



Horses and Hikers are Tough on Forest Trails

Horse and hiker traffic may cause more sediment run-off during rainstorms on established forest trails than trail bikes or motor bikes, recent Montana State University research suggests.

John Wilson of MSU Earth Sciences and Joe Seney, a graduate student in Plant and Soil Science, studied the erosional impact of hikers, horses, motor cycles, and mountain bikes on mountain trails. A total of 108 two foot square plots on two existing trails near Emerald Lake and New World Gulch in the Gallatin National Forest (Montana) were used for the study. Soil texture and slope gradients were measured prior to the experiments and antecedent soil moisture, trail roughness, soil resistance, water runoff and sediment yield were measured after 50 and 100 passes of each trail user on dry plots and on plots which were prewetted with a rainfall simulator used to apply 20 minute "rainstorms". Analysis indicated that horses and hikers (hooves and feet) made more sediment available than wheels (motorcycles and mountain bikes) and that this effect was most pronounced on prewetted trails.

Professor Wilson now has additional research is now under way to determine the relationships between terrain characteristics, soil moisture conditions, and trail erosion on 11 km of trails in Gallatin National Forest.

Researchers Funded for Study of Climate and Agriculture

The Nat Christie Foundation, Calgary Alberta, has awarded \$1,000,000 to scientists at the University of Lethbridge and the Lethbridge Agriculture Canada Research Station in support of research on the Impacts of Climate Variability on Agricultural Sustainability in Alberta. Funding began in January 1992, and is assured until the end of 1996.

The project is lead by James Byrne and Rod McNaughton, Professors in the Geography Department at the University of Lethbridge. Byrne is also Director of U of L's Water Resources Institute, whose staff will participate at various stages of the project.

The research will focus on the sensitivity of Alberta agriculture to current climate variability, and to potential long term changes in climate. A series of climate scenarios will be developed, that reflect possible future conditions in Alberta. The impacts of these scenarios will be assessed with a number of climatic, crop, and pest models. Climate sensitivity functions for various crops and agricultural practices will be developed. The output of these models will help researchers gauge the economic impact of various cropping strategies. The goal is to help farmers and agricultural agencies to better plan their

response to climate variability and change.

A multidisciplinary research team will work on the project. Jim Byrne a climatologist at U of L. will coordinate the efforts of a team of natural scientists based at Agriculture Canada. Social scientists (including geographers Rod McNaughton and Tom Johnston (U of L) and Barry Smit (Guelph) will assess the likely economic impact of changes in cropping strategy. Several Post Doctoral Fellows will be employed by the project.

The Nat Christie Foundation was established in 1981 by the late Dr. Clara Christie in honour of her late brother Nat Christie who died in 1955. Mr Christie was a prominent businessman in Calgary, and was very active in community affairs. Mr. Christie died a bachelor, and Dr. Clara Christie inherited from him a number of valuable properties in Calgary. The sale of this property resulted in the establishment and donation of funds to the Foundation.

For more information on the project, contact Jim Byrne or Rod McNaughton, Department of Geography, The University of Lethbridge, Telephone: (403) 329-2225, E-mail: BYRNE@HG.ULETH.CA.

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The deadline for contributions to the Winter-Spring issue is January 15, 1993.

Faculty Collaborate on New Vancouver Collection

Most of UBC's Geography department members have been jointly involved in producing *Vancouver and Its Region*, a very wide-ranging collection about Western Canada's largest metropolitan area. It presents a finely drawn historical geography of the city and its surroundings, an incisive commentary on the contemporary city, and a valuable report on the impacts of urban growth on the biophysical environment.

Edited by Graeme Wynn and Timothy Oke, this collaborative enterprise involves 19 members of the UBC geography department with contributions from (in order of appearance): Graeme Wynn, Alfred H. Siemens, O. Slaymaker, M. Bovis, M. North, T.R. Oke, J. Ryder, Cole Harris, Graeme Wynn, T.R. Oke, M. North, O. Slaymaker, D.G. Steyn, T.J. Barnes, D.W. Edgington, K.G. Denike, T.G. McGee, R.N. North, W.G. Hardwick, D. Ley, D. Hiebert, G. Pratt, D.G. Steyn, M.J. Bovis, M. North, O. Slaymaker, and Derek Gregory.

