

CIVIL ENGINEERING SURVEYOR

Selected articles featured from 1999 to 2016

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BIM

BIM: Into the fourth dimension Anthony McHale September 2010	Interoperability: i-models A B Cleveland Jr September 2013	BIM and big Ivan Hurst May 2014
What is BIM and what does it mean to the surveyor? Alexandra Grounds March 2011	A picture paints a thousand words: The use of BIM in dispute resolution Alasdair Snadden September 2013	Taking BIM mobile Iain Miskimmin June 2014
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BIM for dummies Brian Rossiter February 2012	Managing and leveraging change in infrastructure assets AB Cleveland, Jr November 2013	BIM: Driving internal change Ivan Hurst September 2014
BIM: A contractor's perspective Jason A Smith July/August 2012	How surveyors can support the use of BIM in dispute resolution Graham Mills and Martin Penney December/January 2014	BIM gets bigger Ivan Hurst October 2014
Is BIM bigger than Latham? Information flow, management and modelling: Part 1 Ivan Hurst November 2012	BIM in action: Abu Dhabi airport's new terminal Issam Elabsi February 2014	BIM Toolkit – completing level 2 Dr Stephen Hamil March 2015
Is BIM bigger than Latham? Information flow, management and modelling: Part 2 Ivan Hurst December/January 2013	BIM Business enabler or technology red herring? Neville Glanville February 2014	Virtual data, physical impact: BIM and the smart city Tom Cheesewright July/August 2015
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BIM: The first protocol Chris Hallam and Khalid Ramzan April 2013	Survey4BIM Q&A David Philp, Monika Orzeszak and Ian Bush May 2014	BIM at Manchester Victoria Steve Brunning November 2015
Interoperability platform A B Cleveland Jr July/August 2013	BIM needs a culture change Alan Barrow May 2014	5D BIM on engineering projects Jason Ruddle November 2015
		BIM – The importance of procurement Ivan Hurst December/January 2016

BIM, cost consultants and Digital
Built Britain
Andrew Leisk
February 2016

April 2016: BIM's here, OVE's here,
are you?
Abigail Tomkins with Casey
Rutland
April 2016

BIM: Another level v one
dimension
Rob Horne
April 2016

Geo-enabling BIM: The big five
challenges. What are you prepared
to do?
Barry Gleeson and Martin Penney
June 2016

BIM: Finding the unselfish gene
Trevor Strahan
July/August 2016

BIM codification
Ivan Hurst
September 2016

Legal implications of BIM
Shona Frame
October 2016

Introducing Women in BIM
Su Butcher
November 2016

Why 5D planning offers an exciting
edge
Jason Ruddle
November 2016

Bridges

New Hungerford bridge off the blocks Costain December/January 2000	Stainless steel reinforcement – An introduction to future durability Edward James May 2004	Galloping Gertie and the Ambassador suspension bridges Barry Hiscox May 2012
Widening and strengthening of the Kingston Bridge TN Healey and JHW Counsell February 2000	The bridges of Rhode Island: 1 Barry Hiscox December/January 2006	Bridge over the River Skagit Barry Hiscox July/August 2013
Gateshead Millennium Bridge project John Johnson October 2000	The bridges of Rhode Island: 2 Barry Hiscox February 2006	Hats off to Canada! The Gordie Howe International Bridge Barry Hiscox July/August 2015
Inspection and assessment of bridges Adrian Couper October 2000	The bridges of Rhode Island: 3 Barry Hiscox March 2006	The future of bridge design Barbara Day October 2016
Crossing the Nile: Aswan Bridge Abdul Farooq February 2001	Finnieston Bridge Douglas Grant July/August 2006	
First covered footbridge across the Thames: The Jubilee Bridge Bill Higgins October 2001	Big Mac: The Mackinac Bridge Barry Hiscox July/August 2006	
Brother and Sister on Medway River Name supplied June 2001	Monitoring bridge movement Neil Parkinson May 2007	
Bridge design using finite element analysis Paul Belchamber October 2002	Mersey Gateway: Building a bridge to prosperity Steve Jones September 2008	
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Bridges under the knife Walter Smyth and George Johnston December/January 2004	The story of pipe bridges - 1 Hamish Mitchell December/January 2010	
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Brunel, IK

Small man – Tall hat: The engineering of IK Brunel
Hamish Mitchell
December/January 2002

