



## Message from the President

Rob Hoppa

As my second year as President comes to an end, it is time to reflect on past accomplishments and look to the future. In that spirit, I would like begin by reiterating my thanks on behalf of the Association to Warren Wilson, Annie Katzenberg and Kristine Russell at the University of Calgary for an outstanding job organizing and hosting the annual meetings in Banff last month. The meetings were enjoyed by all, with excellent presentations, good fellowship and spectacular scenery. As always the CAPA/ACAP meeting represents a great venue to present our research to colleagues and friends. More than a 15 minute talk, the meetings afford us the time to catch up with former mentors and schoolmates, to meet with peers from across Canada and abroad, and to make new connections with people doing research relevant to our own. It really is a great coming together and perhaps my one regret is that there never seems to be enough time for everything.

As always, there were many excellent presentations and posters by students this year, and the judges commented on just how strong the student presentations were. I would like to thank this year's judges, Michael Schillaci, Anne Keenleyside, and Dan Sellen, with the assistance of Warren Wilson and Jerry Cybulski. The Oschinsky-McKern prize was awarded to Fernando Campos (Coping with Dry Heat: Behavioral Thermoregulation in

Wild Capuchin Monkeys) and the Davidson Black prize was awarded to Masako Fujita (An Evolutionary Perspective on Mother-Offspring Vitamin A Transfer: Preliminary Analyses). Congratulations to them both.

This year also saw the announcement of a new Student Representative. Dori Rainey has done a great job and she passes the reigns onto Sarah Carnegie at the University of Calgary. I look forward to working with Sarah in the months to come, and encourage student members to touch base with her regarding any issues you would like to see addressed for the Association. This year I also established several ad-hoc committees to deal with issues of relevance to the Association including 'the role of forensic anthropology in Canada' and the development of a statement on ethics for CAPA/ACAP. Those consultations are ongoing and updates will be provided as committees reach final recommendations.

And on thinking toward the future, plans are well underway for the 2008 meetings to be hosted in Hamilton by McMaster University and I am pleased to announce the 2009 meeting will be hosted by Simon Fraser University in Vancouver.

Finally, I want to close by wishing you all the best in your current endeavors and hope that 2008 will bring exciting challenges and rewards.

## CAPA/ACAP 2008

**McMaster University** is delighted to welcome you to the 2008 CAPA/ACAP meetings in Hamilton. The meeting will be hosted at the Sheraton Hamilton Hotel from November 5<sup>th</sup> – November 8<sup>th</sup>. Book now to take advantage of the special CAPA/ACAP conference rate:

### Special Rates\*:

- Single/Double Occupancy \$99.00
- Deluxe Guestroom \$114.00
- Club Level Room Rate \$129.00
- Additional Person Charge \$15.00
- Cot Charge \$25.00

\*Cut-off date for special room rates is **October 6, 2008**

We will have a Starwood booking website by the spring. Stay tuned for updates.

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### HIGHLIGHTS

- CAPA/ACAP 2008 Conference Announcement
- News from Members
- Meetings of Interest
- Training Opportunity

CAPA/ACAP  
2008  
Hamilton, ON

Host:  
**McMaster  
University**





## Message from the CAPA/ACAP Student Representative

Sarah Carnegie

Hello Everyone! This is my first contribution to the newsletter as your new student representative and I would first like to thank all of you that voted for me and let you know that I am really looking forward to doing a good job for you over the next two years.

The CAPA/ACAP meetings in Banff were a huge success! All presentations - paper and poster - were fantastic, especially the student presentations! Many people spoke of how impressive the presentations were and that the quality keeps getting better every year!

I would like to extend a special thanks to Warren Wilson and Annie Katzenberg for organizing a great conference at a beautiful venue and Kristine Russell who was instrumental in making sure it all came together. Thanks as well to all the student volunteers from the departments of

Anthropology and Archaeology from the University of Calgary.

