



Scientific and Academic Knowledge

*Conference of the University-Based Institutes for Advanced
Study (UBIAS)*

September 17 to 19, 2013

Peter Wall Institute for Advanced Studies
University of British Columbia
6331 Crescent Road
Vancouver, Canada V6T 1Z2



AGENDA

TUESDAY, SEPTEMBER 17

**PETER WALL INSTITUTE FOR ADVANCED STUDIES CONFERENCE ROOM, Main floor, 6331 Crescent Road,
Vancouver**

7:30 am – 8:20 am Registration

8:00 am – 8:15 am Coffee and tea

8:20 am – 8:30 am Welcome

Dr. Janis Sarra, Director, Peter Wall Institute for Advanced Studies and Professor of Law,
University of British Columbia, Canada

Elder Larry Grant, Adjunct Professor, First Nations Language Program, Resident Elder, First
Nations House of Learning, University of British Columbia, Canada

8:30 am – 9:30 am Panel: **The Plurality of Knowledge-Seeking Inquiries**

Chair: **Professor Sami Pihlström**, Director, Helsinki Collegium for Advanced Studies, Finland

Speakers:

Professor Risto Eräsaari, Executive Board Chair, Helsinki Collegium for Advanced Studies, Finland

Dr. Sari Kivistö, Deputy Director, Helsinki Collegium for Advanced Studies, Finland

Abstract:

It may be argued that there are, in addition to scientific, and more generally, academic inquiries, also “non-scientific inquiries” that are in principle capable of generating knowledge – or at least it can be meaningfully examined whether such inquiries also pursue knowledge in some sense. Such modes of inquiry could include art (e.g., literature), politics (e.g., democratic discussion and deliberation), journalism, as well as, possibly, religion. This panel will consider this plurality of knowledge-seeking and potentially knowledge-generating inquiries from the point of view of university-based institutes for advanced study. It is a common practice of several UBIAS type of institutes to host, for instance, an “artist-in-residence” program, that is, to invite a creative artist, e.g., a novelist or a composer, to work in a scholarly community. It ought to be examined whether, and in what sense, such programs contribute to the generation of new knowledge that is a key task of institutes for advanced study. Another common practice of UBIAS institutes is to organize public debates on topics relevant to society, culture, and politics, including religion. Again, it needs to be investigated whether, and in what sense, such events are taking place within the academic community but extending beyond it to make contributions to the pursuit of knowledge. One possible perspective for these investigations is a pragmatist rearticulation of the very notion of inquiry. Insofar as inquiries are seen as responses to problematic situations that need reorientation and restructuring, it is perfectly possible to engage in non-scientific inquiries. However, if the concept of inquiry is broadened in this or some other way, the resulting pluralism will have to be built into the corresponding concept of knowledge as well. Clearly, then, we can no longer simply define knowledge as “justified true belief”, as has been done by epistemologists since Plato; what we need is a more flexible

and pluralistic concept of knowledge relevant to the changing practices of the academic world, including UBIAS institutes. We also need to explore the ways in which both traditional scientific inquiries and the various non-scientific inquiries should be expected to yield genuinely novel results; scientific and non-scientific knowledge alike must be new in order to be truly interesting to the knowledge-seeking community.

9:40 am – 10:45 am Panel: **International Dispersion of Knowledge**

Chair: **Dr. Judy Illes**, Director, National Core for Neuroethics, UBC and Peter Wall Institute for Advanced Studies Faculty Associate, University of British Columbia, Canada

Speakers:

Dr. Sujian Guo, Associate Dean and Distinguished Professor, Fudan Institute for Advanced Study in Social Sciences, China *Globalization and Knowledge Transition in China's Social Sciences*

Associate Professor Dapeng Cai, Institute for Advanced Research, Nagoya University, Japan, *The Reintroduction of Economic Thoughts to China in the Reforming Era*

