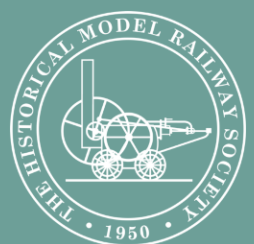


A2SN

Proceedings of the Workshop:

Archives, Artefacts, Amateurs & Academics

held on 20th & 21st April 2012
Derby, United Kingdom



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Editors Note: Whilst every attempt has been made to keep this document correct, there will, almost inevitably, be some typographical errors, I apologise in advance for any that you may find. As this document is being published electronically, if you draw any errors or omissions to my attention via academic-liaison@hmrs.org.uk I will attempt to remedy them and then redistribute it.

Introduction

Roy Edwards - BAC

Keith Harcourt - HMRS

Co-Founders of A2SN

In 2011 the authors became increasingly concerned that in the UK and Europe the financial climate and public sector cuts were impinging on the museum, libraries and archives sector. Examples included: the Local Authority owned Silk Mill Industrial Museum in Derby holding important archives and collections was “mothballed” in April 2010 at very short notice. From France, Marie-Noële Polino reported that the Cie des Wagons-Lits (WL) collections, carefully conserved by a society of amateurs and former WL employees were sold to the highest bidders by the company's new owners, hotel chain.

In a paper, given at the Conference of the International Association for the History of Transport, Traffic and Mobility (T2M), in Berlin, November 2011, and reproduced at the end of these proceedings, we began to express the need for all those who use archives and artefacts, whatever the many formal and informal definitions of those categories may be, to work together. We suggested that we urgently need to address ways in which the Academy and the Amateurs can better use their knowledge to protect the transport heritage.

Much is being done by societies of enthusiasts, to maintain, archive, document, and preserve the transport and other heritage legacies world wide. In the UK some of these societies have taken advantage of Apprenticeship Schemes and are training young people to continue the work. In particular we note that “Modern Image” railway transport preservation, aviation, computer, and road vehicle heritage enthusiasts, have a younger age profile. But the pool of professionally experienced volunteers in all fields is, almost by definition, ageing and action must be taken, particularly to maintain the records of transport and other companies.

Some of the questions we debated in our paper are as follows. How can the community of amateur historians and enthusiasts work with those in the academic/education community to ensure that these records will be available for future generations to use? Academics and amateurs can no longer assume the availability of source material ‘as of right’. How best can the community of archivists, enthusiasts and academics engage to facilitate the use of records and ensure ‘private’ collections are kept safe? Can we spread the use of such records to include school education?

The survival of records and artefacts is best ensured by their use, NOT just by the academy but in the wider educational community. The history of business, technology, transport and mobility is, we contend, an effective tool to encourage the young to think about, engage with and possibly enter the professions, occupations and crafts associated with them as well as providing ongoing satisfaction for the many who engage in research either for pleasure or as a part of the academic world. Crucially, in 2012 we believe that we need to establish how best we can engage with the wider public and tell the engaging stories of business and technology, thus allowing archives and artefacts to be used more widely. If any doubt the power of mass participation, we suggest that the changes in structure and operations at the UK National Archives to accommodate the numbers of ordinary people, companies and organisations wishing to use the records to research family history is an excellent case in point.

These ideas led to us persuading our respective organisations to support the running of the Workshop, the Proceedings of which follow. At the beginning we jointly thought that possibly twenty or so people from amongst those that we knew might support us. We were delighted to find that within a few days of the Workshop being announced the bookings flooded in. Forty-eight people gathered for the opening session and we were delighted. Eminent speakers, some of whom travelled long distances, also agreed to address the gathering and give us of their expertise. We wish to express our thanks to the delegates, speakers, the HMRS and BAC without the support of whom the Workshop would not have taken place.

Whilst it is normal to end an editorial with thanks, we feel it particularly important to stress that not only was the Workshop successful in bringing together a number of like minds from a range of disciplines, but that events not connected to it in the world have moved on. Significant archives are being digitised and made available via the Internet and we believe, that as long as the original paper or electronic record is preserved in deep storage, that can only be positive. Examples are numerous, though as yet not by any means complete, however we feel that we can point in particular to the huge progress made by Network Rail (the UK's Rail Infrastructure Provider) in beginning to make their vast archive available via their website. Another group that has caught our eye is the Great Eastern Railway Society (GERS), who as volunteers have funded the digitisation of the Staff Magazines of the Great Eastern and London North Eastern Railway Companies as well as that of British Rail Eastern Region. These magazines are now available for purchase as word searchable pdf files on DVDs which the GERS have had produced and are a wonderful source for British transport historians (www.gersociety.org.uk). There are many other examples in other fields and perhaps it is erroneous to single out these two, but they are within our joint experience. One of our purposes is to expand our experience, so please let us know of innovative projects in other areas.

There are hopeful signs, and for us personally, the fact that John Scott, Chairman of the Culture, Heritage & Libraries Committee of the City of London Corporation, was sufficiently impressed in Derby last year that he gave impetus, support and aid to a second conference. The Beating Heart of London's Business to be held at the London Metropolitan Archives, the Museum of London Docklands on 12th and 13th April, 2013, is a major step forward.

We have also progressed our group of colleagues. As you will see from the title page of this volume, we are now the Archives and Artefacts Study Network (A2SN). A2SN is not yet another organisation, it is a loose group of people from a wide variety of disciplines who are willing to explore the concept, that amateurs, academics, archivists, antiquarians and many others study, use and treasure prime source historical material in whatever form it exists. A2SN simply provides forums where people can meet; extending their thinking and learning by talking to, and working with others whom, in the normal course of pursuing their occupation or their hobby, they might not meet.

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Keynote Address

Professor Peter Stone OBE

**Head of the School of Arts and Cultures
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Thank you for inviting me to give the key note speech at this meeting organised by the Business Archives Council and the Historical Model Railway Society. I must, however, be honest right from the start and acknowledge that I am not a specialist in railways, or model railways, or in archives, or business. Also, I must apologise that I am not going to be with you tomorrow; partly the result of altered travel plans; partly the result of a commitment to an aged aunt; and partly down to the topic I have been asked to talk about this evening, which is, and I paraphrase:

The relationship between professionals and non-professionals: be they called amateurs, enthusiasts, volunteers or any other word you may care to use.

So, if I know nothing about the topic of your conference why am I here..? I guess you could say I'm an example of the issue from another world. (You could also say because Keith Harcourt is extremely persuasive...) Over the next 30 minutes or so I'm going to draw on experiences from my world and make a few observations on the relationships between academics, professionals, experts, and amateurs within it. My world is that of archaeology and heritage management, interpretation, and education. My comments obviously simplify complex situations and events – but I hope they do not misrepresent them.

I first met Keith in the late 1980s when I worked in the Education Service of English Heritage and he worked for Northcliffe Newspapers. A colleague of mine had hatched a crazy idea with Keith that they would find 10 primary schools to identify and research their favourite piece of local heritage and, with the help of local secondary school pupils, pull it all together to produce part of a local newspaper. It was a somewhat crackpot idea and my colleague needed a crackpot to help deliver it, and asked me.

Over the next six months or so Keith and I worked with children and their teachers, and staff at the Western Morning News. The children duly produced a 12 page colour supplement that was circulated to some 250,000 households reflecting their chosen heritage, why it was important and why they wanted to preserve it. The project personified co-operation: between children, teachers, and newspaper staff, with Keith and I in the background orchestrating the project. As you can imagine, the grey area where all of our collective expertise began to overlap provided a sum far greater than our individual expertise.

To enable this to happen we all had to do something extremely difficult for professionals to do - trust someone else and relinquish some of our control, some of our power. Not only did all of the professionals have to trust each other - difficult enough - we had to do something far scarier. We had to trust school children.

The project had a real deadline (the supplement needed to be ready to print for a particular timeslot... not only as it was the supplement for 250,000 households over the south west that weekend; but also if our timing slipped we would mess-up the printing of the Daily Mail). As the deadline approached I remember the room at the Western Morning News where a sub-editor had been working with the secondary children for a couple of days getting somewhat tense.

There was a defining moment when the sub-editor, with decades of experience, was having great difficulty putting the final touches to a centre fold map that showed all the sites covered in the supplement. I can still see his face as a thirteen year old girl asked him why he didn't do it this way, and with three clicks of the mouse solved his problem.

So, my first observation is that to produce the best result professionals have to trust others, and relinquish total control. As I note, this is a very scary and difficult thing to do, and it can be a major obstacle to progress.

Working with Keith was not the first time that I'd had to do this.

In 1984 I became a very small part of a team that agreed to run a large international archaeological conference. It was to be the 11th conference of the IUPPS, the International Union for Prehistoric and Proto-historic Sciences. IUSPP conferences, held every four years under the umbrella of UNESCO, were seen as the pinnacle of academic archaeology and were attended by the world's leading archaeologists. At least that's what was supposed to happen. In fact they were attended almost exclusively by academics from Europe and North America – people who were almost all white, male scholars trained in the western scientific tradition. To give you an idea of the absurdity of this, at a previous conference there had been a major session on the archaeology of Africa – without any African archaeologists being present.

We said this must change. We argued that there must be full international participation wherever possible with no-one excluded purely because they could not afford to attend (a stance that provided us with a nightmare funding issue but that is a different story...).

We then went further, arguing that those with other relevant experience and expertise concerning the topics being discussed should also be there. This scared the IUSPP officials as it questioned the supremacy of the academic university progression from BA to MA to PhD, and on to Professor and to Fellow of a Learned Society. The further down the path you go the greater your authority and the greater your power.

We said this must change. We suggested that there were those with different, but equal, if not perhaps greater knowledge of certain things. Take, for example, Aboriginal rock art from Australia. White academic archaeologists, trained in the western scientific tradition, had been telling the world, and had been telling Aboriginal people, how they interpreted the art, what it might mean, and its relevance to Aboriginal ways of life. They had rarely asked other specialists - anthropologists or ethnographers - what they might think of the art, what they might bring to the party. Few if any had ever thought to ask Aboriginal people themselves what the art meant and how it fitted their world view. They did not learn therefore that there was another version; another vision; another education with its own progression; young child to initiated child, to male and female teenager trained in common and gender-specific lore, initiated adult to elder to teacher, a longer training carrying a deeper responsibility. The acceptance of such elders and teachers and their counterparts from around the globe, has changed how we understand Aboriginal rock art, its meaning and importance and has changed the world of archaeology forever.

My second observation then is that many non-academics have huge expertise and knowledge.

At the plenary session at the end of that conference all of the participants said the approach piloted must continue; that the study of the past must be multi-disciplinary, must be open to all, and must have a relevance to the present. On that afternoon the World Archaeological Congress (WAC) was born and it was to dominate my life for the next 24 years. I have maintained throughout my work the ideal that we study the past in order to understand the present, in order to create a better future - a mantra that my students hear more frequently than they might wish.

WAC's next, much smaller, meeting focussed specifically on the archaeological treatment of human remains and sacred objects. It is a little known fact that during the movement west across America after the settlers were saved in battle after battle from savage Indians by John Wayne and the US cavalry the white dead were collected and buried, usually with full religious ceremony, while the Indian dead were frequently collected up and shipped East as anthropological specimens. As a result of this there were, by the 1980s, some quarter of a million Native American remains in North American museums and a not dissimilar number in museums across Europe. These museum collections also included many sacred, spiritual objects that were displayed out of context and with little or no regard for their sacred nature and importance. In collaboration with the Native American Reservation at Wounded Knee in South Dakota we organised a meeting with Indigenous elders, archaeologists, anthropologists, and others from around the globe who were willing to sit down and discuss each other's understanding of the world, their needs, and beliefs in an atmosphere of mutual respect. This meeting has been described as the final straw that was needed to break the back of the academic, museum profession in the USA and to lead President Bush Senior to, in his last act as President, sign the Native American Grave Protection and Repatriation Act – NAGPRA. In this one Act control over these collections of skeletal remains and sacred objects moved, almost overnight, from western trained museum curators to Native American descendant communities.

The academic community might not like what happens in some cases when their academic discipline is opened up for others with expertise to contribute to (it took some time for American Museum staff to come to terms with the change, and not all have...). On occasion full reburial of remains, and objects, takes place with the loss of any chance of obtaining in the future additional, academic knowledge of the remains or the objects. However this is an extreme situation and more commonly our understanding is greatly enhanced, and our knowledge increased.

