VOLCANIC IMPACTS ON CLIMATE AND SOCIETY

2019 Meeting programme

Social programme

Sat 13 April 18.30	Ice breaker at the Cambridge University Centre Wine Bar
Sun 14 April 19.00	Conference dinner at Queens College
Mon 15 April 20.00	Film Premiere: Chasing Traces from the Past, Auditorium, Fitzwilliam College

see location details on the conference website

Sunday 14 April

8.30	Registration	
9 .00	Welcome intro	
9.30	Keynote: Reading the volcanic imprint on the Holocene	David Pyle
	Session 1: Eruptions of the last millennium CE	
10.00	Disentangling the causes of the year without a Summer	Andrew Schurer et al.
10.15	Causes of the Climate Response to the 1783–1784 Laki Volcanic Eruption in Iceland	Alan Robock et al.
10.30	*Coffee Break*	
11.00	A Mist Connection: The Icelandic Laki Fissure Eruption of 1783	Katrin Kleemann
11.15	Crop failures, abandoned farmsteads and witchcraft accusations – Social impacts of volcanic eruptions in Finland 1580–1710 CE	Heli Huhtamaa
11.30	Testing global climatic responses to Last Millennium Volcanic Events using the new Paleo Hydrodynamics Data Assimilation product (PHYDA)	Ernesto Tejedor et al.
11.45	The precipitation response to volcanic eruptions at different latitudes observed in proxy reconstructions over the past millennium	Lea Schneider et al.
12.00	Poster introduction	All poster presenters
12.30	*Lunch break*	
14.00	A hypothesized connection of post-volcanic climate events with cholera outbreaks and the collapse of the Mongol Empire	Stephen Pow
14.15	Revisiting Samalas. On impact and dating of the 1250s eruption	Martin Bauch
14.30	Ice, Plague, and the Sturlungar: An analysis of documentary evidence for the 1257 Samalas eruption in Iceland	Adam Bierstedt
14.45	A tale of two volcanoes: Samalas and Chaiten	Karen Holmberg & Franck Lavigne
15.00	Keynote: Volcanic Eruptions and their Impacts on Climate, Environment, and Viking Society in 500-1250 CE	Kirstin Krüger et al.
15.30	*Break*	
16.00	Major volcanic eruptions and their impacts on the southern hemisphere – with particular focus on southernmost Africa: new evidence, new questions	Stefan Grab et al.
16.15	The volcanic eruption signal in an ensemble reconstruction of Northern Hemisphere temperatures	Kevin J Anchukaitis et al.
16.30	Discussion	
17-18.30	Poster session	
19.00	Conference Dinner	

Monday 15 April

	Session 2: Eruptions of the first millennium CE	
9.00	High-resolution tree ring stable isotope analysis for reconstructing volcanic-induced seasonal temperature and precipitation changes in southern Scandinavia	Joshua Bostic et al.
9.15	Sixth century volcanism and the Tierra Blanca Joven eruption of Ilopango volcano	Robert A. Dull et al.
9.30	Assessing the impact of Tierra Blanca Joven eruption of Ilopango, El Salvador: dating and archaeological implications	Vicky Smith et al.
9.45	Timing and impact of El Chichón's mid-6th century AD eruption	Kees Nooren & Wim Hoek
10.00	The dreadful 6th c. AC. The Byzantine Empire and the volcanic phenomena of 536/7 and 540 in context.	J. Rasmus BRANDT
10.15	The Tephra that Wasn't Vesuvius: A Never-Ending Tale?	Gill Plunkett et al.
10.30	*Coffee break*	
	Session 3: Aerosols and climate forcing	
11.00	How much and how high? New insights on past volcanic forcing reconstructions.	Thomas J. Aubry et al.
11.15	Volcanic Plume Impact on the Atmosphere and Climate: O- and S-Isotope Insight into Sulfate Aerosol Formation	Erwan Martin
11.30	Large Uncertainty in Volcanic Radiative Forcing Derived from Ice Cores	Lauren Marshall et al.
11.45	Improving Estimates of the Relative Timing of Ice Core Sulfate Deposition, Maximum Aerosol Optical Depth and Volcanic Eruptions	Dallas Abbott et al.
12.00	Stratospheric aerosol characteristics retrieved from limb scatter measurements	Elizaveta Malinina et al.
12.15	Fe2+ in ice cores as a new potential proxy to detect past volcanic eruptions	François Burgay et al.
12.30	High-resolution sulfur isotopes from ice cores: insights into climatic impacts of double eruptions over the past 2000 years	Andrea Burke et al.
12.45	*Lunch break* *Desmystifying Nature - Round table for ECRs*	*Michael White*
	Update on Case studies	
14.15	Climatic Impacts and Societal Repercussions of the Mid-17th-Century Volcanic Eruptions	Markus Stoffel et al.
14.25	The 853 CE Mount Churchill eruption: examining the potential climatic and societal impacts and the timing of the Medieval Climate Anomaly in the North Atlantic region	Helen Mackay et al.
14.35	The 160's BCE: the climatic and societal impacts of a volcanic triple event	Francis Ludlow et al.
14.45	The 1783-1784 Laki fissure eruption: historical, data, and modeling perspectives	Brian Zambri et al.
14.55	Clarifying the role of volcanism on mid-15th Century climate from interdisciplinary evidence	Matthew Toohey et al.

