

Institution: University of Sheffield
Unit of Assessment: 28A - Modern Languages and Linguistics: Languages and Culture
Title of case study: Heritage preservation and international exhibitions of medieval manuscripts, real and virtual : from strong room to public platform
<p>1. Summary of the impact</p> <p>Research at Sheffield has led to international cultural and conservation impact, as well as commercial impact in the UK. Two free international exhibitions designed to attract visitors of all ages and nationalities (Royal Armouries 2007/08, 20,000 visitors; and Musée national de l'Armée, Invalides, Paris (2010, 80,000 visitors) were underpinned by research on illuminated manuscripts of Jehan Froissart's <i>Chronicles</i> of the Hundred Years' War (covering the years 1325-1404). The exhibitions were inspired by the desire to raise awareness, regionally and nationally, of the culture of the Book and of Franco-English relations in the later Middle Ages. Miniatures from the manuscripts depicting key events were displayed alongside items selected from each country's national collection of arms and armour; interactive displays showed how the manuscripts were copied and illustrated. The research enabled an SME to be launched and opened up new access to major aspects of French cultural heritage whilst enabling the preservation of the originals' integrity, part of the intellectual and artistic patrimony of Western Europe.</p>
<p>2. Underpinning research</p> <p><u>Initial research</u></p> <p>Professor Peter Ainsworth's 2005-06 Leverhulme Research Fellowship launched investigation into the nature of the narrative and illustrative content of an early two-volume manuscript of Books I-III of Froissart's <i>Chronicles</i>: Besançon Public Library, mss 864 and 865, copied and illustrated around 1412-1418 by Parisian scribes and artists. The prime focus of the research was on the place of these two volumes within the broader context of the textual and artistic transmission of the earliest extant manuscripts of the <i>Chronicles</i>. The key findings and outcomes were reported in R1.</p> <p><u>Digitisation of the manuscripts</u></p> <p>A successful application with Liverpool University to AHRC's Resource Enhancement scheme broadened and enriched perspectives, leading ultimately to the <i>Online Froissart</i> (2007-09; published May 2010; updated annually, R2). Numerous transcriptions of complete manuscripts were produced, plus samples from <i>all</i> witnesses for Books I-III. Liverpool also provided codicological descriptions, name glosses and a collating tool; Sheffield majored on IT, image-handling, glossaries, name glosses, translations into English and art-historical commentaries. Background essays for wider publics were commissioned from eminent European/US/UK scholars. Additional project manuscripts were photographed on site at Stonyhurst College, Toulouse Public Library and the Royal Library in Brussels. (R2)</p> <p>Besançon's Public Library, eager to foster international awareness of its remarkable collections, supported the digitisation. The high-resolution facsimiles prepared the ground for additional projects on the manuscripts' narrative, iconographical, codicological, cultural and linguistic content, impact from which would subsequently be optimised through deployment of innovative digital technologies for two major international exhibitions. (R3)</p> <p><u>Research towards impact: affective communication; technologies to enhance access and display</u></p> <p>In 2005 Professor Ainsworth accepted an invitation to join the <i>White Rose Network for Affective Communication in Consumer Product and Exhibition Design</i> (April 2005-July 2007, EPSRC). A major objective was to investigate 'technology-enhanced museum and gallery display'. With Dr Mike Meredith (Humanities Research Institute, University of Sheffield), Professor Ainsworth then</p>

Impact case study (REF3b)

obtained funding (*Virtual Vellum*, May to November 2006, EPSRC, in association with the AHRC ICT programme; *Pegasus*, January to December 2008, EPSRC) respectively to build a customised manuscript viewer and develop tools for working online with manuscript facsimiles (*OFTools*). The *Virtual Vellum* manuscript viewer devised for the *Online Froissart* and since adopted by two AHRC-funded electronic editing projects (Universities of Reading and Birmingham) inspired the *Kiosque* interactive viewing software developed for both exhibitions thanks to HEIF and KTP funding, 2006-07. (R4)

Extending access via digital editions

A joint British Academy-CNRS project (2009-11; Universities of Edinburgh, St Andrews, Liverpool, Sheffield and Nancy-Lorraine) linked the online *Dictionnaire du Moyen Français* to the *Online Froissart* and to the *Christine de Pizan Queen's Manuscript* and *Clermont-Ferrand Municipal Archives* projects. Research questions focused on deriving linguistic output from large-scale digital editions. New glossaries were generated and a tool specially developed to allow any member of the public using the *Online Froissart* to click on a word in one of our transcriptions and be sent direct to the matching, lemmatised entry in the online *Dictionnaire du Moyen Français*. In 2013 the online *DMF* and *Frantext* databases were enriched with new words and lexicons contributed by the *Online Froissart*.

