own
stratagems against it,
producing a force of
dislocation that spreads itself
through an entire system.*

JACQUES DERRIDA

Postmodernism is a politicization of all knowledge, including science, whose claims to objective accuracy are dismissed as a cover for ideological motives. In the realm of history, Postmodernism rejects “grand narratives” of human destiny, whether Christian, Marxist or Liberal, along with their structure of “origins” and “ends,” while inconsistently adopting its own favoured narratives of Imperialism and Patriarchy. In the arts, Postmodernism celebrates a playful eclecticism of style, picking, choosing and mixing motifs from any period or field or genre. Coherent subjectivity is rejected along with coherent objectivity: Postmodernism replaces the unified, autonomous self with a “site” of interacting forces and desires conditioned by society. Its anti-humanism rejects any notion of a universal human condition, and instead focuses on categories of identity like race, gender and sexuality. The Postmodern paradigm prefers transgression over boundaries, interdisciplinarity over disciplines, margins over centres, relational over intrinsic qualities, and ideology over ideas. “Multi-,” “trans-,” and “inter” are its preferred prefixes. Poststructuralism is appropriately a term for its theoretical dimension, since it equates almost all structure with hierarchy and repression.

What will, or what could, take its place in the new century? To answer this question, there is a need first to assess what has happened in the culture and in intellectual life under the hegemony of Postmodernism. What has improved and what has deteriorated? There is also a need to look back to Modernity, Modernism and the “Enlightenment Project” against which Postmodernism crucially reacts, and at Marx, Freud and Nietzsche, Postmodernism’s selectively appropriated, supposedly counter-Enlightenment masters. Is Postmodernism intellectually adequate to the current problems facing the world, or is it a hindrance in coming to terms with them, a kind of self-disabling of the intellect, a symptom instead of a solution? The urgent pressures of economic globalization, genetic modification of humans, animals and plants, ecological devastation, social breakdown and drug addiction are surely bound to evoke an intellectual response that lies somewhere “beyond Postmodernism.”

External participants in the *Beyond Postmodernism* workshop were: Bruno Bourassa (Education, Laval U.); Evelyn Copley (English, U. Victoria); Paul Delany (English,

Simon Fraser U.); Terry Eagleton (English & American Studies, U. Manchester); Roger Frie (College of Physicians and Surgeons, Columbia U.); Eran Kaplan (History, U. Toronto); Norman Klassen (History, Trinity Western U.); Paulo Lemos Horta (English, U. Toronto); Harry Lipkin (Physics, Weizmann Institute, Israel); Daphne Patai (Spanish & Portuguese, U. Massachusetts); Raymond Tallis (Geriatric Medicine, U. Manchester); Ellen Tremper (English, CUNY); and Jens Zimmerman (English and German, Trinity Western U.). Further details about the workshop program including participants position papers are available at www.english.ubc.ca/projects/postmod/.

“Development of an Experimental/Theoretical Research Agenda for Addressing Scaling and Non-Linearity in Hydrologic Systems of British Columbia”. Principal Investigators Younes Alila (Forestry Resources Management, UBC) and R. Daniel Moore (Geography, UBC). June 3 – 5, 2002.

The Problem of Ungauged Basins (PUB) is of global scientific, engineering, social and economic significance. In British Columbia (BC), the PUB is most pressing for management decisions regarding water quality and quantity in small and medium-sized basins with implications for the forest, fisheries and recreational industries. Hydrologic study suffers from the common and frequently invalid practice of extrapolating results or models developed at a particular time or spatial scale to largely different scales, with little appreciation of the validity of the extrapolation.

This workshop represented a first effort at addressing this situation, by bringing together theorists, field researchers and practitioners to address two key questions: (1) how to build field experiments that are useful to theorists; and (2) how to make complex theories drawn from mathematics and physics useful to empirical hydrologists and practitioners. As well, the workshop aimed to provide an opportunity to examine research questions related to scaling and non-linearity in watershed response and to explore the role that the BC academic community, in collaboration with international experts, could play in answering some of these research questions.

The workshop began with an overview of recent insights and theoretical advances in hydrologic scaling.

*If we ever regarded our interest
in natural history as an escape
from the realities of our modern
world, let us now reverse this
attitude. For the mysteries of
living things, and the birth and
death of continents and seas,
are among its greatest realities.*

RACHEL CARSON



Scaling and Non-Linearity
Exploratory Workshop session.

There followed a review of theoretical and data collection programs that are needed to further test and develop these theories under the complex hydrologic conditions that characterize the mountainous terrain of BC and other parts of the Pacific Northwest. Participants in the workshop also looked at possible intermediate solution strategies for addressing operational

watershed management questions in BC, with emphasis on the need to estimate hydrologic characteristics of ungauged small and medium-sized catchments.

External participants in the *Scaling and Non-linearity* workshop were: William Dietrich (Earth & Planetary Science, UC Berkeley); David Goodrich (Southwest Watershed Research Centre, U.S. Dept. of Agriculture); Bruce Milne (Biology, U. New Mexico); Vijay Gupta (Civil & Environmental Engineering, U. Colorado); Jim McNamara (Geosciences, Boise State U.); Terry Smith (UC Santa Barbara); Enda O'Connell (Civil Engineering, U. Newcastle Upon Tyne); John Pomeroy (Institute of Geography and Earth Sciences, U. Wales); Shaun Lovejoy (Physics, McGill U.); Murugesu Sivapalan (Environmental Engineering, U. Western Australia); Jeffrey McDonnell (Forest Engineering, Oregon State U.); and Ming-Ko Woo (Geography & Geology, McMaster U.). Further details on this workshop are available at www.forestry.ubc.ca/pwall/scaling/index.htm.

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Theme Development Workshops

These informal meetings allow researchers to meet with colleagues from a variety of disciplines to share initial ideas on researching particular themes. The Institute provides the meeting venue and refreshments. Applications can be made at any time. Recent workshops included:

Secondary Traumatization and the Caring Professional, coordinated by Betty Calam (Family Practice, St. Paul's

Hospital) and Marvin Westwood (Educational & Counselling Psychology), on October 4, 2001.

Writing University History, coordinated by Robert Todd (Classical, Near Eastern & Religious Studies), on October 18, 2001.

Community Asset Mapping, coordinated by Jim Frankish (Institute of Health Promotion Research), on May 21, 2002.

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Weekly Colloquia

These public talks are usually held during the lunch hour in the Institute's conference rooms. The Institute provides accommodation for a visiting speaker and a luncheon for up to twelve guests. Applications by departments, Faculties and other academic units may be made at any time during the year. This year the Institute sponsored the following speakers:

Susan Wood, Art History, Oakland University, Rochester, gave a talk entitled "*The Incredible Vanishing Wives of Nero*", on January 28, 2002. The talk was co-ordinated by Tony Barrett (2001 Peter Wall Distinguished UBC Scholar in Residence and Classics, Near Eastern & Religious Studies, UBC).

Gen Matsumoto, Director, Brainway Group, Brain Science Institute, The Institute of Physical and Chemical Research (RIKEN), Japan, gave a talk entitled "*Creating the Brain*", on April 23, 2002. The talk was co-ordinated by Tony Phillips (Psychology and Psychiatry, UBC).

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L'esprit n'a point de sexe.

FRANCOIS POUILLAIN DE LA BARRE, 1673

The Mind Has No Sex?

LONDA SCHIEBINGER, 1989

Distinguished UBC Scholars in Residence

This program was developed to bring to the Institute outstanding, tenure-track UBC Faculty members with excellent research records. Each Scholar is given a research office and infrastructure budget of \$11,000 (for 2002). The Distinguished Scholars in Residence each give a lecture on their research, and are encouraged to plan a research related event, such as a lecture series or workshop, during their tenure at the PWIAS. An additional budget of \$5,000 is provided for each Scholar's Institute project.

The residency period is the calendar year. The scholars who were in residence during the January 1-December 31, 2001 period were: Anthony Barrett, John Wilson

Foster, Dale Rolfsen and Linda Siegel. For details on these scholars and their projects see the 2000-2001 Annual Report.

Applications for this program are received in mid-May, the invitations are issued in September, and the residency begins January 1. The Selection Committee chose the 2002 Distinguished Scholars in Residence primarily on the candidates' research attainments and on how well the research matched the mandate of the Institute to support work that is both basic and interdisciplinary.

Michael Church (Geography) – Michael Church is recognized internationally as one of the top scholars in the field of geomorphology. Within this field his areas of research interest include fluvial sediment transport and the interpretation of river channel changes, and theoretical geomorphology. Dr. Church's research in fluvial geomorphology has led him to pursue inter-disciplinary work in such areas as hydrology, water resources management and aquatic ecosystems. He is one of the few geomorphologists who work on large rivers, specifically Fraser and Peace Rivers in British Columbia. Dr. Church's early research, *"Baffin Island Sandurs: A Study of Arctic Fluvial Environments"* (Canadian Geological Survey, Bulletin 216, 1972) is considered the first modern



Clockwise from left: Ken MacCrimmon, Director, PWIAS; David Jones, Dianne Newell, Distinguished UBC Scholars in Residence; Brett Finlay, Peter Wall Distinguished Professor; Michael Church, Distinguished UBC Scholar in Residence

application of fluvial geomorphology. This landmark paper was recognized with the Kirk Bryan Award of the Geological Society of America. Dr. Church has continued to publish papers on theoretical and practical aspects of geomorphology, sedimentology and hydraulics in leading journals including *Nature*, *Journal of Geophysical Research*, *Journal of Sedimentary Research*, *Sedimentology*, *Water Resources Research*, and *Earth Surface Processes & Landforms*.