Since this is my first year as the student representative I made it one of my objectives to try and meet as many of the students as possible and ask them if they had any issues or ideas that I could present to the executive committee. There were no pressing issues that students brought forward...no news is good news right!? However, remember that if you do have any questions or comments about the Association and how students fit in please feel free to contact me at [sdcarneg@ucalgary.ca](mailto:sdcarneg@ucalgary.ca)

One of the issues that came up at the business meeting this year concerned content for our CAPA/ACAP newsletter. The overall consensus was that the newsletter would be a perfect venue for students to promote their

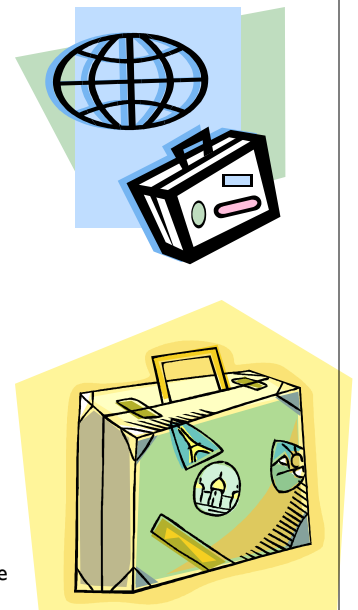
research, as well as add some interesting content. I jumped on this idea (with all my enthusiasm) and I would really like to see this take off. I am going to work with the executive on looking into different incentives for you - the students.

Stay tuned for further information through association emails - but please start thinking about what you might want to submit to the next newsletter. If you have any questions about what or how to submit please contact me or Stacie Burke, the newsletter editor, at [burkes@cc.umanitoba.ca](mailto:burkes@cc.umanitoba.ca)

That's all for now!

## Meetings and Workshops of Interest

- American Academy of Forensic Sciences ([www.aafs.org](http://www.aafs.org)), Washington, DC, 18-23 February 2008
- Society for Applied Anthropology ([www.sfaa.net](http://www.sfaa.net)), Memphis, TN, 25-29 March 2008
- Paleoanthropology Society ([www.paleoanthro.org](http://www.paleoanthro.org)), Vancouver, BC, 25-26 March 2008
- Society for American Archaeology ([www.saa.org](http://www.saa.org)), Vancouver, BC, 26-30 March 2008
- American Association of Physical Anthropologists ([www.physanth.org](http://www.physanth.org)), Columbus, OH, 7-13 April 2008
- Paleopathology Association—North America ([www.paleopathology.org](http://www.paleopathology.org)), Columbus, OH, 8-9 April 2008
- Human Biology Association ([www.humbio.org](http://www.humbio.org)), Columbus, OH, 9-10 April 2008
- Population Association of America ([www.popassoc.org](http://www.popassoc.org)), New Orleans, LA, 17-19 April 2008
- Northwest Anthropological Conference ([nwaac.2008.googlepages.com](http://nwaac.2008.googlepages.com)), Victoria, BC, 23-26 April 2008
- Canadian Archaeological Association ([www.canadianarchaeology.com](http://www.canadianarchaeology.com)), Peterborough, ON, 7-11 May 2008
- Congress of the Humanities and Social Sciences ([www.fedcan.ca](http://www.fedcan.ca)), Vancouver, BC, 31 May - 8 June 2008
- American Society of Primatologists ([www.asp.org](http://www.asp.org)), West Palm Beach, FL, 18-21 June 2008
- Childhood & Migration: An Interdisciplinary Conference ([globalchild.rutgers.edu](http://globalchild.rutgers.edu)), Philadelphia, PA, 20-21 June 2008
- International Primatological Society ([www.ips2008.co.uk](http://www.ips2008.co.uk)), Edinburgh, Scotland, 3-8 August 2008
- Paleopathology Association—Europe ([www.paleopathology.org](http://www.paleopathology.org)), Copenhagen, Denmark, 25-27 August 2008
- European Anthropological Association ([www.eaa2008.sdu.dk](http://www.eaa2008.sdu.dk)), Odense, Denmark, 28-31 August 2008
- British Association for Biological Anthropology and Osteoarchaeology ([www.babao.org.uk](http://www.babao.org.uk)), Oxford, UK, 5-7 September 2008
- 14th Qualitative Health Research Conference ([www.uofaweb.ualberta.ca/iqmq/QHR2008.cfm](http://www.uofaweb.ualberta.ca/iqmq/QHR2008.cfm)), Banff, AB, 3-6 October 2008
- Society of Vertebrate Paleontology ([vertpaleo.info](http://vertpaleo.info)), Cleveland, OH, 15-18 October 2008
- Social Science History Association ([www.ssha.org](http://www.ssha.org)), Miami, FL, 23-26 October 2008
- **Canadian Association for Physical Anthropology, Hamilton, ON, 5-8 November 2008**



MEMBER  
NEWS

## MCMASTER UNIVERSITY

Ann Herring writes:

McMaster is excited to be hosting the 2008 CAPA meetings from November 5 – November 8, 2008. Mark your calendars! Please forward suggestions for sessions and symposia to Ann Herring (program coordinator) at [herring@mcmaster.ca](mailto:herring@mcmaster.ca). Local arrangements are being organized by Tina Moffat ([moffatcs@mcmaster.ca](mailto:moffatcs@mcmaster.ca)). We want to see all of you in The Hammer next year!