My third observation is that when academics acknowledge the expertise and rights of others that their discipline - their world - frequently moves on in a very positive way. It may not be the same, it will not be the same, but from my experience, it will be significantly enhanced.

In the above discussion I have used terms 'professional', 'scholar', 'elder', and 'expert'. I take it as accepted that there can be a difference between scholar and professional; that some non-scholars are experts; and that some non-professionals are experts.

This leads to my fourth observation that not all professionals are scholars.

What do I mean by this? In archaeology, professionals have a different career path to academics - instead of undergraduate degree to Fellowship they move from undergraduate degree (usually but not always) to digger and on to site supervisor, site director and finally Unit director. Individuals may, and frequently do, collect other academic qualifications along the way, but these are not always absolutely necessary to the career path. That this means these professionals are not necessarily scholars is possibly correct, but that they are not experts is absolutely not. That it means scholars are not always professionals is also true. But more importantly whether they are or not is in fact irrelevant. What is important is that they work in a 'professional way', just as amateur experts work in a professional way.

My fifth observation is that the term 'professional' can be a real barrier. What we are really talking about is individuals working in a professional way, whether they are paid for their work or not.

My final example comes from closer to my home, Hadrian's Wall, and it is partly to do with ownership. Hadrian's Wall was inscribed as a World Heritage Site in 1986 and as such needed to have a Management Plan. The first Plan was produced in 1996. It was written by an archaeologist, effectively for archaeologists, and was essentially an archaeological conservation

plan. It was therefore mostly about how to minimise threats to the archaeology by keeping people out. The local Hexham Courant described it as Ethnic Cleansing on its front page. The BBC produced a documentary called 'Whose Wall is it anyway?' The upshot was the creation of a Management Plan Committee to address the issues and produce a more holistic plan. The second iteration of the plan was overseen by this committee and drafted by various experts including archaeologists, educators and planners. It was however still edited by archaeologists and was to be implemented by archaeologists. The third plan, driven by the Management Plan Committee, was drafted by six interest groups concerning; planning, education, local business, tourism & access, conservation & land-management and archaeology. Moreover the Plan is to be implemented and monitored by all these interest groups. As with previous examples the whole becomes much greater than the sum of its parts and this plan has been held up as an exemplar of good practice by UNESCO.

Hadrian's Wall is no longer seen only as an archaeological site, a remnant of the legacy of the might of Imperial Rome (or a clear example of the failure of the Roman enterprise...?), and a place that a few tourists visit. It has become a major element of the economic regeneration of the North and a major part of the regional economy.

I have made five observations. One, that to produce the best result professionals have to trust others, and relinquish total control; two, that many non-academics have huge expertise; three, that when academics acknowledge the expertise and rights of others their discipline and their world frequently moves on in a very positive way; four, that not all professionals are scholars and vice-versa; and five, that the term 'professional' can be a real barrier for what we are really talking about is individuals working in a professional way.

None of these is particularly obscure or difficult and none is really surprising. However I have seen them surprise many people over the course of my career and there can be much opposition to them. I always remember the words of Gerry Adams¹, interviewed about the more serious but equally intractable problems surrounding the Northern Ireland peace process, when he said that though you may not know where the road will take you it is essential to take the first step. In my experience taking the first steps, relinquishing control and opening up to others, has always been difficult and scary, but almost always positive and productive.

¹ Gerry Adams: "You have to take the first step without knowing where the road will take you... from my own experience taking that first step has also been a positive experience..."

AAAA -The View From the NRM

Tim Procter

**Curator of Archive & Library Collections
The National Railway Museum - York**

Background to the NRM's Collections Management

The National Railway Museum (NRM) opened in 1975, in the former York locomotive shed. It is part of the Science Museum Group (SMG, recently rebranded from NMSI, the National Museum of Science & Industry), along with the Science Museum at South Kensington in London, the National Media Museum in London, Locomotion, the NRM's sister museum at Shildon in County Durham, and the most recent addition to the group, the Museum of Science & Industry (MOSI) in Manchester. The Science Museum Group is governed by the National Heritage Act of 1983, which gives it the following responsibilities:

- Care, preserve and add to the collections
- Exhibit the collections to the public
- Make the collections accessible for study and research

SMG is governed by a Board of Trustees, and each museum has an Advisory Board to support and advise on programmes and plans. Funding for SMG comes via grant in aid from the Department of Culture, Media & Sport. Additional funding is sought from bodies such as HLF, and through fundraising activities managed by the various museums' Development teams.

The NRM's current mission statement is:

“A museum that enables people to explore the story of railways and of how they fit into that story. Through life-enhancing experiences, the visitor will gain greater appreciation of railways as a form of transport through an exciting, educational and memorable series of complementary galleries, interactive, web and learning experiences, telling the story of railways past, present and future.”

Through that mission, it aims to achieve its vision, which is:

“The NRM will become the World's premier, most exciting railway museum, achieving national and international acclaim, and a must-visit reputation.”

The mission and vision are deliberately ambitious and high-level. They are translated down to audience-facing activities through a series of goals. These state that the NRM's various audiences should be able to:

- Understand and engage with their heritage
- Find knowledge for themselves
- Have a say in the issues that shape their future

It will hopefully be seen that archives and research (“find knowledge”) and working with volunteers (“engage with their heritage”) are implicit in these goals. The NRM’s collections are managed and cared for by the Knowledge & Collections department. The department’s deliberately ambitious and broad goal is “All our collections accessible to everybody,” and in its day-to-day activities it aims to “present our collections to the widest possible audience, and provide tools to help people discover the knowledge hidden within them.”

The Knowledge & Collections department is also the owner of the NRM’s collecting policies. The policies are theme- and story-led, and deliberately state that collecting will be representative. It is not feasible for the NRM to collect everything generated by the railways, and it does not attempt to in any area. The collections should hold sufficient and appropriate examples to show our audiences how the railways developed and worked, and why they are significant.

The Knowledge & Collections department is divided into various teams, as follows:

- Engineering & Rail Operations (8 staff inc. 3 full-time on Flying Scotsman and 1 part-time)
- Conservation (1 full-time conservator with 3 part-time assistants)
- Image, Film & Sound (3 full-time curators)
- Rail Vehicles (2 full-time curators)
- Objects (3 full-time and 1 part-time curators)
- Archives & Library (2 archivists, 1 librarian and 7 part-time assistants who staff the Search Engine library and archive facility)

Search Engine

Search Engine is the public facility through which access is given to the archive, library, image, sound and other non-displayed and research collections. Open 7 days a week, it is sited on the balcony above the Great Hall of the museum. Currently it is used by approximately 50,000 visitors per year, of whom 2000 are users who request original archive or other material that requires supervision. The team answer around 4000 remote enquiries a year, 90% of which come in by e-mail, and run photocopying and copy drawings services. They also give around 100 behind-the-scenes tours a year, as well as hosting research groups and peer visits from library, archive, museum and other heritage sector associations. Running Search Engine fully occupies the 7 part-time assistants and occupies approximately 60% of the Librarian’s time. There is also a Duty Curator stationed on Search Engine every day, drawn from the department’s curatorial teams. Volunteers play a significant part in Search Engine’s operations, including staffing an information point and doing research for the ‘Inreach’ enquiry service.

Current Collections Projects

Although the majority of this paper looks at the archive and image collections, there are also several major ongoing projects involving the vehicle and object collections, under the auspices of the relevant curators and external experts. These include:

- Locomotive Consultative Panel, looking at what an ideal national locomotive collection would look like, and how we might represent what has gone.
- Collections & Storage Review – an ongoing review across SMG looking at all stores, which are full and some of which are sub-standard, and reviewing collections with a view to rationalisation and removal of duplicates. At the NRM the signalling collection has already been reviewed with the assistance of the Signalling Records Society.
- Great Hall – how to improve and enhance the displays in the Great Hall now that the NRM+ project to completely redisplay it is not going ahead.
- Corporate Image & Identity – involving members of the NRM’s Advisory Board, this will look at how railway companies’ corporate image is represented across all the collections, both object and 2D.

Archive Collections

The NRM has over 300 archive collections. These have come from the former British Transport Commission, the British Railways Board, from private companies and from individuals both within and without the industry. They range in scale from one-off diaries or one or two letters to tens of thousands of drawings and dozens of volumes of business records. The archive collections are divided into several 'management groups'.

Drawings and Papers from Railway Companies and Works

This is by far the largest grouping, and where many researchers concentrate their efforts. Drawings are held from all the major railway works - Ashford, Bow, Brighton, Crewe, Darlington, Derby, Doncaster, Eastleigh, Gorton, Horwich, Melton Constable, Plaistow, Stoke, Stratford, Wolverton – but it should be noted that drawings from Scottish works are held by the National Records of Scotland. In addition to drawings from individual works, there are also 'composite' collections of drawings from several works. The biggest of these cover LMS and LNER carriages and wagons, and BR Standard steam locomotives. Unfortunately much of the works material has not been treated according to archival principles – records such as files and registers have been split off and generally treated by format, while technical and test material has been removed and placed into another composite collection known as the 'Technical Archive.' The biggest backlog lies in this area – there are some 150 cubic metres of works files which have never been appraised until a survey 2 years ago, and these now require proper analysis, weeding and sampling.

Drawings and Papers from Manufacturers, Businesses and Organisations

The archives contain records of various businesses. Wide-ranging records including drawings, order books, files etc. are held for Stephenson & Co., Charles Roberts, the North British Locomotive Co. and Peckett & Co., while drawings are held for the consulting engineers Kennedy Henderson, Nasmyth Wilson, the civil engineering partnership Price & Reeves, and the Pullman Car Co., There are small but significant archives from the designers Wilkes & Ashmore, who worked on BR's corporate image, and from British Transport Hotels, and a near-complete set of records from BR's Testing Station at Rugby. There is also significant backlog in this area, most notably a sizeable archive from GEC some of its and constituents, which is yet to be tackled. The NRM also holds records of various railway industry organisations and including the Railway Mission, the NER Station Masters' Association, the Railway & Canal Historical Society, the Heritage Railway Association and the group who campaigned to save the Woodhead route from closure.

Records of Individuals and Families

Unusually for a predominantly technical archive, the NRM holds a 19th century family archive, that of Timothy Hackworth and his immediate family, which contains as much domestic and personal life as it does engineering. Other significant personal papers include those of the artist Tom Purvis, who did much work for the LNER, and the engineers Samuel and William Worthington who worked on some of the first railways in France. Engineers whose papers we hold include E.S. Cox, John G. Click, J.O.P. Hughes, John Dowling, Kenneth Cantlie, and Yorath Lewis. There are also several collections of historian's papers, including material from Michael Bonavia, Selwyn Pearce Higgins, and Col. M. Cobb, author of 'The Railways of Great Britain: A Historical Atlas.'

Technical and Test Records

Within this group is a very wide range of material. There are diagram books, locomotive and boiler history and record cards, specifications and technical files, diesel and electric locomotive

manuals, and locomotive test records. As noted above, much of this material has been removed from its original source and placed into a large artificial collection known as the 'Technical Archive.' It is not possible to undo the creation of this collection, so it is intended to improve the cataloguing and structure of the Technical Archive as much of its content is very popular with researchers.

Other Collections

There are several other extremely large collections which should be noted here, including the museum's collection of maps and plans, and the timetable collection which runs from the earliest Bradshaws up to the current timetable on CD. There is also a large block of material simply classified as 'Documents', which contains all manner of documentation produced by the railways, from waybills to rule books. This material is gradually being divided up to make it more accessible, and the divisions so far include Royal train material, hotels and catering, and rule books and other operating documents. This material needs a great deal more work. Special mention should also be made of the sizeable Forsythe Collection of Transport & Travel Ephemera, which covers the whole gamut of public transport from the early 1950s to the mid-2000s.

The NRM archives face challenges similar to any other publicly-funded records service. We hold material on an industrial scale, but our users understandably want detailed information. As noted in the various management groups above, we have large appraisal, sorting and cataloguing backlogs, and we are starting to address the issue of the lack of on-line access to our catalogues, both through putting up .pdfs on the NRM website and through dedicated archival software which will eventually have an on-line front end. There are potential audiences who could make use of our collections but who do not at the moment find us, while existing audiences quite rightly have high expectations of what the archives can deliver.