Professor Yunqian Chen, Nanjing University Institute for Advanced Studies in Humanities and Social Sciences, China, *The Introduction of the Western Concept of Constitutional Politics to China*

Professor Kirill O. Thompson, Associate Dean and Professor, Institute for Advanced Studies in Humanities and Social Sciences, National Taiwan University, Taiwan, *Yan Fu between Tradition and Modernity*

Professor Takaho Ando, Director and Professor, Institute for Advanced Research, Nagoya University, Japan, *French Thoughts and Modernization in Japan: Influence and Turn of Context*

Abstract:

Knowledge repeatedly disperses across national borders. Adapted to local contexts, it influences the formation of cultural and social institutions in different regions. This session examines the international exchange of knowledge between the East and the West, in particular the dispersion of the European knowledge to Asian countries. It discusses how the introduction of the European culture has shaped the Asian societies, with the focus on the history of modernization.

10:45 am – 11:00 am Health Break

11:00 am – 11:45 am Keynote Address

Introduction of Dr. Cheng by **Dr. Susanna Braund**, Department of Classical, Near Eastern & Religious Studies, UBC and Peter Wall Institute for Advanced Studies Faculty Associate, University of British Columbia, Canada

Dr. Anne Cheng, Professor, Chair of Chinese Intellectual History, Collège de France, France, *The French Invention of Sinology as an Academic Discipline*

11:45 am – 12:15 pm Panel: **Embedding Indigenous Learning in Scientific and Academic Knowledge**

Speaker: **Dr. Shelly Johnson (Mukwa Musayett)**, School of Social Work, UBC and Peter Wall Institute for Advanced Studies Faculty Associate, University of British Columbia, Canada

12:25 pm – 1:30 pm

Panel: **Conceptions of Knowledge in the Humanities**

Chair: **Dr. Werner Frick**, Professor of German and Comparative Literature, University of Freiburg, and Director, Freiburg Institute for Advanced Studies School of Language & Literature, Germany

Speakers:

Dr. Andrea Albrecht, Professor of German Literature, University of Stuttgart, Germany, *“Interdilettantism”*

Dr. Richard Eldridge, Professor of Philosophy, Swarthmore College, United States, *“Cultural Studies and Literary Imagination”*

Dr. Olav Krämer, Junior Fellow, Freiburg Institute for Advanced Studies School of Language & Literature, Germany, *“Interdisciplinarity and the search for epistemic foundations in literary studies”*

Abstract:

The panel, hosted by the Freiburg Institute for Advanced Studies, will investigate conceptions of knowledge that have characterized research activities in the humanities during the last decades. The papers will deal with conceptions that have been elaborated or advocated in explicit and programmatic ways but also with concepts of knowledge that have been tacitly relied upon. The main focus will be on conceptions of knowledge that have been used when dealing with knowledge from the natural and the social sciences. In recent decades, research in the humanities has referred to knowledge from these disciplines in very diverse ways. On the one hand, scholars have subjected items of knowledge produced by, e.g., the natural sciences to historical, cultural or rhetorical analyses; these analyses frequently aim at qualifying, relativizing or ‘debunking’ that knowledge. On the other hand, scholars from the humanities have repeatedly tried to use theories from the natural or the social sciences in order to provide their own research with a solid foundation; examples include the uses of evolutionary theory, sociological systems theory or theories from the cognitive sciences. Other approaches can be seen as lying between these opposite extremes; e.g., genuinely interdisciplinary projects of a collaborative kind or the use of theories from the natural or social sciences for heuristic purposes. All these approaches are openly or tacitly guided by specific conceptions of knowledge. The aims of the panel are to analyze these conceptions of knowledge, to discuss their plausibility and fruitfulness and to suggest alternative conceptions.

