

Scottish Architects' Papers Project
The Grand Hotel at St Andrews
<http://www.rcahms.gov.uk/exhibition/monro.html>
ref no. SC 542324

VII giornate di studio del CNBA, 2001



Building digital collections for architectural studies: digitization, collaboration, and the needs of users

Between Cooperation and Autonomy
Competition or Cooperation?
New strategies for Architecture Libraries
VII giornate di studio del CNBA, Rome, 7-9 June, 2001

COORDINAMENTO NAZIONALE BIBLIOTECHE DI ARCHITETTURA
associazione delle biblioteche e dei centri documentazione di architettura

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Humanities Advanced Technology and Information Institute (HATII)



- Undergraduate & Postgraduate Teaching
- Systems & Laboratory Development and Management
- Research (e.g. digital preservation studies, ICT in the heritage sector, evaluation studies)
- Consultancy
- Summer Schools, Conferences & Workshops

<http://www.hatii.arts.gla.ac.uk/>

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Maintaining the Accessibility & Reusability of Intellectual Capital

- Digitisation
 - is not copying - it is to transform: analogous to translation
 - involves sampling -- information is lost and artifacts can be inserted
 - Eases transmission across space & EVEN time
 - Programmes should be built on strategic knowledge of collections including evaluation & planning
- Analogue Collections are a component of the intellectual capital of institutions and nations

Source-Orientated User-Driven Asset-Aware Model

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Content Creation Projects


- HATII Conducted a Review of Digital Imaging Projects for the NINCH Good Practice Project funded by the Getty
- 100+ Projects Creating Digital Images of Architectural Materials
 - Plans
 - Archaeological data sets
 - Journals and monographs
 - Historic Photographs
 - Architects papers
 - Maps & town plans
 - Models (3D imaging)
- Architectural Studies: Humanities & Science



Santo Spirito Church, Florence
© Russell Sturgis Collection, Washington University Archives, St. Louis Missouri. <http://library.wustl.edu/units/spec/archives/guides/sturgisz.html>

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Examined Eleven Projects for CBNA Conference

- Scottish Architects' Papers Preservation Project
- Colección Virtual de Patrimonio Artístico y Arquitectónico Chileno y Latinoamericano
- Bildarchiv zur Kunst und Architektur in Deutschland
- DigiLib Architectural Image Database, University of Queensland.
- The Architecture of Wales
- Washington University Libraries
- Frank Lloyd Wright, Designs for an American Landscape, 1922-1932
- ArchInform
- Measured Drawings, an Architectural Heritage of British Columbia
- Louisiana State University, Architectural drawings by Theodore Link
- Images of England (<http://www.imagesofengland.org.uk>)

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Reached Thirteen General Conclusions

- Tend to Discrete Projects rather than Coherent Programmes
- Tend to be institutional rather than regional or national
- Rarely collaborative beyond single institution
- Few use a strategic method for planning digitisation activities
- Most do consider rights issues (e.g. Copyright, IPR)*****
- Tremendous variation in approaches to standards & technology
- Not always clear projects considered the qualities of the source material(s) to be digitised
- Few appeared to have appreciated the complexity of the processes
- Understanding and Approaches to Metadata vary markedly
- Few used a formal mechanism to select items for digital imaging
- Only two had considered needs of users
- Nearly all access rather than preservation led
- Only two had addressed issues of sustainability (e.g. income generation, business models)

These conclusions are not surprising because most eContent Projects are institutional

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SOUDAAM --

Source -Orientated User-Driven Asset-Aware Model

- **Depends upon:**
 - institutional strategic collection survey and exploitation plans;
 - regional and international activity assessment;
 - evaluation of user needs;
 - conservation/risk awareness of the sources;
 - identification of responsive technology;
 - recognition of IPR issues;
 - iterative decision making.