Vancouver's story has many facets. The city enjoys a magnificent physical setting shaped over many millennia but sculpted into approximately its present form in the last few thousand years by glaciers and volcanoes and more recently profoundly altered by urbanization. It is the home of a complex and vigorous Native society, whose culture was based on rich local resources well into the nineteenth century but was disrupted and marginalized by the impact of the fur trade, the gold rush, the railway, and the urbanization of its territory. During the latter part of this century, Vancouver has developed into a dynamic metropolis but has also had to deal with the accompanying social, ethnic, and political tensions.

Opening with a vivid photo

essay, which presents several original views of the metropolitan area, *Vancouver and Its Region* is richly illustrated with many original maps, diagrams, and photographs. The book is filled with local detail yet points to issues and processes that are relevant far beyond Vancouver. The result of decades of research, this readable, provocative, and informative study will appeal to the local community and to students and academics in many disciplines from anthropology through history and economics to sociology, as well as geography.

(From review material provided by Kate Saunders, Marketing Manager, UBC Press)

WCAG 1992 Conference Report

The 1992 WCAG Conference was held at the College of New Caledonia in Prince George, B.C. on Friday, March 20 and Saturday, March 21, 1992.

A total of 42 geographers from across B.C. and Alberta attended. This included 9 undergraduates and 16 graduate students.

On Friday evening an entertaining Panel discussion debated the question:

"Resolved that the development of northern resources has largely served the interests of multi-national corporations and heartland communities."

Panel discussants included representatives from industry, native groups, environmentalists and academia. The discussion was lively and informative and received extensive local media coverage.

On Saturday a total of 26 academic papers were presented in concurrent sessions on a variety of themes. All of the papers were of a high quality. The conference organizers were particularly impressed with the standard of

excellence achieved in the student papers.

Only one formal field trip was held on Saturday afternoon. This was an urban geography field trip through downtown Prince George under the capable leadership of Alistair McVey. In addition, at the behest of two of our colleagues from the lower mainland, a CNC undergraduate geography student made arrangements to charter a light aircraft for a field trip north of Prince George to view Williston Lake and the Rocky Mountain Trench. This trip was, by all accounts, most memorable.

A highlight of the conference was the luncheon address on Saturday by the Honourable David Zirnhelt, B.C. Minister of Economic Development, Small Business and Trade. Mr. Zirnhelt's address, on the theme: "The Transition of B.C.'s Economy" was favourably received by conference delegates and attracted provincial media attention.

The conference organizers (Alistair McVey, Cliff Raphael, Bruce Loerke, Jim Windsor and the College of New Caledonia Geography Club) enjoyed hosting the 1992 Conference and hope that the conference was both informative and enjoyable for delegates.

Healthy Cities: Project Becomes a Movement

The Canadian Healthy Cities movement has survived the cessation of federal government funding. The movement is growing with over 30 communities participating in British Columbia and new municipalities becoming involved in Alberta. The Canadian Institute of Planners is supporting a national network of healthy community participants. The Healthy Communities concept is fully compatible with sustainable development and entirely supportive of community planning. (From *Plan Canada*, March 1992).

Geographers in the Private Sector

A Geographer in Business: Corporate Strategic Planning

by Arden Brummell

Business is not just about operating a profitable company; it also means planning for the future. In the 1990s, strategic planning is designed to position the company for future growth and profitability. Essentially, there are three questions which strategic planning must address: Where are we?; Where are we going?; and How do we get there?

Corporate planners have increasingly realized that defining a path and achieving it depends on understanding potential external developments, including social, political, economic and technological trends. For example, how is product demand potentially affected by trends such as changing family structures, environmental values, declining savings rates and global capital markets?

Some companies have tried to approach these future uncertainties by developing scenarios i.e. alternative pictures of the future. The scope of scenarios can be global, national or market-specific. By painting more than one picture of the future, the goal is to emphasize the uncertainty of the future and to expand the range of decision-makers' thinking. Considering a range of possibilities encourages "what if" thinking and more robust plans.

Over the past 10 years much of my work at Shell Canada has been in corporate planning focused on the development of global and national scenarios. This work comes naturally to a geographer.

Developing scenarios requires the meshing together of information and theories from a broad range of disciplines. This covers topics from population dynamics, social theory and urban development to political trends, micro- and macro-economics, and global climatic change. Unlike any other discipline, geography touches on all of these areas and demands synthesis (as well as analysis) in understanding whole systems.

