CURRICULUM VITAE Dr RICHARD PETER TAYLOR

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London Diamond Bourse 100 Hatton Garden London EC1N 8NX

Skills and strengths:

In 1987, I founded a valuation company that became the largest and most successful jewellery valuation company in the UK, servicing over 1,200 UK retail stores and later with a subsidiary valuation company in the USA. I also opened an international germological laboratory with offices in Birmingham, London, and New York. I was responsible for training and maintaining standards for a global team of valuers and experts. I sold the Valuation and laboratory business in 2005, which enabled me to take a short sabbatical to pursue my research interests in Germology, gaining a PhD in mineral physics from the University of St Andrews in 2013.

I have over 30 years of experience as an international jewellery watch, gemstone, and coin expert. I have extensive experience providing consultancy and expert advice in a commercial environment. I also offer expert opinions and reports on significant civil and criminal cases in the UK and internationally in both report and oral format.

Experienced director and NED. Extensive experience of board membership and chairmanship in both commercial and public service environments.

I am an effective communicator who can lead, inspire, motivate, and develop the staff to meet a project or company's commercial demands.

While at the Diamond Light Source UK's Synchrotron, I designed, built, and successfully deployed a unique time-resolved fluorescence spectrometer system on the I18 microfocus beamline. I also developed a joint research project with the UK EPSRC Laser facility in my specialist area of research, diamonds and gemstones.

A recognised industry expert with international practice is frequently requested to provide guest lectures, presentations, and specialist training events.

Director/ Secretary Perry RDA charity 2017 -2020 restructuring governance and funding major capital project.

Current Positions

Director Chairman and Consultant Taylor & Co Valuations Ltd Member of the NAJ (National Association of Jewellers) Education Standards Standing Committee Member of the membership committee of the Institute of Expert Witnesses Governor / Director of The Institute of Expert Witnesses National Association of Jewellers student adviser, Foundations of Appraisal Practice

Other Roles

Director/secretary of Perry Riding for the Disabled 2017-2020 Assistant editor Earth Sciences De Gruyter Open Access Books Program 2013 - 2022 Member of European luminescence dating research group HAZARD 2012 - 2022 CIBJO conference delegate three years 2001-2004

Distinguished Visiting Professor China University of Geosciences Wuhan Academy of Gem Sciences 2013-2019

STEM Ambassador Staffordshire and Shropshire 2014-2021

Experience Includes:

I held senior management positions within several multiple jewellery retailers. Rapid progression to senior management and director-level responsibilities included sales, purchasing, marketing policy and overall company performance.

General Manager of a Jewellery Manufacturing and Import Company with overall responsibility for sales, stock control, work progress, import, export, and performance.

Founder and Chairman of service company Safeguard Quality Assurance Limited, leading it to become the largest specialist company in its field in the UK, with Offices in Birmingham, London, and New York. I was the Managing Director of a jewellery design Company servicing the Signet Group PLC, which

provided the group's 600+ retail stores with bespoke jewellery design and manufacturing services. Managing director of repair and manufacturing workshops servicing over 700 retail jewellers Founder and chairman of an International Consultancy working with numerous blue-chip PLCs.

International with experience providing consultancy and delivering government projects in the Middle East and Africa.

Consultant Practice in the UK, including expert witness practice providing expert reports on value, authenticity, and compliance under TS legislation for solicitors, police, HM Revenue and Customs, insurance companies and other financial institutions.

Authored and delivered specialist lectures for postgraduates at The China University of Geosciences every June 2014 -2018. Successfully created and delivered a new CPD course for Gemmologists at the University of St Andrews (2014)

I collaborated in the development and launch of a new BSc honours degree at Birmingham City University (2014-2017) and was a Lecturer there.

Consultant Diamond gemstone and Jewellery adviser to the Royal Family Qatar

Distinguished Visiting Professor China University of Geosciences Academy of Gem Sciences 2013-2019 Director/secretary of Perry RDA, where I have significantly impacted the success of the significant project for a major new building project. (2017 -2020)

Qualifications

PhD Solid State Physics St Andrews 2013

BSc Hons (first class) in Gemmology and Applied Mineralogy Kingston University 2009 FGA Fellow of the Gemmological Association of Great Britain 1981 DGA Diamond Grading Diploma Gemmological Association of Great Britain 1990 RJ Diploma (National Association of Jewellers) 1980 FHEA Fellow of the Academy of Higher Education 2011 Cardiff University Bond Solon Civil Expert Witness 2023 Cardiff University Bond Solon Criminal Expert Witness 2024 Cardiff University Bond Solon Family Expert Witness 2024 Aberdeen University Bond Solon Criminal and Civil Expert Witness 2025