Working with Volunteers

Volunteers are an invaluable resource which do enable the otherwise small team (2 archivists) to tackle collections on a large scale and to add value and detail to basic lists and catalogues. Firstly there are specific cataloguing projects which have a volunteer element. These have included projects to catalogue archives from Wolverton Works, the Hackworth Family archives, and late 19th century key letters and documents. These projects have been led by a dedicated project archivist and have worked on complex hierarchical and contextual listing following the International Standard for Archival Description ISAD(G). Volunteers have contributed to these projects in various ways. The London & North Western Railway Society listed hundreds of Wolverton Works drawings, while student volunteers transcribed and repackaged letters in the Hackworth Papers. These projects have been externally funded – so far funding has been received from the Friends of the NRM, The National Cataloguing Grants Programme, the Business Archives Council (the NRM was the joint recipient of the first BAC cataloguing grant), and the Marc Fitch Fund. Such funding is secured through bidding processes, which are highly competitive and becoming more so in the current economic climate.

Next are the individual 'regular' volunteers, who come in once a week, and generally work alone on documents. They tend to carry out 'flat file' repetitive listing of similar documents in a large series; for example Royal Train material and hotel and catering documents have been listed in this way. Some are also tackling drawings as part of bigger projects. Another extremely useful task that these volunteers carry out is to key in lists generated by other projects, or hard copy finding aids which do not have an electronic version. Then there are group volunteer projects. These are carried out by knowledgeable members of railway groups and societies, and they are mainly tackling works drawings. Working with a group of 6 to 10 volunteers has allowed us to get to grips with the 'industrial' scale of the drawings backlog, and given us access

to valuable specialist knowledge. By their very nature these are long-term projects, and so far groups from the Bluebell Railway, the LNER Society, the Great Eastern Railway Society, various GWR and Swindon groups, the North Staffordshire Railway Study Group and the Signalling Records Society among others have volunteered at the museum. Finally there are student and work experience placement volunteers. They are generally looking for experience to support applications to MA or heritage diploma courses, to build up their CVs, or to try out museum or archive work. They tend to be assigned to basic surveying and stores logistics work, given small cataloguing tasks of around 3 or 4 boxes, or assigned to large projects as part of a bigger group; for example various students worked with the LNWR Society during the Wolverton Works project. Some brief examples of the work done by some of these volunteers are given below.

Example 1 – Wolverton Works Project

This 6-month project was funded by the Friends of the NRM and the Marc Fitch Fund. The Wolverton archive was the least disordered of the works collections, as generally the drawings had not been treated separately, and a lot of operational records were still present. The project was led by a Project Archivist, with the aim of producing a complete catalogue of the works records. Volunteer input came from the LNWR Society, student placements and some of the regular volunteers. This was one of the first projects to engage a mixed group of volunteers; previously specialists and students had tended to be assigned to different work. From the feedback gathered at the end of the project, this was a successful matching, as the specialist enthusiasts got some insight into developing archive careers and the motivation of graduates, and the students got a chance to see the wealth of detailed knowledge that the specialist groups bring. The url of the completed catalogue, which is now available on the NRM website, is http://www.nrm.org.uk/~media/Files/NRM/PDF/archiveslists/railwaycompanyworks/Wolverton%20Carriage%20and%20Wagon%20Works%20ISAD_G_%20Catalogue.pdf

Example 2 – Hotels and Catering Material Listing

This work was carried out by one of the regular volunteers. The aim was to list the contents of 20 boxes of menus, adverts tariff cards, hotel documents etc. into a simple, non-hierarchical database. The volunteer came in every Thursday, and worked through the material in Search Engine. Although a simple project, it has many benefits. Firstly the database can go onto the website, thus giving researchers access to material they could not previously get at. Secondly it has provided the basis for an appraisal of duplicates, re-uniting items into the British Transport Hotels archive proper, and identifying material with striking visuals and designs which may be useable for income generation via licensing and branding.

Example 3 – Swindon Works Drawings Listing Groups

The surviving drawings from Swindon Works were one of the last of the big drawings collections to be listed. GWR expertise tends to reside at some remove from York, and the collection is extremely large, so it was unreasonable to expect one single GWR group to tackle it at their own expense. A composite team was initially put together to survey the locomotive drawings, consisting of members of the Great Western Society (Saint, County, Railmotor projects) and the 6880 Betton Grange Society. All of these groups found drawings that aided their restoration and rebuild projects. Then the detailed drawing by drawing listing was undertaken by members of the GWS, the GWR Study Group, the Broad Gauge Society, and the HMRS, with the complex co-ordination and liaison being carried out by Ivor Lewis. A large pool of volunteers has been built up, so not everyone is expected to attend every session, and volunteers can pick and choose their sessions. The listing group would visit once a quarter and spend 3 days working, with 'infill' sessions being undertaken inbetween visits by two of the most experienced volunteers. This approach yielded rapid results – approximately 800 rolls of drawings were

listed in 2 years. The handwritten proforma lists are now being keyed in to a database by regular volunteers, and the listing group is now working on the carriage and wagon drawings.

Example 4 – The LNER Society

The volunteering of the LNER Society is a good example of where a current volunteer project has enhanced an earlier cataloguing project. A group of LNER Society members has been working on listing additional drawings from Doncaster Works which were omitted from the original listing project in late 1990s. There are some 120 rolls of drawings, along with a similar number from Gorton Works. The group block-books a week in the NRM Workroom, and different members come on different days. This project benefitted greatly from the expertise of the late Malcolm Crawley, who had had a long career at Doncaster and who knew many of the draughtsmen whose initials feature on the drawings. Some of the drawings identified by the group have been of genuine benefit to the Flying Scotsman restoration work, and also enabled Malcolm to advance his research into GNR and NER tenders.

Engagement with Academics

The NRM's most extensive academic engagement comes through its joint funding of the Institute of Railway Studies & Transport History, and the museum hosts its PhD and Post-Doctoral students, as well as providing seminar space in Search Engine. Academics have generally been seen as end users, and there is awareness in the NRM that not all academic sectors who could use our collections do so, particularly in the fields of design, social history and personal history. Part of the problem is that lack of awareness of the NRM's holdings - lack of presence in on-line archive portals has been a major drawback and that is now being addressed. There is a need to engage more with academics not just to encourage their use of the collections but also so that they may contribute to the collections' development. A good example is the NRM's work with the Railway Heritage Committee to ensure preservation of meaningful sample of post-privatisation archives, the RINA (Railway Industry National Archive) project. The collecting policy and acquisition decisions that shape RINA will need input and guidance from historians and other academics to ensure that records of real value are being kept.

Future Strategy for the NRM Archives

The current economic climate, the scale of the collections, the increasing demands of users and the need to remain relevant to the museum are all shaping the future direction of the NRM archives, and it is clear that a much more long-term and strategic view of the collections and their management must be taken. A short-to-medium term strategy to populate the dedicated archive database and to make it accessible on-line is crucial. Decisions must also be made about digitisation. It has been estimated that to digitise the entire NRM archive will take 240 working years, but any work must begin by asking questions such as 'should everything be digitised?' There will be some material for which the demand will be so low as to make the resource needed to digitise it unjustifiable. New audiences must be targeted and developed, and stronger links forged with academia, especially the Higher and Further Education institutions in York. And inevitably the pursuit of external resources will need to continue, be it funding or new groups of volunteers. To secure resources, the archives need to be serving a community of users and linked in to the wider world of archives and transport history, and not stand alone. There needs to be a dialogue with our users, volunteers, and stakeholders and key questions such as 'is the right material being kept?' not be shied away from. The process of broadening the base of people we are speaking to has already begun, and it must continue.

Archival Definitions: Rock-Solid or Paper-Thin?

Dr Valerie Johnson

**Head of Research
The National Archives**

The National Archives is the UK government's official archive, containing over one thousand years of history. It gives detailed guidance to government departments and the public sector on information management, and advises others about the care of historical archives. It has one of the largest archival collections in the world, spanning 1,000 years of British history right up to the present day. So what do we mean by an archive ?

Archival theorist and Deputy Keeper of The National Archives, Hilary Jenkinson ¹(1966:11) distinguished a document which could be considered to belong to an Archive as: *"one which was drawn up or used in the course of an administrative or executive transaction (whether public or private) of which itself formed a part; and subsequently preserved in their own custody for their own information by the person or persons responsible for that transaction and their legitimate successors"*.

Jenkinson's view was influential, and indeed, remains so up to the present day. His ideas left a legacy of belief that archives are written text, and linguistic, with an emphasis on the recording of a transaction. In this view, objects are not documents in their own right: objects are for museums.

So where does that leave objects and material culture? Seemingly, as poor cousins to the written word. Yet it is clear that many different cultures and histories can and do manifest themselves in objects, which vary from items for religious worship to commercial products to industrial heritage. And what about the ambiguous ? Is a medal with an inscription an object or a written document ? Is an illuminated music manuscript or an artistic poster an object or a text ? The National Archives holds currency in the form of bank notes and items such as cowrie shells, used as money in some cultures. Both carry out the same function: should one be seen as an archive and one not, simply because of its form ?

The remit of The National Archives is to retain and allow access to hold Public Records. So what are these Public Records ? A public record is a record created or inherited by the central government or the central law courts during the normal course of their official business. But it too also holds other things - and they are *things*; such as a mummified rat.

The mummified rat was discovered over 180 years ago among fragments of parchment solidified into a lump. The rat is of particular significance because it was used as evidence in an 1836 inquiry into the poor management of the record service held by Parliament's Select Committee of the Record Commission. This led to the creation of the Public Record Office, the predecessor of The National Archives. Looking back at Jenkinson's definition, the rat isn't textual; it isn't evidence of a transaction; and it certainly wasn't used - dead or alive! - by the organisation in

¹ Jenkinson, H. A Manual of Archive Administration. London, Lund, Humphries. 1966

which it was found. Yet it is accepted as having historical significance as evidence, and is now a catalogued item in The National Archives' collections. It even has its own specially made box!

It is therefore clear that some objects can be seen as archives. Indeed, The National Archives has in its collections many artefacts valued as archives: for example, medals, samples of fabric, posters, locks, boxes, various items of jewellery.

So what happens when this idea is turned on its head: can archives be seen as objects? In fact, many historians value documents as objects anyway. They may want to look at the extra information that the 'carrier' of the text gives them. Use of a particular type of animal skin or ink, illustration or ornamentation in gold leaf or jewelled additions can give valuable information, for example, about the wealth and status of the owner.

This is important in itself but also has implications for more modern processes. Most readers will be aware of the enormous amount of digitisation of archives that has occurred in the last decade or so. What are the implications of that? Does this de-objectify both artefact and document? Or does it on the contrary, turn both of them into new types of objects, digital objects?

It is very easy to get sucked into a black hole of definitions, and that does not always lead to constructive ways forward. To avoid this, some authorities have taken a commonsense inclusive approach. For example, the American archival standard *Describing Archives: A Content Standard* (2004: 204) now defines a document as "recorded information irrespective of medium."

This puts the focus on archives as information, and indeed, there is now much discussion of 'archive as data'. New resources on the web have resulted from the mass digitisation and release of huge amounts of historical evidence, opening up the possibility of changing the nature of research from the traditional painstaking research of individual documents towards large-scale interrogation of datasets for long-term trends.

This all seems revolutionary and new. Yet, archives as defined by information value is actually a much older idea. Half a century ago, American archival theorist Theodore Schellenberg (1956) divided the value of documents and archives into two: evidential value and informational value. Evidential value is similar to Jenkinson's idea of legal and transactional value, for example, evidence of some important agreement. It was the informational value which was revolutionary in its day. On the face of it, this seems an obvious and straightforward acceptance of value based on the information contained within the document, but it was revolutionary. Jenkinson had argued that the archivist should be neutral and objective, but this new idea of documents having information value meant that not all documents were viewed as the same: some were more 'important' or 'valuable' than others.

Recent years have seen the emergence of other values, such as financial, emotive or iconic status (such as that attached to archives linked to nationhood such as the Domesday book or the American Declaration of Independence). These new values, particularly information value, have led the way to the establishment of criteria for appraisal and selection.