This synthesis also requires communication. In a world of specialized experts, communication can be difficult. The geographer often finds him/herself as an intermediary between specialists. In a team of economists, engineers and chemists the geographer may be the only one with sufficient overlap to enable communication.

The breadth of knowledge, the ability to synthesize and to communicate effectively are all part of geographic training which is valuable in business. Like other disciplines, creative independent thinking, formulating sound arguments (persuasion is vital in business) and writing clearly are also valuable. These skills open up opportunities in business and may be more important than the knowledge acquired in an academic discipline.

Knowledge is not unimportant, of course. Who would have thought that an introduction to physical geography and particularly the greenhouse effect would be very useful to me some 20 years later? At least I can talk to the experts developing climate change models as well as those focusing on the socio-economic impacts!

Finally, for those weighing the value of a geographic education in business, I believe the issue is not whether geography will get someone a

job, but whether the discipline and training will provide the skills for advancement and success. For me, this is one area where geography excels.

(Arden Brummell is currently Manager, Communications and Issues in the Public Affairs Department of Shell Canada in Calgary. Before joining Shell Canada in 1981, he taught at both Lakehead and McMaster universities. His B.A. is from Queen's; his M.A. and Ph.D. are from McMaster.)

Profile of a New Consulting Firm

Geowest Environmental Consultants Ltd. is a new company providing environmental consulting services to all levels of government, private industry and special interest groups. Geowest services will include a wide range of natural resource and environmental applications with a strong emphasis on computerized information management and product delivery. Geowest's services are concentrated in six fields.

Biophysical and Ecological Inventory
Preliminary mapping is done with the most recent aerial photographs and satellite imagery. Data gathered from detailed field investigations are used to produce the final biophysical or ecological maps.

Remote Sensing and Geographic Information Systems

Remote Sensing and Geographic Information Systems (GIS) technologies are on the leading edge of resource management practice today. Both provide cost-efficient methods of collecting and analysing natural resource and environmental data.

GIS/Environmental Modelling

Geowest can develop spatial/temporal simulation models to predict where and when critical environmental threshold values are reached and to

respond with appropriate policies.

Forestry and Resource Appraisal Services

This work typically involves large scale forest cover mapping to current government and industry standards, small scale vegetation cover mapping using satellite imagery, permanent sample plot establishment, timber cruising, right-of-way route selection and environmental impact assessment.

Natural Resource Consulting

Geowest is equipped to assess environmentally significant areas and site and facility development and to conduct environmental impact assessment studies, pipeline and right-of-way planning, biomonitoring, and wildlife habitat mapping.

Training

Geowest can provide critical training in the areas of GIS, forest/vegetation inventory and soils/landform mapping. Training opportunities can be provided either on-site or at Geowest's offices in Edmonton.

Geowest counts two geographers among its four professional partners: Dennis O'Leary (B.Sc. Sir Wilfrid Laurier) and Erik Ellehoj (MSc. Calgary; Ph.D. in progress, Alberta). For more information contact Geowest Consulting Ltd: 3614 Hillview Cr., Edmonton, AB T6L 1C4, Phone: (403)461-5091.

Faculty Member Squeezes Contract Research into a Busy Schedule

Dr. Rod McNaughton, Associate Professor of Geography at the University of Lethbridge, is studying the recreational use of Southern Alberta's irrigation reservoirs. The research project consists of three components: (1) an inventory of recreational sites, (2) on-site interviews of site users, and (3) a mail survey of non-site specific users. The goal is to

estimate the number of recreational users of irrigation reservoirs, and to quantify the economic value of this activity. This study is part of an overall review of the public benefits of irrigation development sponsored by the Alberta Irrigation Projects Association (AIPA). The AIPA is the umbrella organization of Alberta's 13 Irrigation Districts representing 1.2 million acres of irrigation development. UMA Engineering Ltd. of Lethbridge, Alberta is coordinating the review. The review is part of the continuing efforts of the irrigation industry to communicate the benefits of irrigated agriculture to Albertans. The research projects that comprise this review are benefitting from the participation of many private and public sector agencies represented on the Advisory Committee.

The inventory of recreation sites was completed early in 1992. All 75 irrigation reservoirs in Southern Alberta were visited to identify the location of recreation sites, their availability of services, level of development, and suitability for various activities. Field observations were supplemented by various published sources. Twenty-three sites were found to have been developed on reservoirs. These range from provincial parks with fully serviced camp sites, to small fishing oriented day-use areas.

