

## Dr Stephen HENLEY

### PUBLICATIONS

Extensive list of publications 1970 to present, including many journal and conference papers, and authorship or joint authorship of four volumes:

- 1978 **Statistical Analysis in Geology.** *Benchmark Papers in Geology* v.37, 340pp.; authors J.M. Cubitt and S. Henley; Dowden Hutchinson & Ross, Stroudsburg, Pa., USA.
- 1981 **Nonparametric Geostatistics.** 145pp; author S. Henley; Elsevier Applied Science, London.
- 1995 **Geostatistika v Gorno-Geologicheskoy praktike** (in Russian: "Geostatistics in mining and geological practice"), 188pp; authors Y.E. Kaputin, A.I. Yezhov, and S. Henley; Kola Science Centre, Apatity, Murmansk Oblast, Russia.
- 2003 **Mathematical Geology Special Issue: In Honour of Professor A.B. Vistelius** (editor); *Math. Geol.* vol.35, no.4.

### FULL LIST OF PUBLICATIONS

- 1970 Geology and Geochemistry of an Area Around Perranporth, Cornwall. PhD thesis, University of Nottingham
- 1970 An Application of Statistical Methods to the Geochemistry of an Area Around Perranporth, Cornwall. *Proc. Ussher Society* v.2 p.210-216
- 1971 Hedenbergite and Sphalerite from the Perran Iron Lode, Cornwall. *Proc. Ussher Society*, v.2 p.329-334
- 1972 Petrogenesis of Quartz Porphyry Dykes in South-West England. *Nature Physical Science* v.235 p.95-97
- 1972 Geochemical Applications of Linear Programming. *BMR Open-file Record* 1972/82, Canberra
- 1972 KWIK5, A computer program for rapid plotting of data maps. *BMR Open-file Record* 1972/105, Canberra
- 1972 A Computer Program for Plotting Perspective Diagrams of Geological Section Data. *BMR Open-file Record* 1972/115, Canberra
- 1972 Nonlinear Mapping and a Related R-Mode Technique for Compression of Multivariate Data. *BMR Open-file Record* 1972/124, Canberra
- 1972 Gypsum in the Perran Iron Lode, Cornwall. *Proc. Ussher Society*, v.2 p.435-437
- 1973 Chemical Analysis of a Spilitic Dyke South of Newquay, Cornwall. *Trans. Royal Geological Society of Cornwall* v.20 p.227-229
- 1973 The Structure of the Perranporth Area, Cornwall. *Proc. Ussher Society*, v.2, p.521-524
- 1974 Geochemistry of Devonian Sediments in the Perranporth Area, Cornwall. *Proc. Ussher Society*, v3. p.128-136
- 1974 Geochemistry and Petrogenesis of Elvan Dykes in the Perranporth Area, Cornwall. *Proc. Ussher Society*, v.3 p.136-145
- 1976 An R-Mode Nonlinear Mapping Technique. *Computers & Geosciences* v.1, p.247-254
- 1976 Autocorrelation Coefficients from Irregularly Spaced Areal Data. *Computers & Geosciences* v.2
- 1976 The Identification of Discontinuities from Areal Distributed Data. in *Quantitative Techniques for the Analysis of Sediments* (ed. D.F. Merriam), p. 157-168. Pergamon, Oxford.
- 1976 Catastrophe Theory Models in Geology. *Mathematical Geology*, v.8 p.649-655
- 1977 (with K.G.Jeffery, E.M.Gill, and C.J.Fage) Communication of Geological Information among Different Soft Machines. *Computers & Geosciences* v.3 p.465-468
- 1978 (edited, with J.M. Cubitt) **Statistical Analysis in Geology.** *Benchmark Papers in Geology* v.37, 340pp. Dowden Hutchinson & Ross, Stroudsburg, Pa., USA.
- 1978 (with K.G.Jeffery, E.M.Gill, and C.J.Fage) G-PLOT: Graphics in the Geological Computer. *Computers & Geosciences* v.4 p. 33-36
- 1978 (with others) A Systematic Approach to Modelling of Multidimensional Geoscience Data. in *Sciences de la*