Memberships

FIRV Fellow Member of the Institute of Registered Valuers 2009 (1988) FNAG Fellow of the National Association of Goldsmiths 2001 MAE Practicing member of the Academy of Experts 1995 FGS Fellow of the Geological Society 2013-2019 MIEW Member of the Institute of Expert Witnesses Member of the Scottish Gemmological Association 2009-2019 Member of the society of expert witnesses Member of the Mineralogical Association of GB

Employment History

1977-1978 Management trainee with Zale's Corporation

1978-1979 Geoffrey Richard Group retail shop manager Cardiff

1979-1980 Walker and Hall Ltd.

1980-1981 Area manager Herbert Wolf Group

1982-1985 General Manager group of Retail Jewellers 'Eustance Group' responsible to a non-executive board of directors for all business management and performance aspects.

1985-1987 General Manager Jewellery manufacturers included relocating the entire operation to a new location.

1997-2007 Non-executive Chairman Patches Ltd

1987-2005 P.J.S. Ltd (latterly Safeguard Quality Assurance Ltd.) Chairman and Company consultant. The largest company of jewellery valuers in the UK and USA

2014-2017 Birmingham City University Lecturer Advanced gemmology and valuation science 2014-2019 Honorary Post-Doctoral Research Fellow, The University of St Andrews

2014-2019 Distinguished Visiting Professor at the China University of Geosciences Wuhan, China

Guest lectures and presentations

Colour and luminescence in minerals Birmingham University Feb 2010 Birmingham University Defect and luminescence systems in Diamond Birmingham University April 2010 Birmingham University EXAFS and TROD XANES investigation into substitutional and lattice defect structures in feldspar 17th February 2011 Kingston University

EXAFS and TROD XANES investigation into substitutional and lattice defect structures in feldspar May 2011 Birmingham University

Lecturer on undergraduate module understanding geology The University of St Andrews Lecturer 2012 and 2013

Joint Course coordinator and Tutor 'Great Ideas' cross-disciplinary undergraduate module 2012,2013 at the University of St Andrews

Loughborough course tutor 2012 and 2013 NAG IRV conference

Keynote speaker 2013 Conference on Raman and Luminescence Spectroscopy in the Earth Sciences (coral) conference Vienna

Principal Lecturer CPD day luminescence spectroscopy The University of St Andrews 2013

Keynote speaker October 2014 at the GIC annual conference in Wuhan, China

Oral presentation at the De Beers Diamond Conference Warwick University 2013

Poster presentation at the De Beers Diamond Conference Warwick University 2014

Invited keynote speaker gemmology conference Wuhan 2015

Guest Lecturer jewellery, gems, diamonds, and watches in Forensic Science Kings College London 2019 Guest Lecturer jewellery, gems, diamonds, and watches in Forensic Science Southbank University London 2020

Guest Lecturer Expert evidence on jewellery, gems, diamonds, and watches for Midlands gemmological Association Birmingham 2021

Guest presenter at the Institute of registered valuers' Conferences 2021 and 2022

Facilitator main panel discussion registered valuers' conferences 2023 and invited speaker

Expert guest BBC programs expert witness, Watchdog, Rip off Britain 2022/2023

Lecturer NAJ Training course assessing mounted diamonds October 2023

Speaker presenter at the Institute of Registered Valuers' Conferences 2024

Facilitator main panel discussion Registered Valuers' conferences 2024

Publications:

TAYLOR, R. P., FINCH, A. A., MOSSELMANS, J. F. W. & QUINN, P. D. 2013. The development of an XEOL and TR XEOL detection system for the I18 microfocus beamline Diamond light source. Journal of Luminescence.

A KARATUTLU, W R LITTLE, A V SAPELKIN, A DENT, F MOSSELMANS G CIBIN AND **R TAYLOR** 2012. OD-XAS and EXAFS: Structure and Luminescence in Ge Quantum Dots. XAS Research Review, 2.

ANDREI V. SAPELKIN, D. B., WILLIAM LITTLE, ALI KARATUTLU, KOSTYA TRACHENKO, ANDY DENT, FRED MOSSELMANS, GIANANTONIO CIBIN, **RICHARD TAYLOR** 2014. Origin of Photoluminescence in Ge Quantum Dots. Nature Scientific Reports.