On-site interviews were conducted during the peak summer months by Diane Clark, a Lecturer in Sociology at the University of Lethbridge. The interviews collected information on group characteristics, recreational activities, site usage and preferences. Most importantly, they also collected information that will be used to construct a travel cost model. The contingent valuation methodology is also implemented in the interview. This will allow comparison of indirect and direct methods of valuing recreational usage of these sites.

In conjunction with the

interviews, a traffic counter program was also established at sites where user statistics are not regularly collected.

A mail survey of naturalist, fishing, and hunting users is being conducted this Fall. As these uses are not site-specific, they were not well represented in the on-site interviews. This questionnaire focuses on the frequency and location of use, collects information on recreation related expenditures, and implements travel cost and contingent valuation methodologies.

The study is scheduled for completion in early 1993, and will be released by the AIPA as part of its overall review. For more information about the study, please contact: Dr. Rod McNaughton, Department of Geography, The University of Lethbridge, Phone: (403) 329-2536.

Third Annual Field Trip Alberta Geomorphological Field Group

Friday to Sunday, 18-20 September, 1992.

This field trip provides a fascinating opportunity to witness Western Landscapes. The first trip visited the Scablands of Northern Washington and the second was in the Crowsnest Pass area. The Third Annual Field Trip will visit sites in south-central Alberta with three themes:

1. Late quaternary geomorphology of the Hand Hills area
2. Late Wisconsinian subglacial mega flood paths in the Coronation-Spondin-Sunnybrook-Cessford areas.
3. Late quaternary geomorphology of Onetree Creek Basin and the Red Deer River Badlands.

The trip begins at 10:00 A.M. on Friday morning in Hanna and will conclude at 3:00 on Sunday afternoon in Dinosaur Provincial Park.

Accommodation is planned for Friday night in Hanna and for Saturday night in Patricia. Steak and Ale will be featured on Saturday night.

For further information contact:

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Ministry of Education's Curriculum Revision Threatens Geography

News from the WCAG Education Committee by Marg North, Committee Chair

BC's Royal Commission on Education (the Sullivan Commission) has set the stage for a complete revamping of the entire BC school system. Their document, "Year 2000," set the general goals to be accomplished and since its publication details have been progressively refined for each of the three levels of education: Primary, Intermediate and Graduation.

The Ministry is developing "framework" documents (up to 30 pages long) for each subject area or grouping of subjects. These documents will follow a common format to provide: a rationale for including the subject area in the curriculum; a statement of curriculum intentions covering each grade from K-11; and implications for curriculum planning, sequencing and assessment. The importance of these framework documents is considerable as they will direct future curriculum development. However, their generality makes them difficult to use as guides for curriculum development.

Developing the Social Studies Framework Document: Will Geography Be Left Out?

The Social Studies K-11 curriculum is currently under review and a framework document will soon be developed. At this time we are not sure if this document will be directly produced by the reviewing team. The team doing this work has been selected and to date we know of only one Geography/Social Studies teacher who is a team member. (There may be others but the Ministry does not intend to release the names; there was at least one Geography teacher on the selection committee.)

Prior to the August meeting the Ministry called in an Educational Consultant to conduct a two-day seminar on Social Studies Education with a group of six professional Social Studies Educators, all from Education faculties. There was no geographer, nor was there any voice for geography. A report based on these experts' opinions is being prepared and will be provided to Social Studies review team.

Marg North has been asked to send one or two articles on Geography to accompany this report in an attempt to redress the obvious lack of any understanding of our discipline. She has written to the Minister on behalf of the WCAG to point out that two articles, however well-written, are no substitute for having a professional geographer personally representing the discipline.

The dangers for Geography are apparent. The present curriculum has essentially reduced the standing of Geography to a specified list of geographical skills and geographical facts. We know that the subject is far more than this. A well-trained Geography teacher can take the existing curriculum and make it into a lively, relevant and challenging classroom experience for all ages and abilities of students.

But the majority of Social

Studies teachers have little if any post-secondary geography courses beyond an introduction to physical geography. Thus it is unlikely that the majority on the Review team will see anything wrong with the present status of Geography, or may even consider it expendable, as being neither relevant nor likely to promote critical thinking.