Ross, S., (1999), Strategies for Selecting Resources for Digitization: Source-Orientated, User-Driven, Asset-Aware Model (SOUDAAM), T. Coppock, ed., *Making Information Available in Digital Format: Perspectives from Practitioners*, (Edinburgh:), 5-27.
The article can also be found at: <http://www.hatii.arts.gla.ac.uk/papers/soudaam.pdf>

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SOUDAAM

- Source-Orientated User-Driven Asset-Aware Model
- DCDP - Digital Collection Development Plan
 - IAS - Intellectual Asset Survey
 - DRIP - Digital Representation Implementation Plan



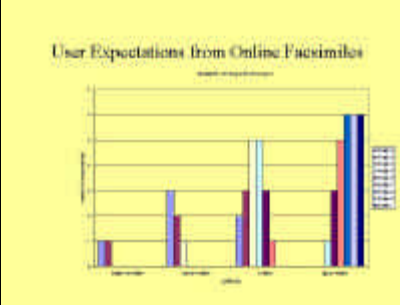
© The Architecture of Wales
Harpton Court
src: <http://www.llgc.org.uk/ardd/pensaeri/architect.htm>
ref. 049

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Starting point

- Strategic Plan
 - who should be involved (users, collection curators/managers, educationalists, academic researchers)
 - relate programme to the mission of institution
 - relate plan to regional and national initiatives
 - relate to the institution the infrastructure and policies to manage their digital assets
 - Define FITNESS FOR PURPOSE Metric
 - Evaluate User Needs (survey, prototypes)



From Seamus Ross & Ann Gow, *Digitising the Wills From Wiltshire*, Report to the Swindon and Wiltshire Record Office (2000).

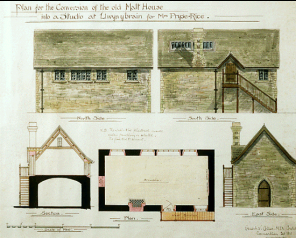
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Rights Issues

- Collections are a capital asset -- yours or someone else's
- Intellectual Property Rights including copyright.....
 - If the institution does not own the rights or have an easy way to secure a perpetual license to them then forget it....
- Can the institution manage the licensing of institutional assets




© The Architecture of Wales
PLAN FOR THE CONVERSION OF THE OLD MALT HOUSE INTO A STUDIO AT LLWYNYBRAIN
src: <http://www.llgc.org.uk/ardd/pensaeri/architect.htm>
ref. 027

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The Collection itself ...



- Scholarship vs popular access
- Subject matter and target audience
 - who uses the collection and how
- Appropriateness
- Function--research and teaching
- Does suitable (complete and up to date) **metadata already exist** -- catalogues, finding aids
- Is the collection complete, accurate

BildArchiv
Ilvesheim
src: <http://www.bildindex.de/bka.htm>

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Programmes will...

- Focus on the sources
 - content (e.g. possible purposes)
 - physical qualities (size, nature & condition of sources)
- Focus on creating assets of enduring value
 - sustainable, scalable, durable, reusable
- Ask whether the appropriate technology is available
- Consider how material will be selected for digitisation—what priorities will be used
- Risk adverse
 - only material not put at risk but all key material at risk of loss
- Depend on collaboration, co-operation and inter-institutional activities and national if possible.

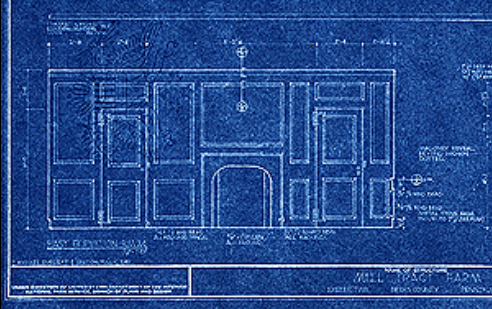
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Are appropriate standards & technologies available?

- digital imaging
- storage
- manipulation
- access
- delivery
- use
- standards
 - robust and applicable
- security
- charging



Drury Blakely Alexander, Mill Tract Farm, Exeter Twp., Berks Co., PA, Interior Elevation Detail
© University of Texas
src: <http://www.lib.utexas.edu/apl/blakeschoice/bax.html>

The sources will be diverse, and include: Architectural blueprints, photographs, negatives, engravings and etchings, newspapers, monographs

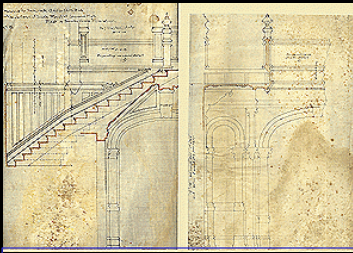
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Material Considerations

- Dimensions of the material
- Condition of the material
- Type & nature of the material (e.g. transparencies, drawings)
- Structure of the material (e.g. mounted, bound)



Blake's Choice
© N. J. Clayton & Co., Architects, Elevation of Grand Staircase
src: <http://www.lib.utexas.edu/apl/blakeschoice/clayton.html>