Dr. Church's current work on river channel stability focuses on the areas of critical states in the physics of complex macroscopic systems, in particular granular systems. Sedimentary (granular) structures that are the outcome of sediment transport and deposition leading to critical states are important elements of aquatic habitat for benthic organisms, and important topographic elements on the streambed that fishes use. The theoretical work that Dr. Church engages in, in this and other areas of research, informs his practical work as a consultant and scientific advisor for such projects as the Scientific Panel for Sustainable Forests Practices in Clayoquot Sound and the Fraser Basin Council.

Michael Church is a Fellow of the Royal Society of Canada, a Fellow of the Geological Society of America; he was awarded the Killam Research Prize at UBC in 1991, and the David Linton Award of the British Geomorphological Research Group in 1996. Dr. Church has held a Royal Society Research Fellowship at Oxford (1987) and was a Visiting Senior Fellow at Keble College, Oxford.

Dennis Danielson (English) – After devoting much of his scholarly career to the study of literature of the Renaissance, Reformation and seventeenth century, with an emphasis on the works of John Milton, Dr. Danielson has, in recent years, branched out into the history of science. In particular he has been pursuing an interest in the history of cosmology. It was of particular interest to the Institute's Selection Committee, charged with evaluating the applications for 2002 UBC Distinguished Scholars in Residence, that a majority of Dr. Danielson's letters of reference came from physicists and astronomers rather than scholars in the Humanities. Dr. Danielson's work exemplifies interdisciplinarity; exploring the interactions among literature, history and astronomy. His current research emphasis is on



Michael Church
2002 Distinguished Scholar
in Residence.



Dennis Danielson
2002 Distinguished Scholar
in Residence.

the role of the literary imagination in shaping and extending developments in cosmology.

A highlight of Dr. Danielson's research in the field of the history of cosmology was the publishing, to significant favourable review, of his critical anthology *Book of the Cosmos: Imagining the Universe from Heraclitus to Hawking* (Perseus Books, 2000). The work received considerable attention from scientists and led to Dr. Danielson's invitation to give the plenary address at the first joint annual meeting of the American Astronomical Society and the American Association of Physics Teachers. This was the first plenary address to the AAS by an academic with a non-science background. Further recent demonstrations of the importance of Dr. Danielson's research to the science community have included an invited talk to the Space Telescope Science Institute, and articles in *Nature* (Vol.410, April 26, 2001) and *American Journal of Physics* (69: 8, August 2001).

Dr. Danielson serves on the Board of Governors of The University of British Columbia and is Associate Head of the English Department.



David Jones

2002 Distinguished Scholar
in Residence.

David Jones (Zoology) – Dr. Jones is recognized as the pre-eminent comparative cardiovascular physiologist for his work in elucidating the cardiovascular regulatory mechanisms of aquatic/marine mammals and birds. Specifically, his research interests are in the study of heart rate and blood flow in diving animals and the impact of flow changes during submergence on metabolism. Dr. Jones began his research with diving birds but has since extended his investigations to other habitually diving animals including the elephant seal and the leatherback turtle. A secondary area of research interest for Dr. Jones is with circulatory structure and function in a range of vertebrates and invertebrates.

His work has implications for broadening our understanding of control processes, particularly of those functions controlled by the central nervous system.

Dr. Jones' research requires a sophisticated understanding of biological mechanisms with extraordinary technical skill. One of the challenges in this area of inquiry is to replicate carefully controlled laboratory diving experiments in nature, with animals diving naturally. An example of an area of research

innovation pioneered by Dr. Jones was the use of telemetry to sample data in field situations (e.g., during free dives).

David Jones has published over 180 articles and book chapters. He is a Fellow of the Royal Society of Canada, and has received, among other honours, the Flavelle Medal of the R.S.C. (2000), the Fry Medal of the Canadian Society of Zoologists (1991) and UBC Killam Research Prize (1993). Dr. Jones serves as administrative director of Zoology Animal Care at UBC.

Dianne Newell (History) – Dr. Newell's research interests span a range of subjects within these broad areas: Canadian social and economic history; history of technology; aboriginal women in the industrial economy; Pacific fisheries; and science and technology in late industrial society. For example, her current research explores science fiction literary production, in particular women's involvement in postwar science fiction. This work brings together elements of Dr. Newell's interests in technology, its history and socio-political implications for gender. Dr. Newell's Peter Wall Institute Distinguished Scholar in Residence Workshop "*New Angles on Science? Fiction?*", will bring together scholars from English, History, Film Studies, Anthropology, Women's Studies and Literature. Details on the workshop will be included in the next annual report.

Much of her work has been at the intersections of economic history, technology, Pacific fisheries and Northwest coast aboriginal society. Dr. Newell has authored or edited five books: *Technology on the Frontier: Mining in Old Ontario* (UBC Press, Vancouver, 1986); with R. Greenhill, *Survivals: Aspects of Industrial Archaeology in Ontario* (Boston Mills Press, Erin, Ont., 1989); editor, *The Development of the Pacific Salmon Canning Industry: A Grown Man's Game* (McGill-Queen's U. Press, Montreal, 1989); *Tangled Webs of History: Indians and the Law in Canada's Pacific Coast Fisheries* (U. of Toronto Press, Toronto, 1993, 1997) (CHA Clio Award; Cdn. Nautical Research Soc., Keith Matthew Prize); and editor with R.E. Ommer, *Fishing Places, Fishing People: Traditions and Issues in Canadian Small-Scale Fisheries* (U. of Toronto Press, Toronto, 1999).

Dr. Newell's publications have won the Clio Award of the Canadian Historical Association, the Keith Matthew Prize of the Canadian Nautical Research Society, and the



Dianne Newell

2002 Distinguished Scholar
in Residence.

Association of Canadian Studies. She is past-president of the Smithsonian-based Society of Industrial Archaeology, former Associate Dean, UBC Faculty of Graduate Studies, and recipient of the UBC Killam Memorial Fellowship (1990).

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Early Career UBC Scholars



2001 Early Career UBC Scholars,
Assistant Professors

The Early Career UBC Scholars program was initiated with Assistant and Associate Professor cohorts in 2000 – 2001. It is directed at a recognized need to bring together UBC tenure track faculty members from diverse disciplines at the early stages of their careers. This year there were six participants selected

for the Associate Professor group and twelve in the Assistant Professor group. For the participants, the goals of this program are to: 1. expose them to research from across the University; 2. allow for interaction with excellent peers across a wide variety of disciplines; 3. explore the connections of one's own research with research that one would not ordinarily encounter; 4. learn about



2001 Early Career UBC Scholars,
Associate Professors

the research infrastructure at UBC; and 5. provide special recognition and a modest stipend to support research. For the University and the Institute, the goals are to: 1. help promote interdisciplinary research; 2. encourage an identification with the University as a whole; 3. provide awareness of the activities of the Institute; and 4. contribute to the overall research accomplishments at UBC. Applications to the program

were invited in January 2001 and selection made in April. The program runs for one calendar year; September to August.

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Associate Professors

Carolyn Brown (Medical Genetics) – Carolyn received her PhD in Medical Genetics at U. of Toronto in 1990. Her initial appointment at UBC was in 1994 and her promotion to Associate Professor came in 1999. Carolyn's area of research focus is human X chromosome inactivation. X chromosome inactivation occurs early during mammalian development to transcriptionally silence one of the pair of X chromosomes in females, thereby achieving dosage equivalence with males who have a single X chromosome and the sex-determining Y chromosome. Carolyn's research is directed towards understanding both the mechanisms involved in the inactivation process and the clinical implications of X chromosome inactivation in females. Carolyn has single authored and co-authored over thirty articles in such prestigious scientific journals as *Cell*, *Nature*, *Journal of the National Cancer Institute* and the *American Journal of Human Genetics*.



Early Career Scholar
Associate Professor Carolyn Brown

Ruth Buchanan (Law) – Ruth Buchanan received her S.J.D. from the U. of Wisconsin (Madison) in 2000. Her thesis is titled "Making Women's Work: Global Restructuring and Local Development in the Call Centre Industry", an empirical study of globalization, restructuring and local economic development in New Brunswick through the creation of (mostly) low-wage work in telephone service centers. In 1997 Ruth was appointed Assistant Professor in the UBC Faculty of Law and was promoted to Associate Professor in 2001.

Ruth's scholarly interests include issues of globalization and law, international economic institutions, poverty law, social and legal theory, gender and labour regulation. Her work has frequently focused on the impact of globalization on marginalized workers and communities. More specifically, Ruth's current and ongoing research revolves around two major lines of inquiry: 1. global civil society, particularly its incarnation most recently in anti-globalization protest events, and the implications for governance; and 2. the limits of law in the face of globalization, particularly in relation to law's traditional role in maintaining both social cohesion and social protection within the state.



Early Career Scholar
Associate Professor Ruth Buchanan



Early Career Scholar
Associate Professor Elizabeth Croft

Elizabeth Croft (Mechanical Engineering) – Elizabeth received her PhD in Mechanical Engineering from the U. of Toronto in 1995. She was appointed Assistant Professor at UBC in 1995 and Associate Professor in 2001. Elizabeth's areas of research interest include robotics, industrial robot motion planning and control, intelligent robotic systems, sensor and device fusion and machine vision for industrial work-cell applications, and mechatronics. Her current scholarly activities focus on: 1. the development of on-line, near-optimal motion planning techniques for industrial manipulators; 2. motion planning for hazardous material transportation and deposition tasks, with a specific focus on fluid delivery, pouring, and deposition; and 3. the development of ELSA (Extended Logical Sensor Architecture) and ELDA (Extended Logical Device Architecture), aimed at industrial users interested in developing small, reconfigurable industrial work-cells for high IQ processes.



