

Dr Jagjit Singh

BSc MSc PhD CBiol FIBiol FRSH FRSA

Managing Director

Experience

Environmental Building Solutions Ltd. 1999

Managing Director of Environmental Building Solutions Ltd specializing in building health problems, heritage conservation and environmental issues. I have more than 15 years' experience as a building pathologist, environmental health scientist with expertise in heritage conservation, Indoor air quality & health in the UK and abroad in both academic and commercial environments.

I specialise in research, development and consultancy work in all aspects of biodeterioration of building materials, building health, sick building syndrome, allergy problems in buildings, indoor air quality, water and fire damaged buildings, environmental monitoring and control of timber decay and environmental assessment of buildings.

My current research focuses on interrelationships of building structures and materials with their environments and occupants.

Dr Singh is President Elect of ISBE International Society for the Built Environment.

Oscar Faber 1993

Regional Director specialising in the development of consultancy services in all of the above aspects.

Project experience includes:

Indoor Air Quality and Building Health Surveys

Crown Prosecution Building, London

Detailed indoor air quality and building health survey followed by continuous environmental and air quality assessment including volatile organic compounds.

National Power, Birchfield House, Birmingham

Diagnostic, environmental health survey of this modern office building for pests, flees moulds and continuous environmental health monitoring.

Fitzwilliam Museum, Cambridge

Detailed indoor air quality survey for mycoflora and environmental conditions at the Founders Library, followed by continuous environmental and air quality assessment for mycoflora and environmental conditions.

The Grove, Watford

Detailed investigation for Anthrax undertaking surveys in The Grove followed by recommendations.

New Hunts House, Guys hospital, London

Monitoring indoor air quality for mycoflora and biological contaminants in this transgenic facility and advising on the remediation measures.

Post Office Archives, London

Monitoring and advising on the indoor air quality and biological contaminants.

National Library of Scotland, Edinburgh

Monitoring indoor air quality for mycoflora and biological contaminants in this transgenic facility and advising on the remediation measures.

Lloyds 1986 Building:

Investigation into ductwork corrosion, contamination and *Legionella* risk in ductwork.

Dixons Warehouse, Stevenage

Advice on indoor air quality and building health related to dust problems in the warehouse.

1 Cornhill, London, EC3

Detailed indoor air quality and building health survey followed by continuous environmental and air quality assessment including volatile organic compounds.

148 Leadenhall Street, London, EC3

Detailed indoor air quality and building health survey followed by continuous environmental and air quality assessment including volatile organic compounds.

Dolphin Leisure Centre, Romford

Detailed indoor air quality and building health survey followed by environmental and air quality assessment including pigeon investigation.

Pizza Hut, Sidcup, Kent

Detailed indoor air quality and building health survey followed by environmental and air quality assessment including fumes from burning motor.

Waltham Forest Housing Action Trust

Feasibility of shielding the magnetic fields induced by sub-station transformers.

The Scottish Life Assurance Company, Edinburgh

Detailed indoor air quality and building health survey followed by environmental and air quality assessment including house dust mite and mould survey at 30B Brunswick Road, Edinburgh

Moulds and Environmental Assessment Surveys

National Library of Scotland, Edinburgh

Monitoring of the building environment and books for moulds and to provide recommendations for the environmental remediation and management.

The Scottish Life Assurance Company, Edinburgh

Detailed indoor air quality and building health survey followed by environmental and air quality assessment including mould survey at 30B Brunswick Road, Edinburgh

Crown Prosecution Headquarters, London

Moulds monitoring followed by water ingress from the roof. Monitoring the mycoflora and environmental conditions at this large office building over the summer and winter months.

7-15 Fleet Street, London

Infestation and decay monitoring throughout the refurbishment followed by recommendations for control.

Address House, The National Trust, Northern Ireland

Moisture and mould problem investigation at this National Trust Property.

Royal William Yard, Plymouth

Infestation and decay monitoring over a period of five years followed by recommendations for control.

Windsor Castle, Windsor

Monitoring and assessment of mycoflora over the period of drying down of the building after fire damage.

Fitzwilliam Museum, Cambridge

Mycoflora and environmental assessment of the Founder's library and the Handel House collection followed by recommendations for control.

Queen Hotel, Hastings

Monitoring of the building environment for moulds and to provide recommendations for the environmental remediation and management.

The Corn Exchange, Manchester

Monitoring of the building environment for moulds and to provide recommendations for the environmental remediation and management.