In the Social Studies curriculum of the future, geography stands to lose out to Sociology, Psychology, Economics and Law. Yet all these subjects ultimately rely on the interaction of individuals and societies with their environments, the traditional field of Geography. And the content of all disciplines is place and time specific; to teach them without these essential dimensions renders them of limited use. Further, none of these disciplines has the breadth and comprehensiveness of Geography in encompassing the sciences, social sciences and humanities. These points are being neglected in developing the Social Studies Framework document.

Possible Impacts on Post-Secondary Enrolment

Thus far, we have dealt exclusively with the Social Studies review and generation of the Framework document. However, there are also concerns about the Graduation Program (grades 11 & 12) and the intended content of the culminating Social Studies course, currently titled "Social Investigations." This compulsory course is envisioned as taking up double the present course's time allotment and would be designed to promote understanding, to engage and to inform the educated citizen. Its strength will depend on the previous social studies curriculum and on its potential to respond to local concerns. There is obviously great potential here for Geography.

This course will provide a pre-requisite for the selection of the grade 12 Geography course. We should realise that we owe much of

the popularity of our subject at the post-secondary level to the popularity of Geography 12 as a provincially examinable subject in BC. (It is, in fact, the third most popular). If the new grade 11 course no longer introduces Geography, because Geography has disappeared from the earlier Social Studies, the impact on enrolment in Geography 12 and ultimately at the post-secondary level may be profound.

What can we do about this? We have written to the Minister to express the concerns of the WCAG at various times, most recently after a motion of concern was passed at the last AGM. The present Minister has responded by sending a Ministry representative to the CAG Education day meeting session on "Whither Geography", following which we were invited to meet with representatives of the Graduation and Intermediate Programs' writing teams. As a result, we have been asked to supply a list of people in each provincial post-secondary institution who might be contacted on the topic of the role of Geography in the Social Studies curriculum.

Making the Case for Geography

The next point of intervention may well be in October when the Ministry will be inviting formal written briefs to the draft Framework document on Social Studies. Please be prepared to speak out and make the case for Geography. (The Geographical Association in the UK has published The Case for Geography, which may be helpful.)

Field Schools and Field Courses: Opportunities and Problems

Many of our post-secondary institutions have either regular or occasional field schools and/or extended field studies courses. The Education committee has become aware of two opportunities/problems related to these essential parts of

geographic training.

BC Field Study Network Information Requested

The recently convened BC Environmental Articulation Committee has been collecting information on field centres used on a regular basis to see if a network of such centres could be established on a permanent/semi-permanent basis throughout the province. This would enable a wider range of environments to be studied, and would possibly link schools in the surrounding areas in much the same way as the Field Study Centres in Britain. If you have any such interest or information to share, contact: Ray Baynes, Biology Department, VCC, Langara.

Is Collaboration a Solution to Planning Extended Field Trips?

From time to time many of us have tried to arrange extended field study trips, lasting from 5 to 15 days or longer. These are expensive in both financial terms and in time spent on organisation and preparation. Sometimes these plans fail to materialise because some critical number of students is not achieved. Why don't we try pooling such courses between several institutions?

Perhaps, as a first stage, we could announce field studies in the WCAG Newsletter, including such details as the itinerary (with dates), course credit, pre-requisites, assessment, transfer status, costs, numbers, contact name and address.

An Emerging Issue: Third Year Transfer Students and the Space Crunch

A document is circulating among the B.C. post-secondary institutions on the topic of maintaining equity for transfer students in the face of rising demands and rising entrance standards in the three major BC universities. Apparently the same

discussion is in progress in Alberta although we have not seen the relevant documents. There is already a quota on the number of transfer students who can enter UBC at the third year, but to date this quota has not been exceeded.

The Geography department at UBC, like many other departments, is experiencing a rapid increase in the number of majors, resulting in third year courses with 150 students, and fourth year classes of 40-50. There is pressure from the faculty to reduce class sizes by limiting the number of majors. Some departments have already restricted intake on the basis of marks in selected second year courses. Another unofficial way to limit intake is to require a third year course that has a seat restriction. As enrolment at UBC is by teleregistration based on marks, students with lower, though acceptable, marks may find it difficult to get into their preferred discipline.