Early Career Scholar
Associate Professor Richard Kurth

Richard Kurth (Music) - Richard received his PhD in Music Theory from Harvard in 1993. His thesis is titled "Mosaic Isomorphism and Mosaic Polyphony: Balance and Imbalance in Schoenberg's Twelve-Tone Rhetoric." He joined the UBC School of Music as Assistant Professor in 1994, and became Associate Professor in 2000. Richard's research interests are in the areas of nineteenth and twentieth century music; music theory and analysis; twelve-tone music and theories of twelve-tone music; listening and analytic strategies for twelve-tone music; concepts and mathematical models of musical space; relations between analysis and performance; relations between music and poetry; Arnold Schoenberg; Franz Schubert; Robert Schumann; Friedrich Nietzsche; Theodor Adorno; and Jacques Derrida.

Dominic Lopes (Philosophy) – Dominic received his PhD in Philosophy from Oxford University in 1992. Prior to being appointed Associate Professor at UBC in 2000, he was Assistant and then Associate Professor in Philosophy at Indiana U. for eight years. Dominic's research straddles philosophy of art and philosophy of mind, and particularly concerns pictures, perception, and mental representation.

His first book *Understanding Pictures* (Oxford U. Press, 1996), was very well received and favourably compared to the ground breaking work of two pioneers in the field of psychological studies of pictures, Nelson Goodman and Flint Schier. Specifically, Dominic has chosen to approach the problems in the philosophy of art with solutions drawn from the fields of cognitive sciences and philosophy of mind, in addition to more traditional avenues for investigating the topic of depiction. Dominic is editor, with Berys Gaut, of the *Routledge Companion to Aesthetics* (Routledge, 2000) and is currently at work on a book entitled "Sight and Sensibility: Pictures, Perception and Value".



Early Career Scholar
Associate Professor Dominic Lopes

Heather McKay (Human Kinetics) - Heather received her PhD from the U. of Saskatchewan in Interdisciplinary Studies, in 1995. She was appointed Assistant Professor in the UBC School of Human Kinetics in 1996 and became Associate Professor in 2000.

Heather's research interests fall under the broad topic of the relationship of lifestyle factors (physical activity, nutrition) and genetics to skeletal health across the life-span. Her current projects include randomized prospective exercise intervention trials with paediatric groups and with women with osteoporosis. These investigations also look at the role of other lifestyle factors; diet, genetics and biomechanics, as they relate to the bone response to physical activity. Heather's research aims to: 1. define the optimal timing of exercise intervention in growing children; 2. determine the hormonal, biomechanical and genetic mechanisms that underpin rapid bone mineral accrual during pubertal years; 3. evaluate the efficacy of a combined program of exercise intervention and calcium supplementation in prepubertal children; and 4. determine the efficacy of an exercise program for offsetting bone marrow loss in at-risk adult women. Heather is a co-author of the book *Physical Activity and Bone: A Lifespan Approach* (Human Kinetics Publishers, 2001). She is a BC Health Research Foundation Scholar.



Early Career Scholar
Associate Professor Heather McKay

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Assistant Professors



Early Career Scholar
Assistant Professor Jörg Bohlmann

Jörg Bohlmann (Biotechnology, Botany and Forest Sciences)– Jörg received his PhD in 1995 from the Technical U. of Braunschweig. His dissertation title is “Reinigung und cDNA-Klonierung der Anthranilat-Synthase aus *Ruta graveolens*.” Prior to being appointed in 2000 as Asst. Professor in the Biotechnology Laboratory at UBC, with appointments in the Departments of Botany and Forest Sciences, Jörg was a researcher in the Dept. of Plant Biochemistry & Plant Molecular Biology at the Max Planck Institute for Chemical Ecology. Jörg’s area of research interest is exploring natural defense mechanisms in trees (conifers and poplars) against pathogens, insect pests and other herbivores. Conifers have evolved complex chemical defense strategies both as pre-formed defenses and as inducible defenses against herbivores and pathogens. Jörg’s research with different spruce species (*Picea* spp.), Douglas fir (*Pseudotsuga menziesii*) and other conifers focuses on the genes and enzymes responsible for the formation of important defense metabolites (e.g., resin terpenoids), the signals involved in conifer-insect interactions, and the stress-induced development of defense-related resin ducts for terpenoid accumulation.



Early Career Scholar
Assistant Professor Lisa Cooper

Lisa Cooper (Classical, Near Eastern & Religious Studies) – Lisa received her PhD from the U. of Toronto in 1997. Her thesis is titled “The Middle Bronze Age of the Euphrates Valley, Syria: Chronology, Regional Interaction and Cultural Exchange.” Lisa was appointed Asst. Professor at UBC in 1999. She is a specialist in the history and culture of Mesopotamia. In particular, her research investigates the rise of urbanism and the development of writing; Bronze Age states and urban collapse; ceramic typologies; technology and petrographic studies; Neo-Assyrian military history; and Sumerian and Akkadian poetry and mythology. In addition to her skills as a linguist (Latin, Greek and Hebrew), Lisa is skilled in reading cuneiform texts written in the Sumerian and Akkadian languages. Lisa has done field work in Cyprus, Iraq, Syria and Turkey. She is currently Asst. Director of the Canadian Archaeological Expedition to Tell ‘Acharneh, Syria.

Susan Herrington (Landscape Architecture) – Susan received her MLA from the Graduate School of Design at Harvard U. in 1991. Prior to coming to UBC in 1999, Susan was principal in the landscape architecture/urban design firm of Land Studio (1989-95), and was Asst. Professor at Iowa State U. College of Design (1995-99). Susan's areas of research concern the culture of childhood and designed landscapes. Her work in these fields is informed by two underlying phenomena: first, that children increasingly spend time in childcare centers and schools; and second, that our society develops land in a method that is often detrimental to natural systems. One aspect of this research is Susan's work as co-principal investigator on an international design competition called *13-acres*. This competition asks a global audience of landscape architects (academic and professional) what a developmentally responsive and environmentally responsible outdoor play environment for children looks like. The submissions, over six hundred so far from a very wide range of cultures and geographies, will form the basic data for a wide ranging, fundamental inquiry into the relationships of physical environment and human (particularly children's) activity.

Susan received the 1999 *Places/EDRA* Place Research award, and was one of five finalists (with architect Mark Stankard) in the International Design Competition for the Oklahoma City Bombing Memorial.



Early Career Scholar
Assistant Professor Susan Herrington

Karim Khan (Family Medicine and Human Kinetics) – Karim received his MD (1984) and his PhD (1998) from the U. of Melbourne. He was appointed Asst. Professor at UBC in the Departments of Family Medicine and Human Kinetics in 2000. Karim's research work includes the disciplines of bone physiology, tendon histopathology, medical imaging and clinical investigation. The majority of his work has been related to the general subject of "tendonitis" and bone health, most recently on fracture prevention in older people through fall prevention. Karim's research is characterized by the breadth of his methods; laboratory based, technology based, population based and observational based studies. In addition, his work is unique in medicine in that it involves the collaboration of physical therapists, radiologists, family physicians, orthopaedic surgeons, vascular physicians, pathologists, epidemiologists,



Early Career Scholar
Assistant Professor Karim Khan

nutritionists, internists, and rheumatologists. Karim has published over eighty journal articles and has co-authored two books; *Clinical Sports Medicine*, with P. Brukner (McGraw Hill, 1993, 1994, 1997, 2nd ed. 2001), and *Physical Activity and Bone Health*, with H.A. McKay, P. Kannus, D.A. Bailey, J.D. Wark and K.L. Bennell (Human Kinetics, 2001).



Early Career Scholar
Assistant Professor Karon MacLean

Karon MacLean (Computer Science) – Karon received her PhD in Mechanical Engineering from M.I.T. in 1996. Her doctoral project was the construction of one of the first ever haptic feedback user interfaces, as a tool for rapidly prototyping real mechanical interfaces such as automobile cockpits, and conducting psychophysics experiments with it. She was appointed Asst. Professor of Computer Science at UBC in 2000.

Karon's current research is in the design, application and analysis of imbedded physical interfaces. Based on the haptic (touch) sense, such interfaces permit people to perceive and control the results of computation through intermediary tangible and often actuated objects. Karon's focus is to embed interfaces for distributed computation into the world around us, through simple force-feedback displays, and to study human sensory and cognitive questions surrounding the creation of a multi-modal language for communicating with such interfaces. This work integrates HCI, mechatronics, robotics, physiology and psychophysics, and reflects Karon's broad range of academic interests from biology and mechanical engineering to computer science and physics.



Early Career Scholar
Assistant Professor Aleck Ostry

Aleck Ostry (Health Care & Epidemiology and Centre for Health Services & Policy Research) – Aleck received his PhD in Epidemiology from UBC in 1998 and was appointed Asst. Professor in 2000. His areas of research interest are: population health/social determinants of health; the impact of work conditions (particularly technological change, stress, and unemployment) on health; and the history of public health and medicine.

Aleck's current research includes: 1. assessing the effects of labour market change and stress in a cohort of sawmill workers; 2. assessing the effects of community resilience on health; 3. developing and comparing methods for measuring stress at work; 4. investigating the relationship between organizational

characteristics of workplaces and worker's health in service and manufacturing sectors; and 5. history of public health, and history of injury and industrial disease in BC. Aleck was the recipient of a Canadian Institute of Advanced Research doctoral fellowship (1997-98), a BC Research Foundation Scholar Award (2000- declined), and a Canadian Institute of Health Research Scholar award (2000-05).

Steven Heine (Psychology) – Steve received his PhD in Social Psychology from UBC in 1996. The title of his dissertation is “Culture and the need for positive self-regard: The Japanese case.” Prior to his appointment as Asst. Professor in the UBC Psychology Department in 2000, Steve was Asst. Professor of Psychology at U. of Pennsylvania.

