

Steve Hold Consulting Civil Engineering Ltd



Profession

Engineer (Civil & Structural)

Current Position

Consultant Civil Engineer

Worked in Arup for 28 years

Years of Experience

35 years post chartered

Nationality

British

Qualification

BSC (Hons) Civil & Structural Engineering

Professional Associations

Member of the Institution of Civil Engineers 1977

Associate Member of the Channel Islands Group of Professional Engineers

Committees

CIRIA 'Old Waterfront Walls'

PIAINC WG 162. Increased Durability of Marine Reinforced Concrete.

Publications

(See chronology of Conference's proceedings)

After graduating Steve Hold worked on post-tensioned pre-stressed bridge and building structured design for two years, then gained site experience as Senior Bridge Engineer for on the M4. Following this he worked in the West Indies for 6 years as Resident Engineer for an elevated highway on the island of Tobago and subsequently represented the Government of Trinidad and Tobago as head of the Tobago infrastructure design and supervision Project unit, constructing sea defence works and the elevated highway connector roads.

In 1984 he returned to the UK and gained experience in analysing and providing remedial solutions for a wide range of Government Buildings, both civil and MOD, which included several significant listed buildings, such as Chatham Dockyard Ropery.

Steve joined Arup in 1989 and was responsible for a wide range of investigation and refurbishment activities in the Cardiff Office Refurbishment Group. He had a supervisory role as part of the Group's management team, which ensured continuity and quality of report writing and technical excellence.

He was part of the Arup Inspection Repair and Refurbishment (AIRR) team in the UK and led surveys of Heritage and Ancient Buildings structures. He was responsible for the design and implementation of discreet strengthening systems that satisfy Government Heritage bodies, in particular the Cintec anchor system and he has used these systems in both building heritage and marine heritage structures in the UK.

He has given seminars and talks on defect diagnostics and remedial solutions for both modern and ancient buildings and both reinforced concrete and masonry marine structures and presented papers at 20 conferences in the UK and Europe.

Specialist Groups:

- He was a member of the CIRIA group that produced the manual of 'Old Masonry Wall Structures', published Jan/Feb 2015
- He is a member of the European Union in Brussels (MARCOM) with the working group 162 of PIANC (the world association for waterborne transport infrastructure) that produced the report "Recommendations for Increased Durability and Service Life of New Marine Concrete Infrastructure".

Relevant projects:

- Investigation and remedial contracts for high rise buildings throughout the UK. In particular, curtain walling, reinforced concrete and brickwork defect diagnosis and repairs, e.g. explore at Bristol, Loughborough Estate, Brixton and Gateshead Shopping Centre.
- Difficult access structural inspections of bridges, high rise buildings and other structures using abseiling techniques, throughout the UK.
- Building and Historic building appraisals for Arup International in Stockholm, Munich, Tokyo, Beirut, Croatia and Rumania as well many projects in Jersey and the UK.
- Heritage Structure Investigation – Investigation of potential failure of several marine heritage structures in Jersey. This has culminated in the design and implementation of structural solutions that now preserve these monuments for future generations and have been the subject of several technical papers.

Jersey new build and refurbishment projects

Project management of both new build and refurbishment projects in Jersey including Marina Gardens and underground Car Park, Havre des Pas Bathing Pool refurbishment together with numerous States of Departments Heritage projects such as at the St. Catherine's Breakwater, infrastructure repair projects and marine structure investigation and repair projects in St. Aubins and Gorey and the Hermitage Breakwater in St. Helier using modern survey techniques such as LiDAR and Drone surveys.

In the UK he was the Clients' Representative for the construction of the £600m St Davids 2 shopping centre in Cardiff in 2011 and 2012 to monitor quality of construction. He has also recently provided specialist advice in 2012 and 2013 on the concrete repairs necessary to the new £1.6B container port, London Gateway, in the Thames Estuary.

Conferences and Papers

- Investigation of New North Quay St. Helier Harbour, Jersey 2006
- 1st International Conference on Concrete Repairs, July 2006, St Malo.
- 3rd International Conference on Forensic Engineering, November 2005, ICE London.
- 2nd International Conference on Concrete Repairs, June 2006, St Malo

- Medachs 08 Marine Heritage Structure, Lisbon, January 2008
- ICE Symposium, Marine Structures, Swansea, April 2008
- Stitching the Past – “Strengthening of two heritage marine structures in Jersey with needling technology”
- Concrete Solutions Conference, Dresden, September 2011
- ICE Conference, Coastal Management Belfast, 2011
- PIANC Maritime Maintenance Seminar, Exeter March 2012
- Structural Faults and Repairs, Edinburgh University 2012
- PIANC Maritime Conference ICE London October 2012
- 4th Internal Conference on Forensic Engineering, April 2013 ICE London
- Coasts, Marine Structures and Breakwaters 2013, ICE Edinburgh
- An award winner paper at Structural Faults and Repairs, Imperial College London, September 2014
- ICCRRR 2015, Leipzig
- PIANC Seminar, October 2015, ICE London.

Papers Published in the above

“Concrete Degradation Mechanisms found at New North Quay”
St. Helier Harbour, Jersey 2006

“Restoration of St. Catherine’s Breakwater Roundhead”, Jersey 2009.

“Protection of a WWII concrete defence wall at St. Ouens Bay”
Jersey 2009

“Stitching the Past” – The strengthening of three heritage marine structures in Jersey with Needling technology, 2011.

“Investigations and Repairs to Gorey Pier”, Jersey 2014

“Modern Techniques and Concrete Technology used to conserve a unique Heritage Breakwater”, 2015

WWII German Concrete Defence Walls in Jersey, Channel Islands
“An inadvertent marine engineering success of WWII military defence concrete walls in Jersey”