1:30 pm – 3:30 pm

Lunch break

3:30 pm – 4:00pm

The Student Perspective – Scientific and Academic Knowledge

Chair: **Dr. C.W. Toph Marshall**, Professor, Classical, Near Eastern and Religious Studies, Distinguished Scholar in Residence 2013-2014, University of British Columbia, Canada

Speakers:

Jeffrey Therrien, PhD Candidate, Materials Chemistry, University of British Columbia, Canada, *“Nanomaterials for Alternative Energy Applications”*

Lucy Rodina, Masters Candidate, Institute for Resources, Environment and Sustainability, University of British Columbia, Canada, *“Challenges for Research in Water Access and Governance and the Human Right to Water in South Africa”*

4:00 pm – 4:20 pm **New Institute for Advanced Studies**

Speakers:

Dr. Malcolm Press, Director, Birmingham Institute of Advanced Studies, United Kingdom

Professor José Vicente Tavares Dos Santos, Director, Latin American Institute for Advanced Studies, and Federal University of Rio Grande do Sul, Brazil

5:30 pm – 7:30pm Performance and Book Launch on *An Exploration of Fairness, Interdisciplinary Inquiries in Law Science and the Humanities*, Roundhouse Theatre, 181 Roundhouse Mews, Vancouver, **Margie Gillis**, Choreographer and Dancer, Fondation de Danse, Montréal, Canada, music composed by Peter Wall Composer in Residence Dr. Alfredo Santa Ana, **Karen Gerbrecht**, Violin, **Olivia Blander**, Cello, **Mark McGregor**, Flute and book launch with 15 author poster discussion, reception and hors d'oeuvres

WEDNESDAY, SEPTEMBER 18

PETER WALL INSTITUTE FOR ADVANCED STUDIES CONFERENCE ROOM, Main floor, 6331 Crescent Road, Vancouver

7:30 am – 8:20 am Registration

8:00 am – 8:15 am Coffee and tea

8:30 am – 9:30 am Keynote Addresses

Chair: **Dr. Angela Redish**, Vice Provost and Associate Vice President, UBC and Peter Wall Institute for Advanced Studies Faculty Associate, University of British Columbia, Canada

Dr. B. Brett Finlay, Peter Wall Distinguished Professor, Departments of Microbiology and Immunology, and Biochemistry and Molecular Biology, Michael Smith Laboratories, University of British Columbia, Canada *The Knowledge Pipeline: Translating Basic Findings Into Society*

Dr. Philippe Sansonetti, Professor of Microbiology, Collège de France, France, *Unraveling the Depth of Our Symbiosis with Microbes. How Much will it Affect Medicine?*

9:40 am – 10:40 am Panel: **Knowledge and Interdisciplinarity in the Mathematical and Physical Sciences**

Chair: **Professor Margaret Schabas**, Professor, Philosophy Department, UBC and Peter Wall Institute for Advanced Studies Faculty Associate, University of British Columbia, Canada

Speakers:

Dr. Peter Goddard, Professor, School of Natural Sciences, and Past Director, Institute for Advanced Study, Princeton, United States

Dr. Eliezer Rabinovici, Professor of Physics, Hebrew University, Jerusalem, and Past Director, Institute for Advanced Studies of Jerusalem, Israel



www.ubiasconference.pwias.ubc.ca

UBIAS University-Based
Institutes for
Advanced Study

10:40 am – 11:00 am Health Break

11:00 am – 12:00 pm Panel: **The Science of Technology and How to Deal with its Future**

Chair and speaker: **Dr. Patrick Dewilde**, Technische Universität München, Institute for Advanced Study, Germany

Speakers:

Dr. Gernot Spiegelberg, Professor and Rudolf Diesel Industry Fellow, Technische Universität München, Institute for Advanced Study, Germany

Stefanie Hofmann, Managing Director, Technische Universität München, Institute for Advanced Study, Germany

Tatjana Steinberger, Program Manager, Technische Universität München, Institute for Advanced Study, Germany

Abstract:

Technology as the “science of artificial things” generates evolution by changing the world we live in, for better or worse, but evolves itself as well, partly due to its own making and partly influenced by societal developments. The main trends in this evolution: globalization, increase in volume, diversification and systemization provide new opportunities for Institutes of Advanced Studies, but also major challenges. Artificial things are of course different from artistic things, although they both contain the word “art”, which translates in ancient Greek to τέχνη. Both technology and art have in common that they are human-made, the difference is in the λόγος, what we nowadays call “science”. For some it may seem unconscionable to stretch the substance of technology beyond mere artifacts to processes and systems, but with the coming of computers and the internet, a restriction of technology to just tools, machines and techniques appears totally artificial. Humankind’s grip on the world has greatly expanded on the one hand, and on the other, the scientific way of doing things (the professionalization) has become ubiquitous. Hence, there is logically no alternative to letting “technology” span all human activities that consciously shape the world in a scientifically justified way. The evolution of technology as a science has taken place mostly since the enlightenment onwards, but has accelerated considerably in modern times. Science as a unified body of knowledge is a methodology to structure knowledge and to provide for ways of validating the proposed structure. It may even include the finding that for some phenomena “there is no structure”, as one does when one describes a system as “chaotic”, but even such a finding needs justification. Technology and Science have thus become inextricably intertwined. The new trends have reinforced this twinning, and it will be one of the great challenges of an Institute for Advanced Study to cater to it. The first and foremost need the developers of modern technology have, is focused access to knowledge and expertise, clearly derived from the new technology or science, provided by carefully selected scientists and/or experienced practitioners.

12:05 pm – 1:00 pm Panel: **I hear you say**

Speakers:

Professor Joe Dahmen, Assistant Professor, School of Architecture and Landscape Architecture, Peter Wall Institute for Advanced Studies Early Career Scholar, University of British Columbia, Canada

Amber Frid-Jimenez, AFJD Studio and Associate Professor, Emily Carr University

Abstract:

This installation will embody the values and character of the Peter Wall Institute’s Early Career Scholars program by setting up an imaginative space that encourages the interdisciplinary exchanges characteristic of the Early Career



www.ubiasconference.pwias.ubc.ca

UBIAS University-Based
Institutes for
Advanced Study

Scholars. This work was created by Amber Frid-Jimenez and Joe Dahmen, of AFJD Studio and the University of British Columbia. Ashley Eusebio, Master of Architecture student at SALA, provided design and production assistance; Lara Boyd and Carla Hudson Kam provided input in the formulation of the general concept for this installation.

1:30 pm – 3:30 pm Lunch Break

3:30 pm – 4:30 pm Panel: **What do you mean I have to pay for this MOOC? Disruptive Innovation and Flexible Learning in Higher Education**

Chair: **Dr. Karen Bakker**, Professor, Department of Geography, Director, Program on Water Governance, Institute for Resources, Environment, and Sustainability, UBC and Peter Wall Institute for Advanced Studies Faculty Associate, University of British Columbia, Canada

Speakers:

Dr. Don Krug, Professor, Curriculum and Pedagogy, Faculty of Education, University of British Columbia, Canada

Dr. Petra Dierkes-Thrun, Lecturer in Comparative Literature, Stanford University, United States

Dr. Kevin Leyton-Brown, Associate Professor, Computer Science, University of British Columbia, Canada

Dr. John Steeves, John & Penny Ryan BC Leadership Chair, Professor and Founding Director, International Collaboration on Repair Discoveries (ICORD), UBC and Peter Wall Institute for Advanced Studies Faculty Associate, University of British Columbia, Canada

Abstract:

The acceptance and monetization of massive open online courses (MOOC) by elite universities is leading some academics to question the creative destruction of institutionally recognized face-to-face practices and distributed online learning. However, open education resources and open access never necessarily meant free, nor did they necessarily mean the pedagogical design would be innovative or beneficial. MOOC are disrupting business-as-usual at universities, but is the flexible distribution of learning clearing ground for a future that will challenge the very foundations of what it means to receive a university degree? If the story that we tell ourselves is changing about higher education (what it is, who it's for, how it's delivered, who delivers it) will this change lead to new stories, new pedagogy, and new spaces for greater access for diverse peoples to higher education? In this presentation I will articulate some of the educational, economic, cultural, social, political and technological dimensions of flexible learning in formal and informal virtual spaces.