Other news:

Kristen Jacklin defended her PhD in August and is Assistant Professor tenure-track at the Northern Ontario School of Medicine.

Tracy Farmer has taken up a full-time research position at DPRA Canada. (<http://www.ier.ca>) DPRA provides planning, research and management services to public and private clients, First Nations/Aboriginal communities, and international agencies.

In September, Ann Herring and Alan Swedlund co-hosted a Wenner-Gren special symposium, *Plagues: Models and Metaphors in the Human 'Struggle' with Disease*. Wenner-Gren sponsored the symposium at the beautiful Hacienda del Sol Resort in Tucson, Arizona (<http://www.haciendadelosol.com>). Our goal was to explore the concept of plague and the many historical and contemporary settings in which plagues occur, and to ask whether the concept remains salient today. The symposium brought a small group of anthropologists and scholars from other fields together to address what we consider to be one of the central concerns of 21st century western society. The proceedings will be published in 2009 by Berg Publishers (Oxfordshire and Gordonsville, Virginia).

Watch for a special journal issue, *Tuberculosis and Colonial States: Studies from Canada and New Zealand*, published by *Research in Anthropology and Linguistics*, a refereed monograph series from the University of Auckland, New Zealand ([http://www.arts.auckland.ac.nz/departments/index.cfm?S=M\\_RAL](http://www.arts.auckland.ac.nz/departments/index.cfm?S=M_RAL)). The volume is edited by Tracy Farmer, Ann Herring, Judith Littleton and Julie Park.

## UNIVERSITY OF CALGARY

Anne Katzenberg writes:

A new edition of "Biological Anthropology of the Human Skeleton", edited by M. Anne Katzenberg and Shelley R. Saunders is now in production with John Wiley & Sons. The planned release date is March of 2008. The new edition retains many chapters from the first edition which have been updated and revised, as well as several new chapters.

Anne Katzenberg continues her work with the stable isotope analysis as part of the Baikal Archaeological Project. Of her five graduate students, three students are involved with the project. As the new Vice President of the Paleopathology Association, Anne is busy with organization of the 2008 North American meeting which will take place just before the AAPA meetings in April, in Columbus, Ohio. Graduate students working with Anne Katzenberg (information prepared by Andrea Waters-Rist):

Andrea Waters-Rist is currently in the fourth year of her PhD in the biological anthropology program. She is a member of the Baikal Archaeology Project, working with dental characteristics of Neolithic and Early Bronze Age skeletal remains. This past year, Andrea presented data on activity-induced dental modification in Holocene period Siberian hunter-gatherers at the AAPA meetings. She also prepared and submitted a paper based on her M.A. research (with A. Katzenberg) on the effects of growth on stable nitrogen isotope ratios in subadult bone collagen.

Nicki Engel is currently in the second year of the Master's program in biological anthropology, and having completed her coursework, will be starting sample collection for her research on variation in stable isotope signatures in modern Western Canadians.

Cynthia Kwok began the Doctoral program in September 2007, following the successful defense of her Master's thesis in August 2007 (from Trent University, under the supervision of Anne Keenleyside). Her thesis investigated infant feeding practices in the ancient Greek colony of Apollonia, in Bulgaria, using stable isotope analysis.

Anastasia Antonova began the Master's program in biological anthropology in September 2007. Anastasia has come to Calgary from Irkutsk, Siberia, where for the past four years she has participated in the excavations and osteological analyses of an 8000-year old mortuary site on the shores of Lake Baikal.

