



**The Banff Centre
for the Arts**

Public Service Announcement

The Media and Visual Arts Department of the Banff Centre for the Arts is holding two public presentations as part of the Digital Burgess Conference, August 29 to September 1.

The Burgess Shale, one of the planet's great records of the Cambrian Explosion, will set the stage for the Digital Burgess Conference, bringing together visionaries from paleontology and the natural sciences, computer sciences and the arts to explore the origin of life on earth and the future forms life may take.

Digital Burgess Opening Keynote - The Weird Wonders of the Burgess Shale: Friday August 29, 8:00 pm, Margaret Greenham Theatre - The Banff Centre.

Various presenters will examine the mysteries of the Burgess Shale, which holds many secrets about the origins of life. Featuring **Desmond Collins**, Chief Scientist for the Burgess Shale - Royal Ontario Museum, **Paul Johnston**, Royal Tyrrell Museum; **Randle Robertson**, Burgess Shale Foundation.

Digital Burgess Closing Keynote - The Future of Digital Life: Monday September 1, 8:30 pm, Margaret Greenham Theatre - The Banff Centre.

Featuring **Karl Sims**, computer scientist and organic artist, who will demonstrate models of artificial evolution; and **Tom Ray**, biologist, rain forest conservationist, and digital evolutionist, who will present "prospects for a Cambrian Explosion in Cyberspace."

Tickets to these events are \$10.00 each, available at The Banff Centre Box Office (772-6300, 1-800-413-8368) and at Ticket Master outlets. Read all about the Burgess Shale and the Digital Burgess conference happening at the Banff Centre at: <http://www.biota.org>

Additional information on Digital Burgess public events:

**The Weird Wonders of the Burgess Shale - Friday August 29, 8:00 pm
Margaret Greenham Theatre - The Banff Centre**

Top experts on the Burgess Shale will take a journey back 530 million years to the Cambrian seas, when weird wonders swam and died to be preserved in this world renowned fossil quarry near Banff. Desmond Collins of the Royal Ontario Museum, who is excavating the Shale this summer, will talk about Burgess creatures and their world. Randle Robertson of the Burgess Shale Foundation in Field, B.C. and Paul Johnston of the Royal Tyrrell Museum will review how they work to bring the wonders of the Shale to the public. Bruce Damer will preview some of the program in the upcoming Digital Burgess conference which will investigate digital tools used to model the origins and evolution of life.

**Life in Digital Space - Monday September 1, 8:30 pm
Margaret Greenham Theatre - The Banff Centre**

Can we use computers to put the pieces of the story of evolution together and understand where we all came from and are headed? Is Cyberspace a place where lifelike forms or even real living things can exist? Is a Cambrian Explosion of digital life forms in the Internet possible and what are the implications of this for the Earth and for us? These and other questions will be taken up by Karl Sims and Tom Ray. Sims will show us some of his evolving creatures, organic sculpture and evolutionary art. Sims' work at MIT Media Lab and Thinking Machines, Corp has been exhibited all over the world and represents a milestone in artificial life research. Tom Ray will take us into Tierra, a large scale digital ecosystem which runs on hundreds of computers and generates millions of evolved forms.

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Media contacts: Tim Christison (403) 762-6396, and Martin Kemp (403) 762-6652





Digging Digitally for life at the Burgess Shale

Banff, Alberta, Canada—paleontologists, computer scientists and artists will meet at The Banff Centre in August to pool their brainpower and vision to gain a deeper understanding of "the origins of life on earth and the future forms that life might take," says Bruce Damer, co-producer of **The Digital Burgess**. Host for the conference is The Banff Centre's Media and Visual Arts department.

"We believe this is going to be as significant as the first artificial life meetings in the 1980s. We'll have a unique group of people meeting in a unique setting to talk about what's never been talked about before."

Discussions at the four-day conference, which run from August 29 to September 1, will centre around the scientific implications of the half billion year old "weird and wonderful creatures" fossilized at the Burgess Shale, located near Banff at Field, British Columbia. Conference attendees will trek to the Burgess Shale on the second day of the event.