A gorgeous bridge
Hamish Mitchell
February 2002

God's wonderful railway – 1: A gauged beginning
Hamish Mitchell
March 2002

God's wonderful railway – 2: Bristol bound
Hamish Mitchell
April 2002

God's Wonderful Railway – 3: South to Exeter
Hamish Mitchell
May 2002

God's Wonderful Railway – 4: Atmosphere south of Exeter
Hamish Mitchell
July/August 2002

God's Wonderful Railway – 5: In Kernow Country
Hamish Mitchell
September 2002

The complete railwayman
Hamish Mitchell
October 2002

One more river to cross
Hamish Mitchell
November 2002

He saw three ships
Hamish Mitchell
December/January 2003

Isambard Kingdom Brunel's chamber of secrets revealed
Martin Rogers and Chris Edge
February 2003

Materia medica
Hamish Mitchell
December/January 2004

Putting the 'great' back in Great Britain: Brunel's ss Great Britain is relaunched
Dagmar Smeed
June 2005

Happy birthday Isambard
Hamish Mitchell
April 2006

Brunel's temple in the west
Hamish Mitchell
September 2006

Construction Law

The legal liabilities of project managers Martin Howe April 1999	Will £30m bid costs be paid? Roger Knowles March 2001	Pay when paid Michael Frisby March 2002
Concurrent delays Karen Scott April 1999	A matter of great interest Roger Knowles April 2001	Programmes and contractual entitlement Daniel Atkinson May 2002
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Employment status alone no bar to giving expert evidence Christopher Pamplin March 2000	Latham revisited – A progress report part 2 James M Arnott September 2001	Courts' review of completion Roger Knowles December/January 2003
Procurement: It's a risky business Simon Tolson April 2000	Employers' insurance – Its effect on contractors' liability for negligence Jeremy Winter October 2001	SCL delay and disruption protocol - An update Jeremy Winter February 2003
Construction law research – Views from an ivory tower Dee Davenport November 2000	If you get it wrong, do you always have to pay? Roger Knowles December/January 2002	Liquidated damages and Barnett FC Geoff Brewer March 2003
Simple QS matter goes to court Roger Knowles February 2001	Agreement by the parties ignored by the courts Roger Knowles March 2002	Manager's costs recoverable Roger Knowles May 2003

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Walter Lilly: Concurrent delays and global claims Laura Rainbow November 2012	Legal Q&A: Novation agreements Helen Pearce May 2014	Termination at convenience Lindy Patterson March 2015
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Labour disruption claims 10 top tips Jonathan Bowcott November 2012	Notification of compensation events Rob Horne June 2014	Discrimination protection Peter Finding and Claire Darwin March 2016
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Key changes to Qatar's
commercial companies law
Riaz Hussain
May 2016

What you need to know about
liquidated damages: Part 1
Rob Horne
September 2016

What you need to know about
liquidated damages: Part 2
Rob Horne
October 2016

Cameras, copyright and data
protection
Duncan Lamont and Robert Bond
November 2016

Procurement unpicked
Energy Solutions EU v Nuclear
Decommissioning Authority
Emma Dowden-Teale and Claire
Whittle
November 2016

Contractor red-carded for showing
lack of consideration
Godfrey Yuen
December/January 2017

Contaminated Land, Site Investigation and Archaeology

Risk assessment for gas contaminated ground P Witherington March 1999	The legacy of the revolution (contaminated land) James Rogers March 2003	Effective contamination investigation is a measure of success Nick J Langdon March 2008
Contaminated land Roger Johnson March 2000	Hidden liabilities associated with contaminated land Anthony Joyce May 2003	Non-intrusive site investigations: An integral part of any site assessment Mark Whittingham March 2008
A guide to the new contaminated land regime Sean Ryan May 2000	Drive for brownfield regeneration brings opportunities Mark Hunter February 2004	Site investigation and modelling for chalk solution features Adam Branson March 2009
Contaminated land regulations (2000): A significantly risky business Adam Czarnecki & Sarah Dack March 2001	Managing risks on contaminated land John Crowther March 2004	Contaminated land – the options John Carlon March 2009
The remediation question Paul Webster March 2001	Landfill directive sets new challenges Tim Jessop March 2004	Developments in bioremediation Paul Mathers March 2009
Liability law on contaminated land David Blackburn March 2002	The management of large-scale remediation schemes with consideration to environmental management systems and sustainability Dr Martin Cross March 2005	Constructive vision site investigation Simon Brightwell April 2011
Back to the future: Historical Imagery points the way to contaminated land risk Dr Alun Jones March 2002	The investigation and assessment of contaminated land Dr Chris Evans March 2005	Risk management and contaminated land A multi-phased approach Sam Roberts March 2012
Foundation techniques and remediation of brownfield land Dr Chris Evans March 2002	4 August 2006: All change for the contaminated land regime Anna Rabin July/August 2006	Unexploded munitions contamination: A hazard to site investigation and intrusive ground works Michael G Fellows March 2013
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chemical legacy to multi-modal
logistics park
Steve Rowan, Neil Coyne and
David Wells
May 2013