Mary Pavelka writes:

[Alberta Primatologists Start New Research Site in Belize](#)

Hugh Notman, Assistant Professor of Biological Anthropology at Athabasca University in Alberta and adjunct member of the

Department of Anthropology at the University of Calgary is joining forces with Mary Pavelka from the University of Calgary to launch a new (hopefully) long term site for the study of spider monkeys (*Ateles geoffroyi*) and howler (*Alouatta pigra*) monkeys at Runaway Creek Nature Preserve in Belize. This preserve includes a tropical forest, grassy savanna, limestone hills, and waterways and marsh areas around the Sibun River. This unspoiled sanctuary is home to howler and spider monkeys; tapirs; jaguars, ocelots and other cats; Morelet's crocodiles; jabiru storks and vividly colored resident and migratory songbirds; delicate tropical butterflies; and exotic plants, including a rare kind of passionflower that is the only larval food source for the *Eueides lineata* butterfly. Mary Pavelka has been working at Monkey River in southern Belize for the past 10 years investigating black howlers and particularly the effect of a major hurricane on the monkeys and forest. The new project will offer comparisons of howlers in radically different environments, and be the first to explore the behavior and ecology of spider monkeys in Belize. Hugh's focus will be on the communication, cognitive ecology, and social organization of the spider monkeys. They will also soon be running an undergraduate field school from the site that will expose students to the rigours of research design and data collection methodology in a forest setting.

Warren Wilson writes:

Accompanied by my graduate students Erin Barr and Trish Palmer and undergraduate students Lynette Hornung, Amy Christenson, and Jaelyn Kearn, we had a productive field season in Guyana this past summer. This project, initiated in 1999, is designed to collect data on the well-being of the Makushi Amerindians in 13 villages in central Guyana's rainforests and savannas. In particular we are trying to understand how Makushi well-being might be impacted by the rapid culture change they are experiencing at present and the recent establishment of a national park in their territory. The 2007 field season was spent collecting anthropometric data on about 500 subjects to compare with baseline data collected in 2000-2001 and working with Makushi assistants to design a structured interview to assess psychological stress levels. While the fieldwork entailed swimming with black caiman (a type of crocodile) and anacondas, all appear to have made it back to Calgary with 10 fingers and 10 toes. I can't be sure of this, but perhaps our willingness to swim in rivers full of large carnivores was influenced by the consumption of parakari (manioc beer). Erin Barr and Trish Palmer are each conducting master's research to explore the etiology of growth retardation among the children in these communities. Amerindians in South America's humid tropics, including the Makushi, are among the shortest people in the world, but the causes are not well understood. Erin Barr's work is designed to determine whether the

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# Membership Form

## Canadian Association for Physical Anthropology L'Association Canadienne D'Anthropologie Physique

New Member  or Renewal

Full Membership \$50.00  (\$42.00 if remitting in US currency)

or Student \$25.00  (\$21.00 if remitting in US currency)

Institution \$60.00  (\$50.00 if remitting in US currency)

Life Time \$750.00  (\$623.00 if remitting in US currency)

Name: \_\_\_\_\_

Mailing Address:

\_\_\_\_\_

\_\_\_\_\_

Postal Code: \_\_\_\_\_

Affiliation and department: (if different from mailing address)

email: \_\_\_\_\_

publish email with membership list

/do not publish with membership list

phone: \_\_\_\_\_

publish with membership list

/ do not publish with membership list

fax: \_\_\_\_\_

publish with membership list

/ do not publish with membership list

Demographic information: (will not be published in membership list; for tracking trends only)

Research Fields: (please indicate primary and secondary)

1.

2.

If you are an instructor / professor, what is your rank?

If a student:

Undergraduate  year (e.g., 3rd)  or MA  year  or M Sc  year  or PhD  year

If a Postdoctoral Fellow, funded by:

If none of the above:

Please make cheque or money order payable to:

Can Assoc for Phys Anthro and forward to:

Dr. Ian Colquhoun

CAPA Secretary/Treasurer

Dept of Anthropology

The University of Western Ontario

London, Ontario, Canada

N6A 5C2

email: colquhou@uwo.ca



*The Conference Venue*

## **CAPA Banff 2007**

*Photos courtesy Anne  
Katzenberg*

### **Wrapping up Breakfast**

Clockwise from Front Left:

Megan Gardiner

Cynthia Kwok

Chris White

Michael Schillaci

Kris Russell

Andrew Nelson

Jerry Cybulski



## MEMBER NEWS

observed variation in growth in these villages can be explained, at least in part, by genetic variation. Toward that end, this summer, Erin conducted interviews with informants in four villages to obtain ancestry information as a proxy measure of genetic variation. Her preliminary analyses suggest that ancestry may well play an important role. Trish Palmer is exploring differences in food security and micronutrient intake of children in neighboring villages who manifest significantly different rates of growth retardation. In her fieldwork this summer she conducted interviews in these villages concerning food security and to follow up on the dietary intake survey which was completed in these villages in 2001-2002. Trish's preliminary analyses find few differences between villages in food security and some significant differences in micronutrient intake which may provide part of the explanation for the observed variation in growth. This year, both Erin and Trish presented preliminary analyses of their data at the American Association of Human Biology's Annual meetings in Philadelphia and Trish presented an updated version at the CAPA meetings in Banff. I've no doubt that both of these students will provide notable contributions to our understanding of the etiology of growth variation in these villages and by extension in South America's humid tropics.

