

CV OF PROFESSOR ANDREW MALONE Department of Earth Sciences, Hong Kong University

Educational and professional qualifications

BSc Civil Engineering, Leeds University (1964)

MSc & PhD Engineering Geology, London University (1965, 1969)

Fellow of the Geological Society (1968) the Institution of Civil Engineers (1989) and the Hong Kong Institution of Engineers (1990)

Registered Geotechnical Engineer, Hong Kong (2005)

Working experience

1965-1968 Geology Department Imperial College, research student

1968-1973 Soil Mechanics Ltd UK, graduate trainee then engineer; John Mowlem Ltd, UK site engineer

1973-1977 Ove Arup & Partners UK, senior engineer and head of the Geotechnical Group Scotland

1978-1982 Head, Geotechnical Control Branch, Buildings Ordinance Office, Public Works Department, Hong Kong

1983-1986 & 1987-1989 Head, Development Branch of the Geotechnical Control Office Hong Kong

1986-1987 Deputy Secretary for Lands and Works, Government Secretariat Hong Kong

1989-1998 Head, Geotechnical Engineering Office Hong Kong

1998-date Director, MSc in Applied Geosciences, Hong Kong University

2004-2010 Director, Applied Geoscience Centre, Hong Kong University

1998-date Geotechnical consultant and expert witness; assignments in Hong Kong, Korea, Malaysia, Singapore and Taiwan associated with landslides, deep excavations, slopes and foundations.

Professional contributions

Chairman, Scottish Geotechnical Group, ICE (1976-1978). Hon. Secretary, HKIE Geotechnical Group (1979-1983).

Chairman, Marine Studies Group, HK Geological Society (1984-1988). Member, HKIE Council (1987-1991).

Chairman, HKIE Geotechnical Discipline Advisory Panel (1988-1995). Member, Hong Kong Engineers

Registration Board (1990-1991 and 1996-2000). Member, Laboratory Accreditation Board (1991-1998). General

Committee Member South East Asian Geotechnical Society (1991-1996). Member, Qualification and Membership

Board, HKIE (1992-1995). Member, Technical Committee on Landslides, International Society for Soil Mechanics

and Geotechnical Engineering (1998-2001). Chairman, Hong Kong Geotechnical Engineers Registration Committee

(2004-2007).

Editorial boards and technical review

Reviewer of books and manuscripts for *Engineering Geology* (Elsevier), *Forensic Engineering* (ICE), *Geotechnical Engineering* (ICE), *Geotechnique*, *Hong Kong Engineer*, *Bulletin of Engineering Geology and the Environment and Quarterly Journal of Engineering Geology & Hydrogeology*. Assessor, Hong Kong Research Grants Council 1988-

Research Council of Norway 2011-12. Member, *HKIE Transactions* Review Panel (1992 to 2000). Member,

Editorial Board of *Engineering Geology* (Elsevier) (1993 to 2001). PhD Examiner, Hong Kong University and

Hong Kong University of Science & Technology

Current Teaching

MSc in Applied Geosciences: courses GEOS7012 Site Investigation, GEOS8002 Professional Practice, GEOS8003

Seminars on Geotechnical Failures, GEOS8101 Geotechnical Design

BSc Major in Geology: course EASC3203 Engineering Geology

Other

Official Justice of the Peace (1992-1998), Hong Kong SAR Bronze Bauhinia Star (1998), Honorary Professor

Department of Earth Sciences, Hong Kong University (1998-date).

Consulting & Expert Witness work selected projects 2010-14

Works at West Coast Station LTA Contract C856 Singapore

Expert witness appointed by Sembawang Engineers and Constructors Pte Ltd Singapore in an Arbitration between Sembawang and the Land Transport Authority of Singapore, 2010.

Landslide at Ch 23+800 Pos Selim Kg Raja Highway Project Cameron Highlands Malaysia
Expert witness appointed by MTD Construction Sdn Bhd in a civil action between MTD and AXA Affin Assurance Berhad, 2011.

Landslide at Ch 3+100 National Highway No. 3 Taiwan on 25 April 2010
Overseas member of the Taiwan Geotechnical Society's Investigation Committee for the landslide disaster at Ch 3+100 National Highway No. 3, reporting to the Taiwan Ministry of Transport and Communications , 2010-11

Landslide at Bukit Antarabangsa Kuala Lumpur Malaysia 6 December 2008
Expert witness appointed by Superview Development Sdn. Bhd. in a civil action between Thanarajah a/l Kanagaratnam and 4 others v Superview Development Sdn. Bhd. and Syarikat Bekalan Air Selangor Sdn. Bhd., 2012

Landslides at Umyeon Mountain Seoul Korea on 27 July 2011
International expert adviser to the investigating team of the Korean Society of Civil Engineers, 2012

Landslide at Ch 26+000 Pos Selim Kg Raja Highway Cameron Highlands Malaysia
Expert witness appointed by MTD Construction Sdn Bhd in an Arbitration between MTD Construction Sdn Bhd and the Government of Malaysia, 2013-15

Publications

Knill, J.L., Franklin, J.A. and A.W. Malone (1967). 'A study of acoustic emission from stressed rock'. *Int. J. Rock Mech. Min. Sci.* 5, 87-121.