New Hunts House, Guys hospital, London

Monitoring of the building environment for moulds and to provide recommendations for the environmental remediation and management.

Post Office Archives, London

Monitoring of the building environment for moulds and to provide recommendations for the environmental remediation and management.

National Power, Birchfield House, Birmingham

Monitoring of the building environment for moulds and to provide recommendations for the environmental remediation and management.

Fire Damaged Buildings

Windsor Castle, Windsor

Monitoring and assessment of mycoflora over the period of drying down of the building after fire damage.

Hampton Court Palace, London

Monitoring the drying down of the building after fire damage.

The Assembly Rooms, Norwich

Monitoring the drying down of the building after fire damage.

Cullen Castle, Scotland

Monitoring the drying down of the building after fire damage.

Environmental Monitoring

Crown Prosecution Headquarters, London

Monitoring the internal environmental over a twelve month period to establish causes of ill health to the occupants.

Cardiff Castle, Wales

Monitoring of the building environment to determine the source of water damage to historic plaster.

Harley Street, Crown Estates, London

Monitoring of the building environment to determine the source of water damage to historic plaster.

Portland Place, London

Monitoring of the building environment to determine the source of water damage to historic plaster.

7-15 Fleet Street, London

Monitoring of the building environment throughout the refurbishment period to determine the source of water damage to internal finishes. Detailed diagnostic non-destructive surveys of damp masonry, plaster and timber decay in various buildings, followed by long term monitoring of environmental conditions and fungal and insect infestations combined with recommendations for protection and drying down of the building fabric.

St Michael's Abbey, Farnborough

Monitoring of the building environment to determine the source of water damage to internal finishes.

Royal William Yard, Plymouth

Monitoring of the building environment over a twelve-month period to determine the source of water damage to internal finishes. Detailed diagnostic non-destructive surveys of damp masonry, plaster and timber decay in various buildings within the dockyard, a Scheduled Ancient Monument, followed by long term monitoring of environmental conditions and fungal and insect infestations combined with recommendations for protection and drying down of the building fabric.

74 St James's Street, London

Detailed investigation of dampness in the structure and recommendations for environmental control. Spot monitoring of the building environment to determine the source of water damage to historic plaster and decorative finishes.

Fitzwilliam Museum, Cambridge

Environmental monitoring at the Founders library and environmental assessment of the building during the remediation programme.

Lacock Abbey, Wiltshire, The National Trust

Biological monitoring of the historic medieval decorative surfaces over a period of one year followed by spot environmental monitoring to determine the type and extent of biological deterioration to decorative and medieval surfaces.

Queen Hotel, Hastings

Monitoring of the building environment to determine the source of water damage to historic fabric of this hotel and to provide recommendations for the environmental stabilisation of the historic fabric.

Kingsway College, London

Monitoring of the building environment to determine the source of water damage to historic fabric of this grade II listed building.

The Corn Exchange, Manchester

Monitoring of the building environment throughout the refurbishment period following the IRA bombing damage to determine the source of water damage to internal finishes. Detailed diagnostic non-destructive surveys of damp masonry, plaster and timber decay throughout the building, followed by long term monitoring of environmental conditions and fungal and insect infestations combined with recommendations for protection and drying down of the building fabric.

Telc Castle, Czech Republic

Non-Destructive environmental surveys of UNESCO preserved castle. The project involves detailed investigation and long term monitoring and making recommendations for environmental control.

New End Hospital, London

Monitoring of the building environment over the refurbishment period and provide advice on environmental control of damp and infestation to this historic fabric. This followed by long term monitoring of environmental conditions and fungal and insect infestations combined with recommendations for protection and drying down of the building fabric.

Dragor Church, Copenhagen, Denmark

Installation of a monitoring system and monitoring of the building environment to give early warning of water penetration.

Church of St Mary the Virgin, Edlesborough

Investigation of biological damage to the stone fabric.

York Crown Court, York

Installation of a monitoring system and monitoring of the building environment to give early warning of water penetration.

The Monument, London

Installation of a monitoring system and monitoring of the towers environment over a six month period to establish the causes of deterioration to the internal structure.

Timber Surveys

7-15 Fleet Street, London

Detailed investigation of decay to timbers throughout all the buildings. Monitoring of the building environment over through out the refurbishment period and to determine the source of water damage to internal finishes. This followed by long term monitoring of environmental conditions and fungal and insect infestations combined with recommendations for protection and drying down of the building fabric.