### UNIVERSITY OF NORTHERN BRITISH COLUMBIA

*Richard Lazenby writes:*

#### News From Beyond Hope

This is the first (long overdue) missive from the land of the two minute rush 'hour'. For those not familiar with the University of Northern British Columbia, we are located in the central interior of the province, about 10 hours by car from Vancouver and about 2 days further drive to the Yukon border (I know this from experience). We are a small (mostly) undergraduate school, in a wonderful city of 85,000 (give or take 5000, depending on the forest industry). I say wonderful because I kid you not about the two minute rush hour, and I can be skiing in the forest with my dog in all of 5 minutes from home, frolicking with bears at any time (they walk past my back yard regularly), and taking in the symphony – all in the same

day! As for school, the Anthropology Program has waxed and waned (we call departments 'programs' – a harbinger to days long past when we made a valiant attempt at interdisciplinarity, only to discover that most disciplines weren't interested in being 'inter' – read big SIGH here). Currently we are waning, as two of us (me included) are on sabbatical and one other on leave. But we are held together by a great group of very active undergraduate / MA students who love us because, although we're not big, we are small. And we are attentive and nurturing and hope they speak well of us on Rate My Prof.Com.

So what of biological anthropology in 2007? Well, the three of us (me, myself and I) have been having a great year, so much so that Air Canada has deemed us Elite status! This is pretty much due to attending the AAPAs in Philly, the IBMS meetings in Montreal, two great trips to the Max Planck Institute for Evolutionary Anthropology in Leipzig over the summer, and miscellaneous sojourns on behalf of the Northern Medical Program (for which I administer one of the courses for the MD undergraduate degree). Of course, the best part was Leipzig, microCT scanning chimpanzee metacarpals under the tutelage of Matt Skinner. This project furthers my NSERC-supported investigation of the morphological correlates of human laterality and the origins of handedness, the progress of which Ann Herring can describe for you in painful detail if you wish to ask. (I would be remiss in not acknowledging the support of Dave Cooper, now at USask, and Benedikt Hallgrímsson at the U of Calgary, for their support and capable guidance.) But the world is not entirely made up of metacarpals (in spite of what Ann might tell you). Our small group here at UNBC has been involved in a study of childhood obesity among 6 to 11 year old kids with funding from the Vancouver Foundation, which one of my students Sarah Angus has been taking the lead on and is currently writing up for publication (bottom line: it's as bad here as elsewhere, and worse among the lower SES categories as you might suspect, and in PG this generally means First Nations families). If you were at Banff, you might recall that another of our students, Kristinn McCulloch, presented a poster on her summer project dealing with histological age estimation. Kristinn decided last spring to chat up Niels Lynnerup in Demark, to see if he wouldn't mind her cluttering up his lab for the summer. So she phoned him, and he said, 'sure, come on over...'

What lies ahead? Well, it's back to teaching in January, finishing off three half-completed manuscripts, a not-so-small book project with Anne Keenleyside, and the AAPA meetings in Columbus in spring and, of course,, CAPA in the fall. That and building my garden to go along with the greenhouse I finished this past summer. Life's good!

### UNIVERSITY OF MANITOBA

*Linda Larcombe writes:*

Recently, I have had the opportunity to instruct a DNA extraction experiment with high school students in a remote northern community in Manitoba. The tutorial was part of on-going work in the community that is examining genetic and environmental conditions that might be contributing to the high rates of tuberculosis among First Nations. In addition to discussions with the Band Council and community meetings the laboratory tutorial gave the students hands-on experience extracting DNA from plant material. The experiment lead into a discussion of why blood samples were collected from community members and the processes of genetic analysis for diseases associations. The tutorial proved to be an engaging and effective way to demonstrate the practicalities of genetic work.