4:30 pm – 5:30 pm Panel: **Water and Society: How do We Achieve Social Transformation? A Cross-disciplinary Approach**

Chair and speaker: **Associate Professor Anas Ghadouani**, Deputy Head, School of Environmental Systems Engineering, Faculty of Engineering, Computing and Mathematics, Institute of Advanced Studies University of Western Australia, Australia

Speakers:

Professor Michael Burton, School of Agricultural and Resource Economics, Faculty of Science, Institute of Advanced Studies, University of Western Australia, Australia



www.ubiasconference.pwias.ubc.ca

UBIAS University-Based
Institutes for
Advanced Study

Associate Professor Alex Gardner, Centre for Mining, Energy and Natural Resources Law, Faculty of Law, Institute of Advanced Studies, University of Western Australia, Australia

Winthrop Professor Carmen Lawrence, Director of the Centre for the Study of Social Change, School of Psychology, Faculty of Science, Chair of the Australian Heritage Council, Institute of Advanced Studies, University of Western Australia, Australia

Abstract:

The importance of water and its impact on society will continue to be one of the key challenges for future generations struggling with droughts, floods and the availability of clean drinking water. The need for cross-disciplinary strategies to deal with the global, financial, ecological and societal issues is the focus of this panel, which will explore the social transformations needed to support water sensitive cities, including community attitudes and behavioural change, governance and economic assessment practices, management systems and technological innovations. By developing a richer understanding of the underpinning social norms and behaviours, along with scientific research, guidance on institutional rules and economic and regulatory frameworks for water sensitive decisions, policies and practices can be achieved. The ultimate goal is to deliver policy tools and practical guidance that will facilitate social, institutional, regulatory and economic reforms that are mutually reinforcing, flexible and adaptable to different social scales and contexts. Professor Michael Burton will discuss the acceptability of water restrictions and recycling on a drying continent as responses to the growing potable water shortages in Australia. Professor Alex Gardner will examine regulatory renovation for risk management of alternative water sources and managed aquifer recharge from an Australian perspective. The renovation being suggested will address a practical research problem through the interaction of numerous fields of law and regulatory theory, within a cross-disciplinary perspective. Professor Anas Ghadouani's paper will discuss water engineering and science in a changing world that requires more focus on integrated and multifunctional systems that can respond not only to diverse demands. Emphasis must be put on minimizing the carbon footprint and ecological impact, and maximizing the potential for multiple beneficial services to society. Professor Carmen Lawrence will explore how to use normative feedback to reduce household water use, identified as an important policy goal, especially in regions, such as Western Australia, where climate change is producing lower rainfall and higher evaporation rates. Systematic evaluation of current mass media campaigns indicates that they are largely ineffective and that interventions based on comparative social normative information are much more effective in producing changes in environmental behaviour, including water use.

5:30 pm Short walk to Roy Barnett Recital Hall, School of Music, Music Building, 6361 Memorial Road, UBC

5:40 pm – 7:00 pm *Performance on Water*, Peter Wall Institute for Advanced Studies Arts-Based Initiatives Committee Faculty/Student collaboration

Moderator: **Professor Rena Sharon**, Professor of Collaborative Piano Studies, UBC School of Music, UBC and Peter Wall Institute for Advanced Studies Faculty Associate, University of British Columbia, Canada

Water Dance by **Tsatsu Stalqayu (Coastal Wolf Pack)**

Award and exhibition, Peter Wall Institute Arts-Based Initiative Student Prizes on Water