The Crossrail archaeology
programme
Jay Carver
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site characterisation
Sam Fuller and Stephen Twist
March 2014

Watching the Northern Hub: An
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Dr Richard Gregory
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Chris Loaring
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Assessing the asbestos risks in
soil on brownfield sites
Alec Hales
November 2015

Rehabilitation of Iraq's deep
sea ports
David Wells
March 2016

Brownfield first
Natasha Levanti
March 2016

Asbestos management on high-
way projects
Andrew Wise
November 2016

Contracts

New ICE conditions of contract launched Andrew Morley October 1999	Is the ECC contract working as expected? Roger Knowles April 2003	Improving payment practices in the construction industry: The response Abigail Tomkins September 2005
New 7th edition of the ICE conditions of contract Jeremy Winter December/January 2000	ECC option C – The contractual significance of time, risk and float Alan Williamson July/August 2003	The target price on cost reimbursable contracts Roger Knowles with Mike Gregson September 2005
Changes to the NEC for the CTRL (Channel Tunnel Rail Link) Peter Collins February 2001	Guaranteed maximum price – Fact or fiction? Roger Knowles July/August 2003	NEC ECC third edition – The revised family Michael Rowlinson September 2005
Frequent problems encountered in the use of the ECC form contract Alan Bates July/August 2000	The major project form: Some unanswered questions John Rushton October 2003	The NEC David Carrick October 2005
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PPC 2000: A partnering contract for the future Roger Knowles December/January 2001	ECC options C, D and E – Working areas overheads percentage Alan Williamson May 2004	NEC ECC third edition – Revisions to the schedules of cost components and the fee in the ECC Michael Rowlinson November 2005
Valuation of variations under the ICE conditions of contract – The thrills and spills of tendering Jeremy Winter June 2000	e-procurement for Dwr Cymru Welsh Water Paul Hogan September 2004	Draft public works contracts in the Republic of Ireland Will Merriman December/January 2006
The NEC form: Is it all it's cracked up to be? Roger Knowles September 2001	ICE has been rewired David Carrick September 2004	NEC ECC third edition – Changes to the compensation events and associated procedures Michael Rowlinson December/January 2006
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A Review of the NECD Steven Williams October 2002	NEC ECC third edition – The expected key changes Michael Rowlinson June 2005	NEC ECC third edition – What's new in core clauses 1 and 2 – Key dates and other things Michael Rowlinson March 2006

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Dispute Resolution

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Today's life of PI Chris Lennon September 2012	A cautionary tale: Bonds, guarantees, collateral warranties and specific performance Chris Hallam and Stephanie Hewson October 2014	The Brexit effect Sean McGovern May 2016
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Peter Clayfield
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Alex Khan
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Darrell Smart
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Darrell Smart
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Darrell Smart
February 2005

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Darrell Smart
November 2005

On song with Gordon Masterton, ICE President
Darrell Smart
February 2006

Preparing the next generation: Robin Jones, the new SURCO Director of Training
Darrell Smart
April 2006

Mister Ed: Ed Danson, ICES President
Darrell Smart
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Right on Q: Quentin Leiper, president of the ICE
Darrell Smart
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The constructor: ICES CEO, Chris Deighton
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February 2007

Mister ICES: Kevin Blackwell, ICES retiring chief executive
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Environmentally friendly: Mike Sutton, ICES President
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The theodolite is mightier than both pen and sword: CES meets ICE president David Orr
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February 2008

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New ICES CEO, Bill Pryke
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Darrell Smart
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Darrell Smart
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March 2009

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Abigail Tomkins
December/January 2010