If the concept of value is linked to what should be kept, the obvious next question is: who decides on the value? This has implications for community archives, and issues of control, ownership, authority and power in the world of records and archives. Community groups may place a higher value on some records, and in the case of the Historical Model Railway Society, this has led to the building a volunteer-funded new archive building in which to house them.

It also leads to numerous opportunities for community groups concerned with archives. Community groups often include individuals who have much greater knowledge of the records

than institutional archivists, and records offices are keen to work with groups and individuals to use this knowledge to enhance access to collections, for example, by expert cataloguing or through adding better information to finding aids. Volunteering at the records office in person, or via user participation online are just two ways in which experts can support better archive services.

For example, with the help of volunteers, The National Archives has just completed the cataloguing of series AN 2, the Railway Executive Committee Files from 1939-1945, the period of the Second World War. This series of 1,135 files, covering the whole range of the Railway Executive Committee's wartime work from evacuation and propaganda to gallantry awards and air raids, previously contained no description on The National Archives' online catalogue. Access to the records was only possible via unreliable paper finding aids. As a result of a volunteer-led catalogue project, all pieces now have detailed online descriptions. The project has helped understanding and appreciation of the role of railways during war time and how they contributed to the Home Front.

In a second project completed recently, the invaluable help of volunteers alongside staff resulted in the cataloguing of a total of 7,328 railway accidents between 1853 and 1975 described in the series RAIL 1053/51 to RAIL 1053/161. These included, for example, the famous accident at Armagh in 1889, when a crowded passenger train failed to negotiate a gradient, or the disaster at Quintinshill on 22 May 1915, when 226 people died – Britain's worst ever train disaster – most of the victims being troops on their way to the Dardanelles.

At the beginning of this article, I discussed the difficulties of dividing archives and objects in terms of definitions. As can be seen, the boundary between 'professional' and 'amateur' is also blurring. Will it too disappear, and will expertise become the unifying factor through which a variety of professionals, interest groups and individuals can work together to support archives. Which future is it to be ? As interested users and experts, it is up to you to choose!

The Ballast Trust

25 years of rescuing, sorting and cataloguing technical records

Kiara King

**Archivist
The Ballast Trust**

The Ballast Trust provides a sorting and cataloguing service for business archive collections, with an emphasis on technical records such as shipbuilding, railway and engineering plans, drawings and photographs. We also:

- Locate and survey records in association with the BACS surveying officer.
- Rescue and preserve records in danger of destruction in association with the BACS surveying officer and as part of our role in the Crisis Management Team.
- Implement the National Strategy for Business Archives in Scotland for which the Archivist acts as Secretary of the Implementation Group.

History

The Ballast Trust was established in 1988 by William Lind. It was initially described as “a unit which will have suitable premises for the selection, sorting, classification and history of records prior to their preservation in public archives.”

It grew out of Bill Lind’s earlier initiative in establishing the Aggregate Foundation in August 1987. This funded the Centre for Business History in Scotland, with Professor Tony Slaven appointed as Director in October 1987. They had met and worked together through the agency of the Business Archives Council (Scotland) in the 1970s.

While the initial discussions between Dr. Lind and Professor Slaven focussed on creating the Centre for Business History, parallel proposals were being developed to establish a second charitable trust to support Bill Lind’s interests in technical archives, plans drawings and photographs. Working out of his Loanhead Transport office within Malcolms of Brookfield premises, he was already processing his acquisition of the Adamson Robertson photographic collection. The funding of what was to become the Ballast Trust came from the sale of Bill Lind’s interest in Loanhead Transport to Donald Malcolm and the deed creating the Ballast Trust was executed on 16th December 1987.

We have carried out work for many organisations, such as The National Archives of Scotland, Glasgow City Archives, Glasgow University and Scottish Maritime Museum among others. In our 25 years we have processed over 60 collections, which doesn’t sound like very much. However the collections are often huge, for example in the first 4 years of operations the Trust received and processed 120 tons of records as part of the Scott Lithgow collection and this collection now covers over 200 metres of archive shelving!!

William Lind

William Lind was Director of the Ballast Trust until his death in 2007. He had been born in

Johnstone on 24th January 1931 and he joined the family business of Wm. Lind & Co. Ltd., quarrymasters and public work contractors at Elderslie. In 1987 he retired to pursue his long held interest in industrial history, photography, technical drawings and ship models.

These interests had been developed through his roles as Chairman of the Renfrewshire Archaeological Society and involvement in the Scottish Society for Industrial Archaeology. He was also Secretary of the Business Archives Council of Scotland (BACS) from 1975. Through BACS he worked with the National Archives of Scotland and the University of Glasgow in surveying and preserving Scotland's rich heritage of business and industrial records. It was this combination of responsibilities and interests which led him to establish The Ballast Trust.

By the 1980s he had recognised that Scotland's industrial heritage was at risk from not being processed fully or being lost or destroyed. So he created a role for himself and the Ballast Trust to work with the custodians of these records to appraise and describe them using specialist knowledge of technical records.

Business Archives

At the Ballast Trust we work with business archives, these are the historical records of for profit businesses, business-related bodies and businessmen and women. We believe them to be important because they provide crucial commentary not only on Scotland's economic, political and social development, but also on that of the UK and many countries around the world.

Businesses recognise that their records are a business asset. They contain information vital for business continuity and are necessary to meet both short and long-term legal obligations. They provide internal information relating to an organisation's successes and failures which are used to inform the thinking of current business leaders. They can drive competitive advantage and support and inspire business and product development. They can also aid marketing and decision making as well as providing evidence for legal and brand protection.

However they must also be considered to be cultural assets. This is because socially and culturally, business is inclusive; it drives and funds national and local economies, touching the lives of all citizens whether they are business employees or consumers. Business success and failure defines communities – economically and physically - and consequently the people of those communities. It is critical for social cohesion and cultural identity that the business legacy is neither forgotten, nor captured only in transient human memory.

Technical Records

Technical records are the plans, drawings and photographs found in manufacturing, engineering, architectural, design and construction businesses. They are a key source of evidence of the creation and development of products, and complement and enhance administrative records to give a full understanding of business operations. As business collections are essential in understanding Scotland's industrial and economic past, their technical records provide important contextual information.

Our Collections

Some of the collections that we are currently working on include:

- British Rail (National Records of Scotland) collection of drawings from St Rollox for 5 of the pre-grouping companies (Caledonian Railway, Highland Railway and Great North of Scotland Railway, North British Railway and Glasgow and South Western Railway).
- Edinburgh City Engineers' Office (Edinburgh City Archives) a collection of plans and drawings from 1840s to 1980s.

- John G. Kincaid & Co. Ltd., - Replica P.S. "COMET", Machinery Plans (McLean Museum) - this collection of drawings related to the replica PS Comet was scanned to create digital copies and the collection catalogued.
- Montague Smith (National Records of Scotland) a collection of pre-grouping locomotive drawings.
- UK Railway Photographs (Cody Images) this is an assorted collection of images that has been rearranged into companies and classes of locomotives.
- William Lind Collection (Glasgow University Archive Services) we are cataloguing William Lind's correspondence files.

Although the Ballast Trust is a processing service and does not keep collections permanently, we do have some collections belonging to Bill that are now the property of the Trust. These are:

- Dan McDonald Collection – negatives and glass plates from the 1920s to 1980s of shipping along the Clyde and west coast of Scotland. Catalogue available on our website and nearly 400 images online via our flickr page www.flickr.com/photos/ballasttrust
- Lind Ship Postcard Collection.
- Lind Ship Plans Collection.

How We Work

At the Ballast Trust we have a combination of space, knowledgeable staff & volunteers and experience working with technical records that allows us to be well placed to handle technical records.

Communication

Because we rely on other repositories using our service it is important that we communicate with those client repositories to agree a project brief for the collections that we are working on. This contains information about the processing requirements (reference, cataloguing fields, appraisal guidance, access/copying restrictions) and helps to make sure that we carry out the work they want on the collection.

Volunteers

We are fortunate to have staff and volunteers (some from technical backgrounds themselves) with years of experience of either particular subjects or handling technical records. We rely on volunteers with specialist knowledge or enthusiasms and we try to match staff and volunteers to collections that will allow them to make the most of their knowledge, interest them and ensure the collection is catalogued fully. In 2011/12 we have increased the number of our regular volunteers and improved awareness of the Ballast Trust has led to new short-term volunteer placements which we hope to continue to support.

We now have a mixture of volunteers with some still possessing detailed knowledge about the subject, such as railway enthusiasts or ex-shipyard workers who can bring to a collection understanding that will enhance the descriptions. The other type of volunteer we have is archive students seeking work experience or undertaking cataloguing placement through their master degrees. This means it is essential for us to have good guidance for them to follow.

Space

The Ballast Trust has the facilities and physical space to process collections as well as the technical expertise and knowledge required to understand these collections and catalogue them

fully. Our premises in Johnstone are a former furniture factory of James E. Robertson & Sons Ltd. It comprises two large buildings which provide a combined storage space of over 800 metres of shelving. One acts as a workroom, the second a larger storage facility for collections awaiting processing. The main workroom has some shelving and is serviced by 50 metres of table space to allow for the laying out and processing of very large and lengthy technical drawings and plans. This is supported by staff offices, a small research room and reference library as an aid to identifying documents and dealing with enquiries.

Knowledge Capture

The biggest task facing us is to create procedures and guides to processing collections at the Ballast Trust. Some of these are fairly straightforward like Box listing and general Cataloguing guidance but we are also keen to complete our knowledge capture project.

The idea behind a knowledge capture project acknowledges that the working practices of the Ballast Trust are unique and rely heavily on the skills and depth of knowledge of staff and volunteers. Extensive discussions about the knowledge capture process took place between staff and volunteers in April and May 2010 and contacts were made with external organisations working on similar guidance. The Ballast Trust intends to create 4 guidance documents to record how technical records are processed. These will be:

- § A general guide to processing collections at the Ballast Trust (in draft)
- § A guide to processing shipbuilding records (in draft)
- § A guide to processing engineering records
- § A guide to processing railway records

Additionally, detailed guidance was prepared to assist with the processing of the Edinburgh City Archives collection of technical and architectural drawings which will be incorporated into these Ballast Trust guidance documents.

Ballast Trust Online

We traditionally had a low profile with archive sector and wider public. One of my first jobs in 2009 was to create a website to raise our profile. The website (www.ballastrust.org.uk) contains standard information about who we are and what we do. This has improved awareness of us and helped to increase volunteer numbers.

Whereas the blog (www.ballastblog.blogspot.co.uk) gives us an informal way to share news about what we're working on and updates about collections.

In 2011 visits to the website rose by 10% and 30% for the blog, which had also seen a 28% increase in page views as well.

- § Ballast Trust Website - 643 visits (441 unique visitors) with 1,654 page views
- § Ballast Trust Blog - 2,356 visits (1,835 unique visitors) with 4,989 page views

National Strategy for Business Archives in Scotland

The Ballast Trust has continued to take a lead role in the implementation of the National Strategy for Business Archives in Scotland throughout 2011/12. This strategy was launched in 2011 with the aim:

“to make business archives in Scotland valued, representative of economic activity and innovation and accessible to all in order to ensure the survival of the nation's important business records and industrial heritage.”

The first year of implementation has seen the strategy secure £3,000 of funding for a data mapping project, the creation of more case studies to inspire businesses and archives to make the most of their collections and over 1,500 visits to our blog.

Working on the strategy and its implementation continues to provide an excellent opportunity for the Ballast Trust to work with partner organisations, make a contribution to strategic thinking about how the business archives sector and places it in the best position to help preserve business archives.

The strategy website <http://www.scoarch.org.uk/businessarchives> has information on:

- § The strategy and its implementation.
- § The benefits business archive collections can offer business and society.
- § Case studies showing how business archives can be used as a business asset.
- § Resources to help creators, custodians and users to manage and access business archive collections.
- § The key collections in Scotland.

Mind the Gap

Problems and Issues with Digital Archives

Ivor Lewis

Chair
The Historical Model Railway Society

Introduction:

In this short paper I want to scratch the surface of what is becoming recognised, in some quarters, as an extensive and important problem relating to current records not being available to future researchers. I use the term 'current records' to refer to records being generated in business and commerce now. To people at this conference, this is future Archive Content which is starting life now as digital files rather than paper or tangible material. I don't mean digitised copies of original paper records or nor digital scans of film but items which were generated originally on computer and are stored as computer files in enterprises at this moment.