Royal William Yard, Plymouth

Detailed investigation of decay to timbers throughout all the buildings in the Royal William yard. Monitoring of the building environment over a long period to determine the source of water damage to internal finishes.

74 St James's Street, London

Detailed investigation of decay to structural timbers and recommendations for environmental control of timber decay. Spot monitoring of the building environment to determine the source of water damage to historic plaster and decorative finishes.

The Grove, Watford

Detailed investigation of decay to timbers in The Grove and to a number of listed cottages. Stress grading of principal timber members and recommendations for environmental control of timber decay.

Clewer Manor, Windsor

Detailed investigation of decay to principal structural timbers throughout the building.

Harley Street, Crown Estates, London

Detailed investigation of decay to structural timbers and recommendations for environmental control of timber decay. Monitoring of the building environment to determine the source of water damage to historic plaster.

Portland Place, London

Detailed investigation of decay to structural timbers to a number of flats and recommendations for environmental control of timber decay. Monitoring of the building environment to determine the source(s) of water damage to historic plaster.

Albany of Piccadilly, London

Detailed investigation of decay to structural timbers to a number of flats and recommendations for environmental control of timber decay.

Victoria Law Courts, Birmingham

Detailed investigation of decay to all the roof spaces and roof trusses of the great hall Grade I Listed structure using Resistograph technology.

HSBC, 27 Hill Street, Mayfair, London

Monitoring and advising on the timber decay and damp problems in the building following long term neglect.

Shordetch Church, London

Monitoring and advising on the timber decay and damp problems in the crypt of this church and first floor.

St Blaise, Haccombe, Devon

Monitoring and advising on the timber decay and damp problems.

The Kings Head, Aylesbury

Detailed investigation of decay to structural timbers, advice on eradication of deathwatch beetle and control of moisture in basement areas.

Monastery of St Francis, Manchester

Preliminary Investigation of decay to timbers throughout the buildings.

Fitzwilliam Museum, Cambridge:

Preliminary and detailed non-destructive surveys of moisture in masonry and plaster, timber decay, moulds and air quality followed by implementation of regular monitoring of environmental conditions.

Telc Castle, Czech Republic:

Detailed diagnostic non-destructive environmental and timber decay survey of UNESCO preserved castle followed by long term programme of monitoring for deterioration to decorative finishes, decay and infestation and making recommendations for environmental control.

Somerset House, London

Highly detailed non-destructive investigation of timber decay to this Grade I Listed structure using the latest Resistograph technology.

Manchester Oxford Road Station

Highly detailed non-destructive investigation of timber decay to this Grade II Listed timber railway station using the latest Resistograph technology.

The Corn Exchange, Manchester

Monitoring for timber decay and the building environment throughout the refurbishment period following the IRA bombing damage to determine the source of water damage to internal finishes. Detailed diagnostic non-destructive surveys of damp masonry, plaster and timber decay throughout the building, followed by long term monitoring of environmental conditions and fungal and insect infestations combined with recommendations for protection and drying down of the building fabric.

Moy Timber Bridge, Inverness:

Highly detailed non-destructive investigation of timber decay to this Grade A Listed timber Railway Bridge using the latest Resistograph technology.

Round Chapel - Hackney United Reform Church:

Environmental surveys of moisture and building fabric decay combined with long term monitoring of environmental conditions. This project won Civic Trust Award.

Queen Hotel, Hastings

Monitoring for timber decay and the building environment to determine the source of water damage to historic fabric of this hotel and to provide recommendations for the environmental control of timber decay.

Circle Thirty Three Housing Trust, 391 High Street, Tottenham

Monitoring for timber decay and the building environment to determine the source of water damage to the fabric of these flats and to provide recommendations for the environmental control of timber decay.

Kingsway College, London

Monitoring for timber decay and to provide recommendations for environmental control to historic fabric of this grade II listed building.

The Mansion House, London

Detailed investigation of decay to principal structural beams throughout the building. Monitoring the environment in the building to give early warning of water penetration.

Goodwood Shell House, Goodwood

Fiber optic inspection behind paneling to detect decay.

Moisture Damage Surveys

New Hunts House, Guys Hospital, London

Monitoring and advising on the drying down of the basement areas over a six-month period following flood damage.

Post Office Archives, London

Monitoring and advising on the drying down of the basement areas following flood damage.

22 Warwick Avenue, London

Investigation of the causes of dampness in basement areas of 22 Warwick Avenue.

Fitzwilliam Museum, Cambridge

Investigation of the causes of dampness in basement areas and the Founders Library.