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February 2010

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A man for all systems: Interview with Paul Jowitt, president of the Institution of Civil Engineers Abigail Tomkins and Darrell Smart April 2010	Things that go bump in the night: Introducing Jason Smith, new ICES president Darrell Smart and Abigail Tomkins June 2011	Let's talk: RICS President Louise Brooke-Smith talks to Darrell Smart and Abigail Tomkins November 2014
Q&A on the NEC supply: Interview with Nigel Shaw, chair of the ICE's specialist NEC panel Darrell Smart April 2010	All that jazz: Darrell Smart interviews Richard Coackley, ICE President February 2012	The ideas man: Professor David Balmforth, President, Institution of Civil Engineers, talks to Darrell Smart and Abigail Tomkins February 2015
This is civil engineering: The Hoover Dam Bypass. Interview with Dave Zanetell, Project Manager, Federal Highway Administration Abigail Tomkins June 2010	Leader of the pack: CES editor, Darrell Smart, chats with the new ICES president, Alan Barrow October 2012	Hat trick Diane Dumashie, Vice President of the International Federation of Surveyors, talks to Abigail Tomkins April 2015
Life in the fast lane: Interview with Graham Mills, President of The Survey Association Darrell Smart and Abigail Tomkins July/August 2010	Speeding up the pace of change Heather Bryant, HM Chief Inspector (Construction) Health & Safety Executive, meets Darrell Smart and Abigail Tomkins September 2013	Working in wonder Abigail Tomkins and Darrell Smart with Jill Thompson, British Antarctic Survey July/August 2015
A certain voice: Rosemary Beales, National Director of the Civil Engineering Contractors Association Abigail Tomkins December/January 2011	Looking at the valleys David Breashears, Founder and Executive Director of GlacierWorks, talks to Abigail Tomkins October 2013	Born to survey Mark Combes, President, The Survey Association talks to Abigail Tomkins and Darrell Smart September 2015
Bettering the journey into work: Interview with Rodney Bennion MRICS FCIQB FRSA, Chairman, Construction Youth Trust Abigail Tomkins February 2011	A better way: How the founding father of laser scanning turned heritage protector Abigail Tomkins, Deputy Editor, meets Ben Kacyra November 2013	The peacemaker Darrell Smart and Abigail Tomkins talk to new ICES President David Loosemore October 2015
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	Seeing the world a little differently Alison Watson, Class of Your Own and Design Engineer Construct!, talks to Abigail Tomkins April 2014	The voice of experience: Sir John Armitage talks to Civil Engineering Surveyor Darrell Smart and Abigail Tomkins February 2016

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Darrell Smart and Abigail Tomkins
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Digital engineer: Tim
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How to choose a human resources system
David Johnson
September 1999

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Richard Dinnick
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John Waiting
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Tony Marshall
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Neil Carey
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John Connaughton
June 2000