It would probably be useful to establish the real entry requirements for the Geography departments at all degree-granting institutions to ensure that all students intending to transfer can be directed into the appropriate courses to ensure their eligibility. This sounds like a job for the next Articulation meeting.

Changing light bulbs....

Question: How many GIS specialists does it take to change a light bulb?

Answer: Only one, but first they will take 50 person hours to digitize it and then spend 50 more person hours to convert all the data to a different format.

Question: How many postmodernists does it take to change a light bulb.

Answer: Three; one to debate the semantics of "change a light bulb", one to debate its metaphorical ambiguity and one to dismiss the whole enterprise as science-based.

College and University News

College of New Caledonia

The 1991/92 academic year was a busy one for the College of New Caledonia in Prince George. The Department expanded with the appointment of Jim Windsor, a Ph.D. candidate at the University of Victoria. A specialist in water resources with many years of experience in water management in Ontario, Jim replaces Alistair McVey, who has taken a three year appointment as Chair of the University Transfer Sciences Division. Expanding enrolments also brought Bruce Loerke into the Department to take up a full-time appointment as Lab Demonstrator.

It would appear that the College's increasing enrolments are simply following the provincial pattern, although there is no doubt that the development of the University of Northern British Columbia (Canada's newest university) is an encouraging factor for many would-be students. It is now scheduled to open in September, 1994, so it is difficult to do more than speculate upon its eventual effects on the College.

Kwantlen College

This September sees the opening of our new campus in Richmond. Designed to accommodate a doubling in capacity from the old site, the new building houses a spacious physical geography/geology lab as well as a classrooms dedicated to human and regional geography classes. The new facility will help us to expand our geography student body, which to date, totals 1200 students per year taking a variety of first and second year courses on both our Richmond and Surrey campuses.

We hope that our present faculty of four full-time and three part-time members will expand to include another full-time position in physical geography in 1993 when a third campus opens in Langley and we add second year course offerings at the Richmond campus. As we head into 1992-1993 we anticipate continued high demand for geography courses and the development of some new courses in physical as well as regional geography.

Medicine Hat College

Fall 1992 sees some changes in this one person department. Ben Moffat is taking a one or possibly two year leave to begin a doctoral program in geography at the University of Saskatchewan. His primary research will concern concepts of region and historic and contemporary treaties, land claims and settlements of Metis and First Nation peoples in the Canadian West.

Joseph Mensah (Ph.D. pending, Alberta) will use all of his wide-ranging background to replace Ben and offer courses in physical geography, human geography and regional geography.

Simon Fraser University

Two new people have joined Simon Fraser University's geography faculty. Margaret Schmidt (Ph.D. UBC) is a soil scientist with interests in forestry, soil fertility, and GIS. Beverley Pitman (Ph.D. pending, UCLA) is a social/cultural geographer whose research interests span the fashion industry, critical theory, and planning. Bob Brown, Dean of Arts at SFU for 15 years will return to the department to teach economic and resource geography and pursue research in fisheries management.

Colin Crampton, a soil scientist with research interests in Canada's middle-north will be retiring. Some will remember Colin for his field trips on Burnaby Mountain.

Alison Gill and Maureen Reed (UBC) are recipients of a three year \$56,000 SSHRC grant to investigate the structure, organization, and dynamics of the local resort system. Frank Cunningham, Professor Emeritus, has been awarded the Fellowship prize from the Royal Scottish Geographical Society. Roger Hayter is a visiting professor (July, 1992) at the Nippon Technical University in Japan. Len Evenden has recently returned from the University of Edinburgh where he was visiting fellow in the Canadian Studies Program. Mike Roberts is in Southern France until October doing seismic research on the sedimentology of the Rhone Delta. Mike is working in cooperation with the Bureau des Recherches Geologique and Minieres in Orleans. Tom Poiker is dividing his time between Vancouver and Victoria in researching the history of GIS in British Columbia.

In September the department's Urban Studies Program will begin. It will include an Urban Studies Certificate for undergraduate students and a Diploma for post-baccalaureates.

Paul Koroscil has edited *British Columbia: Geographical Essays in Honour of A. MacPherson*. Professor MacPherson was the first head of geography at Simon Fraser. Contributors to the collection include: J. Lewis Robinson; Roberta Bagshaw; E.M. Gibson; Paul Korscil; Arthur Roberts and Edward Higginbottom; Robert Brown and Ian Joyce; Roger Hayter and Bob Galois; Warren Gill; Len Evenden; and Alison Gill and Paul Clark.

