

Olivier Reubi receives the 2008 Paul Niggli Medal



The Council of the Paul Niggli Foundation has decided in their session of 23. May 2008, to award the Paul Niggli Medal to Olivier Reubi from Lutry. The 2008 medal is awarded in recognition of Olivier Reubi's excellent research in volcanology and his innovative and rigorous application of melt inclusion geochemistry to decipher the origin of andesitic magmas.

returned to Switzerland, to pursue his work on the historical eruptions of Batur volcano. Soon afterwards, he took up a post-doc position at University of Bristol. The results he obtained there, from lavas of Volcán Colima in Mexico, are based on a careful combination of igneous petrology and melt inclusion geochemistry. They demonstrate that these magmas, and probably andesites in general, are hybrid magmas formed by mixing of more felsic and more mafic melt components, as indicated by contrasting melt compositions in different phenocrysts. Presently, Olivier Reubi is back in Switzerland, working on a collaborative research project between University of Geneva and ETH Zurich, in which he is using uranium and thorium decay series to determine the time duration of magmatic processes at subduction zones.

We congratulate Olivier to his diverse and innovative research results, which were published in some of the best journals and are likely to become benchmark publications in igneous geology and geochemistry. On 22. November 2008, Olivier's award was celebrated during the 5th Swiss Geoscience Meeting in Lugano. We wish you continuing joy and success, Olivier, in your life and your future research!

*Christoph Heinrich (ETH Zürich) and
Michael Dungan (University of Geneva)
For the Board of the Paul Niggli Foundation*

Citation

After his birth in Tahiti and basic schooling in Lausanne, Olivier experienced a very varied path of academic education, leading to his first degree in geology from the University of Lausanne. His earliest scientific publication originated from his MSc thesis there, and dealt with physical volcanology in the Massif Central of France. In 2000, Olivier moved southward again, to do a PhD at Monash University in Melbourne, Australia, where his interest in subduction zone magmatism was kindled, and where he started to move more deeply into igneous petrology and geochemistry. His doctoral thesis and subsequent work always focused on specific case studies of calc-alkaline volcanoes, to derive a more general understanding of global magmatic processes. His interest in the Batur Volcanic Field in Bali was to link the physical processes of caldera eruptions with magma geochemistry, and he could show from the great variety of minor magma types that this caldera-eruption event was driven by a complex system of partly communicating magma reservoirs, rather than a single homogeneous magma chamber. After a short interlude with the cold end of the southern hemisphere – a study of the Ferrar large igneous province of Antarctic carried out at the University of Otago – Olivier

Response

It is a great pleasure and honour to receive the 2008 Paul Niggli Medal. I would like to express my gratitude to the board of the Niggli Foundation and to the people that nominated me for this award. This medal is a fantastic encouragement to continue my research and a boost of motivation to pursue an academic career, a welcome support in the rather uncertain life of a young scientist.

Looking back in an attempt to retrace the path I followed since enrolling as a geology student at the University of Lausanne makes me realize how surprising and unpredictable a scientific career can be. If someone had told me when I was a student learning about crystallographic structures that I would

one day receive the Paul Niggli medal, I would probably not have believed it. Neither becoming a scientist nor working on volcanoes has been a kid's dream for me; it is the result of a subtle combination of my own scientific curiosity and the contagious enthusiasm of many geologists and volcanologists I have met over the years.

More than anything, the time spent in the field as an undergraduate student and later on as part of my research has awoken my curiosity and forged my scientific identity. Patient and detailed field observations have no equivalent to reveal the complexity of natural systems. A clear appreciation of this complexity is fundamental to realistic scientific models and provides a strong framework to interpret data from cutting-edge analytical techniques. Integrating detailed field observations with state of the art mineralogical and geochemical analytical techniques in an attempt to develop models embracing as much as possible the intrinsic complexity of geological systems is the core of my research strategy, a "philosophy" that I share with many former recipient of the Paul Niggli medal and that, in my opinion, represents a strong and important trademark of Swiss geologists.

Many people have contributed to my research and owe a share of this award. First, I would like to thank Jean Hernandez who supervised my first steps in the world of research during my Master's thesis on Cantal volcano. Jean has been very supportive since then, which I greatly appreciate. The petrology

and volcanology research groups at Monash University led by Ian Nicholls and Ray Cas respectively have greatly contributed to improve my understanding of volcanic systems. The time spent in Melbourne while doing my PhD has been as pleasant as productive. After a few years down under and a short stay back home, I moved to Bristol University. The dynamic, challenging and friendly atmosphere I found there greatly stimulated my research and the few years spent working with Jon Blundy constitute a major step forward in my way of thinking about magmatic systems and science in general. I greatly acknowledge the successive support of a SNF and a Marie Curie fellowship. Mike Dungan and Bernard Bourdon gave me the opportunity to come back to Switzerland, and took the risk to let a petrologist with limited isotope geochemistry experience work in Bernard's U-series laboratory. For me this represents a fantastic opportunity to acquire the additional skills necessary to achieve fully integrated volcanological, petrological and geochemical studies of volcanic systems, one of my scientific goals.

Finally, nothing would have been possible without the strong and unconditional support of my family and friends. A "quiet" beer in good company is doubtless the best remedy when things go wrong in the laboratory, and the contribution of these moments to science shouldn't be underestimated.

Olivier Reubi, ETH Zürich.