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Tim Cole
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Roger Wilcox
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Philip Madeley
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Nigel Lorriman
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Jack Strongitharm
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Professor Mustafa Alshawi
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Mike Osborne
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Darrell Smart and Abigail Tomkins with Bentley Systems
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Runway 2: A Project with Green Credentials Mike Conway June 1999	Trouble at Bath Spa Hamish Mitchell October 2005	The construction of Eden Glyn Hunt and Olivia Blake December/January 2009
Making Scandinavia Whole – The Oresund Link Andy Yeoward October 2000	A most wonderful retirement: The Saqqara Geophysical Survey Project Ian J Mathieson November 2005	Making Masdar possible Paul Dyer with Shannon McElvaney September 2010
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Paradise regained – Constructing The Palm Susan Crabb July/August 2003	The Scottish Parliament: For the want of a bolt... Hamish Mitchell May 2006	PATH Solving a 3D puzzle: Expanding the world's largest pedestrian tunnel network Andrew Hares March 2014
Holyrood: It wis'nae me Editorial October 2004	Allianz Arena München Stadion Abigail Tomkins June 2006	Big Bertha's teeth and a bridge too far Barry Hiscox April 2014
Not on the map: Diana Princess of Wales Memorial Fountain Dennis Gedge December/January 2005	The Big Dig Part 2: Construction (1) Barry Hiscox September 2006	Building lighthouses along the Omani coast Ivan Warnes December/January 2015
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Putting the plans on ice: The new Halley research station British Antarctic Survey March 2005	The world's busiest airport: Heathrow Terminal 5 David Rolton and Graham Clarke with Leica Geosystems April 2008	Surveying the Washington Monument Dru A Smith June 2015
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Mark Jones, Charlie Cook and
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Neil Clark
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surveyors
Abigail Tomkins
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Half Photogrammetry and 3D Modelling Cut Shut down Period Tony Davies May 2000	Abstracting, using and providing survey data from scan data Alan Barrow October 2002	Photogrammetry – Still cutting edge technology? Gordon Niven December/January 2004
Orthophoto Data – A Cost Effective Base for Engineering Design and Environmental Assessment Greg Simmons June 2000	Laser systems within the surveying mix for railway network survey Andrew Bailey October 2002	Keeping up with the times (P&RS) Trevor Burton December/January 2004
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The Role of Digital Photogrammetry as a 21st Century Defence Technology Bill Riley & Cameron Japp December/January 2001	Terrestrial laser scanning or close range photogrammetry? A practical comparison David Barber and Jon Mills October 2002	Laser scanning and the law – A US view Bruce Jenkins October 2004
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Glamorgan Heritage Coast Cliff Monitoring by Terrestrial Photogrammetry Frank Hobbs & Yi Dong Huang March 2001	Using hybrid multi-station adjustment for an integrated camera laser scanner system Andreas Ullrich, Roland Schwarz and Helmut Kager October 2003	Photogrammetry on the cheap John Walsh December/January 2005
Using your Camera to Survey Structures Jon Mills & Guy Pierson April 2001	Lion Salt Works, Marston – A laser scanning case study Tony Rogers October 2003	The view from above Nigel Lorriman June 2005
Digital photogrammetric orthorectification Ned Chisholm February 2002	2D or not 2D? That is the question: How laser scanning is helping to work three dimensionally Simon J Barnes and Derry Long November 2003	Are you still carrying the risk? The benefits of modern survey technology Alan Barrow October 2005
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A revolution in laser scanning technology: Waveform digitization Andreas Ullrich, Rainer Reichert and Kate Strange October 2005	Blast analysis with a laser scanner Jane Ball April 2007	Naica in 3D: Laser scanning and post processing the Naica caves Erminio Paolo Canevese, Roberta Tedeschi and Paolo Mora July/August 2008
Beaumaris Castle Dave Bellwood December/January 2006	CyroSat 2: Braving the Elements Malcolm Davidson June 2007	Laser scanning the historic environment Michael Lobb October 2008
Videogrammetric monitoring of membrane roof structures Shih-Yuan Lin and Jon Mills December/January 2006	Lusi mud volcano, Java: Monitoring the eruption by satellite A report from Spot Image June 2007	Fulfilling potential: Laser scanning mines Graeme Cowie October 2008
US Navy improves readiness with 3D laser scanning Tom Greaves March 2006	Oblique imagery Richard Metcalfe June 2007	Dam monitoring using combined terrestrial imaging systems João Boavida, Adriano Oliveira, António Berberan December/January 2009
A brief guide to stockpile volume estimation using aerial photogrammetry Nick Russell September 2006	Surveying the Globe Theatre Tony Rogers October 2007	High precision projects using LiDAR and digital imagery Hamish Grierson with Helén Rost May 2009
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Scanning the key to the kingdom: The Peronne Chateau Romuald Clavé October 2006	The application of terrestrial LiDAR to volcano monitoring: An example from the Montserrat Volcano Observatory Lee D Jones November 2007	How mobile laser mapping can support civil engineering projects Mark Senior May 2009
Rapid 3D terrestrial mapping from a moving vehicle Martin Redstall October 2006	Large format digital cameras in aerial surveys Ralf Wolfgang Schroth December/January 2008	Ground penetrating radar and sub-surface laser scanning – the full 3D picture: A light-hearted view of surveying water and wastewater pipes and manhole chambers Mark Hudson, Jeff Hott and Dr James Hodgson June 2009
Asset inspection and mapping using geo-referenced video Gert Riemersma October 2006	The use of satellite information in flood risk reduction: The Mekong river basin Perapol Begkhuntod May 2008	Environmental protection by satellite Hester Ferro September 2009
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<p>Scan Pyramids: Can survey technology reveal Egypt's hidden past? Abigail Tomkins December/January 2016</p>	<p>Mapping the shivering mountain: Mobile mapping landslides Dr Neil Slatcher October 2016</p>	
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Piling, Groundworks and Geotechnical

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What the non-specialist needs to know about foundations A report from the Federation of Piling Specialists April 2005	Critical accuracy: Visualising the drillhole trajectories in the Chilean mine rescue Jane Ball with Estíbaliz Echevarría, Marcelo Arancibia and Sandra Jara February 2011	Gravity bases: Minimising the underwater noise impacts of wind farm development Andrew Minson March 2014
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Lyndon Preece with Frank Minnagh, James Martin and Stewart Harrison
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Utilities and Pipelines

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