When I use the terms digital archives and digital technology, the image conjured up by most people is of digital photographic images or digital scans of paper saved as jpg files or converted to documents and held as pdf or word format files and similar. The problems then are thought to be about scanning quality, loss of detail in digitisation, how to store the files, how to back them up and how to make them available to the public. These are serious issues and the HMRS as a society and myself as their current EC advisor on the IT we use for holding our scanned archives, have to address this problem. We are a volunteer based society with paper records which we can and should make available digitally and there are several other societies like ourselves. These challenges are not unique to railway archives nor even business archives; they are generic for all strands of paper based archive source material. However these issues and the use of amateurs in this task is not my main concern in this paper. This task is not easy at all and definitely is a big issue for museums but it is a lot easier than the aspects of the modern digital age that I wish to cover briefly in the rest of this paper.

Personal Interests and Experience

My own personal research interests are in the study of engineering with railways as a pre-eminent example. The tangible artefacts such as those in the NRM and the few we have here are clearly very important and useful but, for engineering, the real history and practices are encapsulated in paperwork – designs, specifications, drawings, costings, letters, memos etc. Since the industrial revolution, and of course before, these items have been on paper and apart from illegible handwriting, easily read and understood. However for the last 20-30 years that has no longer been the invariable case. Computerisation initially brought about the near extinction of the typewriter as direct to paper typing became direct to file word processing. Indirectly this brought about the demise of typing pools as most employees were expected to do their own typing. A consequence was that general secretarial support, which used to help manage the documentation and the filing of it, also went. Then paper designs (even that on the back of fag packets or napkins) gave way to various types of CAD and drawing programs. Records of costs, orders and parts lists became spreadsheets and production records and sales management were stored in databases; memos and letters became email; orders went directly to suppliers by data

transfer over the intranet or the extranet. The engineering world has gone digital totally and so have all enterprises - large and small. These records are at risk as never before. Engineering concerns have also become more secretive as 'Intellectual Property Rights' and industrial and international business espionage is now perceived as a big risk. Hence records have been 'complianced' (I've coined the word) and sometimes it is easier to deliberately destroy records rather than save them when their main use is over. Usually it happens by neglect and obsolescent software. (Try opening a WordStar file now!)

My own professional experience is an example. Until I retired in mid 2009, I worked for Fujitsu Services (which used to be called International Computers Ltd), an IT service delivery company. In my 39 year career I have been a hardware engineer, a software engineer, a system engineer and latterly a solutions architect. I saw the gradual removal of the clerical grades as the onus was put on the engineers to do their own drawings, typing, copying and record keeping. We stopped using centralised mainframes 25 years ago or more and worked on our own personal desktop systems and later portable laptops. They were networked for communication but not for management of data. We had to manage our own backups of our own data and design documents. The onus for managing critical design data was decentralised and placed on engineers and on specific customer teams. The electronic files became the master documents – they were usually multiply copied to all who needed to know on a specific project or for a specific customer but not for future referral. There were formatting standards and proper versioning but they were agreed by the project teams and only local to the project. Originally, in the paper era, there were formal company standards and people dedicated to managing the library etc but economics and the flexibility and downsizing that come with computerisation removed this layer of administration in later years. Versioning was up to a few engineers becoming administrators and imposing and enforcing good practice on the rest. But controlling different versions could become a nightmare even for those who knew. Document management was either non-existent, primitive, cumbersome or dysfunctional. Central repositories were formed but it was often left to the worker to organise while secretaries and records management disappeared. The inevitable consequence or at best the risk is that the paper trail of archive material has gone cold.

This may seem harsh but the senior management employed more management trained (as distinct from engineering trained) 'professionals' as middle managers with their MBAs, but since they had never done either an apprenticeship or actually worked in engineering – they hadn't a clue how to manage the key engineering documents nor even which ones were key and so compliance to any type of discipline needed to save for the future disappeared. It sounds as though we indulging in bad practice or not compliant to ISO standards but this was not so – it's just that the standards apply to doing the current job professionally and do not ensure future availability of the record.

So when I retired, my laptop was 'wiped clean' of my data, so that it could be re-used, without any check that important files had been saved. It was up to me to pass on what I thought current (note - not historical) to the person taking over from me. So perhaps I should have saved the data onto CD or something myself. Well I was working on a government IT service delivery and subject to the Official Secrets Act and its penalties if I removed any data from the laptop. I don't have this data as it was, at that time, truly sensitive but in future it would be seen as useful engineering understanding of how IT worked in the early 21st Century. I know my experience was not unique in Fujitsu and I doubt it was unique in many other fields too.

Summarising so far:

- I. From 1980 onwards engineering businesses have transformed from paper based to digital based and the master documentation is now digital not paper based (paper copies are usually stamped 'not maintained')

2. Although it depends on the industry sector, the onus on record keeping is likely to be individuals with little management understanding of the record's long term significance.
3. The formats of potential archive material will be many and varied – spreadsheets, databases, Presentations or other diagrams drawing software, CAD files (many types), document files, emails etc, etc. The emerging common formats being specified by groups like the National Archives are not yet much recognised in actual use.
4. The compliance legislation is a curates egg - good in parts but terrible in others. It can help save critical data in some areas (notably Pharmaceuticals and Aerospace) but it can deliberately hamper the preservation of records. The accidental effects of the Official Secrets Act needs further consideration.

In short there is a need for some legislation in this area but before that happens there is a massive need for education to get it onto the agenda of Government, Big Business and Small businesses too.

Public and Government Understanding

What is the situation within government? Do our politicians and the civil service generally appreciate the implications of these engineering, business and cultural changes which have and are occurring?

In 2009, I wrote, via my MP who was then Ann Winterton, to the minister for culture in the Labour government of Gordon Brown, Barbara Follett, about this issue. My letter and the actual reply are in the appendix. The reply was not encouraging as all it mentioned were investigations about legal documents and how in about 5-10 years they might have a formal process for saving them electronically.

Of course it is not just Business and Engineering records. At this time an article appeared on Page 10 of the Observer newspaper for 25/01/09 entitled 'Websites must be saved for History' based on a briefing by the head of the British Library. The article alludes to some efforts and good practice being done in a certain limited number of areas. There are sites which do save website content on a regular basis but it is the Business, Commercial and the small hard pressed specialist interest areas that concerned me. There is additionally the same existing big issue of obsolete software and unreadable records. Some early digital records held on tape media and the old 8 inch or even 5 inch floppy disks are already not accessible because the mechanics and software to read them are no longer supported. For example some of NASA's data from planetary probes have been lost forever and some have only been recovered because old printouts of the results were discovered and have been re-typed in new formats¹

I wrote to Backtrack Magazine ² in 2011 and they published my letter – but I had no significant response.

I wrote again in late 2011 to my new MP in the Cameron administration and eventually had a short reply from Ed Vaizey the current minister of Culture Media and Sport. His reply was even shorter (also copied in the appendix) and was basically that the problem had been handed over to the National Archives (TNA). So I emailed them and after one false start I had a really informative reply from Nick Kingsley (See Appendix).

¹ Waller, M & Sharpe, R. "Mind The Gap." Digital Preservation Coalition. York, UK 2006 available for download from <http://www.dpconline.org/advocacy/mind-the-gap> accessed 14/12/2012

² "Readers Forum" Backtrack. Vol. 25. No 6, June 2011. Pendragon Publishing, York. UK. Page 381

The good news is that the problem is recognised and being addressed. The bad news is that:

- a) It took me so long to find out from public servants that actually there was a group looking at the issues. This suggests a general ignorance amongst those in the civil service about what the issues are and who might be addressing them – which in turn suggests a lack of understanding in the populace at large and in business and government.
- b) The enforcement of the good practice defined and being defined by the TNA is not there. Education and understanding is being disseminated in business, government and commerce but the take up and commitment is very patchy. I have again copied Mr Kingsley's reply with its links in the appendix.

In actual fact the Rail Industry is more professional than most and doing better – Network Rail's approach to records and archiving for their current infrastructure is very good and the new Network Rail archive looks very promising. Many railway researchers were getting worried about the disappearance of various skills and knowledge at for example Swindon and Plan Arch at Waterloo but this seems to be just temporary. I do not know about the private manufacturers approach to transferring records to the National Railway Museum (NRM) or the TNA but the enthusiast fraternity will probably keep this to the fore. This is clearly a way in which Amateurs can help future academic's needs by keeping the industry awareness sharp.

As for the Computer and IT industries, I know there is the Computer Conservation Society (of which I am a member) and the museum at Bletchley Park as well as the replica 'Baby' machine at the Manchester Museum of Science – it's all been done by volunteers and they have had difficulties recovering data too. Many early records have been lost and some relatively late ones. A good example being the BBC Domesday project – recovered by good fortune?³

The major commercial companies see their designs and infrastructure as commercial secrets and no obligation has been laid on them to save it for posterity.

In the end it is down to well meaning and well informed employees as enthusiasts and amateurs to save this information and I suspect ignorance of these facts apply to many business records. I have been focusing on engineering records but I suspect the pure business records are as badly served as well. I hope I'm wrong and this paper was not needed but I fear not and actually well meaning volunteers who keep the records they have acquired, even if they sometimes on the edge of the law are the only hope.

The best treatise on this topic and in my view the best basis for a compliance framework is the previously mentioned Digital Preservations Coalitions' 2006 Report – Mind the Gap. I quote here part of the summary to emphasise the points.

However, organisations often do not have good solutions to the long-term preservation of data:

- The trend of increasing user demand for digital information is placing substantial pressure on the existing information infrastructure and working practices.
- Most organisations do not know the volume of digital information they need to preserve.
- Most organisations also have to preserve some digital material originating from outside of their organisation over which they have limited control.

³ Waller, M & Sharpe, R. "Mind The Gap." Digital Preservation Coalition. York, UK 2006 available for download from <http://www.dpconline.org/advocacy/mind-the-gap> accessed 14/12/2012 Page 9

- Many organisations also do not know how long they need to preserve information. The majority of those organisations that can specify a lifetime, need to preserve information for 50 years or more. Over such timescales, digital information is highly vulnerable to software and hardware obsolescence. Although many organisations have facilities in place that could preserve paper documents for this length of time, few have comparable strategies in place for digital material.
- The loss of digital data is commonplace, and in some circumstances seems to be accepted as an inevitable hazard.

In addition, there is considerable confusion about how to address the problem:

- Very few organisations have some kind of digital preservation strategy in place.
- Most organisations are hindered by a lack of clear responsibilities for digital preservation, a problem complicated by the need to involve a range of staff with different skills and the need to involve users at all stages of the information lifecycle.
- Digital preservation is very much a new discipline which is still being developed, and for which there are few people with the necessary skills. As a result it is a complex activity to undertake and is often perceived as risky

In summary:

- The National Archives are the key body and are addressing the issue and understand the problem well.
- There are a set of educational materials and guidelines for business based on proper record and documentation management technologies which are commercially available and should be used for record management inside businesses anyway (but aren't always).
- There is a body in existence who promotes this approach and fosters awareness. The Digital Preservation Coalition is, in my view, a very important body for this issue and more should be known about it and more formal and possible legal power vested in it.
- The co-operation of the BAC and the NA in promoting best practice via the 'Managing-businessarchives' website is highlighting the issue but in a difficult economic climate which doesn't help focus on the issue.
- The current situation is patchy – Pharmaceuticals, Nuclear, Defence and Aerospace have significant activity but often this is driven by the fear of proving competence when things go wrong rather than pure altruism for the future. (implied from Kingsley email and Understanding Digital Preservation, National Archives 2011) , Other engineering businesses are not so forward – although my observations of Network Rail's new archive website suggests that the Rail Industry is not that bad.
- My view is that the Government should not totally abdicate responsibility but some useful legislation for compliance for future knowledge ought to replace some of the oversensitive compliance legislation around now.

Amateur or Volunteer Involvement

How can amateurs get involved?

- By helping to educate in businesses and commerce in which they are employed or have a presence or contacts
- By working with the Museum and Archive services and Academia to highlight current trends in business and commerce and current practice over record management.
- By using their acquired knowledge in various fields to intercept potential loss of records
- By saving their own working data –cautiously sensitive to the law

How? That's why this conference is happening.

