



International Symposium on **'Sediment dynamics in changing environments'**

1st – 5th December 2008

Christchurch, New Zealand

FIRST CIRCULAR

Sediment dynamics in changing environments

"Change cannot be avoided. Change provides the opportunity for innovation. It gives you the chance to demonstrate your creativity."

- Keshavan Nair

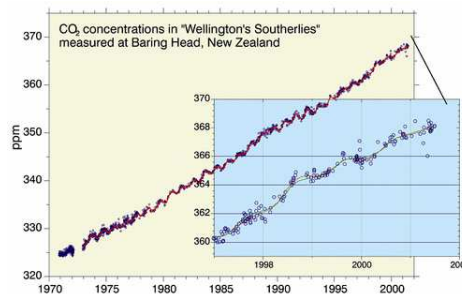
Mankind is facing changes of unknown magnitude and speed in the 21st century. We are just beginning to grasp the magnitude of our impact on the environment and the related risks for our societies – and the whole globe. This century will be a century of changes – of changing environments. We have a choice to partly control these changes by our present actions; and to estimate and prepare for / adapt to these global changes. As more scientific evidence accumulates about the magnitude and speed of past environmental changes from sedimentary histories and sediment archives we can learn for managing present and future changes. This century must be a century of concerted research and actions in order to control and adapt to environmental, economical and social changes – involving scientists from all disciplines – in particular water-related and earth surface processes sciences.

On behalf of the **International Commission on Continental Erosion (ICCE)** we would like to invite you to Christchurch in December 2008.

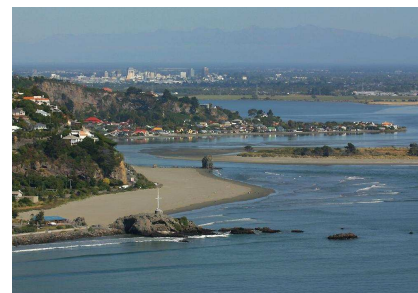
- To share your knowledge about "Sediment dynamics in changing environments".
- To inspire and to be inspired to study Erosion and Sediment Dynamics.
- To work together for a better future.



Aggradation near Poerua landslide



CO2 increase at Baring Head, Wellington



Christchurch Estuary

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Scientific Programme

To understand **sedimentary systems in changing environments**, we need to advance our knowledge of sedimentary processes and systems and in particular of **scaling issues in sedimentary systems**. This knowledge, derived from **historical information and analysis**, and system analysis and modelling should enhance our ability to assess impacts of **Global Change on erosional systems**. Finally we need to find ways to link our understanding and our models of **sedimentary systems with impacts on human environments** – including improvement of management options, hazard and risk assessment, and feedback into policy frameworks.

The Scientific Programme will be organised around four themes.

1. Scaling issues in sedimentary systems – from point to continents

We invite papers tackling problems of understanding and scaling erosion, transport, and deposition processes within sedimentary systems, including

- Local processes and their effects on large scale systems;
- Transfer of local process understanding onto larger scale systems;
- Global changes and their local effects;
- Coupling and decoupling of erosional processes on different scales;
- Complex system behaviour and changes in system states;
- Temporal scales in sedimentary systems – extreme events vs. long-term changes.

2. Dating and source tracing technologies.

This session will explore the utility of dating sediment sinks such as floodplain profiles, lake, and coastal-shelf sequences to reconstruct long-term catchment erosion and sediment yield histories. Also studies on source tracing / fingerprinting for understanding catchment sediment generation and dispersal are invited.

3. Global Change and erosion.

Papers are invited on the effects of climate and land-use changes on erosion and sedimentation processes, including

- Global erosion as affected by climate change;
- Relative importance of land-use and climate change for sedimentary systems;
- Sensitivity of sedimentary systems in different environments;
- Erosion and the carbon cycle.

4. Linking Erosion with environmental and societal impacts: Sediment production, River Regulations, Depositional environments, Hazards & Risks, Management & Policy.

Political and environmental management agendas often move in advance of the science base. It is critical to improve linkages between science outcomes and



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decision making on various levels. We invite papers on linking sedimentary systems with socio-economical systems, including

- Sediment production and its impacts on societies;
- Sedimentary systems and catchment management;
- Sedimentary Systems and environmental hazards and risks;
- Erosion and risk mitigation;
- Developing tools to meet policy targets in areas such as erosion, transfer of sediment-associated contaminants;
- Bridging the gap between research and practice for delivery of improved strategies for sustainable development.



Programme Schedule

IAHS ICCE Symposium Christchurch 1st - 5th December 2008

Dates	Academic Programme	Social Programme
Sunday (November 30 th)	Arrival/Registration	Ice-breaker
Monday	Full-day papers	Social event - TBA
Tuesday	Full-day papers	Free evening
Wednesday		Field trip
Thursday	Full-day papers	Conference Dinner
Friday (December 5 th)	Half-day papers	Delegates depart

The Venue and Social Programme

The Symposium will be hosted at University of Canterbury Campus. University of Canterbury is located in the heart of the Christchurch Suburb of Ilam. Ilam is located approximately 4 kilometres west of the City Centre and has excellent facilities around the area and direct bus transport linkages to the Christchurch City Centre. A wide range of accommodations options exists nearby to meet most budgets.

The mid-Symposium field trip will take us to the gravel bed rivers of the Canterbury Plains which act as a conveyor belt transporting sediment out of the uplifting Southern Alps into the Pacific Ocean. We will also visit the Canterbury coastline and observe the intense coastal erosion and transport happening in that area. Several evening events will be included in the conference programme, including an Ice-Breaker reception and a Conference Dinner.

Christchurch is New Zealand's Garden City. Christchurch is a great starting point to explore the famous New Zealand Alps, the West Coast, and Central Otago with its stunning scenery and wineries – to name only a few options. Christchurch is the South Island communications and transport hub and can be reached by road, rail or by air (International airport 10 km).



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Scientific Contributions and Proceedings Publication

The Proceedings of the Symposium will be pre-published as an IAHS 'Red Book'. The price of the volume will be included in the registration fee and a copy of the Red Book will be provided to each participant. Participants wishing to contribute a paper should submit an abstract in English (maximum 250 words). After reviewing the abstracts, papers of 8-10 pages length will be invited for publication in the 'Red Book'. The schedule for abstract and full paper preparation is:

Deadline for abstracts	30 November 2007
Replies to authors	31 January 2008
Deadline for full papers	30 March 2008

(Website for abstract submission will be available soon)

Additionally, poster presentations for the Symposium will be invited.

Registration Costs and Provision

The Registration Fee for the Symposium will be around NZD 800 (depending on sponsorship etc.), this will include a delegate's pack containing the '**IAHS Red Book Proceedings**', lunch and refreshments every day of the meeting, the mid-Symposium excursion, and evening entertainment as part of the social programme. A discount will be available for early registration and for full-time students. Finalized registration fees and options will be available in subsequent circulars.

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Contact & Convenors

The local committee organising the meeting comprises:

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Further details will be provided in subsequent circulars. Abstract submission and conference registration will be possible through a dedicated web-site.

Looking forward to seeing you in Christchurch!



Christchurch Tram



Christchurch Cathedral



Lyttelton Harbour

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