3. References to the research

The underpinning research was funded by a Leverhulme Research Fellowship to Ainsworth. Initial outcomes reported in:

R1. Jean Froissart, *Chroniques. Livre III, Le manuscrit Saint-Vincent de Besançon*, édité par Peter F. Ainsworth avec une étude codicologique par Godfried Croenen, tome I, Droz, TLF 594 (Geneva, 2007) ISBN 978-2-600-01100-6

The digitised edition was funded by the AHRC.

R2. Ainsworth P and Croenen G (eds), *The Online Froissart : A Digital Edition of the Chronicles of Jean Froissart*. Sheffield: HRI Online (2010; updated 2011, 2012 and 2013):

<http://www.hrionline.ac.uk/onlinefroissart>

R3. Ainsworth, Peter, and Michael Meredith, 'Breaching the Strongroom : a Pervasive Informatics Approach to Working with Medieval Manuscripts', *Proceedings of the KMIS 2011 International Conference on Knowledge Management and Information Sharing*, Joachim Felipe and Kecheng Liu eds, Setúbal, Portugal 2011, pp. 264-71.

R4. Ainsworth, Peter, 'Collections: Editing, Exhibitions, and e-Science Initiatives', in *Collections in Context. The Organization of Knowledge and Community in Europe*, edited by Karen Fresco and Anne D. Hedeman, The Ohio State University Press (Columbus, 2011), pp. 13-29. ISBN 978-0-8142-1171-7

R5. *Affective Communication in Design. Challenges for Researchers*. Proceedings of a conference organised by The White Rose University Consortium, Leeds, UK, 21-22 June 2007, Taylor & Francis, *CoDesign* vol 3, supplement 1 (2007), 1-2, Guest Editors Tom Childs, Chris Rust, Peter Wright, Peter Ainsworth, Jim Nobbs. 210 p. ISSN 1571-0882.

4. Details of the impact

Three principal impacts arise from Ainsworth's original research:

Commercial impact: creation of an SME

Scriptura Ltd was launched by the photographic work carried out at Besançon for the Leverhulme project. (S1) The outstanding quality of these facsimiles quickly led to consequential assignments, putting Scriptura onto a permanent footing as an SME, with one permanent employee. Post-

project assignments have included work for Trinity College Dublin's Long Room, the Bodleian Library in Oxford, and (most recently) the Duke of Devonshire's Library, Chatsworth House.

Cultural impact: International exhibitions

Royal Armouries, Leeds (2007-08).

The idea for this exhibition emerged during a workshop held by the EPSRC-funded White Rose Universities "Affective Communication" network on the *Shogun* exhibition at the Royal Armouries. Discussions between Peter Ainsworth and Senior Curator Karen Watts launched the idea of an exhibition on France and England during the Hundred Years' War. Narrative and historical content from the *Online Froissart*, complemented by miniatures from the Besançon and Stonyhurst manuscripts, would be 'twinned' with relevant items from the national collection of arms and armour. Innovative technologies would provide visitors with exciting pathways through the facsimiles.

The event, curated in English and French, brought the blood and thunder of the Hundred Years' War to life for visitors of all ages through careful matching of manuscript illustrations depicting 14th-century warfare to items of arms and armour from the national collection. The digitised surrogates were complemented by Stonyhurst College ms. 1, kindly lent by the College Library. Cambridge's Fitzwilliam Museum lent material on making manuscripts, while calligrapher Sara Mack gave master classes on copying a manuscript page. Visitors Book comments demonstrate the level of enhancement to public understanding: '*The best history lessons for all*'; '*Brilliant, the book's really interesting and the art work is fabulous*'; '*I wish this display were here permanently, it's fascinating*'; '*I really enjoyed the Kiosque interactive screens. The Stonyhurst Chronicles book was amazing. Very good*'; '*Excellent piece of work! It's good to see high-quality digital images used so the small details can be examined*'; '*One of the best temporary exhibitions I have seen at this museum*'; '*Excellent to see something from our school, Stonyhurst College*'; '*A fascinating insight into medieval Europe; a well-presented exhibition*'; '*Superb in every aspect. A real eye opener to medieval life*'; '*Fantastic exhibition! Many congratulations from a small visitor*'; '*Merci pour cet excellent rappel de notre histoire commune*'; '*Very interesting, shows our past very well*'; '*The most beautiful exhibition of manuscripts. The explanation of how they were made ... very clear and explicit*'; '*Very interesting and informative exhibition, the manuscripts are truly amazing*'; '*Liked the Kiosque Interactive and would recommend it to anyone else*'. (S2)

Further commercial impact arose from a Knowledge Transfer Partnership, part-funded by the UK government and part by commercial partner Tribal PLC, which funded development of the interactive exhibition display software (*Kiosque*), subsequently adopted for the Paris exhibition. Sheffield University HEIF funding supported development by student SME epiGenesys (aided by gaming company ZOOtech PLC) of an interactive children's game for the Armouries exhibition, using images from the facsimiles.