Recent Publications, Conference Papers and Posters:

- Larcombe, L., Orr, P., Canadian Tuberculosis Committee. 2007. Housing conditions which serve as risk factors for tuberculosis infection and disease. Advisory Council Statement prepared for the Canadian Tuberculosis Committee Vol. 33 Nov. 1 *Canadian Communicable Disease Report*.
- Larcombe, L. Waruk, J.Schellenberg, J., Ormond, M. 2007. Rapid emergence of MRSA among children and adolescents in northern Manitoba, 2003-2006 *Canadian Communicable Disease Report* Vol. 33-02.
- Larcombe, L. Orr, P., Nickerson, P. 2007. "Experiences with TB" (12 min. video) 35th Annual Meeting of the Canadian Association for Physical Anthropology Nov 15, 2007
- Larcombe, L., Orr, P., Dembinski, I., Lodge, A., Larcombe, E., Milligan, L., Martin, B., Nickerson, P. 2007. Cytokine gene polymorphisms in northern Canadian First Nations populations with tuberculosis. Poster presentation at the 33rd Annual Meeting of The American Society for Histocompatibility and Immunogenetics Minneapolis, Minnesota Oct. 2007
- Larcombe, L., Orr, P., Dembinski, I., Lodge, A., Larcombe, E., Milligan, L., Martin, B., Nickerson, P. 2007. Vitamin D Receptor gene polymorphisms in a Canadian First Nation population with tuberculosis. Poster presentation at the 33rd Annual Meeting of The American Society for Histocompatibility and Immunogenetics Minneapolis, Minnesota Oct. 2007

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## MEMBER NEWS

### LAKEHEAD UNIVERSITY

Tamara Varney writes:

The Antigua Archaeological Field School (offered through the University of Calgary) once again had a good field season. This year the focus was entirely on historic sites with time spent on three projects that provided some diverse experience for the students. The majority of activity was split between two sites: a colonial cemetery site (c. AD 1746 to 1820) and a military barracks site at a large Napoleonic era military installation (c. AD 1790-1830), with lesser time on test excavations of a large plantation site (c. AD 1680-1880).



Lakehead U's Carney Matheson (long sleeves) and field school students

The cemetery site was an unexpected project undertaken at the request of the Museum of Antigua and Barbuda to relocate a family burial ground from land leased to the US



The beautiful setting of the military site excavation led by Beau Cripps, U of Calgary



Laurie Shead, U of Manitoba Master's student and field school instructor

Air Force to a protected site. The latter provided much appreciated heavy machinery support for excavations, with some highly skilled machine operators who were simply amazing, as well as survey crews with their amazing GIS-satellite technology to do our larger scale mapping. The site had two in situ tombstones



Tamara Varney (Lakehead U) giving pre-excavation orientation

but in a familiar case of déjà vu viz. the 2006 season, excavations at the cemetery site yielded more grave shafts than expected (ten rather than two). Six graves were excavated including two infants and four adults. Preservation of skeletal material at the site was generally poor given the white lime marl of the matrix and there were no remains found in the graves of the infants. However this poor preservation was not consistent in the graves of the adults,

although it was the skull that tended to be best preserved. The burials also yielded coffins with exterior and interior decorations, one including information (such as initials, age-at-death, date of death) outlined in copper tacks on the lid that matched information on one of the tombstones. This project represents one of the few bioarchaeological investigations into the colonial upper class in the British West Indies and the second such project undertaken by this team. Next year excavation at this site will continue to relocate the four remaining graves.

The field school had the benefit of having Laurie Shead (U of Manitoba) as an instructor this year. Laurie had volunteered with us for 2 weeks the previous year and her return in an official capacity was much welcomed. The field school has a history of guest researchers that spend time working with the students in the field as well as presenting lecturers to further enhance the student experience. One of our guests this year was CAPA member Dr. Carney Matheson (Lakehead U) who spent 2 weeks with the field school and contributed both his field expertise and guest lectures on paleoDNA analyses.

Back at LU, Tamara's laboratory has finally (after 2 years!) had its renovation completed and equipment set up and has become a busy place. In September, Hillary Sparkes began a M.Sc. (through the Biology dept) under Tamara's supervision. She completed her B.A. at the University of Waterloo, and will be doing her research on tracing dietary histories in a West Indian slave population (c. 1750-1800) via stable isotope analysis of teeth.

LU also has a new biology-anthropology technician, Bruce Rosa, who works 50-50 between the Biology and Anthropology departments and provides much needed teaching and laboratory support in Bioanthropology.

Dr. Carney Matheson is on sabbatical and is currently in Australia. His graduate student, Brian Reguly, is applying his Masters research concerning the creation and detection of DNA damage to assist in DNA amplification from the Shroud of Turin. Ancient DNA analysis can be challenging as it contains modified bases, abasic sites, and strand breaks due to degradation and environmental effects. By damaging modern DNA to induce damage typical of ancient DNA, reaction conditions can be optimized on the modern damaged template, and then applied to any DNA extracted from the ancient sample. This approach will help to conserve the low concentration ancient DNA template, increasing the possibility of successful results.