Steve's research is in the area of how cultural experiences shape the self. He is particularly interested in the phenomenon of self-esteem in a cross-cultural context. Steve's investigations fall under the broad question of how cultural assumptions on the nature of human agency, subject, and the self, as well as mundane everyday practices that embody these assumptions, may shape and give a concrete form to a variety of psychological processes and phenomena. Steve's work in this field challenges some of the basic assumptions made in Western psychology about the nature of human mind, and the importance of self-esteem and self-enhancement. Steve received, from the Japan Foundation, a Dissertation Fellowship in 1995 and a Research Fellowship in 2000.



Early Career Scholar
Assistant Professor Steven Heine

Holger Hoos (Computer Science) – Holger received his PhD in Computer Science in 1998 from Darmstadt U. of Technology. He came to UBC in 1998 as a post-doctoral fellow and was appointed Asst. Professor of Computer Science in 2000. Holger's research is focused in four general areas; artificial intelligence, bioinformatics, computer music, and empirical algorithmics. In the field of AI, his interest is in Stochastic Local Search (SLS) techniques for solving the propositional satisfiability problems, a conceptually simple yet computationally hard problem which plays an important role in AI and various other areas of computer science.



Early Career Scholar
Assistant Professor Holger Hoos

Holger's interest in empirical algorithmics grew from his work in AI. Here he looks at the properties of algorithms that are not (currently) accessible to theoretical analysis, by means of carefully designed computational experiments. In bioinformatics, Holger is working on applications of stochastic search and other algorithmic techniques to bioinformatics and biomolecular computing, including various aspects of RNA structure and DNA word design. His interest in computer music is in the areas of music representation and the creation of a software environment for musical programming, and in music information retrieval.



Early Career Scholar
Assistant Professor Janis Sarra

Janis Sarra (Law) – Janis received her LL.M. from U. of Toronto in 1998 and her S.J.D. in 1999. Her thesis is titled “Restructuring of Insolvent Corporations: Creditor Rights and Judicial Recognition of the ‘Public Interest’, Principles of Reconciliation.” Her LL.M. thesis won the U. of T. Marks Medal. Janis was appointed Asst. Professor of Law at UBC in 2000. Janis’ interests are in the areas of corporate law, contracts, and insolvency law. Her areas of specialization include corporate governance, debtor in possession financing, insolvency and restructuring, and champerty. Prior to taking her graduate degrees, Janis was a commercial and labour arbitrator. Janis is the author, with R.B. Davis, of *Director and officer liability in corporate insolvency: A comprehensive guide to rights and obligations* (Butterworths, 2001). She is currently working on a second book, *Creditor Rights and the Public Interest: Restructuring Insolvent Corporations*.



Early Career Scholar
Assistant Professor Leaf Van Boven

Leaf Van Boven (Commerce) – Leaf received his PhD in Psychology in 2000 from Cornell U. His thesis is titled “Living ‘The Good Life’: The Hedonic Superiority of Experiential Over Material Purchases.” Leaf was appointed Asst. Professor in Commerce at UBC in 2000. Leaf’s research work and interests straddle the disciplines of Consumer Behaviour, Economics and Social Psychology. His current work is in the areas of consumption hedonics: what aspects of consumption make life pleasant or unpleasant?; everyday understanding of psychological processes in self and others; and judgment and decision making.

Peter von Dadelszen (Obstetrics & Gynaecology) – Peter completed his medical degree at the U. of Otago, Dunedin, in 1984. After a number of years pursuing specialized training in obstetrics & gynaecology and maternal-fetal medicine in New Zealand, UK and Canada, Peter completed a DPhil (Obstetrics & Gynaecology) at Oxford U. in 2000. The title of his thesis is “Maternal leukocyte activation in pre-eclampsia.” He was appointed Asst. Professor in the Department of Obstetrics & Gynaecology at UBC in 2000. Peter’s areas of research interest are: 1. pathophysiology of pre-eclampsia, especially with regard to the innate immune system; 2. the evolutionary drive towards the development of pre-eclampsia in humans; 3. disease-modifying therapy of pre-eclampsia; 4. meta-analysis of blood pressure control in hypertensive pregnancies; and 5. optimization of blood pressure control in pregnancy using animal models and randomized controlled clinical trials. Peter has co-authored recent articles in *Lancet*, *American Journal of Medical Genetics*, and the *American Journal of Obstetrics & Gynaecology*.



Early Career Scholar
Assistant Professor Peter von Dadelszen

Okan Yilankaya (Economics) - Okan received his PhD in Economics from Northwestern U. in 1999 and was appointed Asst. Professor of Economics at UBC that year.

His areas of research interest are microeconomic theory, evolutionary game theory, information economics, law and economics, and industrial organization. Okan’s work in game theory is on the evolution of preferences. The objective of this work is to endogenize preferences in economic models and study their evolution in the population, using the idea, borrowed from evolutionary biology, that “successful rules” will proliferate, replacing unsuccessful ones. In the field of law and economics Okan is interested in models of evidence production in courts, and in analyzing the optimal standard of proof and penalties. In political theory, his current work is on the issue of strategic voting in primary elections.



Early Career Scholar
Assistant Professor Okan Yilankaya

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Visiting Junior Scholars



2001 Visiting Junior Scholars and partners with Ken MacCrimmon, Director, PWIAS.

This program brings to UBC for one month each summer, up to ten outstanding international scholars at the early stages of their careers. Candidates are nominated by UBC academic units and chosen by the Institute Selection Committee based on their research excellence and promise, along with their fit with the Institute's mandate to support fundamental, interdisciplinary research. The program aims to provide an

opportunity for participants to interact with peers from diverse disciplines and for UBC departments to have an opportunity to develop contacts with exceptional new scholars. Each participant is provided with an expense allowance of \$5,000, accommodation at the Institute, and scheduled meals. While the program includes daily talks, lectures and meetings, time is provided for the participants to continue their own research work and to work with their UBC departmental sponsors. The deadline for nominations for Visiting Junior Scholars for Summer 2001 was December 10, with the selection of participants made in early spring.



2001 Visiting Junior Scholars
Shelly Etnier (L) and Tianxi Cai (R).

Tianxi Cai (Biostatistics) received her PhD from Harvard University in 1999, where she received the Robert B. Reed Prize as the top PhD student in Biostatistics. Her thesis research was on the analysis of clustered survival data. Tianxi holds a MSc. in Applied Mathematics from M.I.T. and a BSc. from the U. of Science & Technology of China. Prior to taking up her current position of Asst. Professor in the Dept. of Biostatistics at the U. of Washington, Tianxi was a Research Fellow

in Biostatistics at Harvard. Her research is in the field of biostatistics and genetics; specifically the areas of survival analysis, semi-parametric estimation and medical diagnosis. Tianxi has published articles in the leading journals in statistics, including *Biometrika* and *Journal of the American Statistical Association*.

Shelley Etnier (Zoology) received her PhD in Zoology from Duke U. in 1999. Her thesis title is “Flexural and Torsional Stiffness in Biological Beams: The Morphology and Mechanics of Multi-Jointed Structures.” Shelley is currently an NIH Post-doctoral Fellow in Biological Sciences at the U. of North Carolina, Willmington, and an Adjunct Research Associate at the Center for Marine Sciences at UNC. Shelley’s broad area of research interest is in the relationship between flexibility and instability in the mammalian vertebral column. Her current work is on understanding the mechanics of vertebral flexion in dolphins, in particular the transition from a laterally flexed fetus to a fully functional dorso-ventral undulator at birth in bottlenose dolphins.

Todd Handy (Psychology) received his PhD in Psychology from UC Davis in 1998. His dissertation work focused on using electrophysiological measures of brain activity to study visual selective attention in humans. Todd is currently a Post-doctoral Research Fellow at the Center for Cognitive Neuroscience at Dartmouth College. Todd’s current research work in the electrophysiological domain centers on how visual attention may ultimately aid motor-related processing, and in particular, whether it may underlie a human’s effortless ability to grab objects. Todd is using functional magnetic resonance imaging (fMRI) to: 1. study how humans use information stored in memory in order to visualize images in the mind’s eye; and 2. explore how increasing the amount of information held in short-term memory affects visual perception. Todd has single-authored and co-authored articles in such publications as *Journal of Cognitive Neuroscience*, *Psychological Science*, *Perception & Psychophysics*, and *Journal of Experimental Psychology*.



2001 Visiting Junior Scholars
Ole Seehausen (L), Dieter Plehwe (C),
and Todd Handy (R).

Renisa Mawani (Criminology) was sponsored in the Visiting Junior Scholars program by the Faculty of Law. She received her PhD in Criminology in 2000 from the U. of Toronto. The title of her dissertation is “The ‘Savage Indian’ and the ‘Foreign Plague’: Mapping Racial Categories and Legal Geographies of Race in British Columbia, 1871-1925.” At the time of her



2001 Visiting Junior Scholars
Renisa Mawani (L) and
Dieter Plehwe (R).

appointment to this program Renisa was a Post-doctoral Fellow at the Centre for Criminology at U. of Toronto. She now has an appointment as Asst. Professor in the Dept. of Sociology at Brock University. Renisa's areas of research interest include race and criminal justice; post-colonial/critical race/feminist/criminological theories; race, gender, sexuality and the law; aboriginal justice; sociology of law; and representations of crime in the media. Renisa has single-authored papers in such notable publications

as *Canadian Journal of Women and the Law*, and the *Canadian Journal of Law and Society*.

