

# Insight

Non-Destructive Testing and Condition Monitoring

March 2014





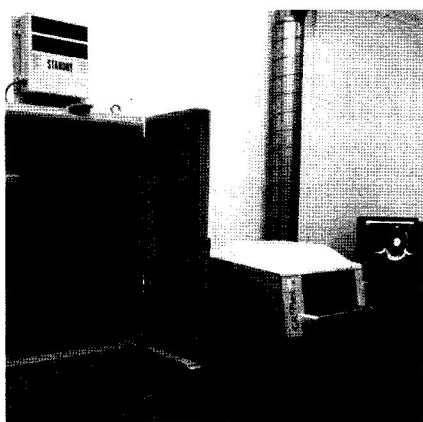
Published by:  
 The British Institute of Non-Destructive Testing  
 Newton Building, St George's Avenue  
 Northampton NN2 6JB, UK  
 Tel: +44 (0)1604 89 3811  
 Fax: +44 (0)1604 89 3861  
 E-mail: info@bindt.org; Website: www.bindt.org

European issues of *Insight* are published by  
 The British Institute of Non-Destructive Testing with the support of The European Federation for Non-Destructive Testing and the cooperation of individual European NDT Societies

**EF** European Federation for Non-Destructive Testing  
**NDT**

EFNDT SECRETARIAT  
 BINDT  
 Newton Building, St George's Avenue  
 Northampton NN2 6JB, UK  
 Tel: +44 (0)1604 89 3811  
 Fax: +44 (0)1604 89 3861  
 E-mail: efndt@bindt.org  
 Website: www.efndt.org

**COVER**



This month's front cover shows the latest GE digital X-ray system, consisting of an Eresco 200 kV exposure cabinet, the CR<sup>3</sup>Flex computed radiography scanner and a Rhythm software-based workstation with 'Flash Filter', as used by the conservation team at Birmingham Museums Trust to examine the construction of a 19th century Samurai helmet. This technique allows them to investigate the different materials, jointing and any historic repairs, providing a deeper understanding of the object and informing the conservation treatment for its display.

**GE Measurement & Control**  
[www.ge-mcs.com](http://www.ge-mcs.com)

# Insight

**Volume 56 Number 3**

**March 2014**

Comment, by *D J Gilbert* ..... 114

NEWSDESK: Courtauld Institute adds FLIR thermography to its methods ..... 117

FEATURE: X-ray laboratory or art studio?,  
 by *C Thorn* ..... 121

**SPECIAL FEATURE: NDT IN ART & CULTURAL HERITAGE**

The development of a diagnostic method for geographical and condition-based analysis of artworks using craquelure pattern recognition techniques,  
 by *M El-Youssef, S Bucklow and R Maev* ..... 124

Thermographic inspection in the service of art science: theory, methods and considerations,  
 by *D Gavrilov, E Maeva and R G Maev* ..... 131

The study of cultural heritage relevant objects by means of neutron imaging techniques,  
 by *D Mannes, E Lehmann, A Masalles, K Schmidt-Ott, A v Przychowski, K Schaeppi, F Schmid, S Peetermans and K Hunger* ..... 137

Terahertz time domain imaging for cultural heritage,  
 by *K Fukunaga and M Picollo* ..... 142

**FEATURE**

Computer vision technology for X-ray testing,  
 by *D Mery* ..... 147

**REGULAR FEATURES**

International Diary ..... 157

Technical Literature ..... 159

NDT Info ..... 160

Product Showcase ..... 169

Associate Members/Index to Advertisers ..... 172