Appendices

Summary of letter sent to Brown Government – Jan 2009 via MP Ann Winterton – reply from Barbara Follett

I am writing, via email to raise an issue which I believe is an emerging problem arising from the large scale use of digital technologies in business, government and in fact in most facets of society.

I was prompted to contact you by an article which appeared on Page 10 of last weekend's Observer newspaper (25/01/09) entitled 'Websites must be saved for History' based on a briefing by the head of the British Library. I have to say that this is only the tip of a very large iceberg and I would like to know if there is any legislation in this area or any intention of creating any to your knowledge. The article alludes to some efforts and good practice being done in some areas but it is the Business and Commercial plus the small hard-pressed specialist interest areas that concern me together with the big issue of obsolete software and unreadable records which have already left many of NASA's early images lost forever.

I am involved in my spare time with a Railway society which owns a large number of drawings and artefacts which we have both inherited from members, been given to us for safe keeping by Railway Manufacturers and Workshops who no longer need them. The common thing about all these is that the 'master' drawing or record was paper based and they can be preserved for future researchers and historians. Railways and many other areas of history are fairly well served with this kind of archive held in places like the National Archives, The National Railway Museum and many more in small independent museums & libraries - e.g. the Museums in Macclesfield, Derby and the like which specialise in some aspect of past life and our own local and county libraries.

Apart from the issue of websites as raised in the article, many engineering drawings, memos, communications, emails like this and all the things which record history from the current world are electronic and I know of no co-ordinated scheme to save these when their natural life ends - which is sometimes quite short. The whole matter is made even worse in the Railway Industry by privatisation and fragmentation which only highlights the need for a centrally enforced obligation on all to keep their archives for the future. It is compounded by some aspects of 'Compliance'

<Some further description removed>

Now I have only sketched the issue and there are lots of new issues with keeping electronic records which I can't deal with here. The January issue of Railway Magazine has a small editorial on one part of this problem as does the newspaper article and I have written a reply to Rly Mag from my experience both in Railway Archives and in IT which I await to see if they publish (They didn't).

I wonder if you could either point me to any process or anyone who is dealing with this legislatively and tell me if anyone is following up the head of the British Library's concern at a 'Compliance' level rather than just a concerned individual level.

Thanks for your time

Sincerely Ivor Lewis

Reply From Barbara Follett

Thank you for your letters of January 29th 2009, addressed to Minister for Communications, Technology and Broadcasting, Lord Carter of Barnes, and myself about the concerns that your constituent,..., has about the saving of digital records and archives for the future. Both letters have been transferred to me, as Minister for Culture, Creative Industries & Tourism with Ministerial responsibility for libraries and archives for response.

I understand, and share Mr Lewis's concern about this matter and hope that he will be comforted by the fact that the 2003 Legal Deposit Libraries Act provides for the collection of the United Kingdom's published output, and its intellectual record and future published heritage, by six prescribed legal deposit libraries - the British Library; the National Library of Scotland; the National Library of Wales; the Bodleian Library, Oxford; the University Library, Cambridge and the library of; Trinity College, Dublin.

In addition, the 2003 Act makes specific provisions for printed works and generic provisions for non-print, or digital works, It provides a flexible, but enduring, framework for their preservation, which has the potential to cover future, and as yet unknown, publication media.

The 2003 Act's provisions for printed media are now in force but those for non-print media will only be implemented secondary legislation created after the Legal Deposit Advisory Panel (LDAP), which was set up in 2005 specifically for this purpose, has advised Ministers on the content, drafting, timing and implementation of these regulations. The Panel are currently looking at the deposit of offline publications, web harvesting and e-journals.

Yours Sincerely
Barbara Follett MP

Letter to Backtrack Magazine and published in Vol 25 No 6, (June 2011: 381)

Dear Editor,

The letter from Dr Hilton, as senior archivist at the Wellcome Trust, following up Paul Chancellor's February editorial about ensuring the survival of historic photographs by digitisation struck a big chord with me. He raises several technical issues such as digital media deterioration, retrieval of files, obsolescent formats and access software, managing extensive digital archives and suggests some ways round it all of which are pertinent. I agree with all the defences he & Paul Chancellor suggest but he also raises one of the non-technical issues, which

are so often ignored, about the invisible records held on the computer of a deceased person and how easy it is for relatives to throw those away without realising it.

I would like to expand the scope of this to other records than photographs and to recent data. It concerns me that from about the mid 1980's when computers in government, commerce and industry became pervasive most design specifications and documentation as well as communication became exclusively electronic via email, database, spreadsheet, CAD and document filestore etc. In this era the electronic file became the 'master' and any printed copy was often marked 'not maintained if printed' or something similar informing that the electronic one may have been updated. Frankly - from my experience - these electronic ones were not always managed well either as it was left to the designer or a person who's main job was not maintaining records. This problem applies to all industries but using railways as an example, I wonder if we will find that the archive trail for new rolling stock and locomotive design and railway infrastructure goes cold around that time for future historians. The problem is made worse since so many suppliers are now private firms and treat their designs, understandably, as of a secret and sensitive nature. There is no legislation to my knowledge that demand that private firms producing tomorrows archives digitally have any obligation to save it for the future. Gone are the days of private builders having an academic conscience or a future perspective. I wrote to the previous government about this issue but have to say that I received a reply which only showed they hadn't even got close to understanding the issue. I got some mumbo jumbo about legal documents and how in about 5-10 years they might have a formal process for saving them electronically. Depressing but typical. Fortunately many in the public sector and the library service are aware and doing what they can to save electronic records, but there seems to be no coherent effort or understanding - or am I wrong? I did read somewhere that the Rail Industry and the NRM were looking at this area but I would like to know more.

I write this as the person responsible for dealing with the digitisation of the archives of the HMRS (Historic Model Railway Society) and I would like any views from any professional archivist or anyone in the railway history world who may have an approach to ensuring the future can research the past.

Ivor Lewis - EC member of HMRS

Letter sent to Cameron Government via MP Fiona Bruce

I'm sorry this letter is quite long but I need to describe the context.

I wrote to Mrs Winterton in January 2009 (via email) about this subject and received a written reply via her from Barbara Follett, who was then under secretary for Culture Media and Sport. Whilst this covered some aspects, it did not really impress me that she understood the problem. I wonder if it would be possible present the issues again to the relevant department to receive the latest situation 3 years on.

The concern I have arose partly because I worked in the IT industry for all my working life and partly because I am much involved with original historical source material as a researcher and writer on the general topic of Railway History. I am also deputy chairman of a national Railway Society which is custodian of a number of drawings and artefacts of use to future historians. While much of this type of material is in the National Archives and with the NMSI, surplus but important material comes to the likes of us and as a charity we have a duty to maintain for the future. The documents we have largely came from Railway Manufacturers and Workshops who no longer needed them. The common thing about all these is that the 'master' drawing or record was paper based and those can be preserved for future researchers and historians fairly easily and scanned to an image if necessary for safe use. Railways and many other areas of business and commerce history are fairly well served with this kind of paper archive held in places like the

mentioned National Archives, The National Railway Museum and many more small independent museums & libraries - e.g. the Museums in Macclesfield, Derby and the like which specialise in some aspect of past life, plus our own local and county libraries.

<<< contents similar to the previous letter but updated >>>

I am planning to discuss the issue at a seminar being arranged in April next year involving the Business Archives Council and I be pleased to be able to convey that there was some safety net being discussed but so far everyone I have talked to in the Museum and Archive services have not known how to deal with this aspect of modern archives.

I wonder if you could either point me to any process or anyone who is dealing with this legislatively and tell me if anyone is following up the head of the British Library's concern at a 'Compliance' level rather than just a concerned individual level.

Reply From Ed Vaisey

Thank you for your letter of 8 December enclosing correspondence from your constituentabout saving digital records and archives for the future.

As you may be aware, DCMS is no longer responsible for archives: responsibility for archives transferred in October 2011 from the Museums, Libraries & Archives Council (MLA) - a DCMS sponsored body - to The National Archives (TNA). All correspondence and enquiries about archives services and policy should now be directed to the TNA which is a government department and an executive agency of the Ministry of Justice.

Currently, all printed publications must be deposited free of charge in the British Library and on request with the National Libraries of Scotland and Wales and the University libraries of Oxford, Cambridge and Trinity College Dublin (collectively known as the 'legal deposit libraries'). As you will be aware publishers are increasingly moving to electronic publication. We therefore intend to consult in the New Year on proposals to extend the existing regulations to enable the gathering of electronic publications in deposit libraries. However, whilst this scheme might capture some of the information you are interested in, it is designed for maintaining an archive of publications which are already available to the public, and would not capture internal documents from private companies.

Ed Vaisey MP

Reply From Nick Kingsley from the National Archives to a similar query.

Thank you for your recent enquiry. I am afraid that your previous email to my department was never received, but your second enquiry has been forwarded to us and I am pleased to provide this response. Whilst there is certainly not comprehensive provision for the preservation of digital records of businesses, there is perhaps rather more activity in this area than your enquiries have unearthed to date.

Over the past 10 years, there has grown up an industry providing middle and application-level software to medium and larger organisations to assist them in the management of their records. We were involved in the earlier phases of this market development because of specific needs of government but the technologies have become mainstream and contribute to the preservation challenge by giving infrastructure for the management of digital records and allowing them to be exported with contextual and technical metadata to support their preservation on other platforms. We are no longer directly involved in this market, but more recent products contributing a sub-set of the functionality are now available in open source at price points more suitable to smaller organisations. We ourselves have issued guidance of particular relevance to

smaller organisations on how to manage digital records on fileshares: <http://www.nationalarchives.gov.uk/information-management/projects-and-work/essential-records-management.htm>.

Moving on to preservation awareness, the Digital Preservation Coalition is an advocacy organisation that has been working hard to raise the preservation issue up various agendas: www.dpconline.org (it is a membership organisation open to all sectors, although commercial members are not permitted to use it for direct marketing purposes). In 2006 it published the *Mind the gap* report to raise awareness of the preservation issue in all sectors.

We have been active in defining – principally for government use – the concept of digital continuity to spread the message about preservation to ICT managers and information assurance professionals: <http://www.nationalarchives.gov.uk/information-management/our-services/digital-continuity.htm>. These issues and professionals of course exist in all sectors.

The European Commission has run several funding frameworks over the past decade intended to improve the picture here. These have not been exclusively for public cultural reasons, though that has been a focus. I'd draw particular attention to the PLANETS project and the not-for-profit organisation OpenPLANETS Foundation that was spun off from the end of it which is open and relevant to all sectors.

You are correct in seeing understanding and uptake in the commercial sector as patchy. Whilst the National Business Archives Strategy (<http://www.nationalarchives.gov.uk/information-management/our-services/advice-business-archives.htm>) aims to advocate for the commercial and cultural value of business archives, the economic climate is not helpful just as it makes it more urgent. However, The National Archives co-operates with the Business Archives Council in maintaining the Managing Business Archives website (<http://www.managingbusinessarchives.co.uk/>), which promotes best practice in the sector. The National Archives also dispenses advice in respect of specific collections of business records and is currently engaged in a survey of the surviving records of the Architecture, Building and Construction industries (the ABC survey). One component of that survey is advice to record keepers. So there is a lot of activity in this area, even if it is sometimes tightly focused. As with organisational digital records management, the business drivers play out differently in different sectors and some of the strongest are regulatory rather than cultural.

The industries where there is very significant activity are pharmaceuticals, nuclear, defence and aerospace. There is a challenge to smaller organisations in that the sort of infrastructure needed to retain digital evidence does not scale easily to their resources. We have produced some accessible guidelines for using existing infrastructure for digital preservation outcomes: mainly for the use of small archives and admittedly not recommended for evidential purposes in a heavily regulated environment see: <http://www.nationalarchives.gov.uk/information-management/projects-and-work/digital-preservation-faqs.htm> and particularly the linked paper <http://website.web.local/documents/information-management/parsimonious-preservation.pdf>. Similar advice is issued by the British Library Preservation Advisory Service and the Library of Congress in the USA.

There is significant overlap between the records management and preservation communities in Europe and globally in standards definition and in the discourse of professional organisations such as the Information and Records Management Society of Great Britain. The most prominent of this is in the standardisation of file formats such as Open Document Format and the archival variants of Portable Document Format. The specifications of the latter are managed by ISO over vastly longer timescales than for the commercial equivalents (decades rather than months) and

eliminate most of the functionality likely to be lost on later platforms, such as external fonts. Some are also tackling complex objects such as engineering drawings.