Malone, A.W. (1969). '*Elastic wave methods in rock engineering*'. Imperial College, London University PhD Thesis (unpublished).

Price, D.G., Malone, A.W. and J.L. Knill (1970). 'The application of seismic methods in the design of rock bolt systems'. *Proc. Int. Geol. Cong. Paris*, 740-752.

Malone, A.W. (1977). Contribution to discussion. *Proceedings of the Symposium-in-Print on Piles in Weak Rock*, Institution of Civil Engineers, London, pp 201-202.

Ridley, T., & A.W. Malone (1977). 'Minimum weight concrete platforms'. *Proc Conf. Offshore Europe 77*. Soc. Pet. Engrs. AIME. OE 77. 11. SPE 8.6690.

Ridley, T., Malone, A.W. and R.D. McLeod (1977). 'Rapid design for concrete gravity platforms'. *The Consulting Engineer Sept.*, 39-41.

Malone, A.W. (1981). Timing of landslides in Hong Kong in relation to rainfall. *Proceedings of the Tenth International Conference on Soil Mechanics and Foundation Engineering*, Stockholm, vol. 4, pp 915-916.

Malone, A.W. (1982). Moderator's Report on Retaining Walls and Basements. *Proc. 7th SE Asian Geot. Conf.*, Hong Kong, vol 2, 249-271. (Discussion, vol 2, 275-280).

Malone, A.W. & J.C. Shelton (1982). 'Landslides in Hong Kong (1978 - 1980)'. *Proc. ASCE Speciality Conf. Engineering and Construction in Tropical and Residual Soils*, Honolulu. 425-442.

Malone, A.W. (1983). Introduction to the session 'Probes, Corers and Pore Pressure Measurement'. *Proceedings of the IUTAM Symposium on Seabed Mechanics*, Newcastle-upon-Tyne, pp 103-105. (Published under the title *Seabed Mechanics*, edited by B. Denness, Graham & Trotman Ltd, London, 1984).

Malone, A.W. (1985a). Hong Kong practice on driven piles. *Proceedings of the International Symposium on the Penetrability and Drivability of Piles*, San Francisco, vol. 2, pp 32-34. (Discussion, vol. 2, pp 77-79).

- Malone, A.W. (1985b). Factor of safety and reliability of design of cuttings in Hong Kong. *Proceedings of the 11th International Conference on Soil Mechanics and Foundation Engineering*, San Francisco, vol. 5, pp 2647.
- Malone, A.W. (1985c). *The reliability of the design of cuttings in Hong Kong*. GCO Discussion Note 5/85.
- Malone, A.W. (1987a). Landslide disaster prevention in Hong Kong and Indonesia. *Proceedings Seminar-Workshop on Preparedness for Geologic Disasters in Southeast Asia and the Pacific*, National Committee on Geological Sciences and Southeast Asia Association of Seismology and Earthquake Engineering, Manila (1984), 49-62.
- Malone, A.W. (1987b). A note on the design of large diameter excavated piles in Hong Kong. *Hong Kong Engineer* **15**, 9, 15-17.
- Malone, A.W. (1988) 'The role of Government in landslide disaster prevention in Hong Kong and Indonesia' *Geotechnical Engineering*, **19**, 2, 227-252.
- Malone, A.W. and P.G.D. Whiteside (1989) eds *Rock Cavern Hong Kong*, Institution of Mining and Metallurgy, 362 p.
- Malone, A.W. and J. Premchitt (1990) Geotechnical considerations in the design of Chek Lap Kok Airport, Hong Kong. *In: Proc. Conf. Airports into the 21st Century*, Hong Kong Institution of Engineers, 319-330.
- Malone, A.W. (1990). Geotechnical phenomena associated with piling in Hong Kong. *Quart. J. Eng. Geol.*, **23**, 289-305.
- Malone, A.W., Chan, R.K.S. and U.K. Li (1992). 'New measures to increase Professional Input into Blasting'. *Proc. Conf. Quarrying the Rim*. Institute of Quarrying, 197-199.
- Malone, A.W., Ho K.K.S. and T.S.K. Lam (1992). 'Piling in tropically weathered granite'. Keynote Paper *Proc. Int. Conf. Geot. Eng. GEOTROPIKA '92*, Malaysian University of Technology, 411-458.
- Malone, A.W. (1993a). Prospects for rock caverns in Hong Kong. *Tunnels & Tunnelling*, vol. 25, no. 2, 25-28.
- Malone, A.W. and D.E. Oakervee (1993). The Hong Kong Port and Airport Projects. *Quarry Management* November 1993, 11-17.
- Malone, A.W. and T.C.F. Chan (1993). Rock Cavern Development in Hong Kong. *In : Proc. NTU-PWD Seminar on Rock Caverns for Underground Space Utilization*, Nanyang Technological University, Singapore, 23-32.
- Malone, A.W. (1994). The landslip disaster prevention functions of the Geotechnical Engineering Office in Hong Kong. *In: Proc Seminar on Geotechnical Aspects of Hillside Development*, IKRAM, Malaysia.
- Malone, A.W. (1994). Book Review. Engineering Geology, by F.G. Bell. *Engineering Geology*, vol. 36 nos. 3&4, 316-7.
- Malone, A.W. & K.K.S. Ho (1995). Learning from landslip disasters in Hong Kong. *Built Environment* **21**, No 2/3, 126-144.
- Malone, A.W. & T.C.F. Chan (1996). A public education campaign on slope maintenance in Hong Kong. *Asia Engineer*, February 1996, 16-18.
- Malone, A.W. (1996). The use of underground space in Hong Kong. *Tunnelling and Underground Space Technology* **11**,1, 57-64.
- Malone, A.W. & T.S.K. Lam (1996). An Account of Human Resources in the Geotechnical Profession in Hong Kong. *Proceedings of the Workshop on Human Resources in Geotechnical Engineering*. Geotechnical Engineering Office and the Hong Kong Institution of Engineers, 9-23.
- Malone, A.W. (1996). *Thoughts on a new landslip risk management strategy*. GEO Discussion Note 1/96.