THURSDAY, SEPTEMBER 19

**PETER WALL INSTITUTE FOR ADVANCED STUDIES CONFERENCE ROOM, Main floor, 6331 Crescent Road,
Vancouver**

7:30 am – 8:20 am Registration

8:00 am – 8:15 am Coffee and tea

8:30 am – 9:00 am Remarks

Introduction of Professor Toope by **Dr. Janis Sarra**, Director, Peter Wall Institute for Advanced Studies, University of British Columbia, Canada

Professor Stephen Toope, President, University of British Columbia and Chair of Board, Peter Wall Institute for Advanced Studies, *The Challenge for Scientific and Academic Knowledge*

9:00 am – 9:30 am Keynote Address

Introduction of Dr. Descola by **Dr. Catherine Sousloff**, Professor, Department of Art History, Visual Art & Theory, Peter Wall Institute for Advanced Studies Distinguished Scholar in Residence 2013-2014, University of British Columbia, Canada

Dr. Philippe Descola, Chair in Anthropology, Collège de France, France, *What is Anthropological Knowledge?*

9:40 am – 10:40 am Panel: **Curating Knowledge**

Chair and speaker: **Professor Martin Grossmann**, Director, Institute of Advanced Studies, University of São Paulo, Brazil

Speaker:

Professor Guilherme Ary Plonski, Board Member, Institute of Advanced Studies, University of São Paulo, Brazil

Abstract:

The panel, hosted by IEAS São Paulo, examines metacuratorships, which involve the interdisciplinary work of specialists and their respective coordinators to motivate the formation of networks and to minimize the primacy of individual authorship. We suggest the creation of four metacuratorships: “commons”, dealing with the issue of access; “transformational”, dealing with training, development and the mission of transforming society, including exploration of the frailness of the government’s educational policies since the beginning of the redemocratization process in Brazil in the 1980s; “glocal”, exploring the paradoxes, contradictions, inequalities, impropriety, and the relevance of this neologism formed by the polarization/simultaneity of globalness and localness; and “abstraction”, an instance of pure, undiluted free thinking: new and renewed indicators of thought without borders (trends, ideas and concepts still in the pre-application stage), and the creative act in philosophy, in the arts and in science (a desirable equivalency). We think that by inviting prominent scholars from Latin America or Pan America, we will be able to debate this new way of exposing and disseminating knowledge and its potential to mingle and translate concepts, theories, methodologies, processes across disciplines and scientific cultures.

10:40 am – 11:00 am Health Break

11:00 am – 12:00 pm Panel: **Two Perspectives on Knowledge and War**

Chair: **Dr. James Peck**, Professor, Geography, Peter Wall Institute for Advanced Studies Distinguished Scholar in Residence 2013-2014, University of British Columbia, Canada

Speakers:

Dr. Derek Gregory, Peter Wall Distinguished Professor and Human Geographer, University of British Columbia, Canada, *Gabriel's Map: Cartography and Corpography in Modern War*

Dr. James Stewart, Assistant Professor, Faculty of Law, Recipient Peter Wall Institute for Advanced Studies Mentorship Program, University of British Columbia, Canada, *Knowledge and Responsibility in Modern War*

Abstract:

Dr. Gregory will speak on *Gabriel's Map: Cartography and Corpography in Modern War*. Maps and war have long been entangled, and modern militaries have always used maps to turn what Clausewitz called 'paper war' into 'real war'. But cartography presents a clean, clinical view of combat – so much so that in William Boyd's novel *An Ice-Cream War*, set in East Africa in 1914, a young British subaltern (Gabriel) 'thought that maps should be banned: they gave the world an order and reasonableness it didn't possess.' The same was true on the Western Front: the general staffs relied on maps and the new science of aerial photography to choreograph a metricized, almost mathematical campaign in an abstract space. Although the central years of the war were notable for their stasis, however, this effect was produced through an almost endless gavotte of raid and reprisal, a series of micro-movements that depended on a constant, near up-dating of the cartographic trace (so that this is not a unique product of 21st century digital navigation). The mass-produced and distributed maps and photographs were in turn copied, annotated and amended by front-line soldiers, and a close examination of these – together with diaries, memoirs and letters – reveals an altogether different apprehension of the combat zone: a sensuous, bodily corpography whose knowledge was haptic rather than visual, grounded in the battlefield as literally a physical field rather than an abstract space. The dialectic between these two modes of knowledge continues to animate the violence of late modern war today, and this needs to be recovered if we are to produce publics that are not seduced by the myth of bloodless, surgical, 'virtual' and thus 'virtuous' war. Dr. Stewart's talk, titled *Knowledge and Responsibility in Modern War* explores how technologies have transformed the modern battlefield by allowing both advanced militaries and their adversaries to undertake a new type of "media operation," that uses soundbites, youtube videos, and images captured by cell phones as part of a battle for hearts and minds. As one might expect, this process paints a partial, sensationalized and often distorted public image of warfare. At the same time, the advent of criminal responsibility during war that has arisen most conspicuously since the end of the Cold War, presents an opportunity for a third competing knowledge of warfare, that stands to upset both sides of the narrative warring factions might hope to deploy. While this third way offers new and sometimes startling opportunities, it simultaneously carries its own distortive capacities. What then is the relationship between knowledge of war and the quest for responsibility?

12:10 pm – 1:10 pm Panel: **Transdisciplinarity: Mediating Science and Art Through Images**

Chair: **Dr. Anne Martin-Matthews**, Professor, Department of Sociology, Trustee, Peter Wall Institute for Advanced Studies, University of British Columbia, Canada

Speakers:

Dr. Kimyeong Lee, Physics Professor, Korea Institute for Advanced Study, Republic of Korea, *Instituting Transdisciplinarity in Korea*



www.ubiasconference.pwias.ubc.ca

UBIAS University-Based
Institutes for
Advanced Study

Dr. Doogab Yi, History, Korea Institute for Advanced Study Junior Fellow, Republic of Korea, *A World in One Dimension? The Sequence Hypothesis and Models for Animal Chromosomes*

Abstract:

As a research institution dedicated to the advancement of theoretical research and intellectual inquiry, Korea Institute for Advanced Study (KIAS) inaugurated a transdisciplinary program in 2012 in order to conduct research that transcends traditional subject categories and disciplinary boundaries. This year KIAS's transdisciplinary program has explored the role of images in the sciences and arts. The focus on visualization first of all intends to encourage an interdisciplinary cooperation and exchange. More importantly, examining the pursuit of knowledge organized around visualization rather than around disciplinary boundaries, we aim to reopen the old question of the relation between the sciences, arts, and humanities. We consider some of the commonalities underlying creative activities across disciplinary boundaries, helping to answer some of the foundational questions in the advancement of scientific and academic knowledge, such as the nature of creativity and its relation to interdisciplinary exchanges. Dr. Lee's paper will chronicle the inauguration of KIAS's transdisciplinary program in its Korean context, presenting key rationales for instituting such interdisciplinary program, their implications for advancing scientific and academic knowledge, some of the limitations in traditional scientific methods, and the need for new historical and philosophical reflections for the advancement of basic knowledge. Dr. Sungook Hong will discuss key methodological issues in utilizing images as a hybrid entity that can mediate some of the seminal questions in scientific and academic knowledge. Over the last twenty years, the 'visual turn' in science studies has provided new and innovative approaches, methodologies, and sources for understanding science and technology. A turn to visual culture in (art) history has also helped historians and social scientists to use visual materials as potential resources to illuminate creative activities in the sciences and arts in historically nuanced ways. Dr. Doogab Yi's paper will provide a case study in KIAS' transdisciplinary program on visualization, analyzing the history of the contemporary understanding of life's most essential components, DNA and genes through the perspective of visual culture and tracing the emergence of the DNA sequence hypothesis that postulated that the linear sequences of nucleotides would suffice to produce all the macromolecules of life. This paper will consider how to make sense this shift by focusing on experimental and visual culture in molecular biology, illuminating multiple interactions between artistic and scientific pursuit in contemporary biology.