HSBC, 27 Hill Street, Mayfair, London

Monitoring and advising on the damp problems in the building following long term neglect.

Shordetch Church, London

Monitoring and advising on the damp problems in the crypt of this church and first floor.

St Blaise, Haccombe, Devon

Monitoring and advising on the damp problems in the crypt of the church.

Butlers Wharf, London

Monitoring and advising on the drying down of the building following flood damage.

National Power, Birchfield House, Birmingham

Monitoring and advising on the drying down of the building following flood damage followed by long term monitoring of environmental conditions and fungal and insect infestations combined with recommendations for protection and drying down of the building fabric.

The Corn Exchange, Manchester

Monitoring and advising on the drying down of the building following the IRA bombing damage to determine the source of water damage to internal finishes. Detailed diagnostic non-destructive surveys of damp masonry, plaster and timber decay throughout the building, followed by long term monitoring of environmental conditions and fungal and insect infestations combined with recommendations for protection and drying down of the building fabric.

Pigeon Surveys

Dorset Mansions, London

Pigeon damage survey and advice on eradication of pigeons from the building.

Dolphin Leisure Centre, Romford

Pigeon damage survey and advice on eradication of pigeons from the building.

Other information:

Academic Training

Pre-medical 1974-75

BSc Biological Sciences (Medical) - 1st Class

MSc Botany, Specialisation in mycology and plant pathology - 1st Class

PhD Mycology and Pathology

Further Studies

Post Doctoral Fellow – Mycotoxins

Research Assistant - Biological Control

Discovery

Wild dry rot (*Serpula lacrymans*) in the Himalayas, 1994.

Representation

Chartered Biologist, Member of Institute of Biology

Fellow of the Royal Society for the Promotion of Health

Fellow of the Royal Society of Arts

Associate of Institute of Wood Science

Scientific Secretary to International Society for the Built Environment

Papers

Author of numerous scientific papers and communications on the decay of building materials, non-destructive inspection techniques, monitoring and environmental control, building biology, indoor air quality, sick building syndrome, allergy problems in buildings, mycology, pathology and fire damage.

Books

Singh, J and B knight, (2003) Environmental Monitoring of our Cultural Heritage; Sustainable Conservation Solutions, Published by Environmental Building Solutions Ltd., ISBN 0-9546505-0-6

Prof K.G. Mukerji, Prof C. Manoharachary and Dr Jagjit Singh, (2004) Rhizoplane-Rhizosphere-Mycorrhizosphere Interactions, Published by Springer-Verlag, Germany

Singh, J., 1994, *Building Mycology - Management of Health and Decay in Buildings*, E & FN Spon.

Singh, J. and Aneja, K.R., eds., 1999, *From Ethnomycology to Fungal Biotechnology*, Plenum Publishing Company.

Singh, J., Drdácky, M. and Palfreyman, J., 1994, *Conservation and Preservation of Timber in Buildings*, Aristocrat, Drdácky, Telc.

Singh, J. and Walker, B., 1996, *Allergy Problems in Buildings*, Quay Books.

Singh, J. and White, N., 1995, *Environmental Preservation of Timber in Buildings*, Oscar Faber Consulting Engineers Ltd.

Mukerji, K.G., Chamola, B.P., and Singh., 2000 *Mycorrhizal Biology*, Plenum Publishing Company.

Meetings, Workshops and International Conferences (some examples)

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| London, 2005 - | Damp and dry rot threats to the health of our cultural heritage, and building fabric |
| London, 2005 - | Moulds a threat to the health of our cultural heritage, health of building fabric and occupants |
| Bombay, 2000 - | Technology of conservation |
| Liverpool, 1999 - | Heritage Mycology and health |
| Bedford, 1998 - | A Healthy Agenda for Sustainable Development |
| India, 1997 - | From Ethnomycology to Fungal Biotechnology |
| London, 1997 - | Building Conservation and Health |
| Dublin, 1995 - | Environmental Preservation of Timber in Buildings |
| Telc, 1994 - | Conservation and Preservation of Timber in Buildings |
| Oxford, 1993 - | Building Pathology 93 - Legislation |
| London, 1993 - | Allergy Problems in Buildings - Electromagnetism and dust in buildings and their health implications |
| Cambridge 1992 | -Building Pathology 92 - Management in Buildings |
| London, 1992 - | Allergy Problems in Buildings - Mould infestation in buildings and health implications |
| Ongoing | -Lectures on CPD courses for architects, surveyors, engineers, and SPAB scholars. |

Year of birth 1956