The University of Alberta

The department will welcome Dr. Shelagh Squire (Ph.D. University College, London) as a new faculty

member to augment the department's interests in social geography, tourism and the cultural landscape.

The microcomputing lab has received funds for updated equipment for teaching and research in Cartography and Geographic Information Systems. John Shaw has recently acquired a Sedigraphy 5100 automatic particle size analyzer which is now up and running.

The Third Annual Alberta Geomorphological Field Group Trip is planned for September 18-20 (see article on p. 6).

Graduate studies are extremely busy with five Ph.D. s awarded to date in 1992. Nelson Shum, an incoming graduate student was recipient of the Gold Medal in Science.

University of British Columbia

Doug Steyn is the new chair of the Atmospheric Science program. He is currently leading a large cooperative research project into photochemical air pollution in the Lower Fraser Valley involving observation and modelling of airflow and photochemical transformation. Gordon McBean is the new head of the Oceanography Department and John Robinson is the new director of the Sustainable Development Research Institute.

Greg Henry and Ian McKendry joined the department on July 1. Greg has research interests on the community and autoecology of arctic flora and the range ecology of arctic ungulates. Ian's research is in the field of observation and modelling of meso-scale phenomena and air pollution meteorology.

Graduate student M. Roth (PhD, 1990) has won the CMOS prize and J. Haschenburger (PhD candidate) has obtained a research grant from the Geological Society of America.

University College of the Cariboo

It has been busy year in

Kamloops. Well over 1,000 students are registered in geography courses. Faculty have presented papers at academic conferences across North America and published a number of papers.

Ross Nelson (Ph.D. candidate, UBC) has recently filled the full-time sessional appointment vacated by Jane Maston who has joined the City of Kamloop's Development Services Department. Ross Nelson's research on the development of tourism in B.C. is a welcome addition to the Department of Social and Environmental Studies which houses the disciplines of geography, sociology and anthropology.

A important curriculum change occurs in September when a two-term Introduction to Human Geography replaces our one-term second year Introduction to Cultural Geography. The new course has been articulated with UBC and articulation with other institutions is in progress. Plans are under way to offer a second year GIS course (perhaps by September, 1993).

Robert MacKinnon is leading a group of UCC students to Nova Scotia this fall as part of an Association of Canadian Community Colleges-sponsored Student Exchange. Ten students and a faculty member from the University College of Cape Breton visited Kamloops in February for a week of geography lectures and field trips.

University College of the Fraser Valley

The Geography Department at the University College of the Fraser Valley (formerly Fraser Valley College) has spent the last few months planning our new four-year programme and designing a series of new third year courses. Emphasis in the programme is being placed on urban, cultural and historical geography.

To accommodate the expanded programme, the Department was granted a new continuing appointment

for August, 1992. Dr. John Belec, formerly at Nipissing University College, will be joining Dave Gibson (cultural, economic) and Doug Nicol (historical, cartography) as full-time faculty. John's research and teaching background in urban geography, with special interests in Dominion housing policy, will add very much to the department. The Department hopes to add another full-time faculty member next year to help support fourth year offerings.

Sessional instructors, Cherie Enns (social, economic, planning) and Jim Bowers (physical geography), complete the faculty complement.

The Department has added a small Macintosh lab at the Chilliwack Campus and continues to participate in a number of external study tours, most recently in Great Britain and the Pacific Northwest.

With degree-granting status (in collaboration with Simon Fraser) and a strong two-year transfer credit programme, the Department is anticipating continued growth in enrolment and further expansion in the future.

The University of Lethbridge

The University of Lethbridge continues to add new people and to say good-bye to valued colleagues.

Yanni Xiao, a Ph.D. Candidate in the Department of Geography at UBC has joined the department in a tenure stream position beginning this summer. Ms Xiao is a GIS specialist.

Bob Rogerson returns to The University of Lethbridge, after a two-year secondment to the Canadian Centre for GIS in Education. Dr. Rogerson's main areas of interest include glacial geomorphology, and developing GIS applications in both education and research.

Ian Saunders joined the department in July as a post-doctoral fellow. Ian moves here from

Simon Fraser, where he completed his PhD in mountain climatology. He will be researching climate variability in Alberta as part of the Nat Christie research project.