1:30 pm – 3:30 pm

Lunch Break

3:30 pm – 4:45 pm

Panel: The Art and Science of Resilience: A Cross-Disciplinary Exploration of Arts in Knowledge Generation, Translation and Dissemination

Chair: **Professor Michelle LeBaron**, Professor, Faculty of Law, UBC and Peter Wall Institute for Advanced Studies Distinguished Scholar in Residence 2013-2014, University of British Columbia, Canada

Speaker: **Professor Kim Berman**, Associate Professor in Visual Art at the University of Johannesburg, South Africa, Executive Director of Artist Proof Studio, *Artist Proof Studio in Johannesburg: A Case Study in Resilience*

Graphic recording: **Aftab Erfan**, School of Community and Regional Planning, University of British Columbia, Canada

Panel:

Dr. Cynthia Cohen, Director of the Program in Peacebuilding and the Arts, International Centre for Ethics, Justice and Public Life, Brandeis University, United States

Dr. Peter Reiner, Professor, National Core for Neuroethics, UBC and Peter Wall Institute for Advanced Studies Faculty Associate, University of British Columbia, Canada

Dr. Mary Ann Hunter, Senior Lecturer, Faculty of Education, University of Tasmania, Australia



www.ubiasconference.pwias.ubc.ca

UBIAS University-Based
Institutes for
Advanced Study

Abstract:

Generating new kinds of knowledge: Resilience, understood as a quality of systems that allows them to recover strength and coherence after trauma, is vital to both individuals and communities. Recent scholarly work on resilience fields as diverse as neuroscience, conflict studies and education, attests to the timeliness of efforts to deepen theoretical and practical understandings of resilience and approaches to restoring and enhancing it. Capacities to strengthen resilience will benefit from the integration of insights from diverse bodies of knowledge, including intercultural community perspectives and practices. We will engage participants in experiential exploration of the meaning of resilience from their home disciplines, and its resonance across cultures as a concept, a quality of systems and a set of processes; and distill results from the roundtable on the heuristic robustness of resilience across cultures and disciplines in our accompanying paper. Translating knowledge across disciplines and between the academy and communities: When existing structures and processes are strained by the multidimensional complexities of crisis, the arts can be crafted to increase social cohesion and capacities for agency. They assist with managing transitions, addressing conflicts, and facilitating healing. The arts provide ways of integrating intellectual, emotional, and physical narratives—a serious need in the midst or aftermath of serious conflict. The arts are powerful vehicles for translating knowledge across both disciplinary and community boundaries. We will demonstrate the potency of the arts to translate knowledge across community fault-lines through film clips and discussion; offer experiential opportunities for conference participants to explore the efficacy of arts-methods in communicating abstract theoretical ideas across disciplines; and distill research and scholarship on the efficacy of arts in knowledge translation and social transformation in our accompanying paper. Disseminating knowledge and capacity for resilience via the arts: Understandings of the capacity for resilience have been considerably enhanced by recent work in neuroscience. Communicating these and other scholarly contributions to communities who need them is challenging because of the exclusivity of discipline-based language, conceptual complexities and the abstract nature of the work. The arts are a promising vehicle for communicating understandings of resilience because they accommodate paradox, embrace complexity and offer experiential bridges to dynamic ideas. The panel will offer experiential examples of how resilience findings can be communicated via multi-modal arts; and distill findings on arts as a vehicle for knowledge dissemination using examples from various global projects on post-conflict reconciliation in our accompanying paper.

4:45 pm

Closing Thanks

Dr. Anne Martin-Matthews and **Ms. Sonya Wall**, Trustees, Peter Wall Institute for Advanced Studies

5:00 pm – 6:00 pm

Closing Reception