John Mikhail (Philosophy, Law) was nominated to this program by the Dept. of Philosophy. His range of research interests and academic accomplishments extend to a number of disciplines. John received a PhD in Philosophy and Cognitive Science at Cornell U. in 2000. The title of his dissertation is "Rawls' Linguistic Analogy: A Study of the Generative Grammar Model of Moral Theory Described by John Rawls in 'A Theory of Justice'." While completing his PhD, John maintained a research affiliate position at MIT's Dept. of Brain & Cognitive Sciences (Noam Chomsky served as one of John's thesis advisors). John is currently completing a J.D. at Stanford University, where he is a member of the *Stanford Law Review* and Sr. Submissions Editor for *Stanford Journal of International Law*. John's main area of research is the moral sense or conscience: its nature, origin, and use. While his research is grounded in the perspective of an analytic philosopher, John's work also has a strong empirical component;

specifically the design and testing of computational models of moral and legal reasoning in adults and children.



2001 Visiting Junior Scholar
John Mikhail (L) and Jennifer Bair
(doctoral candidate, Sociology, Duke U.,
partner of Visiting Junior Scholar
Dieter Plehwe)

Grace Moore (English) received her PhD from the U. of Exeter in 2000. Her dissertation is "Dickens's Others: Discourses of Class, Race and Colonialism in the Work of Charles Dickens." Grace currently holds an appointment as

Lecturer in English Literature at the U. of Bristol. Her areas of research interest are in theories of progress, civilizing, and race in 19th and 20th century English literature. In particular her investigations focus on the issues of race and class as portrayed in such sources as the Victorian novel, Victorian periodicals, personal correspondence, and responses to the Indian “Mutiny” of 1857. Grace also has active research interests in crime fiction and post-colonialism. At present Grace is working on a new book project tentatively titled “Reinventing the Victorians”.



2001 Visiting Junior Scholars
Andrew Robinson (L)
and Grace Moore (R).

Dieter Plehwe (Political Science) received his PhD in Political Science from Philipps-University Marburg in 1998. He was sponsored in this program by the Institute for European Studies. The title of his dissertation is “Deregulation and Transnational Integration of Transport in North America.” Dieter currently holds the position of Research Fellow in the Department of Organization and Employment of the Social Science Research Centre, Berlin. His research interests include European integration (specifically transnational organization and governance), comparative studies of transnational business systems, North American integration, and the role of ideas in politics. Dieter currently heads a research project entitled “Logistics Governance Between Europeanization and Globalization”. This project looks at the relations between company reorganization and interest representation (lobbying) in Europe’s multi-level system.



2001 Visiting Junior Scholar
Dieter Plehwe (C) with partner Jennifer
Bair (R) (doctoral candidate, Sociology,
Duke U.) and Sima Godfrey (L), Director,
Institute of European Studies, UBC.

Andrew Robinson (Forestry) received his PhD in Forestry in 1998 from the U. of Minnesota, St. Paul. He currently holds an appointment as Asst. Professor in the Dept. of Forest Resources at the U. of Idaho, Moscow. Andrew’s research interests reflect his interests in both forest resource management and statistics (he holds an MSc. in Statistics and Forestry from the U. of Minnesota), and include: the creation, testing and application of modeling principles



2001 Visiting Junior Scholar
Andrew Robinson (L) with Ken
MacCrimmon, Director, PWIAS.

and the diagnostic tools for constructing a hierarchical framework of models of systems, particularly forest ecosystems; the use of such a framework to make predictions about system responses to stimuli, conditional on explicitly articulated statistical, ecological and biological assumptions; and the development of forest inventory and monitoring data collection to support such a model.

Ole Seehausen (Evolutionary Ecology) was sponsored in this program by the Dept. of Zoology. He received his PhD in Evolutionary Ecology in 1999 from the U. of Leiden. The title of his thesis is “Speciation and Species Richness in African Cichlid Fish: Effects of Sexual Selection by Mate Choice.” Ole currently holds two academic positions. His primary appointment is as Lecturer in the Dept. of Biological Sciences at the U. of Hull. He also holds an appointment in the Institute of Evolutionary & Ecological Sciences, U. of Leiden. Within the broad area of evolutionary ecology, Ole’s research interests are in the interactions between individuals and populations, and their interactions with their physical environment. His studies focus on how these interactions shape the evolutionary history of populations, species, and ecosystems. Ole’s studies of ecological and reproductive behaviour and their genetic basis, in cichlid fish in Lake Victoria, present a unique opportunity to study a species that has originated and diversified in a remarkably short (in evolutionary terms) time period – just 12,500 years. Ole has published over two dozen articles in such leading journals as *Science*, *Molecular Ecology*, *Journal of Evolutionary Biology* and *Proceedings of the Royal Society of London*, as well as one co-authored book and two single authored books, and numerous book chapters.



2001 Visiting Junior Scholar
Ole Seehausen (R) and Dolph
Schluter, Zoology, UBC.

Dieter Van Melkebeek (Computer Science) received his PhD in Computer Science from the U. of Chicago in 1999. The title of his thesis is “Randomness and Completeness in Computational Complexity.” Dieter won the ACM Doctoral

Dissertation Award for 1999. At the time of his participation in this program he held a Post-doctoral appointment at the Institute for Advanced Study in Princeton, and was a Post-doctoral Associate at the Center for Discrete Mathematics and Theoretical Computer Science (DIMACS) at Rutgers. In September 2001 Dieter took a position as Asst. Professor in Computer Science at the U. of Wisconsin, Madison. Dieter's research interests are in computational complexity (pseudo-randomness and de-randomization, structural complexity, quantum computing, and interactive proof systems); cryptography; error correcting codes; algorithms; and dynamical systems.



2001 Visiting Junior Scholars
Dieter Van Melkebeek (L)
and John Mikhail.

Peter Vranas (Philosophy) began his academic career with an undergraduate degree in Naval Architecture & Marine Engineering from the National Technical U. of Athens (1987). He simultaneously received a BSc in Econometrics from the U. of Rennes and U. of Grenoble. This was followed by a MSc in Ocean Systems Management and a PhD in Operations Research, both from MIT (1991, 1992). In April 2001 Peter received his second PhD, this time in Philosophy, from the U. of Michigan. The title of Peter's Philosophy dissertation is "Respect for Persons: An Epistemic and Pragmatic Investigation." His main areas of research interest fall into three broad clusters: 1. The relation between morality and rationality; why be moral, is there a significant overlap between morality and prudential rationality? 2. What are the ethical implications of situationist psychology? 3. The nature of time; why does time appear to flow in one direction only? can we go back in time? are causal loops possible? After his participation in the Visiting Junior Scholars program Peter took an appointment as Asst. Professor in the Dept. of Philosophy and Religion at Iowa State U.



2001 Visiting Junior Scholars
Ole Seehausen (L)
and Peter Vranas.

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Trustees Initiatives

The trustees of the Institute can propose funding worthy research-related activities or events that do not fit the criteria of the Institute's thematic or residential programs. The academic integrity of the proposals is assessed by the Director and the Peter Wall Distinguished Professor.

This year one Trustees Initiative was undertaken. In July 2001 retired Chief Justice of the BC Court of Appeal, Allan J. McEachern, was appointed in the Faculty of Law as Peter Wall Fellow in Law, based on funding from the Institute's Peter Wall Endowment. The appointment ended in June 2002 with the election of Chief Justice McEachern as Chancellor of The University of British Columbia.

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Associates Gatherings

Associates of the Peter Wall Institute are those faculty members who have served on one of the Institute's committees, have been or are currently a PI on one of the Institute's thematic awards, or are individuals who have been selected for one of the residential programs (see page 60 for a complete list of Institute Associates). On two Wednesdays each month the Institute offers alternating lunches and dinners with a following lecture. All Associates are invited to attend and a fee is charged to partially cover the meal costs. This program provides a forum for Faculty Associates to exchange ideas and knowledge across different departments and Faculties.

Associates Events

2001

- July 11 Lunch, Stephen Ward, "The Strange but Marvelous Invention of 'Journalistic Ethics'"
- July 18 Dinner, Elizabeth Simpson, "Fierce Mice: Inherited Violent Behaviour"
- Aug 8 Lunch, Peter Sexias, Preview of the Exploratory Workshop: "Canadian Historical Consciousness"
- Sept 12 Lunch, Mark Schaller, "Fear, Disgust, Prejudice and Immigration"



Judith Hall (Paediatrics, Medical Genetics), Associates Gathering talk.

- Sept 26 Dinner, Brett Finlay, "Pathogenic Bacteria: Why Diarrhea is Our Bread and Butter"
- Oct 10 Lunch, John Torpey, Preview of the Exploratory Workshop: "Reparations for Historical Injustices"
- Oct 24 Dinner, David Dolphin, "Werewolves, Vampires and Cures for Horrible Diseases"
- Nov 7 Lunch, Mark Vessey, "Raiders of the Lost Ark: Literature, Religion and the (Continuing) Crisis of the Humanities"
- Nov 21 Dinner, Judith Hall, "Cloning and Embryonic Stem Cells"
- Dec 13 Holiday Reception (no speaker)

2002

- Jan 9 Lunch, Laurie Ricou, "Towards a Culture of Salal"
- Jan 23 Dinner, Catharine Rankin, "Experience and the Simple Nervous System"
- Feb 13 Lunch, Tom Hutton, Preview of the Exploratory Workshop: "Asia Pacific Service Industries"
- Feb 27 Dinner, Patricia Baird, "Industry and Academia: A Sad Tale of a Clinical Trial and the Lessons it Teaches"
- Mar 13 Lunch, Guy Dumont & Mihai Huzmezan, Preview of the Exploratory Workshop: "Robotics and Health Care"
- Mar 27 Dinner, Caroline Ford, "Nature, Culture and Conservation in the French Social Imagination"
- Apr 24 Dinner, Dianne Newell, "Who Stole the Science From Science Fiction?"
- May 8 Lunch, Graham Good & Linda Siegel, Preview of the Exploratory Workshop: "Beyond Post-modernism"
- May 22 Dinner, Michael Church, "What Shall We Do With Fraser River?"
- June 12 Lunch, Younes Alila & Dan Moore, Post-view of the Exploratory Workshop: "Scaling and Non-linearity in Hydrological Systems of BC"

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Elizabeth Simpson (Medical Genetics),
2000 Early Career Scholar,
Associates Gathering talk.