## 8th Palaeopathology Short Course 10th to 22nd August 2008

The 8th Palaeopathology Short Course will take place from Sunday 10 August (arrival) through Friday, 22 August 2008 at the Biological Anthropology Research Centre, Archaeological Sciences, University of Bradford. Registration will take place on the morning of Monday, 11 August.



*Delegates in the Keith Manchester Lab during the 7th Palaeopathology Short Course in 2005.*

**Course Synopsis:** The course will cover topics in the study of health and demographic characteristics of past human populations, including age estimation and sex determination, estimates of body proportion and stature from human remains, specific and non-specific infectious disease, degenerative joint disease, metabolic disease, congenital abnormality, dental disease, activity-related skeletal change, and the use of histological techniques in the differential diagnosis of ancient disease. The course will also include a number of special lectures on ancient DNA, the analysis of ancient and modern human hair, and isotopic analyses that complement and extend the macro and microscopic analysis of palaeopathological conditions. Dr. Frank Rühli will also contribute on the use of radiography and Ct-scanning to aid differential diagnosis of palaeopathological lesions.

**Course lecturers/tutors:** · Dr. Christopher Knüsel (Bradford) · Mrs. Anthea Boylston (Bradford) · Dr. Megan Brickley (Birmingham) · Professor Andrew Chamberlain (Sheffield) · Dr. Mary Lewis (Reading) · Dr. Simon Mays (English Heritage) · Dr. Janet Montgomery (Bradford) · Dr Alan Ogden (Bradford) · Professor Charlotte Roberts (Durham) · Dr. Frank Rühli (University of Zurich) · Professor Michael Schultz (Göttingen) · Dr. Holger Schutkowski (Bradford) · Dr. Mike Taylor (University College London) · Dr. Darlene Weston (Max Planck Institute, Leipzig) · Dr. Andrew Wilson (Bradford)

### **For further information and application forms, please contact:**

Dr. Christopher Knüsel, Biological Anthropology Research Centre (BARC), Division of Archaeological Sciences, University of Bradford, Bradford, West Yorkshire BD7 1DP, United Kingdom, **Tel:** +44 (0)1274 233545, **Fax:** +44 (0)21274 235190, **E-Mail:** [c.knusel@bradford.ac.uk](mailto:c.knusel@bradford.ac.uk)





## **CAPA/ACAP 2008 Hamilton, Ontario (November)**

### **First Call for Statement of Interest for Participation in a Symposium...**

#### **Old Dogs, New Tricks: Pedagogy and Andragogy in Biological Anthropology**

Undergraduate curricula in Canadian universities and colleges are in transformation, embracing concepts such as 'student-centred learning', 'life-long learning', and 'technology-enabled learning' (using e.g., WebCT™ and the Blackboard Learning System™). Moreover, the learner profile is also in a state of flux, becoming more mature, more ethnically varied (with attendant language issues), and more technologically and web literate. These changes present interesting challenges for delivering *and* assessing knowledge content for a discipline as diverse as biological anthropology which is at once a social science, a life science, and a laboratory science.

The aim of 'Old Dogs, New Tricks...' is to explore ways in which we, as 'professors' of biological anthropology, can transform challenges into opportunities. My vision for this symposium is to have spokespersons for the fields of population biology, primatology, paleoanthropology, forensic anthropology, osteology/paleopathology (and/or ???) share ways in which they have engaged in this curricular / class transformation, both those which succeeded as well as those which have failed.

Each speaker would have 20 minutes to speak to their experience(s), and the session would then open up to a panel discussion among participants and audience (20 minutes) and conclude with a workshop (30 minutes) in which session participants and audience volunteers, working in 'break-out' groups, would develop a model 'learner-centered' syllabus for a second year survey course in biological anthropology.

***At this time, I am soliciting Expressions of Interest from those who would like to participate in 'Old Dogs, New Tricks...'***

What I will need from you is a short (1 paragraph) statement of what you might bring to the session (e.g., paradigms, programmes, practice). Please send to [lazenby@unbc.ca](mailto:lazenby@unbc.ca).

