



stone initiatives

James (Jim) Mann

Business founder
Principal, chief consultant

An experienced, highly skilled dimension stone specialist with an extensive background in the evaluation and quality control of stone for use on commercial projects and the analysis of historic building materials; numerous published industry articles and seminar presentations in Australia and abroad.

CONTACT

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ABOUT

Jim Mann is the principal and chief consultant at Stone Initiatives. He founded the company in 2003 and has since then guided its growth and development into a leading international dimension stone and materials testing company.

He specialises in the forensic examination of stone material failures, including floor finishes and building facades, for both heritage and new buildings. He has a special interest in the history behind heritage projects and is fascinated by the hidden aspects of a structure that can be uncovered during the testing and evaluation processes.

RELEVANT INDUSTRY EXPERIENCE

2003 – Present

Principal & Chief Consultant

Stone Initiatives & Materials Testing Group Pty Ltd

Employed as principal dimension stone consultant and testing specialist. Responsibilities include:

- Assessing selected stone according to its suitability for purpose (e.g. colour, strength, durability, abrasion resistance and stability).
- On-site inspection and evaluation of a range of construction materials used in modern and historic buildings as façade elements, paving and ashlar.
- Liaison with engineers and architects regarding the relevant physical properties of the material.
- Assisting in compiling a specification for stone supply for tender purposes.
- Assessment of dimension stone resources for determination of suitability and viability for use.
- Development of quality assurance programs for selection, processing and fixing of stone and providing on-going inspection and test work as required during construction.
- Specifying and supervising additional testing as required to confirm the suitability of the stone for the project

(acceptance testing). Assessing and interpreting these results for communication to the client.

- Carrying out other services relating to stone application during the course of construction, for example, the assessment of surface coatings, anti-graffiti coatings, compatibility of mastic, slip resistance etc.
- Failure analysis investigations on a range of materials.

1990 – 2003

Dimension Stone Testing Specialist

Amdel Ltd

Responsible for the physical and petrological evaluation of a wide range of dimension stone materials such as granite, marble, limestone and sandstone. Assessment of dimension stone resources for determination of suitability and viability for use. Failure investigation of installed stone elements and the development of suitable remediation programs.

1989

Volunteer Teacher

Don Bosco Technical Centre (Western Samoa)

Employed at a technical college as a volunteer teacher for subjects including computer studies and metal work.

1981 – 1988

Materials Testing Specialist

Amdel Ltd

Preparation of samples for petrographic microscopic examination. Responsible for the physical and chemical testing, analysis and evaluation of a wide range of manufactured and raw materials including ceramics, clays, minerals and metallic and non-metallic construction materials. The analysis also involved failure analysis of ceramic, metallic and cementitious materials.

1979 – 1981

Exploration Geology Team Leader

BHP Pty Ltd

Involved in the initial exploration, organisation and plotting of magnetic and geochemical anomalies for base metal and diamond resource development throughout Australia.

PROFESSIONAL ACTIVITIES

Australian Stone Advisory Association (ASAA)

Director, 2007 – Present

American Standards ASTM C18 (Dimension Stone)

Standards Committee Member, 2004 – Present

Standards Australia BD-044

(Fixing of Ceramic and Stone Tiles)

Standards Committee Member, 2009 – 2014

Good Environmental Choice Australia (GECA)

Standards Group (Hard Surfacing), 2007 – 2010

International Council on Monuments and Sites (ICOMOS)

Member, 2019 – present

CONSULTANCY HIGHLIGHTS

City of Sydney Paving (Sydney, 2011 – 2020)

Project description: Use of granite as paving.

Responsibilities: Quarry inspection to ensure ability to supply required quality and quantity. Quality control of blocks prior to processing (at quarry).

Crown Resorts (Sydney, 2019 – 2020)

Project description: High-rise residential building using stone extensively through public areas and luxury apartments. Responsibilities: Stone consultant, testing and evaluation of stone floor finishes and stone cladding. Evaluation of sealer system.

Tiffany Flagship Store (Sydney, 2018 – 2019)

Project description: The external cladding was clad with limestone in an intricate 3-dimensional design incorporating lighting. Responsibilities: Testing and evaluation of proposed stone supply. Evaluation of sealer and maintenance system. Development of quality control specification. Quarry and factory processing inspection. Quality control of slabs prior to processing (in factory in Xiamen).