PWIAS Facilities

Administration

The Institute occupies the top floor of the University Centre. The east wing includes the offices of the Director and staff, the research offices of the Distinguished Scholars in Residence, and the Peter Wall Distinguished Professor, and a boardroom and lounge for the use of the Scholars.

Conferences

The Institute has two conference rooms on the west wing of the University Centre's third floor. The large and small meeting rooms, approximately 800 and 600 sq. ft. respectively, can be used separately or combined. The rooms both open onto a large terrace with a sweeping view of the sea and mountains. When not in use by the Institute for program events, the conference rooms are available to other groups. Priority in booking the Institute facilities is given to research related activities open to the University community.



Residence

Located at the northeast end of the University Centre is the Institute's guest residence of twelve rooms. These superior rooms are well furnished and offer a view to the ocean and mountains. The residence offers two room configurations, a standard hotel style and a kitchenette style. All rooms include a full private bathroom, queen bed, internet linked PC, cable TV and voice mail. The rooms can be booked individually or as two-room suites. Rental rates give preference to Institute program guests. When not in use by the Institute, the rooms are available for booking by visitors to the University.

The Institute has experienced a substantial increase in demand for the use of its conference and residential space. In particular, the guest rooms are popular with other UBC academic units bringing guests to the Campus. The income

from the rental of conference and residence rooms is used to offset the operating costs of the facilities.

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Website

The Institute's website, at www.pwias.ubc.ca, has been online since December 1996. The website provides a full description of all Institute programs, listings of all thematic and residential program awards past and present, with links to related websites, and descriptions and photographs of the Institute facilities including rental rates and policies. Our website also includes a downloadable version of the thematic programs application form.

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FINANCIAL SUMMARY

FUNDING FOR THE INSTITUTE COMES FROM TWO ENDOWMENTS. THE PETER WALL ENDOWMENT COMPRISES PETER WALL'S ORIGINAL GIFT OF 6.5 MILLION WALL FINANCIAL CORPORATION SHARES. THE DIVIDENDS FROM THESE SHARES SUPPORT the Residential Programs and a major portion of the Institute administration. The Hampton Endowment, a \$10 million fund dedicated to the Institute in 1994, supports the Thematic Programs. The Hampton Endowment is currently (May 2002) valued at approximately \$13 million.

For 2001-02 the principal program expenditures were:

Thematic Programs

- \$435,000 in support of three Major Thematic projects: Pathogenomics; Narratives of Disease, Disability and Trauma; and Acoustic Ecology.
- \$92,000 for six Exploratory Workshops.
- \$42,000 for Theme Development Workshops, Weekly Colloquia and PWIAS Associates Forums.

Residential Programs

- \$62,000 for the four Distinguished UBC Scholars in Residence.
- \$112,000 for the eighteen Early Career UBC Scholars.
- \$78,000 for the eleven Visiting Junior Scholars.

Other Programs

- \$58,000 for the Trustees Initiative.

The Institute leases its research, administrative, residential and meeting space from the University of British Columbia at an annual rate of \$210,000 for a five-year term, beginning in 1999. Combined income from the rental of the Institute guest

rooms and meeting rooms and from the Associates events was \$195,000 this year. These revenues are applied against the operating costs of the facilities.

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PEOPLE

PWIAS Staff

Kenneth R. MacCrimmon was appointed in 1996 as the first Director of the Peter Wall Institute for Advanced Studies. He also holds the endowed chair as E.D. MacPhee Professor of Management at UBC. His PhD is from UCLA in interdisciplinary studies. Early in his career he was on the faculty of Carnegie Mellon University as well as holding an extended appointment at the Rand thinktank. Later he was J.L. Kellogg Distinguished Professor of Strategy and Decision at Northwestern University. He is co-author of the book *Taking Risks*, and his current research focuses on descriptive and normative aspects of decision theory and creativity.



Ken MacCrimmon, Director,

Peter Wall Institute for Advanced Studies.

Christopher McGill is Assistant to the Director. Chris was appointed in May 1999. He holds a MA from Simon Fraser U. Chris is responsible for the day-to-day operations of the facilities and program administration.



PWIAS office personnel Chris McGill (C),
Dale MacCrostie (L) and Katie Eliot (R).

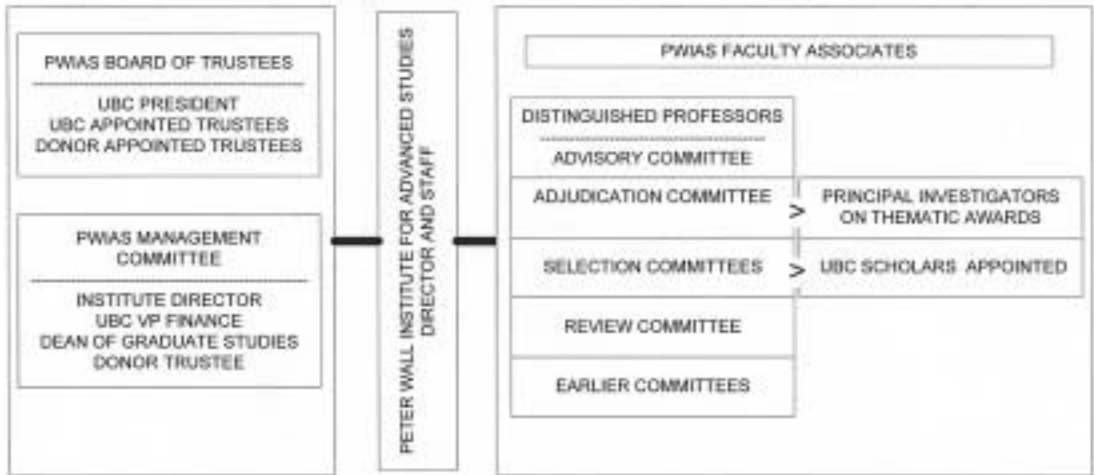
Dale MacCrostie is the Institute's Systems Coordinator. She manages all information systems hardware and software including the Distinguished Scholars in Residence, the administrative offices, the residential annex and the website.

Katie Eliot is the Institute secretary. Katie has a BA in Geography from UBC. She has considerable experience working at the University including IT Services and the Institute for Asian Research. In addition to her program support responsibilities, Katie looks after all aspects of the booking of Institute facilities.

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Governance

The diagram below illustrates the academic and administrative responsibilities and links within the Peter Wall Institute for Advanced Studies.



Board of Trustees

There are five trustees on the Peter Wall Institute board. They are:

Akbar Lalani, Royal Columbian Hospital
 Robert H. Lee, Prospero International Realty Inc.
 Les Peterson, Boughton Peterson Yang Anderson
 Martha Piper (Chair), President, UBC
 Bruno Wall, Wall Financial Corporation
 Terry Sumner (Secretary to the Trustees), Finance
 and Administration, UBC

Management Committee

Four members oversee the financial operations of the Institute. They are:

Frieda Granot, Graduate Studies, UBC
 Ken MacCrimmon, Peter Wall Institute
 for Advanced Studies, UBC
 Terry Sumner, Finance and Administration, UBC
 Bruno Wall, Wall Financial Corporation

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Faculty Associates

Associates of the Institute are those UBC faculty members who are or have been a PI on an Institute competitive award, have been selected as a Peter Wall Distinguished Professor, Distinguished UBC Scholar in Residence, or Early Career Scholar, or who have served on one of the Institute's committees.

Agricultural Science

Susan Herrington, Landscape Architecture
 Les Lavkulich, Soil Science
 Moura Quayle, Landscape Architecture
 James Thompson, Agricultural Science
 Hennie van Vuuren, Food Nutrition & Health and
 Wine Research Centre

Applied Science

Joel Bert, Chemical Engineering
 Sheldon Cherry, Civil Engineering
 Lyren Chiu, Nursing
 Elizabeth Croft, Mechanical Engineering
 Sidney Fels, Electrical & Computer Engineering
 John Grace, Chemical Engineering
 Mihai Huzmezan, Electrical & Computer
 Engineering
 Alison Phinney, Nursing
 Martha Salcudean, Mechanical Engineering
 Tim Salcudean, Electrical & Computer Engineering
 Rizhi Wang, Metals & Materials Engineering

Arts

Barbara Arneil, Political Science
 Karen Bakker, Geography
 Anthony Barrett, Classical, Near Eastern &
 Religious Studies
 Bill Benjamin, Music
 Alexia Bloch, Anthropology & Sociology
 Alan Cairns, Political Science *
 Maxwell Cameron, Political Science
 Michael Chandler, Psychology

Michael Church, Geography
Jane Coop, Music
Lisa Cooper, Classical, Near Eastern &
Religious Studies
Dennis Danielson, English
James Dunn, Geography *
Luciana Duranti, Library, Archival &
Information Studies
Eric Eich, Psychology
Richard Ericson, Anthropology & Sociology and
Law and Green College
John Wilson Foster, English
Caroline Ford, History
Nancy Frelick, French, Hispanic & Italian Studies,
and Comparative Literature
Bryan Gick, Linguistics
Sima Godfrey, French, Hispanic & Italian Studies
and Institute for European Studies
Marketa Goetz-Stankiewicz, Germanic Studies
Graham Good, English
Derek Gregory, Geography
Sneja Gunew, English and Women's Studies
Xiong Gu, Fine Arts
Steve Heine, Psychology
Robert Jackson, Political Science *
Brian Job, Political Science and Institute for
International Relations
Alan Kingstone, Psychology
Eva-Marie Kroller, English
Richard Kurth, Music
Diana Lary, History and Centre for Chinese Research
Darrin Lehman, Psychology
David Ley, Geography
Dominic Lopes, Philosophy
Patricia Marchak, Anthropology & Sociology
Mohan Matthen, Philosophy
Ralph Matthews, Anthropology & Sociology
Daniel Moore, Geography
Dianne Newell, History
Nancy Nisbet, Fine Arts
Ara Norenzayan, Psychology