MOSSELMANS, J. F. W., **TAYLOR, R. P**., QUINN, P D., FINCH, A. A., CIBIN, G., GIANOLIO, D., SAPELKIN, A. V. 2012. A time-resolved microfocus XEOL facility at the Diamond Light Source. Journal of physics: conference series, JPCS159R1.

KING, G. E., FINCH, A. A., ROBINSON, R. A. J., **TAYLOR, R. P**. & MOSSELMANS, J. F. W. 2011. The problem of dating quartz 2: Synchrotron generated X-ray excited optical luminescence (XEOL) from quartz. Radiation Measurements, 46, 1082-1089.

HATCH, SABINA M. SAPELKIN, ANDREI CIBIN, GIANNANTONIO **TAYLOR, RICHARD** DENT, ANDREW BRISCOE, JOE DUNN Investigating the source of deep-level photoluminescence in ZnO nanorods using optically detected x-ray absorption spectroscopy Journal of Applied Physics 2013 114-15

SABINA M. SAPELKIN, ANDREI CIBIN, GIANNANTONIO **TAYLOR, RICHARD** DENT, ANDREW BRISCOE, JOE DUNN Structural Origin of Light Emission in Germanium Quantum Dots cond-matter mes Hall September 2013 <u>http://arxiv.org/abs/1309.3951</u>

 Taylor. Richard diamonds gemstones and jewellery, Solicitors Journal, December 2014

 Taylor Richard P. Pre-owned prestige watches Retail Jeweller January 2014

Finch, Adrian A*, King Georgina E, Taylor Richard P Mosselmans JFW Dose Rate and Lifetime Dependence of Quartz XEOL

Taylor Richard, Synthetic diamonds analysis The Jeweller September 2018

Taylor Richard, Back to the Future -Synthetic gemstones in the past, can we learn any lessons for the future? The Jeweller November 2018

Taylor Richard, The challenges and science behind the screening and testing for synthetic and treated Diamonds. The Jeweller January 2019

Conference abstracts

Taylor RP, Finch AA X-ray excited spectroscopy and thermoluminescence studies in diamond De Beers conference 2015

Taylor RP, Finch AA FLIM imaging in diamond De Beers conference 2013

Taylor RP, Finch AA keynote speaker TR and CW imaging in minerals and gems Corals conference Vienna 2013

Taylor RP Fluorescence testing in gemstones conference workshop NAJ IRV conference Loughborough 2014

Taylor RP Fluorescence in gemstones conference workshop NAJ IRV conference Loughborough 2013 **TAYLOR R.P.**, Finch. A. A., Mosselmans J.F.W., Quinn P.D. Microfocus X-ray and laser fluorescence, analytical and mapping techniques, on heterogeneous minerals Goldschmidt 2012 Mineralogical Magazine

TAYLOR R.P., Mosselmans J.F.W., Finch. A. A., Quinn P.D. X-ray Luminescence of Framework Silicates, Prague Goldschmidt 2011 Mineralogical Magazine, Vol. 75 (3), 2011

TAYLOR R.P., Finch. A. A., Mosselmans J.F.W., Quinn P.D. Applications of Fluorescence in Gemology, GIA symposium California May 2011 Gems and gemology June 2011

TAYLOR, R. P. Mosselmans., J.F.W. Finch, A.A. Quinn, P.D. 2011 Time-resolved luminescence of framework silicates. In: Goldschmidt, Prague. Mineralogical Magazine 2011.

TAYLOR R.P., Finch. A. A., Mosselmans J.F.W., Quinn P.D. Time-Resolved Fluorescence of Framework Silicates ECMS Conference September 2011 ESMS Potsdam.

TAYLOR R.P., Finch. A. A., Mosselmans J.F.W., Donaldson C. H.2010. XAFS of trace elements in gem quality feldspar. In: IMA 2010, 2010 Budapest. IMA

Finch, Adrian A1^{*}, King Georgina E2,1, **Taylor Richard** P3,1,4, Mosselmans JFW4 Dose Rate and Lifetime Dependence of Quartz XEOL 2016 UK Luminescence conference

Reviewer

Philosophical Magazine and philosophical magazine letters NJbMin Naturwissenschaften Journal of Gemmology Gems and Jewellery Gems and gemmology