- 1981 Nonparametric Geostatistics. 145pp. Elsevier Applied Science, London.
- 1983 (with W.P.C.Stokes) Use of graphics computers in mine planning. in *Surface Mining and Quarrying, IMM, London. p. 323-328*
- 1985 Computer Applications in Underground Mine Design. 87th AGM of Canadian Institution of Mining, paper 181.
- 1986 Deposit Modelling Techniques and Data Handling. in *Min-ex 2000 proceedings. TransIMM, v.95 p.B80-B81.*
- 1988 The Use of Solid Modelling in Underground Mine Design. in *Computer Applications in the Mineral Industry (ed. Fytas, Collins, & Singhal). p.359-364. Balkema, Rotterdam.*
- 1988 Computer Assisted Evaluation of Quarries. in *conference proceedings: Applications of Computers in Mining.*
- 1989 A software package for short-term production planning in open-pit mines. *TransIMM v.98*
- 1990 Grade Estimation from Ill-Conditioned Data. in *"Prakticheskaya Geostatistika: Trudi Vsesoyuznogo Seminara" (Practical Geostatistics: Proceedings of an All-Union Seminar), Petrozavodsk, USSR p.186-200*
- 1990 Integration of Relational Database and Three-Dimensional Modelling Applications for efficient Mine Design. in *conference proceedings APCOM 90, Proc.22nd international symposium, Berlin: Tech. Univ.Berlin (Kongresse und Tagungen, Heft 51) v.1 p.473-479.*
- 1991 (with J.W.Aucott and P.K.Harvey) Computing for Exploration and Mining in the Developing World - The Roles of Government and Industry. in *Geosciences in development, (Stow & Laming eds), p.57-63. AGID/Balkema, Rotterdam.*
- 1991 An Integrated Approach to Short-Term Production Planning and Stockpile Management in Open-Pit Mines. in *Proceedings of an International Conference on Surface Mining, Mirny, Yakutia, USSR, July 1991.*
- 1992 (with S. Kordestani) Orebody Modelling in a Relational Database Framework. in *2nd CODATA Conference on Geomathematics and Geostatistics (ed. P.A. Dowd & J.J. Royer). Sciences de la Terre, Ser.Inf., Nancy, p. 477-484.*
- 1992 (with J.W. Aucott) Some alternatives to geostatistics for mining and exploration. *Trans IMM A, v.101 p.A36-A40*
- 1992 The Use of Integrated Software Techniques to Evaluate a Bedded Clay Deposit. in *Case Histories and Methods in Mineral Resources Evaluation. Geological Society of London Special Publication No. 63 p.135-141*
- 1993 Computer Applications in Mining Geology. *Geoscientist v.3 no.2, p.20-21*
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- 1994 The database: a prerequisite for large-scale use of artificial intelligence in mining: *Trans IMM A, v. 103 p. A53-A54*
- 1994 Nonparametric interpolation methods to identify pattern in geochemical exploration data (abstract): *Minerals Industry International, No 1019, July 1994 p. 51*
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- 1995 (with B.E.Hobbs) Computers in Exploration and Mining to the Year 2000: in *APCOM Proceedings, Aust.IMM, Brisbane, July 1995.*
- 1995 Project Databases: Standards and Security: in *Giles, J.R.A.(ed) Geological Data Management, Special Publication of the Geological Society of London No. 97, p.97-101.*
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- 1995 (with Y.E.Kaputin and A.I.Yezhov) (1995)Geostatistika v Gorno-Geologicheskoi Praktike (Geostatistics in Mining and Geological Practice); *Kola Science Centre, Russian Academy of Sciences, Apatity, Murmansk Oblast, 188pp.*