Ruth Phillips, Art History, Visual Art & Theory
and Museum of Anthropology
Catharine Rankin, Psychology
Valerie Raoul, French, Hispanic & Italian Studies
and Centre for Research in Women's Studies &
Gender Relations
Alan Richardson, Philosophy
Laurie Ricou, English
Patrick Rysiew, Philosophy
Steven Savitt, Philosophy
Mark Schaller, Psychology
Robert Silverman, Music
Olav Slaymaker, Geography
Peter Suedfeld, Psychology
Shirley Sullivan, Classical, Near Eastern &
Religious Studies
John Torpey, Anthropology & Sociology and
Institute for European Studies
Mark Vessey, English
Lawrence Ward, Psychology
Stephen Ward, Journalism
Janet Werker, Psychology
Catherine Wilson, Philosophy
Rhodri Windsor-Liscombe, Art History, Visual
Art & Theory
Jonathan Wisenthal, English
Paul Yachnin, English
Okan Yilankaya, Economics

Commerce & Business Administration

Raphael Amit, Strategy & Business Economics*
James Brander, Strategy & Business Economics
Dale Griffin, Marketing
Alan Kraus, Finance
Maurice Levi, Finance
Ken MacCrimmon
Tom Ross, Strategy & Business Economics
Leaf Van Boven, Marketing
Ilan Vertinsky, Strategy & Business Economics

Dentistry

Don Brunette, Oral, Biological & Medical Sciences
David Sweet, Oral, Biological & Medical Sciences
and Bureau of Legal Dentistry

Education

Patricia Arlin, Educational & Counselling
Psychology and Special Education *
Kadriye Ercikan, Educational & Counselling
Psychology and Special Education
Heather McKay, Human Kinetics
Peter Sexias, Curriculum Studies
Linda Siegel, Educational & Counselling Psychology
and Special Education
Patricia Vertinsky, Educational Studies
John Willinsky, Language & Literary Education
Brian Wilson, Human Kinetics

Forestry

Younes Alila, Forest Resources Management
Hamish Kimmins, Forest Sciences
Jack Saddler, Dean
Stephen Sheppard, Forest Resources Management
and Landscape Architecture, Faculty of
Agricultural Sciences

Graduate Studies

Frieda Granot, Dean
Mandakranta Bose, Institute of Asian Research
Michael Burgess, Centre for Applied Ethics and
Medical Genetics
Lawrence Green, Centre for Health Services
& Policy Research *
Tom Hutton, Centre for Human Settlements
Kathy Pichora-Fuller, Institute for Hearing
Accessibility Research and Audiology
& Speech Sciences
Tony Pitcher, Fisheries Centre

Law

Christine Boyle
Jutta Bruneel *

Ruth Buchanan
Marilyn MacCrimmon
Wes Pue
Janis Sarra
Joseph Smith

Medicine

Patricia Baird, Medical Genetics
William Bowie, Infectious Diseases
Don Brooks, Pathology and Chemistry
Carolyn Brown, Medical Genetics
Anna Celler, Radiology
Christine Chambers, Pediatrics
Campbell Clark, Psychiatry
Michael Cox, Surgery
Dana Devine, Pathology
Judith Hall, Pediatrics and Medical Genetics
Michael Hayden, Medical Genetics
Philip Hieter, Medical Genetics
Clyde Hertzman, Health Care & Epidemiology
James Hogg, Pathology
François Jean, Microbiology & Immunology
Dagmar Kalousek, Pathology
Karim Khan, Family Practice
Barbara McGillivray, Medical Genetics
Aleck Ostry, Health Care & Epidemiology
Anthony Phillips, Psychiatry
Peter Reiner, Psychiatry
Wendy Robinson, Medical Genetics
Ann Rose, Medical Genetics
Fabio Rossi, Biomedical Research Centre
Elizabeth Simpson, Medical Genetics
Weihong Song, Psychiatry
David Speert, Pediatrics and Infectious Diseases
Mary Stephenson, Obstetrics & Gynaecology
Peter von Dadelszen, Obstetrics & Gynaecology
Antony Warren, Microbiology & Immunology

Pharmaceutical Sciences

Gail Bellward
John McNeill

Science

Ian Affleck, Physics & Astronomy
Philip Austin, Earth & Ocean Sciences
and Geography
Martin Barlow, Mathematics
Michael Blades, Chemistry
Michael Bostock, Earth & Ocean Sciences
Jörg Bohlmann, Biotechnology Lab and Botany
Chris Brion, Chemistry
Steve Calvert, Earth & Ocean Sciences
Cristina Conati, Computer Science
Anne Condon, Computer Science
Michael Doebeli, Mathematics and Zoology
David Dolphin, Chemistry
Brett Finlay, Biotechnology Lab and Biochemistry
& Molecular Biology
John Gosline, Zoology
Priscilla Greenwood, Mathematics *
Michael Healey, Earth & Ocean Sciences
Nancy Heckman, Statistics
Wolfgang Heidrich, Computer Science
Peter Hochachka, Zoology
Holger Hoos, Computer Science
William Hsieh, Earth & Ocean Sciences
and Physics & Astronomy
Grant Ingram, Earth & Ocean Sciences and
St. John's College
Brian James, Chemistry
David Jones, Zoology
Jurgen Kast, Chemistry and Biomedical
Research Centre
Patrick Keeling, Botany
David Kirkpatrick, Computer Science
Charles Krebs, Zoology
Xin Li, Biotechnology Lab
George Mackie, Biochemistry & Molecular Biology
Karon MacLean, Computer Science
Grant Mauk, Biochemistry & Molecular Biology
Andrew Ng, Physics & Astronomy
Sarah Otto, Zoology
Nicholas Pippenger, Computer Science

Rosemary Redfield, Zoology
Ron Rensink, Computer Science and Psychology
Harvey Richer, Physics & Astronomy
Dale Rolfsen, Mathematics
George Sawatzky, Chemistry
Dolph Schluter, Zoology
Douglas Scott, Physics & Astronomy
Anthony Sinclair, Zoology
Terrance Snutch, Biotechnology Lab and Psychiatry
and Zoology
Philip Stamp, Physics & Astronomy
Curtis Suttle, Earth & Ocean Sciences
Phillipe Tortell, Botany
William Unruh, Physics & Astronomy
Stephen Withers, Chemistry
James Zidek, Statistics

Deceased

Keith Brimacombe
Michael Smith

Note: * denotes Associates no longer at UBC.

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Committees

Advisory Committee

This committee meets as required to discuss directions for PWIAS and recommend program changes.

Patricia Baird, Medical Genetics
Don Brooks, Pathology and Chemistry
Richard Ericson, Law and Anthropology &
Sociology
Brett Finlay, Biotechnology (Chair)
Peter Hochachka, Zoology
Ken MacCrimmon, Peter Wall Institute for
Advanced Studies
Anthony Phillips, Psychiatry
George Sawatzky, Physics & Astronomy

William Unruh, Physics & Astronomy
Patricia Vertinsky, Educational Studies
Janet Werker, Psychology

Adjudication Committee

This committee is charged with evaluating thematic grant proposals.

Philip Austin, Geography and Earth
& Ocean Sciences
Bill Benjamin, Music
Joel Bert, Chemical Engineering
Don Brooks, Pathology and Chemistry
Anne Condon, Computer Science
David Dolphin, Chemistry
Luciana Duranti, Library, Archival &
Information Studies
Caroline Ford, History
Sima Godfrey, French and Institute for
European Studies
Dale Griffin, Commerce & Business Administration
Phil Hieter, Medical Genetics, Centre for Molecular
Medicine & Therapeutics and Biotechnology Lab
Hammish Kimmins, Forest Sciences
George Mackie, Biochemistry
Mohan Matthen, Philosophy
Ken MacCrimmon, Peter Wall Institute
for Advanced Studies (Chair)
Marilyn MacCrimmon, Law
Barbara McGillivray, Medical Genetics
John McNeill, Pharmaceutical Sciences
Rosemary Redfield, Zoology
Tom Ross, Commerce & Business Administration
Linda Siegel, Educational & Counselling Psychology
and Special Education
Phillip Stamp, Physics & Astronomy
David Sweet, Dentistry
John Willinsky, Language & Literacy Education

Review Committee

This committee reviews past awards in the thematic competitions.

Gail Bellward, Pharmaceutical Sciences (Chair)
William Bowie, Infectious Diseases
Don Brunette, Dentistry
Derek Gregory, Geography
Alan Kraus, Commerce & Business Administration
Ken MacCrimmon, Peter Wall Institute
for Advanced Studies
Andrew Ng, Physics & Astronomy
Wes Pue, Law
Catharine Rankin, Psychology
Curtis Suttle, Earth & Ocean Sciences
Rhodri Windsor-Liscombe, Art History, Visual
Art & Theory

Selection Committee – Senior Level (2001)

Charged with evaluating applications for senior scholar appointments (formerly the Appraisal Committee).

Anthony Barrett, Classical, Near Eastern &
Religious Studies
James Brander, Commerce & Business
Administration
Richard Ericson, Law and Anthropology &
Sociology
Grant Ingram, Earth & Ocean Sciences
Ken MacCrimmon, Peter Wall Institute
for Advanced Studies (Chair)
Dolph Schluter, Zoology
Peter Suedfeld, Psychology
Patricia Vertinsky, Educational Studies
Mark Vessey, English

Selection Committee – Junior Level (2001)

Responsible for evaluating applications for visiting junior and early career scholar appointments.