Note that this 'Call' is open to all members of CAPA/ACAP, faculty and graduate students alike, as both play significant and unique roles in content delivery and learner assessment. I am hoping that I will have to select from among many qualified members of CAPA/ACAP, so cannot guarantee participation in the symposium (but for certain in the 'workshop!').

Thanks, and hope to hear from you soon!

Richard Lazenby



## Evo-Devo & Physical Anthropology

By: Warren Wilson

Homeobox gene complexes have been identified in all animals. *Drosophila* have HOM genes, which occupy the same order on the fly chromosome as the anterior-to-posterior order of body regions whose development they control. Members of the Order primate have Hox genes which are closely related to members of the HOM complex and show the same spatial and functional arrangement. (Adapted from Jayne 1998 USC)

Subsequent to Dr. Benedikt Hallgrímsson's talk at the CAPA/ACAP banquet in Banff, I have had several conversations with students who are interested learning more about evo-devo and its potential contributions to our discipline. Perhaps these students were unique, but I suspect that others may share their curiosity. As such, below I have provided a bit of an introduction to the subject and a few suggested readings and web sites which might prove helpful. The story begins in 1859. As we know, one line of evidence cited by Darwin when he presented his theory was the understanding that the embryos of all animals shared developmental stages so conserved throughout evolution that the same names can be given to equivalent stages in different organisms. Darwin also knew that early embryonic development is based on similar layers of cells and similar patterns of cell movement that generate the forms of embryos and of their organ systems and concluded that the study of embryos would provide the best evidence for evolution.

Building on this, in 1866 the German zoologist Ernest Haeckel (1834-1919) concluded that "ontogeny recapitulates phylogeny"; that is, the development of individuals is a progression through adult ancestral forms. Hence, it was believed that the development of an organism from conception is a function of and can tell us much about the evolutionary history of the species. This concept, also known as recapitulation, was rejected by biologists in the early part of the 20<sup>th</sup> century and the study of links between development and evolution was relatively neglected until the 1990's. While biologists today reject a literal translation of Haeckel's theory, the relatively new discipline of evolutionary developmental biology, known as evo-devo, has demonstrated the relevance of ontogeny for evolutionary theory. It was natural for evolutionary biologists and developmental biologists to find common ground (Goodman and Coughlin, 2000). Evolutionary biologists seek to understand how organisms evolve and change their shape and form. The roots of these changes are found in the developmental mechanisms that control body shape and form. Developmental biologists try to understand how alterations in gene expression and function lead to changes in body shape and pattern. Evo-devo's origins can be traced to the late 1980's when biologists began using an individual organism's developmental gene expression patterns to explain how groups of organisms evolved. Today, evo-devo research incorporates a wide range of models, from human vertebrae, to fruit fly appendages, to a budding leaf. All of these are used for a common objective: to apply simple molecular phenomena to explain organism body plan architecture, evo-devo is gaining insight into the origin and maintenance of variation and enhancing our understanding of several previously

neglected aspects of evolutionary theory (Goodman and Coughlin, 2000).

Suggested readings:

Carroll SB. 2005. Endless forms most beautiful: The New Science of Evo Devo. WW Norton & Company: New York, NY

Carroll SB. 2000. Endless forms: The evolution of gene regulation and morphological diversity. *Cell* 101: 577-580.

Goodman, CS and BC Coughlin. 2000. The evolution of evo-devo biology. *Proceedings of the National Academy of Sciences* 97(9): 4424-4425

Hall, BK 2005. Evo Devo Is the New Buzzword... for the 200-year search for links between embryos and evolution. *Scientific American* April.

Hallgrímsson, B and BK Hall eds. 2005. *Variation: A Central Concept in Biology*. New York: Academic Press (Elsevier).

Kirschner MW, JC Gerhart. 2005. *The Plausibility of Life: Resolving Darwin's Dilemma*. Yale University Press: New Haven, CT.

Helpful websites:

Understanding Evolution- Evo-devo (U. California Berkeley): [http://evolution.berkeley.edu/evolibrary/article/evodevo\\_01](http://evolution.berkeley.edu/evolibrary/article/evodevo_01)

Benedikt Hallgrímsson's website: [http://www.cell.ucalgary.ca/b\\_hallgrimsson.html](http://www.cell.ucalgary.ca/b_hallgrimsson.html)

### CAPA MEMBERS...

### WE WOULD LIKE TO HEAR FROM YOU!

Please send submissions to:

[burkes@cc.umanitoba.ca](mailto:burkes@cc.umanitoba.ca)

Deadline for the next issue is:

**16 May 2008**