

## Revised structure of paper 04 May 2022 incl revised title

# Global tephra studies: role and importance of the international tephra research group 'Commission on Tephrochronology' in its first 60 years

## 1 Introduction

- 1.1 Tephrochronology and its functioning
  - 1.1.1 *Defining tephrochronology*
  - 1.1.2 *Application of tephrochronology*
  - 1.1.3 *Defining tephras and cryptotephras*
  - 1.1.4 *Development of cryptotephra studies and the modern post-1990 era*
- 1.2 Reviewing 'Commission on Tephrochronology'

## 2 Formation, development, and activities of COT

- 2.1 Formation of COT in 1961
- 2.2 Hosting of commission by INQUA or IAVCEI
- 2.3 Specialist tephra-centred conferences hosted by COT, and notable outputs
  - 2.3.1 *Tokyo, Japan, 1964*
  - 2.3.2 *Redefining 'tephra' after 1973 INQUA Congress, Christchurch, via Westgate and Gold (1974)*
  - 2.3.3 *Laugarvatn and Reykjavík, Iceland, 1980*
  - 2.3.4 *Mammoth Hot Springs, USA, 1990*
  - 2.3.5 *Tokyo, Japan, 1993*
  - 2.3.6 *Hamilton, New Zealand, 1994*
  - 2.3.7 *Brives-Charenac, France, 1998*
  - 2.3.8 *Dawson City, Canada, 2005*
  - 2.3.9 *Kirishima City, Japan, 2010*
  - 2.3.10 *Moieciu de Sus, Romania, 2018*
- 2.4 Other activities associated with COT

## 3 Officers and membership, key events and protagonists in COT's development, and post-2007 funding

- 3.1 Officers of COT and their roles
- 3.2 Membership of COT
- 3.3 Decline and rise of COT since the 1980s: key events and protagonists
  - 3.3.1 *COT transforms to CEV*
  - 3.3.2 *Renaissance from 1987*
  - 3.3.3 *Growth from 1990s: advent of modern cryptotephra studies and development of new techniques*
- 3.4 Funding acquired by INTAV since 2007 and its expenditure

## 4 Aims of COT, life membership awards, and communication

- 4.1 Aims of COT past and present
  - 4.1.1 *Current aims of COT*
- 4.2 Life membership awards
- 4.3 Communicating within COT and beyond

## 5 Legacies and future of COT

- 5.1 Current projects and future initiatives
  - 5.1.1 *Development of 'best practices' protocols and databases*
  - 5.1.2 *Microbeam trace-element characterization of tephra reference material*
  - 5.1.3 *VOLCORE*

## 6 Discussion and conclusions

### Acknowledgements

### References

### Appendices A and B