Eric Eich, Psychology

Nancy Heckman, Statistics

Ken MacCrimmon, Peter Wall Institute
for Advanced Studies (Chair)

Dianne Newell, History

Nicholas Pippenger, Computer Science

Laurie Ricou, English

Tim Salcudean, Electrical & Computer Engineering

Philip Stamp, Physics & Astronomy

Hennie van Vuuren, Food, Nutrition & Health and
Wine Research Centre

Ilan Vertinsky, Commerce & Business
Administration

Catherine Wilson, Philosophy

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PATHOGENOMICS: AN INTERDISCIPLINARY APPROACH TO THE STUDY OF INFECTIOUS DISEASES

Presentations in 2001 - 02 by Pathogenomics research team members.

(Only presentations outside of British Columbia, Canada are listed)

Invited Talk, Annual General Meeting of the NRC Genomics and Health Research Initiatives.
August 8-10, 2002. Ottawa, Ontario, Canada (presentation by Fiona Brinkman).

Invited Talk, International Conference on Bioinformatics, February 4-7, 2002, Bangkok, Thailand
(presented by Art Cherkasov).

Poster, ASM/TIGR Microbial Genomes Conference, February 10-13, 2002, Las Vegas, Nevada, USA
(presented by William Hsiao).

Invited Talk, Plant, Animal, and Microbe Genomes X Conference, January 12-16, 2002.
San Diego, California, USA (presented by Fiona Brinkman).

Invited Talk, Pseudomonas 2001, Symposium Speaker and Chair, Brussels, Belgium
September 17-21, 2001 (presented by Bob Hancock).

Invited Talk, The 12th International Symposium on the Biology of Actinomycetes (ISBA) meeting,
August 5-9 2001(presented by Yossi Av-Gay).

Invited Talk, SMBE 2001, annual meeting of the Society for Molecular Biology and Evolution.
July 7th -9th, 2001 in Athens, Georgia, USA (presented by Audrey de Koning).

AN INTERDISCIPLINARY INQUIRY INTO NARRATIVES OF DISEASE, DISABILITY AND TRAUMA

A Peter Wall Institute Major Thematic Grant Project

Talks and presentations 2001 – 2002

July 3, 2001

Kenneth Gergen (Swarthmore College) and Mary Gergen (Penn State University):
“Life Narrative: A Fractured Restorying”

October 2, 2001

Dr. Parin Dossa (Simon Fraser University):
“Exploring the Transformative Potential of Disability Narratives: An Example from
Canadian Muslim Women”

October 25, 2001

Dr. Sietske Dijkstra (Netherlands):
“Falling down and getting back up: How woman and men give meaning to abusive
experiences in childhood”

November 14, 2001

Dr. Sally Chivers (UBC):
“Converging Categories: A Literary Inquiry into the Social Construction of Old Age
and/as Disability”

December 5, 2001

Linda Frimer (Vancouver): “Art, Journey, Transformation, Survival”

March 7, 2002

Kate Collie (UBC): “Beyond the self: Dimensions of a Post-traumatic Stress Disorder Narrative”
Pam Brett-McLean (Edmonton): “‘From within our lives together’: On Narrative and Performance,
Art and Experience in Later Life”

March 20, 2002

“Complaints of a Dutiful Daughter” [film] by Deborah Hoffman

April 3, 2002

Karen Dias (UBC) and Dr. Isabel Dyck (School of Rehabilitation Sciences, UBC):
“The Ana Sanctuary: Women’s Pro-Anorexia Narratives in Cyberspace”

ACOUSTIC ECOLOGY

A Peter Wall Institute Major Thematic Grant Project Selected list of papers and presentations

July 2001 – June 2002

Kanwischer, D., Gick, B., Wilson, I & Shi, R. 2001. "Frequency and category factors in the reduction and assimilation of function words", JASA, 110, 5(2), p.2738. Presented at ASA , meeting, Fort Lauderdale, December 2001.

Morein-Zamir, S., Soto-Faraco, S. & Kingstone, A. (2002). "Crossmodal enhancement of visual temporal order perception." Canadian Society of Brain, Behaviour, and Cognitive Science Abstracts, 11, 64, Vancouver, BC.

Morein-Zamir, Soto-Faraco, S. & Kingstone, A. (2002). "Time Travel: Sound captures vision across the temporal domain." Paper presented to the 3rd Annual Multisensory Research Conference, Geneva, Switzerland.

Soto-Faraco, S., Lyons, J., Gazzaniga, M. S., Spence, C. & Kingstone, A. (2002). "The ventriloquist in motion: Illusory capture of dynamic information across sensory modalities." Cognitive Brain Research, 14, 139-146.

Kingstone, A., Danziger, S., Langton, S. R. H. & Soto-Faraco, S. (2002). "Attentional capture: Biological relevance, multisensory stimulation, and consciousness." *Psicologica: International Journal of Methodology and Experimental Psychology*, 23, 1-30.

K. van den Doel, D. K. Pai, T. Adam, L. Kortchmar, and K. Pichora-Fuller; "Measurements of Perceptual Quality of Contact Sound Models", Proceedings of the International Conference on Auditory Displays, 2002, Kyoto, Japan.

Vogt, F., McCaig, G., Ali, A., and Fels, S. "Tongue 'n' Groove." 2nd International Conference on New Interfaces for Musical Expression (NIME02), pp. 60-64, May, 2002.

Fels, S. and Vogt, F., "3D Visualization tools for MRI and Ultrasound Data", Technical Report HCT-2002-01, March 18, 2002.

Gick, B. and I. Wilson. "Pre-liquid excrescent schwa: What happens when vocalic targets conflict." In P. Dalsgaard, B. Lindberg and H. Benner (eds.). Proceedings of the 7th European Conference on Speech Communication and Technology (Eurospeech 2001), 273-276. Aalborg, Denmark: Center for Personkommunikation. September 2001.



Peter Wall Institute for Advanced Studies

Scientific Advances in Archaeological Research March 16, 2002

PWIAS Distinguished Scholar in
Residence Workshop
arranged by
Professors Tony Barrett and
Lisa Cooper, Dept. of Classical
Near Eastern & Religious Studies



9:00 am

***Ceramic Petrology in the Middle East:
Trade, Technology and Little Bits of Pottery***
Robert Mason, Royal Ontario Museum

10:15 am

***Ethnoarchaeological Approaches to the
Study of Prehistoric Agriculture***
Catherine D'Andrea, Simon Fraser University

Break

11:45 am

***Soil Composition in Archaeological
Contexts at the Micro-Level***
Wendy Matthews, University of Reading

Lunch


2:00 pm

***Stable Isotopes in Human Bone:
What They Tell Us About Diet and Population Mobility***
Sandra Garvie-Lok, University of Calgary


3:15 pm

***Volcanic Destruction of Thera: Insights from
Field Mapping & Ground-penetrating Radar Studies***
Kelly Russell, University of British Columbia

All sessions are free and open to interested students and researchers. Note however, pre-registration is mandatory as space is limited. To register email A. Barrett at aab@interchange.ubc.ca or L. Cooper at licooper@interchange.ubc.ca
All sessions held in room 307 University Centre.

	<p>Peter Wall Institute for Advanced Studies</p>
<p>Exploratory Workshop: Beyond Postmodernism</p>	
<p>Workshop coordinated by Graham Good, English Department & Linda Siegel, ECPSE</p>	<p>May 16 - 18, 2002 Peter Wall Institute University Centre www.pwias.ubc.ca</p>
<p>OPEN PANEL DISCUSSION Thursday, May 16, 1 - 3pm, Bu A106</p> <p>Panelists</p> <p>Terry Eagleton, English, U. of Manchester Authored works include <i>The Illusions of Postmodernism</i>, and <i>The Gatekeeper: A Memoir</i></p> <p>Raymond Tallis, Geriatric Medicine, U. of Manchester Authored works include <i>Theorrhia and After</i>, and <i>Enemies of Hope: A Critique of Contemporary Pessimism</i></p> <p>Daphne Patai, U. of Massachusetts (Amherst) Author of <i>The Orwell Mystique</i>, <i>Professing Feminism</i> (with Norette Koertge), and <i>Heterophobia: Sexual Harrassment and the Future of Feminism</i></p> <p>Harry Lipkin, Particle Physics, Weizmann Institute of Science, Israel</p>	
<p>For further details, including limited registration for other sessions, visit the web site at http://www.english.ubc.ca/projects/postmod</p>	





The **PETER WALL INSTITUTE FOR ADVANCED STUDIES** is located at the University Centre in the cultural heart of the University of British Columbia. The University Campus occupies a beautiful wooded site at the western tip of Vancouver on cliffs overlooking the Pacific Ocean. The **INSTITUTE** facilities include two well-appointed conference rooms opening to a broad terrace with spectacular water and mountain views. The residential annex, adjacent to the University Rose Garden, has twelve fully-equipped rooms.

The **PETER WALL INSTITUTE FOR ADVANCED STUDIES** has a variety of programs directed at supporting outstanding research. Several programs are thematic in nature designed to fund the collaborative research of interdisciplinary teams. These activities range from single meetings for developing themes, to multi-year major thematic grants. Other **INSTITUTE** programs focus on bringing together distinguished researchers, from both UBC and around the world, to spend time in residence at the **INSTITUTE**. These residencies, ranging in term from one month to one year, encourage the interaction of scholars from a variety of disciplines in exploring new research directions.

**PETER WALL INSTITUTE
FOR ADVANCED STUDIES**

The University Centre

6331 Crescent Road

Vancouver, BC Canada V6T 1Z2

Tel: 604.822.4782 Fax: 604.822.4222

e-mail: info@pwias.ubc.ca