Jewel (Gold Coast, 2017 – 2018)

Project description: Three-tower development including a 5-star hotel and luxury apartments using stone extensively through public areas and high-end apartments. Responsibilities: Stone consultant, testing and evaluation of stone floor finishes and cladding. Evaluation of sealer system.

Sydney Opera House Forecourt Redevelopment

(Sydney, 2011 – 2016)

Project description: Replacement of external granite paving within the World Heritage forecourt to meet current disability access requirements. Responsibilities: Quarry inspection to ensure colour, quality and supply and adequate to meet project requirements. Factory processing inspection. Quality control of slabs prior to processing (in factory).

Barangaroo South (Sydney, 2014 – 2016)

Project description: Urban renewal project including a complex of high-rise office and residential buildings. Responsibilities: Stone consultant, testing and evaluation of stone floor finishes and stone cladding. Evaluation of sealer system.



AIRA Residence (Kula Lumpur, 2017)

Project description: Luxury residential apartments. Responsibilities: Consultant assisting in selection of stone floor and wall finishes. Testing and evaluation of proposed stone supply. Evaluation of sealer and maintenance system. Development of quality control specification.

Darling Square NW Plot (Sydney, 2016–2017)

Project description: Urban renewal project including a complex of high-rise office and residential buildings. Responsibilities: Stone consultant, testing and evaluation of stone floor finishes and stone cladding. Evaluation of sealer system.

Elizabeth Quay (Perth, 2015 – 2016)

Project description: Mixed-use development project. Responsibilities: Testing and evaluation of stone finishes. Troubleshooting of installation issues.

Reserve Bank of Australia (Sydney, 2016)

Project description: Reinstatement of external paving. Responsibilities: Stone consultant, assistance in pavement design, installation products and methodology.

Centennial Tower (Singapore, 2013 – 2016)

Project description: Granite-clad office building. Responsibilities: Failure investigation of façade following panel failure. Documentation of defects and commentary on fitness for purpose. Expert Witness, Singapore Supreme Court.

Resort Apartments (Noosa, 2014)

Project description: Inspection of stone tile floor finish in resort apartments to determine fitness for use and specification of remediation methods.

City Plaza (Canberra, 2010)

Project description: Granite-clad office building.
Responsibilities: Inspection of façade and review of fitness for use of granite cladding material and specification of remediation methods.

Orchard Building (Singapore, 2007)

Project description: Granite-clad office building.
Responsibilities: Inspection of façade and review of fitness for use of granite cladding material.

Chervon R&D Centre (Nanjing, 2005 – 2007)

Project description: Limestone-clad Research & Development Centre. Responsibilities: Inspection of external cladding and determination of cause of failure. Testing and evaluation of stone supply. Selection and evaluation of sealer system. Anchorage strength testing.

Suncorp Building (Melbourne, 2012)

Project description: Marble-clad office building.
Responsibilities: Inspection of external cladding and determination of cause of failure. Testing and evaluation of stone.

Qantas Chairman's Lounges (Sydney and Melbourne, 2010)

Project description: The main lounge area and individual bathrooms are extensively fitted out with an exclusive boutique stone type. Responsibilities: Quarry and factory processing inspection. Testing and evaluation of proposed stone supply. Evaluation of sealer and maintenance system. Development of quality control specification.

Corner Bourke & William, (Melbourne, 2007)

Project description: Marble-clad high rise office building.
Responsibilities: Testing and evaluation of anchorage system. Testing and evaluation of proposed stone supply. Evaluation of sealer system. Quality control inspection of stone supply.

AZRB Building (Kuala Lumpur, 2012)

Project description: Deterioration of stone floor finishes.
Responsibilities: Investigation into condition of stone, commentary on cause of deterioration and suitability for use.

Commercial Retail Centre (Melbourne, 2012)

Project description: Deterioration of stone floor finishes.
Responsibilities: Investigation into condition of stone, commentary on cause of deterioration and suitability for use.

Trafficable Stone Paving (Perth, 2011)

Project description: Deterioration of stone paving system.
Responsibilities: Investigation into method of installation of paving, commentary on cause of deterioration and suitability for use and remediation recommendations.

Stone Floor Finishes in Luxury Villa (Melbourne, 2012)

Project description: Deterioration of stone floor finish and cubic masonry. Responsibilities: Investigation into condition of stone, commentary on cause of deterioration, suitability for use and remediation recommendations.