- Malone, A.W. (1997). *Areal Extent of Intense Rainfall in Hong Kong 1979 to 1995*. GEO Report No. 62.
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- Malone, A.W. (1997). Managing Slope Safety in a High Density City Prone to Landslips. *Proceedings of the Engineering for Public Safety Conference*. Hong Kong Institution of Engineers, 21-29.
- Malone, A.W. (1997). Risk Management and Slope Safety in Hong Kong. *Transactions of the Hong Kong Institution of Engineers*, Vol 4, No. 2 & 3, 12-21. republished 1998, *Slope Engineering in Hong Kong*, eds Li, Kay & Ho. Balkema, Rotterdam, 3-17.
- Malone, A.W., Ng, C.W.W. & J.W. Pappin (1997). Panel contribution Discussion Session 3.1. The prediction and control of displacements around deep excavations in completely decomposed granite. *Proceedings of the 14th International Conference on Soil Mechanics and Foundation Engineering*, Hamburg.
- Malone, A.W., Ng, C.W.W. & J.W. Pappin (1997). Country report for Hong Kong on deep excavations. Collapses and displacements of deep excavations in Hong Kong. *Proceedings of the 30th Year Anniversary Symposium of the Southeast Asian Geotechnical Society*, Bangkok 5-124 to 5-129.
- Malone A.W. (1998). Special Lecture. Slope movement and failure: evidence from field observations of landslides associated with hillside cuttings in saprolites in Hong Kong. *Proceedings 13th Southeast Asian Geotechnical Conference*, Taipei, eds SM Woo and YT Chung, Southeast Asian Geotechnical Society, v2, pages 81-90.
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- Malone, A.W., (1999) Guidance on setting-up a slope safety system based on risk management principles. *Proceedings Annual Seminar HKIE Geotechnical Division*. 97-103.
- Malone, A.W., (1999). What is the future for bioengineering in Hong Kong? *Proc. First Asia Pacific Conf. on Ground and Water Bioengineering*. Manila. IAEC.
- Malone, A.W., (1999). Slope Safety Systems for Asian cities. Keynote Paper. *Proc. 2nd Int. Conf. Landslides, Slope Stability and the Safety of Infrastructures*. Singapore, July 1999. 45-50.
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Andrew Malone Ltd (2007). *Landslide study at Ch 23+800 Simpang Pulai-Lojing Highway, Malaysia*. Report to Minister of Works of Malaysia.

Malone AW, Hansen A, Hencher SR & Fletcher CJN (2008). Movements of a large slow-moving landslide in schist near Pos Selim Malaysia. In *Landslides and Engineered Slopes*, eds Chen et al, Taylor & Francis v1 457-461.

Malone AW (2012) Hong Kong's 35-year war on landslides. *Global Aspect* 4:1 p11 &12.

Hencher SR & Malone AW (2012) Hong Kong Landslides in *Landslides: Types, Mechanisms and Modelling* eds Clague & Stead, Cambridge University Press 373-382.