Preface

Henning A. Bauch¹ · David H. Roberts²

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arktos, a new international journal encompassing all disciplines of geosciences in one. First question that immi-
nently arises: Is there really a need for yet another journal
in geosciences in general and on the Arctic specifically?
Yes, we sincerely do believe so! Ever since the first full
map of the Arctic was published (Fig. 1) based on the work
by the great Flandrian cartographer Gerardus Mercator this
region has been a challenge for modern scientists and
explorers alike; and today, with the geopolitical and
groeconomical pressure rising even more so than ever
before.

From the purely scientific and geotechnical point of
view the Arctic still remains one of the great frontiers in
geoscience research. This region is a unique, ever-changing
environment that is sensitive to rapid change. Determining
its past evolution and its future development is important
not only for understanding the way in which polar terres-
trial and marine environments operate, but critically, for
helping to determine how ice, ocean and climate processes
and feedbacks will play out in the coming centuries. As a
community we are just awakening to the response of the
Arctic to climate change. The dynamic behaviour of ice
sheets and glaciers is changing in response to atmospheric
and ocean warming. Vast swathes of land underlain by
permafrost are thawing and releasing fresh water and car-
bon into the atmosphere. Sea-ice distribution is changing

and ocean circulation responding to global changes in heat
and fresh water flux.

The Polar North and its adjacent sub-polar regions
are typified by geological and geomorphological pro-
cesses that occur nowhere else on Earth. Furthermore,
they harbour unique archives which provide unprece-
dented insights into past environmental change. From
the bed of the Greenland Ice Sheet to the floor of the
Arctic Ocean understanding the processes that shaped
Arctic landscapes; modulated atmospheric/oceanic tem-
peratures; influenced habitat and biota evolution; and
controlled resource availability; ... has never been more
important.

arktos will publish original research on the Arctic and
sub-Arctic regions and promotes the exchange of scientific
knowledge about the Arctic, supporting Arctic research and
fostering collaboration among polar geoscience communi-
ties. It aims to publish cutting edge articles that crosscut the
geological sciences. *arktos*, therefore, invites research and
review articles across all relevant geoscientific disciplines
including—among many others—geology, geomorphol-
ogy, sedimentology, geochemistry, geophysics and
geochronology in terrestrial and marine environments for
all geologically relevant timescales. This very first issue of
arktos is just the start, and provides only a selective
glimpse into the actual breadth of the journal's scope.

✉ Henning A. Bauch
hbauch@geomar.de

David H. Roberts
d.h.roberts@durham.ac.uk

¹ Mainz Academy c/o GEOMAR, Kiel, Germany

² Durham University, Durham, UK

Fig. 1 Map of the Arctic and sub-Arctic region by G. Mercator published a year after his death in 1595 (source: http://libweb5.princeton.edu/visual_materials/maps/websites/northwest-passage/mercator.htm)

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