201 Kent Street (Sydney, 2017)

Project description: The lobby area walls and floors were extensively refitted with travertine and black granite as a high-end entry. Responsibilities: Quarry and factory processing inspection. Testing and evaluation of proposed stone supply. Evaluation of sealer and maintenance system. Development of quality control specification.

**Williamstown Library** (Melbourne, 2012)

Project description: Basalt-clad public building.
Responsibilities: Testing and evaluation of anchorage system.

Federation Square (Melbourne, 2002)

Project description: Sandstone-clad complex of public buildings. Responsibilities: Inspection of façade and make-safe and review of fitness for use of sandstone cladding material.

J Reed Façade, Old Commerce Building (Melbourne, 2012)

Project description: Historic sandstone-clad public building. Responsibilities: Inspection of façade and determination of mode of failure and make-safe.

16 Aquatic Drive (Sydney, 2010)

Project description: Slate-clad public building.
Responsibilities: Inspection of façade and determination of mode of failure.

Torrens Building (Adelaide, 2013)

Project description: Historic sandstone-clad public building. Responsibilities: Inspection of façade and determination of mode of failure and make-safe.

Yin Tai Center

(Beijing, People's Republic of China, 2005 – 2006)
Project description: Three stone-clad towers with the

central tower rising 250m high and the two flanking towers about 186m. Responsibilities: Quarry inspection. Testing, evaluation and screening of proposed stone supply.

Taipei Financial Centre (Taiwan, 2005)

Project description: 101 Storey building with stone tiles used in all lift lobbies. Responsibilities: Failure analysis investigation to identify cause of failure of tiles and to identify tiles that require replacement.

Alexandra (Hong Kong, 2003)

Project description: Recladding of existing 36 storey building with limestone. Responsibilities: Testing and evaluation of proposed stone supply. Evaluation of sealer system.

126 Phillip Street, Deutsche Bank Place

(Sydney, 2003 – 2004)

Project description: A 39 storey building with extensive granite paving throughout the plaza and entrance lobby. Responsibilities: Quarry inspection, testing and evaluation of proposed stone supply. Evaluation of sealer system. Development of quality control specification.

Newman College Restoration (Melbourne, 2008 – 2010)

Project description: Restoration of stone elements within heritage-listed building. Responsibilities: Stone identification and selection of replacement materials. Quarry visit, testing and evaluation of proposed stone supply. Assistance with development of cleaning and restoration systems.



Qantas First Class Lounges (Sydney and Melbourne, 2005)

Project description: The main lounge area uses large-format polished Statuario Venato tiles on the floor, walls and bench tops; individual bathrooms are extensively fitted out with Bianco Carrara. Responsibilities: Testing and evaluation of proposed stone supply. Evaluation of sealer and maintenance system. Development of quality control specification.

St. Michael's Church (Melbourne, 2005)

Project description: Restoration of stone elements within heritage-listed church. Responsibilities: Stone identification and selection of replacement materials. Testing and evaluation of proposed stone supply. Assistance with development of cleaning and restoration systems.

Carrick Hill (Adelaide, 2007)

Project description: Restoration of stone elements within heritage-listed building. Responsibilities: Stone identification, selection of replacement materials. Testing and evaluation of proposed stone supply. Assistance with development of cleaning and restoration systems.

77 King Street (Sydney, 2007)

Project description: Limestone-clad high rise office building. Responsibilities: Testing and evaluation of proposed stone supply. Evaluation of sealer system. Quality control inspection of stone supply.

One National Circuit (Canberra, 2004 – 2005)

Project description: Stone-clad five storey building housing the offices of the Prime Minister and Cabinet. Responsibilities: Quarry and factory processing inspection. Testing and evaluation of proposed stone supply. Development of quality control specification.

Westfield Centrepont (Sydney, 2009)

Project description: High-end commercial shopping precinct using stone tiles throughout. Responsibilities: Testing and evaluation of proposed stone supply. Assistance with development of cleaning and maintenance systems.

Auckland Art Gallery (Auckland, 2010)

Project description: Stone cladding on public building. Responsibilities: Testing and evaluation of proposed stone supply.

Star City Casino (Sydney, 2009 – 2011)

Project description: Refurbishment of high-end gambling and dining precinct using stone tiles throughout. Responsibilities: Testing and evaluation of proposed stone supply. Assistance with development of cleaning and maintenance systems. Trouble shooting of installation issues.