Erik Ellehoj, a Ph.D. Candidate in the Department of Geography at the University of Alberta leaves Lethbridge after three years to join Geowest Environmental Consulting in Edmonton (See article on p. 5.)

Jim Hamilton, a Ph.D. Candidate in the Department of Geography at McMaster University, recently finished a two-year appointment at Lethbridge. He is moving to Vancouver as his partner (and biogeographer), Catherine Macleod, is entering the Ph.D. program in geography at UBC.

The department is gradually upgrading its GIS lab. We will soon take delivery of our sixth workstation, and renovations to physical space are being scheduled.

The Nat Christie Foundation of Calgary has awarded researchers at the University of Lethbridge and the Lethbridge Agriculture Research Station a five-year grant to study the "Impacts of Climate Variability on Agricultural Sustainability in Alberta". (See article on p. 1.)

The University of Lethbridge has recently established a "Special Case Master's Programme". This innovative approach to graduate study tailors each graduate student's program to the specific research needs of the student. In its first year of operation the university of 4300 has admitted 11 students into special case programs. Keith Hopkins is the first graduate student in the Department of Geography. Working with Jim Byrne, Keith will be studying the impact of climate variability on alpine runoff.

Robin Bourke, a third-year undergraduate student, has been awarded a grant by the Royal Canadian Geographical Society to support her work on home composting

as a strategy to reduce waste management costs. Robin will be working with Tom Johnston.

University of Montana

The department will welcome a new faculty member, Christiane von Reichart in January 1993. She has recently completed her doctorate at the University of Idaho. Christiane is an economic geographer with research interests in population, planning, and GIS with a regional focus on Europe.

University of Victoria

Four new faculty will join the University of Victoria's Department of Geography this year. Susan Elliott and Larry McCann were actually appointed in 1991, but took up their positions in July 1992. Susan Elliott (ABD, McMaster) researches mainly in the field of urban environmental health and she will contribute to teaching urban, social, and medical geography. Dr. McCann, one of UVic's earliest geography undergraduates, returns after a long sojourn at Mount Allison. Pamela Moss and Dan Smith were appointed earlier this year and also arrive in July. Pamela is also ABD at McMaster, and her interests concern feminist and marxist methodology and theory. Dan Smith, formerly at the University of Saskatchewan, will strengthen the physical teaching program with his interests in glacial and process geomorphology.

Gil Sherwin has now retired for health reasons and has been replaced by John Newcomb, who joins Phil Wakefield in the Senior Lab Instructor's office. Stan Tuller continues as Undergraduate Advisor and Doug Porteous as Honours Advisor.

The Unix-based Senior Spatial Sciences Lab has had a busy first year of operation. It has significantly expanded the GIS and remote sensing teaching and research program and has supported a number of training workshops for both

Canadian and overseas professional and government personnel.

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In conjunction with the Ministry of Health, the department has published; *The Geography of Death: Mortality Atlas of British Columbia, 1985-1989* as a special volume in the Western Geographical Series.

Eleven graduate students (2 Ph.D. and 9 Masters) completed this year, and declared Majors/Honours Geography undergraduates now number 300.

University of Washington

In 1991-92 Morgan Thomas spent the year as Associate Dean in the College of Arts and Sciences and Bill Beyers continued as chair of the department. Kam Wing Chan (PhD, Toronto) joined the department in the Fall of 1991. David Hodge was promoted to Professor and Victoria Lawson and Timothy Nyerges were promoted to Associate rank. Douglas Fleming retired in June 1992 after serving the department for 27 years. Three PhD degrees and eighteen M.A. degrees were awarded in 1991-92.

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Contributions are welcome. The submission deadline for the Winter-Spring issue is January 15, 1993.

Forthcoming Meetings

September 9-13, Pacific Coast Geographers Division, American Association of Geographers. Contact: James Scott, Geography and Regional Planning, Western Washington University, Bellingham, Washington. 98225

March 19-21, 1993, Western Division, CAG Annual Meeting, Capilano College, North Vancouver. Contact Karen Ewing, Geography, Capilano College, North Vancouver, B.C. V7J 3H5

April 6-10 1993, AAG Annual Meeting, Atlanta, Georgia.
Deadline for AAG program participation information is 21 September 1992

June 1993, CAG Annual Meeting, Carleton University, Ottawa, Ontario.