Dedicated preservation solutions for smaller organisations may be some way off, though a durable format and an organised use of a fileshare for recordkeeping purposes may be suitable for many. The need for a purpose-designed solution may only arise for organisations with demanding regulatory and evidential environments, particularly complex objects or where access has to be given quickly while removing personal or other sensitive data, requiring the holding of several versions of the same thing. There is a commercial market and an open source market for preservation software solutions emerging; you should be able to find references to it on the internet.

Many companies may be able to resolve their preservation needs through collaboration, including buying in services from larger partners. This is consistent with what you will have read about in *Archives for 21st Century*. There are early signs of a market in preservation services from commercial providers.

An important area which has achieved rather greater maturity is the archiving of websites. The not-for-profit Internet Archive and its European offshoot, the European Archive have been harvesting web resources for some years, as have cultural organisations within their collecting remits. Some commercial organisations- inevitably larger concerns - feel able to run web archiving programmes of their own.

Archives in the publicly funded sector generally collect business archives and we know of some that have active collecting strategies for the records of commercial organisations. For example, London Metropolitan Archives is particularly interested in the financial services industry within the City and particularly pensions corporations. It remains true, however, that the capability of publicly-funded archives to deliver digital preservation programmes is only developing slowly in the current economic environment.

So, to summarise there is a less than comprehensive coverage of the issue but many relevant strands of activity. I hope this is of some help to you.

Nicholas Kingsley

Nick Kingsley

Head of Archives Sector Development & Secretary of the Historical Manuscripts Commission
The National Archives, Kew, Richmond, Surrey TW9 4DU

The Historical Model Railway Society

A Significant Archive of Railway Technical Drawings

Paul Garrett

Drawings Archivist
The Historical Model Railway Society

Paul's Background (partly contributed by the Editor)

Paul came to the HMRS having had 40 years in the Railway Industry working on the design and production of rolling stock. In the late 1990s whilst he was working for Adtranz he became involved with the standardization of documents, drawings and data fields that go with them. These tasks continued when Bombardier took over the Derby works. Paul ended his career as Manager of the Technical Documentation group involved with issuing documents, drawings and archiving. Paul joined the HMRS, together with his wife Margaret, in 2005 after volunteering to help with the managing of the drawings. The HMRS is indebted to Paul and Margaret for the herculean task that they have undertaken with such verve and enthusiasm. Margaret has also taken on the role of Secretary to the whole organization.

The HMRS Drawing Collection

The HMRS Drawing Collection is made up of a number of separate gatherings together of drawings. The main headings are: the original HMRS collection, The Metropolitan Cammell Collection, the Derby Museum Collection and several Personal collections.

In 2005 the HMRS listing comprised of 5500 drawings which had been catalogued over the years in individual's homes, the original listings being typed up before computers came on the scene. They have all been microfilmed and digitised which avoids the need to look at the original drawings which may become damaged if handled regularly and we can either provide a digital image or paper copy on request. The Personal collections contain up to 3000 drawings. Hence together with the Metropolitan Cammell and Derby Museum Collections which are still being catalogued, the HMRS holds, in total, some 150,000 drawings.

The Metropolitan Cammell Collection of original historic rolling stock and other drawings came from the City of Birmingham Library and comprises some 100,000 drawings. The collection covers British & Irish Railways as well as Foreign Railways. A basic listing of approximately half the collection was copied from the Birmingham Library and typed up into an 'Excel' file, thus allowing drawings in a particular roll to be found if a request is received.



On the previous page is a view of the top floor of the HMRS Museum and Study Centre as we were starting to stack the Metropolitan Cammell drawings in 2005. The drawings were packed in black bin liners and wrapped in brown paper, but many had got wet, although only a few became damaged so we have not lost too many.

The Derby Museum Collection

Derby Museum Collection comprises drawings connected to work done on the Derby Locomotive Works. Many of the drawings were those used on the shop floor where the drawing was attached to a wooden pole which had the drawing number written on it for ease of recognition when stored. Whilst an ideal way of storing them in the works the HMRS could not physically accommodate them in this way, hence all the drawings were removed from poles and rolled in quantities of approximately 50 in alpha / numerical order. The poles were not wasted however as the HMRS donated them to the Midland Railway Trust for use as kindling for lighting the fires in the steam engines. A fate we think the financially conscious management of the Midland and LMS Railway Companies would have approved. As well as the drawings on poles, many were folded paper prints. The folded drawings were filed in alpha / numerical order into archive drawers. Rolled paper drawings were folded and filed with others in archive drawers. Finally a list of the number ranges of the rolls and drawers were compiled. This obviously did not happen over-



The Drawings work area at the HMRS



night and indeed some work is ongoing. The picture on the left shows how the collection was looking in March 2012. Derby Museum drawings are stored on top of the racking and in the archive boxes. This is not the whole picture however, as more drawings and documents are stored out of sight behind the photographer and the racking.

In order to aid conservation provision had to be made to lay drawings out. In most cases where drawings have been rolled for a very long period need to be carefully opened, without cracking them and then weighted gently to allow them to be viewed for cataloguing and possible digitisation. Storage is always a difficulty in all archives. The HMRS is fortunate that drawing chests have been donated from various sources. Two were kindly given to us by Crich Tramway Museum. (See picture overleaf)



Once the Met Camm drawings have been catalogued those that are for Foreign Railways are re-wrapped into brown paper and stored underneath the worktable. Whilst these drawings are not a prime concern for the HMRS, whose charitable mission focuses on “the railways of the British Isles”, we have a duty to protect and make available those drawings we hold of locomotives and rolling stock which were made in the UK and then exported. Indeed in 2012 we began working with Dr Tatsuhiko Suga the Chief Executive of The Kotsu-Kyoryoku-Kai

Foundation, a Japanese organisation dedicated to the preservation of early railway rolling stock, to identify the coaches Metropolitan Cammell provided as the first train in Japan.

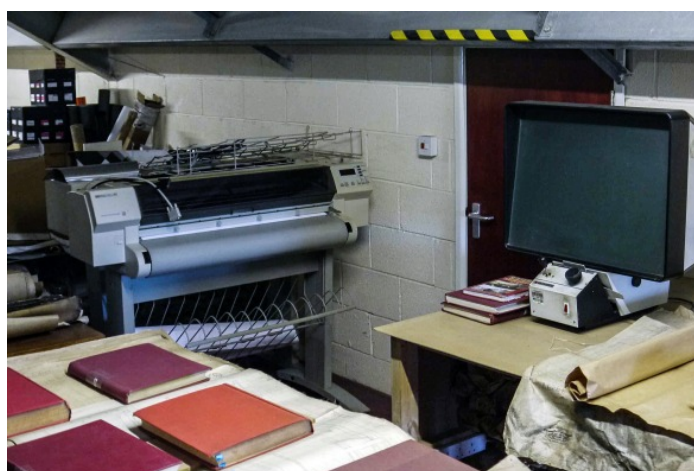
All drawings for British & Irish Railways are stored in archive tubes. The drawings on top of the racks are next to be catalogued. Naturally we need to be able to supply prints of drawings and so we were very grateful when a printer that had been in long term storage was donated to us by Bombardier.

It is sheet fed and will only scan and print drawings if the original is in good condition. Those drawings that are not suitable for this process are microfilmed and then prints are taken from the films. This decreases the wear on the drawings in the collection and helps preserve them for future generations.

We were also fortunate to have a plotter donated by Bombardier which one of our members has spent many hours making it work in conjunction with our computer system. This means we are able to print from digital files and also we are just finalising the interfaces to enable ‘Templot’, (a programme much used by modellers which allows large scale maps of stations to be transformed into model track plans), files to be printed onto wide format paper.



Part of the drawings storage area

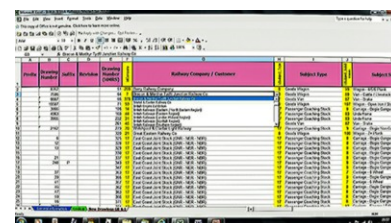


Plotter

Cataloguing

(continued overleaf)

Whilst it is too small to read properly, this screen grab of one of the dropdown boxes from our Excel catalogue it gives an impression of the amount of information that we gather from each drawing.



1. General information - this provides brief details of each data field, plus listing the abbreviations and cataloguing rules we use. Thus anyone with access to the sheet should be able to follow our logic something that we deem to be important.
2. Lookup tables these list each of the relevant data fields
3. New Drawings for Great Britain and Ireland - which contains a master list of all drawings pertaining to the railways of Great Britain and Ireland that are our core interest.

Each drawing record has a prefix e.g. SL/DE (we avoid the use of hyphens as these can cause confusion) and the dropdown box ensures that this format is followed. The Drawing Number is always numeric as this permits searching on numbers to take place, however the suffix to the Number can be alpha numeric and revisions can be letter or numbers, though in our experience this can lead to confusion as to whether a letter a number represents a suffix or a revision.

Every drawing is given an unique HMRS reference number. This process also allows the same original drawing number to be entered more than once, as say in the case of a set of drawings which depict the same vehicle. The data fields also include the Railway Company (or in the case of a contractor) the customer, as well as the subject type, be that Architectural, communications or signalling, locomotives, or passenger rolling stock.

Our webmaster manages a master list of Railway Companies and each one has a unique numeric identifier. There are currently 1900+ companies in the list. Not all these have been used in our drawing lists. We currently list 185 GB & Ireland as well as 250 Foreign Railways. These descriptors already existed in our photographic collection hence it seemed sensible to use them to create the Subject Type data fields for Drawings thus cross linking both.

Each drawing is given a Drawing Type, sometimes compromises have to take place as over the years various methods of making drawings has taken place. The final decision in our case is taken by thinking how useful the drawing would be to a modeler. However we try and take descriptive information from the Drawing's title block or elsewhere on the drawing and enter it in a common format, thus increasing the information's usefulness, whatever the purpose of the researcher. The source collection and any source identity material is also recorded, for example all the Metropolitan Cammell Drawings had Roll Numbers.

We record dates in the 2012-04-21 format to facilitate searching and include notes with additional information - Order Numbers, Lot Numbers etc. Most importantly we record the storage location within the HMRS Archive so that we can go to the tube or drawer where the drawing is stored. Vehicle Classifications and types is a field that we are developing as it is particularly useful when recording material on vehicles made in the last fifty or so years.

The date that a drawing was added to the list is also recorded as is any copyright information and whether a drawing has been microfilmed. Drawings have to go off site to be micro-filmed hence any that are in that process are carefully recorded.

Thus far (March 2012) we have catalogued 12,800 British and Irish Railway Drawings, 8,600 Foreign Drawings and 350 Tram Drawings.

Latterly engineering drawings have not been drawn on drawing boards with pen and ink but via Computer Aided Design Programmes. As the Drawings Archivist at the HMRS it gives me concern as to how we will manage these as they too come for preservation. The original file is not so much of a problem, but I know from experience that revisions to originals are often produced using layers and these do not figure in conventional revision indexes. This is a problem with which all archivists who handle digital records must grapple. I was lucky enough to have an engineering background, but it would be more of a problem for the archivist who is not an engineer. I know that our Chairman, Ivor Lewis has a paper on digital archiving for you later and I trust that he will touch upon this.

Exploit or die?

The challenge of managing industrial collections in a time of transformation

Roger Shelley

**Principal Keeper
Derby Museums**

This presentation examines the effect of the economic climate on how industrial history is collected, and on the museum sector itself, before examining the artefact and paper industrial history collections looked after by Derby Museums. It considers the gaps in knowledge and provision at the moment, questions how the demands of users can be aligned with the strategic goals of the organisation, and looks at how the limited staff resources of the museum can be boosted by new partners. It concludes with a glimpse into what the future might hold for the Silk Mill.

This is time of transformation for industrial history collections in many ways – to call it change is an understatement.

Most obviously everything we do is working against the backdrop of major economic change – this means that industrial history and collections are going through potential turmoil as they did when first set up in the 1960s and 1970s – then it was mainly craft and what were regarded as ‘traditional’ industries closing, and again in the economic recession of the 1980s when a large number of heavy and manufacturing concerns went to the wall.