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- 1998 (with D.F. Watson) Possible alternatives to geostatistics: *APCOM 1998, London*, p.337-354
- 1999 Modelling of spatial data in the presence of discontinuities (abstract): *1999 British Applied Mathematics Colloquium, Bath University*
- 2000 The 3 R's - Resources, Reserves and Reality: in MRE21, ed. Simon Dominy, Cardiff, p.21-27
- 2000 Hello, World ! *Earth Science Computer Applications*, v.15, no.8, p.1-2
- 2000 Whither Mining Software ? : *Earth Science Computer Applications*, v.15, no.9, p.3-4
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- 2000 G-EXEC and the G-Experience: *Earth Science Computer Applications*, v.15, no.11, p.1-3
- 2000 The Russian system of resource/reserves classification: *Earth Science Computer Applications*, v.15, no.12, p.1-2
- 2000 The missing data problem: *Earth Science Computer Applications*, v.16, no.1, p.4-6
- 2000 Drillhole De-Surveying: *Earth Science Computer Applications*, v.16, no.2, p.3-5
- 2000 IP protection - copyright, patents, trademarks, company names, and dot.coms: *Earth Science Computer Applications*, v.16, no.3, p.1-2
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- 2001 Database management Systems and Data Models: *Earth Science Computer Applications*, v.16, no.8, p.1-3
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- 2001 E-business in mining: *Mining Magazine*, v.185, no.2, p.72-76
- 2001 The importance of being stationary: *Earth Science Computer Applications*, v.16, no.12, p.1-3
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- 2002 The relational database and geological inference: *Earth Science Computer Applications*, v.17, no.10, p.1-2
- 2002 Geological reasoning: *Earth Science Computer Applications*, v.17, no.11, p.1-3

- 2002 Professional accreditation for resource/reserve modelling: *Earth Science Computer Applications*, v.17,no.12, p.1-2
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- 2002 Parkinson's Law: *Earth Science Computer Applications*, v.18,no.3,p.1-2
- 2002 The man who wasn't there: *Earth Science Computer Applications*, v.18,no.4,p.1-3
- 2003 Maybe - Just maybe: the problem of partially missing data: *Earth Science Computer Applications*, v.18,no.5,p.1-2
- 2003 Spatial and Temporal Databases:*Earth Science Computer Applications*, v.18,no.6,p.1-2
- 2003 Mumbo Jumbo: *Earth Science Computer Applications*, v.18,no.7,p.1-2
- 2003 Mumbo Jumbo (of the Mumbo Jumbo kind): *Earth Science Computer Applications*, v.18,no.9,p.1-2
- 2003 Core Loss: *Earth Science Computer Applications*, v.18,no.11-12,p.2-3
- 2003 (editor) Special Issue: In honour of Professor A.B.Vistelius: *Mathematical Geology*, v.35, no.4.
- 2003 (with V.N.Deck). On the scientific heritage of Prof. A.B.Vistelius: *Mathematical Geology*, v.35, no.4, p.363-380
- 2004 (with M. Doyle) Resource Reporting at Las Cruces: A Case Study: *IMMM conference*, London, April 2004
- 2004 Russian Mineral Reporting. *Mining Journal*, 20 Aug.2004, p.18-21
- 2004 Smith, I.F.,Laxton,J.,Howcroft,J.,Robson,P., and Henley,S., The geoscience spatial framework data model - the core of the digital geoscience spatial model. *Poster 269-11, 32nd International Geological Congress*, Florence, August 2004.
- 2005 (with M. Doyle) Reporting Bias as a Result of Core Loss at Las Cruces: A Case Study: *Natural Resources Research*, Vol. 14, No.1, pp. 19-30.
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- 2005 Hatton, W. and Henley, S., Recent developments in multi-dimensional geoscience modelling - the British Geological Survey's Digital Geospatial Model 2005 and beyond: *IAMG 2005 conference, Toronto, Aug.2005*
- 2006 The problem of missing data in geoscience databases: *Computers & Geosciences*, v.32, no.9, pp1368-1377.
- 2009 A poly-Gaussian regression model to locate and quantify multiple anomalies in 3D geochemical exploration data (authors A. I. Burago, V. A. Burago, N. G. Vlasov and S. Henley): *Applied Earth Science (Trans. Inst. Min. Metall. B)*, Vol 118, No 2, p.77-84
- 2009 Global Heating: Action Required - Now. Book review of *The Vanishing Face of Gaia: A Final Warning*, by James Lovelock: *Science in Parliament*, v.66 no.2, p.40-41.
- 2010 Relational database, nulls, and the closed world assumption, submitted to *Information Systems*.