



I.A.G./A.I.G.
International Association of
Geomorphologists
*Association Internationale des
Géomorphologues*



Working Group

on

Sediment Budgets in Cold Environments

SEDIBUD Third Newsletter

December 14th, 2007

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<http://www.geomorph.org/wg/wgsb.html>

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1. SEDIBUD activities since October 2007

1.1. Publications from the 1st SEDIBUD meeting in Trondheim, Norway

Two Special Issues from the 4th ESF SEDIFLUX and the 1st I.A.G./A.I.G. SEDIBUD meeting, held in Trondheim in late October 2006, are in press:

Beylich, A.A. (Ed.) (in press): Sediment Budgets in Cold Environments. *Norsk Geografisk Tidsskrift – Norwegian Journal of Geography*. Special Issue.

Beylich, A.A. & K.-H. Schmidt (Eds.) (in press): Sedimentary Source-to-Sink-Fluxes and Sediment Budgets in Changing Cold Environments. *Zeitschrift für Geomorphologie*, Suppl. Vol.

1.2. SEDIBUD Key Test Sites: Facts Sheets and Database

After receiving over 35 key test site proposals, Scott F. Lamoureux is currently compiling a SEDIBUD Key Test Site document that will be available both as hard copy and online at the SEDIBUD website. The document will highlight relevant key facts of each SEDIBUD site. All proposers of accepted SEDIBUD Key Test Sites are kindly requested to send their completed templates to Scott F. Lamoureux (Scott.Lamoureux@queensu.ca) by December 20, 2007.

A SEDIBUD Key Test Site Database is currently developed by Dorothea Gintz and Katja Laute.

1.3. Revision of the SEDIFLUX Manual

The First Edition of the SEDIFLUX Manual is currently revised.

1.4. Publication of Papers and Posters presented at the Second SEDIBUD Workshop in Abisko, Sweden

Presentations from the Second SEDIBUD Workshop in Abisko, Sweden, will be published in a Special Issue of the journal *Arctic, Antarctic and Alpine Research*.

Deadline for online paper submissions is **February 15, 2008** at <http://aar.allentrack2.net>.

2. Forthcoming relevant conferences, workshops and sessions

2.1. European Geosciences Union (EGU), General Assembly 2008, Vienna, Austria, 13-18 April 2008

<http://meetings.copernicus.org/egu2008/>

Deadline for Abstract Submissions: **January 14, 2008**.

GM3.7 Deglaciation in mountain belts - Geomorphic processes, rates and hazards (co-listed in NH). Convener: O. Korup, Co-Convener: G. Crosta, J. Clague

Glaciation has profoundly shaped the topography of high mountain belts. Downwasting and retreat of glaciers at the end of the Pleistocene triggered a landscape response that was facilitated by a range of processes generally characterised as "paraglacial". The transition to ice-free conditions involves modification of glacial landforms by fluvial, hillslope, and other processes. Recent advances in geochronology have helped constrain the timing of deglaciation, thus providing improved estimates of rates of postglacial landscape response. An understanding of late-glacial landscape response has also been aided by research on large-scale deglaciation of high mountains in North America, Europe, and Eurasia in the past century.

Contributions that quantify the rate of landscape response to deglaciation on timescales from the Pleistocene to historic times are invited. Topics of interest include, although are not limited to hillslope response to deglacial debuttressing; effects on weathering and periglacial processes; longevity of glacial sediments and landforms in active mountain belts; formation of gorges, alluvial fans, and river terraces; lake and fjord sedimentation; postglacial meltwater and sediment fluxes and their geomorphic effects on mountain rivers; formation and failure of ice, moraine, and landslide dams; and volcanic eruptions coincident with or following deglacial unloading.

Specifically papers that use process rate constraints to qualitatively and quantitatively assess hazards in mountainous terrain are welcome.

Contact: Oliver Korup, Swiss Federal Research Institutes WSL/SLF, korup@slf.ch

GM3.5 Cold regions geomorphology: present landforms and past climate. Convener: I. Roer, Co-Convener: R. Frauenfelder, S. Lukas

Please find many other interesting sessions at <http://meetings.copernicus.org/egu2008/>

2.2. 38th Annual International Arctic Workshop, Boulder, Colorado, USA, March 5-7, 2008

The 38th Annual International Arctic Workshop will be held 5-7 March 2008, at the Institute of Arctic and Alpine Research (INSTAAR), University of Colorado at Boulder. The meeting is open to all interested in the Arctic and will consist of a series of talks and poster sessions covering all aspects of high-latitude environments, past and present. Previous Arctic Workshops have included presentations on arctic and Antarctic climate, archeology, environmental geochemistry, geomorphology, hydrology, glaciology, soils, ecology, oceanography, and Quaternary history.

This workshop has grown out of a series of informal annual meetings sponsored by INSTAAR and other academic institutions worldwide. In keeping with this tradition, there are no formalized topics and the workshop is organized around themes developed from the abstracts submitted for presentation. Organizers can accommodate specific themes and arrange small group meetings, however. Attendees are requested to identify any special topics or needs by contacting workshop organizers at: ArcticWS@colorado.edu.