Kiosque allowed Royal Armouries visitors to compare and leaf through whole manuscripts, hear stories, and follow customised pathways through related material. The *Capturing the Castle* game proved hugely popular with visitors of all ages. Medieval music performed by Paul Bracken (University of Nottingham) provided the soundtrack. This multi-modal approach made the exhibition accessible to the widest possible audience and enhanced understanding of a range of aspects of the historical period.

Musée national de l'Armée, Paris (2010). The success of the Royal Armouries exhibition prompted France's sister museum to commission a similar event. At the Invalides, the two Besançon volumes performed the 'real manuscript' role played at Leeds by Stonyhurst ms. 1, complemented by two 'sister' volumes lent by France's Bibliothèque Nationale. The manuscripts' illustrations were matched, this time, to arms and armour from the French national collection. The footprint design ensured that all 80,000 visitors to the Musée passed through our exhibition; some spent 2-3 hours exploring the cases and engaging with *Kiosque*. A colourful display of painters' pigments and of

Impact case study (REF3b)

gilders' and parchmenters' tools was lent by *Le Scriptorial* (Avranches, Normandy). (S4) A special issue of *Art de l'enluminure* magazine provided a colourful catalogue. This popular publication enjoys consistently high circulation amongst devotees of medieval manuscript culture and art history. The exhibition-based issue included a commissioned piece by Ainsworth, 'Jean Froissart et la Guerre de Cent Ans' (pp. 2-13). (S3).

Evaluation of Impact. The Invalides exhibition was formally evaluated by an AHRC graduate research assistant. Comments returned ranged from: '*I now understand the Hundred Years' War much better than I did*', to: '*Wonderfully entertaining, a great introduction to manuscript culture and to the political and military history of the later Middle Ages*'.

The Invalides exhibition impacted in turn on the design of a third international exhibition, on Froissart's contemporary Gaston Fébus, count of Béarn (Musée du Moyen Age, Hôtel de Cluny, Paris; Musée national du Château de Pau, 2011–2012) which attracted some 100,000 international visitors; the catalogue included an essay commissioned from Peter Ainsworth, the only one from an international contributor (S4).

Heritage preservation and enhanced public access

Ainsworth's Leverhulme Fellowship also generated heritage conservation impacts. Pigments used for decorating vellum manuscripts are damaged by prolonged exposure to UV/natural light, reducing time available for display during exhibitions, even under subdued lighting. Digital surrogates can be used without restriction.

Access to cultural heritage, and public engagement with it, were significantly enhanced. French provincial libraries rarely have space to showcase treasures. *Kiosque* allowed visitors to large exhibitions (Leeds and Paris) and local libraries (Aix-en-Provence, Marseilles, Avignon and Stonyhurst College) to view high-resolution surrogates from multiple perspectives; to compare them with other digitised manuscripts; and to do so in high definition with strong lighting. Furthermore, whereas wealthier institutions (e.g. the British Library) display manuscripts fixed, showing single spreads of verso and following recto pages (but little else), *Kiosque* allowed our exhibition and library partners to make the content of entire manuscripts visible.

5. Sources to corroborate the impact

S1. The Managing Director of Scriptura Ltd in a letter dated October 2012 confirms that the Leverhulme and AHRC projects played a major role in establishing Scriptura Ltd as an SME with a secure financial and business base; Scriptura's work was showcased at conferences and workshops in Europe, the UK, Canada and the USA, and in two international exhibitions.

S2. Visitors Book, Royal Armouries exhibition, corroborates visitor feedback. Copy held on file.

S3. Exhibition catalogue: *Art de l'Enluminure*, n° 31, Arts et Métiers, Editions Faton (Paris, 2009). <http://www.art-enluminure.com/numero-31/chroniques-froissart.3057.php>. The catalogue for the Paris exhibition confirms the central role of the *Chronicles* in the exhibition and Ainsworth's commissioned essay.

S4. Exhibition catalogue: *Gaston Fébus. Prince Soleil 1331-1391*. Musée de Cluny – musée national du Moyen Age, Paris, 30 novembre 2011 – 5 mars 2012, Musée national du Château de Pau, 17 mars – 17 juin 2012. Editions de la Réunion des Musées Nationaux – Grand Palais (Paris, 2011), Catalogue for the 2011-12 exhibition on Gaston Fébus, lord of Béarn. Musée national du Moyen Age (Hôtel de Cluny, Paris) and Musée national du Château de Pau, October 2011 – June 2012. ISBN 978-2-7118-5877-4.