- Light sensitivities
- Production Process
- Presence or Absence of Colour
- Tonal Range



Experimental Camera Setup at the SCAN (Scottish Archives Network) Project, (Photo: HATII, 2000)

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From: Seamus Ross, JISC Evaluation: Image Digitisation Management Models, October 2000

Complexities of the Process

KEY Failure: Lack of understanding about WORKFLOW

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A review of the work of the thirteen JIDI Projects produced thirty recommendations for future digital imaging projects, from these three stand out:

- Digitisation programmes should be built on comprehensive retroconverted finding aids, if they are to provide maintainable, reusable, and incrementally developing resources.
- Quality assurance of the metadata is as important as quality assurance of the images themselves
- Involve the delivery service in the planning and design of the project from the outset.

Results page from The Architecture of Thomas Jefferson
http://jefferson.village.virginia.edu/cgi-bin/rewah/draw_illustr?id=N034#

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Metadata: The key to reusable digital assets

- Manage of the digital data
 - image specifications
 - link metadata, indicating how the files interrelate
- Identify the origin of the digital data
- Provides a mechanism to assist with usage
- Provides details about the structure of the contents of the material

Categories of Metadata
Cataloguing & bibliographic control
Management
Capture
Preservation
Access & usage
Resource Discovery
Storage
Authentication
Installation & De-installation

Digital Content creation projects depend upon consistency, quality, and comprehensiveness of metadata . This depends upon collaboration and co-ordination.


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User-driven

- Investigate the needs of users and their methods of working
- Create Quality discovery tools
 - User-friendly search tools
 - Consistent quality metadata
- Current tools metadata driven, future tools will be both metadata and image content-based driven



DIGILIB Screen Shot of User Interface
src: <http://www.architect.uq.edu.au/Digilib/simplesearch.html>

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SOUDAAM MECHANISM FOR DIGITAL IMAGE SOURCE PRIORITISATION

PRIORITISATION QUESTION	Score	Priority Weighting	Weighted Score
Would making the material available diminish or enhance the value of the underlying collection?			
Would conversion of the material leverage the opening up of material in other collections (e.g. national, regional)?			
Have other projects digitised complementary material?			
Is the material unique?			
Is there an existing demand for the material?			
Will digitisation create a demand for the material?			
Will the digital content be capable of being reused for multiple purposes?			
Will it be necessary or possible to monitor how the material is used?			
Would digital representation assist in the conservation of the material?			
Is there potential for commercial exploitation where such exploitation would not diminish the value of the item or collection?			
Does the material have untapped research potential?			
Would the improved functionality digitisation would bring enhance the research potential of the item or collection?			
Could the material play a role as a teaching resource?			
Would digitisation lead to financial savings through reducing infrastructure and labour costs associated with supporting collection management and access?			
Would digitisation have publicity benefits?			
Is the current generation of technology suitable or would it be better to wait?			
Total Score			

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Images of England – A Digital Library Quality Assurance—A Major Challenge




© English Heritage

- **Quality Assurance (QA)**
 - one of most expensive aspects of the project
 - QA images & Metadata
 - Problems scanning negs: fibre, dust, hair from carpet in scanning room (need for antistatic device)

- **Objectives of the Project**
 - Digital Library of 360,000 images of the 450,000 images of listed buildings and structures linked to a textual index of listed buildings
 - Public access to a visual record of the listed buildings of England
 - Aims to stimulate community interest and enjoyment of the heritage
 - Provide a benchmark or point-in-time visual record (value in 2100)
 - Create a system for managing resource use & income generation

For more information please see:
www.imagesofengland.org.uk



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Factors Influencing Quality

- Generational Place
- Matching sources with technology
- People
- Equipment (e.g. scanners, digital cameras--lighting, CCDs, lens optics)
- Environment (e.g. temp, lighting) for Quality Assurance
- File formats
- Monitor (RGB) or Printer (CMYK)

Quality

Quality Assurance checks

- Resolution consistency
- Colour consistency
- Full image capture - no area of object missed
- Colour target consistency
- Progression of sources consistent
- No noise (dust, etc) captured
- Naming convention adhered
- Metadata accuracy


Quality Measures

Subjective vs Objective

Most important measures:
completeness, legibility, fidelity

Matching scene vs matching film (Ester 1996)

Tone: dynamic range and colour




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Institutional Progress

- Recognise importance of Public Access
- **First** Retroconvert Finding Aids & Catalogues