Crown Casino (Melbourne, 2009 – 2010)

Project description: Refurbishment of high-end gambling and dining precinct using stone tiles throughout. Responsibilities: Testing and evaluation of proposed stone supply. Assistance with development of cleaning and maintenance systems. Trouble shooting of installation issues.

Pymont Wharf Apartments (Sydney, 2008)

Project description: Staining of marble panels within luxury apartments. Responsibilities: Investigation into cause of staining and remediation methods.

Northbridge Piazza (Perth, 2011)

Project description: Failure of stone paving in public plaza. Responsibilities: Investigation into cause of failure and remediation methods.

EDUCATION HISTORY

Bachelor Applied Science in Applied Geology (1978–79)
South Australia Institute of Technology¹

A multidisciplinary study combining a study of mineralogy, geomorphology, chemistry and engineering.

Diploma in Metallurgy (1983)

South Australia Institute of Technology

A study of primary and secondary metallurgical and mineral processing to provide an understanding of the formation of metals from the raw material stage to structure of the processed metal.

OTHER QUALIFICATIONS AND CERTIFICATIONS

Technician in Non-Destructive Testing – Surface Methods and Radiography (1984–85)

Australian Institute for Non-Destructive Testing

Training in methods used to locate cracks, porosity and other defects within materials (primarily for metals but can also be used for non-metals).

Welding Inspection Certificate (1987)

Australasian Institute of Metals

This course reviews welding codes, welding consumables, weld types, arc welding processes, quality control/assurance, materials and testing and welding symbols.

PUBLISHED WORK

Published technical articles include:

J. Mann, “Basalt – The Warping Issue,” *Discovering Stone*, Issue 22, p 26.

J. Mann, “The Four Basic Keys to Successful Stone Selection,” *Discovering Stone*, Issue 10, p 34.

J. Mann, “Stone Today,” *Tile + Stone Annual*, p 18.

J. Mann, “Choosing the ‘Right Stone’ for the Job,” Stone Initiatives website.

J. Mann, “The Resistance to Salt Attack test – a versatile tool for determining durability,” Stone Initiatives website

J. Mann, “When Good Stone Turns Bad – To Seal or Not to Seal?” Stone Initiatives website

J. Mann, “Living with Stone – Around the Pool,” Stone Initiatives website

J. Mann, “Which Stone Where – a beginner’s guide to material selection, Stone Initiatives website

J. Mann, “Stone – Back to Basics: Travertine,” *Discovering Stone*, Issue 19

J. Mann, “Stone – Back to Basics: Limestone,” *Discovering Stone*, Issue 20

J. Mann, “Stone – Back to Basics: Granite,” *Discovering Stone*, Issue 21

J. Mann, “Stone – Back to Basics: Marble,” *Discovering Stone*, Issue 22.

J. Mann, “Stone – Back to Basics: Sandstone,” *Discovering Stone*, Issue 23.

J. Mann, “Stone – Back to Basics: Onyx,” *Discovering Stone*, Issue 24.

J. Mann, “Stone in the Built Environment – commercial lobby floors,” *Discovering Stone*, Issue 24.

J. Mann, “Quality Control for Producers, Specifiers and End-users,” *Discovering Stone*, Issue 9.

SEMINAR PRESENTATIONS

Guest speaker at seminars including:

Designbuild (Melbourne, 30 May 2006)
The Four Keys to Successful Stone Selection.

Designex (Sydney, 28 May 2014)
Know Your Stone – Bluestone (Basalt).

Ausheritage Forum (Jaipur, India, April 2013)
Selecting Quality Stone for Your Project.

Global Stone Technology Forum
(Jaipur, India, December 2009)
Developing a Stone Testing Program.

Global Stone Technology Forum
(Jaipur, India, December 2009)
How to Ensure Stone Quality.



Full Frontal Tile & Stone Expo
(Sydney, 21 August 2009)
Developing Australian Standards for Fixing Stone Tiles.

Full Frontal Tile & Stone Expo (Sydney, 18 April 2008)
How to Ensure Stone Quality for Prestige Projects.

Holmesglen Institute of TAFE
(Melbourne, 28 May 2012)
Know Your Stone – Bluestone (Basalt).

Holmesglen Institute of TAFE (Melbourne, July 2017)
Natural Stone: Naturally Sustainable – Ask the experts.

Heritage Forum (Adelaide, July 2017)
Introduction to Analytical Techniques for Heritage Scientists.