The Burgess Shale raises a number of philosophical issues which conference participants will tackle: the origins of life; the shapes Nature chose for living things; humanities' drive toward self-extinction; and the possibility of emergence of novel forms of life through cloning, genetic engineering and life entering digital space.

Speakers at the conference will include:

Richard Dawkins: zoologist and author of *The Selfish Gene*, *The Extended Phenotype*, *The Blind Watchmaker*, *River Out of Eden*, and *Climbing Mount Improbable*;

Douglas Adams: author and creator of *The Hitchhiker's Guide to the Galaxy* series in its many media forms. Douglas is a founding partner and the Chief Fantasist of The Digital Village.

Desmond Collins: Chief Scientist for the Burgess Shale for the Royal Ontario Museum, who will present an illustrated overview of the Burgess Shale.

Tom Ray: Biologist, rain forest conservationist, Digital Evolutionist, and creator of the virtual primordial soup project *Tierra*.

"What makes this conference unique is that it will combine paleontology with the digital world", says Damer. This effort is different from previous uses of computer technology in science to merely compile data. In Banff, they will attempt to use "digital ecosystems" that react independently to changes in their respective environments to provide new ways of examining the past.

"We hope to use digital tools to figure out why we are the way we are, and to 'recreate little Cambrian Explosions' in cyberspace," says Damer. 'The Cambrian explosion' is the name given to the five-million-year period which resulted in the rich variety of fossil forms found in the Burgess Shale.

Further conference details are available at the Web site <http://www.biota.org>.

For media outlets planning to cover the event, please reserve a space by calling Martin Kemp at 403-762-6652 or Tim Christison at 403-762-6396.

For registration information on Digital Burgess, please contact The Banff Centre Office of the Registrar at 1-800-565-9989, fax (403) 762-6345, or e-mail arts_info@banffcentre.ab.ca.

The Digital Burgess is sponsored by The Banff Centre for the Arts, The Contact Consortium and Biota.org, with the support of British Telecom, SGI, Sun Microsystems, 3DLabs, Intel, The University of Calgary, The Burgess Shale Foundation, and many others.



A Media and Visual Arts Press Release

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"We believe this is going to be as significant as the first artificial life meetings in the 1980s. We'll have a unique group of people meeting in a unique setting to talk about what's never been talked about before" states Damer, who is also **co-director of The Contact Consortium, and president and CEO of DigitalSpace Corporation.**

Top experts on the Burgess Shale will take a journey back 530 million years to the Cambrian seas, when weird wonders swam and died to be preserved in this world renowned fossil quarry near Banff at Field, British Columbia. Conference attendees will trek to the Burgess Shale during the event.

The Burgess Shale raises a number of philosophical issues which conference participants will tackle: the origins of life; the shapes Nature chose for living things; humanity's drive toward self-extinction; and the possibility of emergence of novel forms of life through cloning, genetic engineering and life entering digital space.

Speakers at the conference will include:

Desmond Collins, Chief Scientist for the Burgess Shale for the Royal Ontario Museum, who is excavating the Shale this summer, will talk about Burgess creatures and their world.

Tom Ray, Biologist, rain forest conservationist, and Digital Evolutionist will present recent results from Network Tierra, a large scale on-line digital ecosystem. He will talk about his views on the future of life in an era of mass extinction and the need to set up biodiversity reserves, both physical and digital.

Randle Robertson of the Burgess Shale Foundation in Field, B.C. and **Paul Johnston** of the Royal Tyrrell Museum will discuss how they work to bring the wonders of the Shale to the public.

Karl Sims, of Genetic Arts, Inc. Cambridge, Mass. is a computer scientist and organic artist. His interactive installation Genetic Images has exhibited at the Centre Pompidou in Paris, and his installation Galapagos is currently on display at the ICC museum in Tokyo. Sims will be demonstrating his famous competing virtual creatures.

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