- Development of Interoperable Access services
- Creation of institutional, local, regional and national digitisation priorities
- Development of digital resources
- Establish Policies and Procedures



© Louisiana State University, Architectural drawings by Theodore Link
David Boyd Hall and Thomas Boyd Hall architectural drawing, sheet 10
src: http://appl005.lsu.edu/L_SUDL/index.htm




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Access vs Preservation

- Access primary justification for Digitisation
 - not preservation, keep the original
- Preservation
 - protection against loss
 - improved usability
 - extend usefulness of content
- Authenticity = identity + integrity



© Scottish Architects' Papers Project
Gribloch House, Kippen
Aerial perspective view of house and garden. c.1937.
src: <http://www.rcahms.gov.uk/exhibition/saf.html>
ref no. SC 582322b

Digitisation transforms material and creates assets. It must be possible to authenticate and preserve these as their creation consumed scarce resources and formed the foundation for scholarship.


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Co-operation

- Cross-domain co-operation models (Archives, Libraries)
- Bottom-up or top-down approaches
- Visibility and dissemination of best practice examples.
- Co-operation at European level, if not on an international level
- LEVERAGE strategies



ArchInform screen shot of user interface
Src: <http://www.archinform.net/start.htm>

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EU Experts Identified Digitisation Needs

- improve and reinforce the co-ordination of digitisation activities across Europe;
- enable the efficient and effective use of digitisation to open up Europe's unique and significant wealth in its cultural and scientific heritage;
- reduce, if not eliminate, redundancy and fragmentation of effort, divergence of technical approaches, and waste of financial resources;
- facilitate the creation of Europe's eContent industries;
- capitalize on the investment made digital resources creation;
- ensure visibility and interoperability of the resources;
- deliver digital assets that promote and reflect cultural diversity; and,
- bring cohesiveness and shared vision to what is currently a fragmented area of activity.

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The Lund Meeting of EU Experts 4 April 2001

- Aimed to enable a visible, accessible and sustainable heritage
- Support for cultural diversity, education and content industries
- Digitised resources of great variety and richness
- Need for evidence of best practices and business case models

Details of the Lund Meeting can be found at:
<http://www.cordis.lu/ist/ka3/digicult/home.html>

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Concluding Messages from LUND

- Avoid duplicate initiatives – co-ordinate activity
- Digitisation is a chain of activities of which selection is one small part--but it is an essential part
- Digitisation creates new assets, but it consumes scarce resources. A balance must be struck.
- Don't be a lemming--the rush to digitise makes us followers not leaders
- Focus on high quality resources (QA & evaluation)
 - Accurate, authentic, reliable, and complete
- Planning (e.g. Workflow) and Project management key steps
- Focus on economic sustainability of resources
- Skills base -- invest first

See for example: (<http://www.cordis.lu/ist/ka3/digicult/en/newsletter.html>).

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- Scottish Architects' Papers Preservation Project
 - <http://www.lib.utexas.edu/Libs/APL/BlakesChoice/index.html>
- Colección Virtual de Patrimonio Artístico y Arquitectónico Chileno y Latinoamericano
 - <http://www.puc.cl/faba/>
- Bildarchiv zur Kunst und Architektur in Deutschland
 - <http://www.bildindex.de/>
- DigiLib Architectural Image Database, University of Queensland.
 - <http://www.architect.uq.edu.au/Digilib/info.html>
- The Architecture of Wales
 - <http://www.lgc.org.uk/ardd/pensaer/architect.htm>
- Washington University Libraries
 - <http://library.wustl.edu/units/spec/archives/guides/sturgis.html>
- Frank Lloyd Wright, Designs for an American Landscape, 1922-1932
 - <http://lcweb.loc.gov/exhibits/flw/flw.html>
- ArchInform
 - <http://www.archinform.net/start.htm>
- Measured Drawings, an Architectural Heritage of British Columbia
 - <http://www.shtc.gov.bc.ca/culture/schoolnet/drawings/>
- Louisiana State University, Architectural drawings by Theodore Link
 - <http://appl005.lsu.edu/LSUDL/index.htm>
- Images of England
 - <http://www.imagesofengland.org>



Frank Lloyd Wright, Designs for an American Landscape, 1922-1932, Hypothetical study model of the Lake Tahoe Summer Colony
src: <http://lcweb.loc.gov/exhibits/flw/flw03.html>

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