Student participation is a vital component of the workshop. With support from the National Science Foundation, a limited number of students giving a talk or poster will receive financial assistance, including registration and hotel support.

Early registration and submission of abstracts for oral and poster presentations will be available until 13 February 2008 at: <http://instaar.colorado.edu/AW>

Inquiries may be directed to: ArcticWS@colorado.edu.

2.3. 33rd International Geological Congress, Oslo, Norway, August 5-14, 2008

<http://www.33igc.org>

Achim A. Beylich & Scott F. Lamoureux are organising a Symposium on *Holocene and present-day sediment budgets in cold environments* **HPQ-03**: Climate change affects all Earth surface systems but with the arguably greatest impact in high-latitude and high-altitude cold environments. In these areas, climate change shapes earth surface processes not just by altering vegetation cover and human activities but also through its impact on frost penetration and duration within the ground surface layers. All of these factors influence patterns of erosion, transport and deposition of sediments and related fluxes (e.g., nutrients, solutes, carbon). It is a challenge to develop a better understanding of how these factors combine to affect sedimentary transfer processes and sediment budgets in cold environments. Our baseline knowledge on the erosion, sedimentary transfer and depositional processes operating within Holocene and present-day climates and as landscape systems evolved and under given vegetation covers, forms our basis for predicting the consequences of predicted future climate change and related vegetation cover changes. However, much of this information is limited in terms of spatial and temporal coverage and needs to be extended and consolidated. Only when we have these reliable models response to landscape and climate change we will have fuller understanding of probable future changes to these regions.

Deadline for abstract submission is **February 1, 2008**. Further information on the **central online abstract submission** is available at <http://www.33igc.org>

2.4. Third I.A.G./A.I.G. SEDIBUD Workshop, Boulder, Colorado, USA, September 9-13, 2008

Please note the **new dates** for the Third SEDIBUD Workshop that will be held at Niwot Ridge, Mountain Research Station, Institute of Arctic and Alpine Research (INSTAAR) (www.colorado.edu/mrs), Boulder, Colorado, USA, from September 9 to 13, 2008.

The theme of the Third SEDIBUD Workshop is *Sediment Budgets in Changing High-Latitude and High-Altitude Cold Environments*.

Detailed information on the workshop will follow soon (First Circular) and will be available at <http://www.geomorph.org/wg/wgsb.html>

The deadline for pre-registration is **March 15, 2008**.

The deadline for abstract submission and final registration (payment) is **May 15, 2008**.

3. Contributions from SEDIBUD Members

3.1. Denis Mercier

Denis Mercier is preparing a special issue of the French journal « *Géomorphologie, relief, processus, environnement* » with « **Paraglacial geomorphology** » as red thread.

Contributions regarding the following topics are solicited:

- paraglacial concept,
- paraglacial landsystem,
- paraglacial space and time scales,
- paraglacial evolution of slopes,
- paraglacial evolution of glacier foreland,
- paraglacial coasts,
- paraglacial sedimentation (terrestrial, lacustrine, offshore...),
- paraglacial environment and risk,
- paraglacial environment and geophysical techniques,
- paraglacial environment and remote sensing.

Deadline for title submission is **January 7, 2008** with name of author and e-mail contact.

Deadline for full paper submission is **June 2, 2008**.

Accepted languages are English and French (instructions for authors are available on the website: <http://www.univ-st-etienne.fr/gfg/revue.html>).

For corresponding message and submissions, contact Denis Mercier at denis.mercier@univ-nantes.fr or by post at the following address: Dr Denis MERCIER, Laboratoire Géolittomer, UMR 6554 - CNRS LETG, Campus du Tertre, BP 81227, F-44 312 Nantes cedex 3.

4. Deadlines summary

- Submission of SEDIBUD Key Test Sites Template to Scott F. Lamoureux: **December 20, 2007**
- Title submission to the “Paraglacial geomorphologie” special issue: **January 7, 2008**
- Abstract submissions to EGU 2008: **January 14, 2008**
- Abstract submissions to the 33rd International Geological Congress (IGC): **February 1, 2008**
- Abstract submissions to the 38th Arctic Workshop: **February 13, 2008**
- Submission of contributions to the planned Special Issue of AAAR, following the Second SEDIBUD workshop: **February 15, 2008**
- Pre-Registration for the Third SEDIBUD Workshop in Boulder, Colorado, USA: **March 15, 2008**
- Abstract Submission and Registration (Payment) for the Third SEDIBUD Workshop: **May 15, 2008**
- Full paper submissions for the “Paraglacial geomorphology” special issue: **June 2, 2008**

5. Views of a SEDIBUD key test site



Erdalen field site, Norway (photos: Ola Fredin, Katja Laute, Achim A. Beylich)

Next SEDIBUD Newsletter (2008 A): March 2008

Achim A Beylich, Chair
 Scott F. Lamoureux, Vice-Chair
 Armelle Decaulne, Secretary

You are kindly invited to send contributions related to SEDIBUD and Cold Environments to Dr. Armelle Decaulne, SEDIBUD Secretary (armelle@nnv.is) to be included in the coming SEDIBUD Newsletters.