15.05	Reconciling sulfur emissions and multi-proxy climate records of the 946 CE 'Millennium eruption' of Changbaishan using statistical emulation	Anja Schmidt et al.
15.15	Discussion	
16.00	*Break*	
16.30	Keynote: Unearthing volcanic histories from polar ice-cores: realizing the potential	Siwan Davies
17.15	Mini break	
17.30	Public Lecture: Moments of crisis – volcanic eruptions, environmental impacts and societal change in the northern European past	Felix Riede
	Delegates are free for dinner	
20.00	Film Premiere: Chasing Traces from the Past	

Tuesday 16 April

Session 4: Eruptions of the Early Holocene and Pleistocene

9.00	A late Pleistocene to Holocene cryptotephra framework from northeastern North America: connecting the Pacific to the sub-tropics and north Atlantic	Britta J.L. Jensen et al.
9.15	Going back – impact of large volcanic eruptions on a Holocene tree-ring data set from the Alps	Kurt Nicolussi et al.
9.30	Climate effects of one of the largest eruptions during the Holocene Climatic Optimum/Hypsithermal: Mt. Mazama (43 N, 5623± 35 BCE)	Claudia Timmreck et al.
9.45	Long-term environmental impact of Campanian Ignimbrite tephra over Eastern Europe close to Middle-to-Upper Paleolithic transition	Daniel Veres et al.
10.00	Refining the eruptive history of Changbaishan and Ulleungdo volcanoes (East Asia) using distal records	Danielle McLean et al.
10.15	*Coffee break*	
10.45	Late Quaternary perspectives on human/volcano entanglements in Afar	Clive Oppenheimer et al.
11.00	Tephrochronology and Human Evolution in Middle-Late Pleistocene East Africa	Nick Blegen
11.15	Origin and dispersal of tephra at Middle Pleistocene archaeological sites in the Ethiopian Rift	Celine Vidal et al.
11.30	Discussion	
12.30	*Lunch*	

Posters Session (14 April 16.30-18.30)

Using WACCM/CARMA and Plume Box Modeling to Simulate Volcanic Eruptions from Source to Climate Impact	Margot Clyne
Sulfate aerosols : an indicator of the impact of volcanism on climate	Adeline Aroskay
Understanding eruptive frequency through the application of Kernel Density Estimations in OxCal	Rebecca E Smith
Socio-environmental dynamics and volcanic eruptions in the 500-1250 CE period in Scandinavia: new sight in Lake Ljøgottjern sediment sequence	Manon Bajard
Variable climate response to volcanic eruptions in the Common Era, and implications	Isabel Fendley
Impact of volcanic halogens on the ozone layer and the climate, A look to the past to illuminate the present	Thiebaut d'Augustin de Bourguisson
Investigate the impacts of tephra loading on peatland ecosystems and carbon storage in Hokkaido, Japan	P.D.M. Hughes
The Lake Chala (Kenya/Tanzania) tephra record	Catherine Martin-Jones
Climatic effects of asymmetric volcanic eruption	Zhihong Zhuo
The geochemical fingerprint of Icelandic eruptions in Greenland ice cores	Michael Sigl
The impact of the 536/540 CE double volcanic eruption event on the climate	Evelien van Dijk
Volcanically-induced climate forcing: Insights from sulphur isotopes	Laura Crick
Sea ice response to the 536/540 CE double eruption event	Ingvild Aukan
Volcanism, the cold pulse of the 1690s and the consequences of Scotland's failure to cope	Rosanne D'Arrigo
On the climate forcing of tropical vs. extratropical eruptions	Matthew Toohey
Model Simulations of the Chemical and Aerosol Microphysical Evolution of the Sarychev Peak 2009 (SO2, HCl, Particles) Eruption Cloud compared to In Situ and Satellite Observations	Thibaut Lurton