Both here and at my previous post at Chesterfield it was almost a regular call every few months to go out to some factory or industrial site to clear what we wanted, often at the 11th hour. This was desperate ‘rescue collecting’. To some extent that is happening again with a further hollowing out of the industrial base during the downturn.

This is problematic because some of this economic change is quite low profile – locally (and nationally) we hear of the Bombardier situation, but much less prominence is given to Bemrose printers or Acordis –former British Celanese at Spondon, Butterley Engineering, perhaps partly because in these cases it has been death by a thousand cuts.

So the justification for our interest as a museum is challenged and questioned – rightly – these victims are not necessarily seen as being at the cutting edge of manufacturing now – Butterley is perhaps an exception, with the Falkirk Wheel in 2002 – and yet it is this story of creativity and innovation that we as a museum organisation in Derby are focusing our efforts on.

But of course as historians we know that in their time these were all cutting edge equivalents of blue-chip companies – Bemrose pioneered mass production of railway timetables and tickets and colour print advertising calendars, British Celanese developed the first mass production of artificial fibres for textiles and in the Second World War became the first factory in Britain to make [propylene](#) and from it [isopropyl alcohol](#) and [acetone](#).

Transformation is also impacting on us as an organisation – for some of the same economic reasons. Four years ago we were a moderately successful medium-sized museum operation – that means a small staff for a large collection (one person dedicated to the industrial collections of approximately 10,000 object or collection groups), starved of capital investment inside the building, but our surroundings – Cathedral Green and the impressive swing bridge - had £3.5m injected. Here at the Silk Mill as at the other two City Council run museums we were on a rising visitor trend, and working hard on a serious bid to redevelop the museum with a major national bid to the Heritage Lottery Fund.

But the lottery bid failed, the Council weren't in a position to increase our operating budgets – quite the opposite – so that our staffing costs were disproportionately eating up growing amounts of our limited budgets, and the decision was taken to close the Silk Mill museum to daily visitors from April last year – a sad day.

This happened at the same time as we reduced the overall number of collections staff with a remit to specifically oversee specialist collection areas – archaeology, natural sciences and ceramics as well as industry. We are a year on from this and still working out new ways to look after and develop our collections. On a temporary basis, the ground floor of the Silk Mill has been used to trial various experimental activities, many of which – late night music events, and hire space for high-tech artists – are certainly not normal museum fare.

All of this has been running alongside a determined attempt to turn us into a charitable trust – now scheduled for the start of October - with the Council retaining ownership of the buildings and collections. The plan is to do this with the financial backing not just of the Council, but also the Arts Council, now the main government lead body on museums. We are already working on this in partnership with Nottingham museums. On a day-to-day basis the work of looking after the collections, of trying to make them more accessible by improving their documentation, and even by modestly upgrading them by adding selected items, goes on – but you must forgive us if occasionally we don't always follow things up with speed, if sometimes we can't locate items, or if there is the occasional mishap.

What have we got?

Although Derby museums have been in existence since 1879, with some of the collections actually pre-dating this and probably originating with the Derby Natural History Society, virtually

none of the industrial collections pre-date the opening of the Industrial Museum here at the Silk Mill in 1974. Exceptions are some lead mining artefacts, a number of very fine exhibition standard aero engineering and car models, and the earliest rolling stock and locomotives made for the Midland Railway model, which opened at the main Museum and Art Gallery as part of Derby's contribution to the Festival of Britain in 1951.

Since 1974 our main aim has been to reflect the variety and development of industry and industrial products, centred on Derby, but with a secondary remit in the rest of the county where there are not other accredited museums. Mindful also that many industrial organisations don't stop at these neat boundaries – they often have national or international reach – this complicates collecting, typically for Midland Railway or Rolls-Royce collections. The rate of growth was really immense in the late 1970s, 1980s and 1990s – with particular strengths in constructional refractory and ceramic goods (bricks, chimney pots, pipes), cotton narrow tape textiles, telecommunications, iron founding, light and heavy general engineering, Qualcast lawnmowers, public transport (three buses!).

Other strengths are in local railway engineering (ranging from small items such as signalling block equipment and hand lamps to rolling stock and locomotives - mainly associated with the Midland Railway Project, the forerunner of today's Midland Railway at Butterley), and especially in model engineering, both stationary steam engines and railway models –culminating in our 7mm scale Midland Railway.

Also two very large photographic collections – Stanton ironworks and International Combustion. We also have large steam engines – Morton colliery winding engine and Grasshopper beam engine used as a source of power by local sugar industry machinery firm, Fletcher and Stewart. A time of madness. The rate of growth now slowed substantially – more manageable, but still leaving us with a substantial backlog of material to sort.

There are weaker areas – aero engine and car manufacture at Rolls-Royce (largely loaned items), artificial fibres, printing, and the silk industry, simply because of its early disappearance. We are also actively looking to improve collections relating to food processing, uniform manufacture and electronic entertainment and software. I do worry that current industrial processes are not being recorded systematically as well.

One of our biggest failings is our collections documentation and recording. This is partly because we have been overwhelmed by new acquisitions in the past, at the same time as trying to run a fully functioning visitor attraction. Also a matter of psychology – not without good reason that I and some of my colleagues still have archaic reference to keeper in our titles! Been too much of 'gatekeepers'.

In terms of paper collections, those relating to local industrial history have also been the Cinderella of cinderallas. At least highlights from the three dimensional collections have been on display. The paper and ephemera collections are not particularly large – perhaps compromising eight or so filing cabinets, a further dozen of photographic prints and negatives plus three or four plans chests, and a modest sized reference library.

Archival and ephemeral material is catalogued to a possibly unique system based on occupations deriving from HM revenue and customs. I must stress that much of our paper ephemera and archive collection is copies, and that we hold very few true ‘archives’ – the most obvious being those relating to parts of the transport collection we have in three dimensional form, those relating to the history of the Silk Mill as a working factory itself, and those relating to the museum as an institution. We are not set up to the standards of a professional archive – the only proper reading room in the building is currently in the MR Study Centre.

The way this kind of material tends to grow in museums is as a direct supplement to the ‘main’ three dimensional collections. But it does now contain some unique material of importance, sometimes acquired because in the past its owners simply wanted it to stay in Derby. Apart from supplementing actual artefacts, we are now much clearer about acquiring paper items where they have much more obvious display than reference potential. We are clear here – within the obvious need to ensure that the material is cared for appropriately, paper items – or their imagery – are to be used alongside 3-d collections. Newly-offered archives are sent to the most suitable public repository.

Strengths include Midland Railway estate plans and rolling stock drawings, now housed in the MR Study Centre. We also have well-catalogued sections on coal mining, extraction of minerals and use of metals, electricity supply, supply of refractory and ceramic goods and the cotton and silk industry.

And what’s not being exploited...

There are quite large parts of our collections which are still not in a particularly accessible state – Stanton and International Combustion photographs, paper records relating to public transport in Derby, and engineering company files. There is a physical task in cataloguing, scanning and re-packing these.

What is our role?

We are facilitators of research. No longer there to provide specialist expertise (always very patchy). Really guardianship, overall understanding of where everything fits, giving direction and focus to the development of the collection, we are exploiters of links between different users and demands, and between different parts of our collections. We encourage partners, sometimes in a voluntary or pro bono capacity, especially in the current climate. We want these

partners to help with the re-assessment of the significance of our collections (piloting this through natural sciences). We also need them to help with the parallel and enormous task of cataloguing, and in some cases identifying our collections. I mentioned the passing of industries and the need to record present practices in industry – very pleased to hear from Tim how the NRM is working with current train operating companies to secure contemporary material. Here we need to go further and put out calls to people to come forward to help us populate the knowledge held on record here about collections, which is sometime sparse.

We are also building links with academics. Derby and Nottingham University and Joseph Wright, Nottingham University/ Nottingham Trent University and 18th century Enlightenment – and this is not just among what you might think of as the usual suspects – art and history. There have been contacts with literature, geography and science. We are also building links with volunteer specialist advisors (can we call these ‘curators’?).

One particular project Derby Museums as a whole were involved with last year was to upgrade or help create Wikipedia entries for any subject pages where we had significant collections. This was very successful – it succeeded in improving the profile and accuracy of information on the web of over 100 subjects in a way which it would be very hard for us to achieve – we have no staff currently with specific responsibility for our on-line presence. Our staff had to find information and images, but the actual work on the webpages themselves was done entirely by a small army of volunteers. This came about almost by chance, the Chair of Wikimedia UK happens to live in Derby.

We need to find ways of valuing these partners more. The question in my mind is how we do this so that we meet their expectations? Certainly the motivations and demands of individuals, either as volunteers or enquirers, may be very personal/ very private – the working conditions in a particular factory at a time when one of their ancestors was there, the particular shade of green paint on Derby Corporation buses at a given point in time.

How can we shape those interests into something which is more beneficial to the organisation’s wider aims? Volunteers, rightly, demand recognition and appreciation, they may seek an exchange of knowledge – theirs for yours – in which case they may be disappointed, although we would always hope to be able to suggest other leads. But can they also demand too much of your time – do we need yet another layer of volunteers to ‘manage’ them?!

What is the future of the Silk Mill site?

The more traditional museum galleries in the building are mothballed, but there is now in place a plan to re-open the ground floor – approximately a third of the building - as a user experience. What we mean there is for people – planned or casual visitors – to participate at some level in activities – demonstrations, talks, debates, skills exchanges, workshops. There’s an often-

repeated phrase from Confucius ‘ I hear, I know (sometimes this quoted as I hear, I forget). ***I see, I remember. I do, I understand.*** The aim is to re-awaken and spread skills of making and manufacturing useful things, to explain the science behind industry and inspire through showing the good design of real products from Derby’s past and from present day industries.

Above all we will seek to re-unite arts and science – a false division which was certainly not present at the time of the Great Exhibition, or indeed Derby’s own version in 1870 - and do our part to address that agenda which looks to re-value engineering as a profession. Highly appropriate that this is on the site of the country’s first factory – the Lombe brothers 1720s silk mill. And we want to go much further, expanding the footprint on the ground with other features which extend the scope of the experience, sometimes presenting challenges for external display of objects – into our courtyard, along the walls of the neighbouring sub-station, onto Cathedral Green, onto the St Michael’s Mill wharf area to the north. As you can see, a substantial part of our collections team workload this year will relate to the move, preparation, and re-installation of collections on the ground floor.

How will objects be deployed?

Some of the objects used will act as a backdrop – some will be more focused. We will almost certainly be including decorative art and tools as well as more conventionally recognised industrial products. There will be new architectural features – within the constraints of grade 2 listing in a world heritage site, a flexible event space, lightweight work hire spaces and a riverside café. This all has to happen by this time next year.

Is it a question of how accessible the ‘real thing’ is? – partly that’s a practical question of space. We can address this through further digitisation – for example the expansion of Roy Burrows Midland Collection Trust database. How important is it to have the real thing? It’s the base reference point. Originals can be sent for deep storage, or dispersed to other accredited museums, occasionally there may even be disposal by sale – provided the proceeds are re-used for the sole benefit of the collections, and after consultation with other peer organisations as part of a strategic review – this is all a necessary part of the Museum Association’s guidelines. We should be seeking public and partner outcomes to projects, as well as how they match the goals that flow from our vision and purpose.

What are these key goals for Derby and the Silk Mill – to increase the public understanding of science and technology, and the ‘how we (Derby and England’s economic base) got here’ question. There is a critical lineage – we need ‘contemporary curators’ alongside history curators, people who can see, understand and explain why we hold these things for the public benefit – those ‘curators’ are not just me.

The Roy F Burrows Midland Collection Trust

Professor John Miles

Trust Chairman

The Roy F. Burrows Midland Collection Trust

<http://www.rfbmidlandtrust.org.uk/>

Introduction

The Midland Railway was one of the great pre-grouping railways of the UK. Its network stretched from London to Carlisle, Yarmouth to Liverpool and also included places such as Bournemouth and Swansea. It also was a partner in various Scottish railways such as the Forth Bridge and it owned an extensive network in Ireland. Quite a few of its extremities were reached via jointly owned lines such as the Somerset & Dorset and the Cheshire Lines Committee. The company was also noted for the quality of its carriages and its fabulous crimson lake livery.

Some fifty years ago, Roy Burrows started collecting railwayana relating to the Midland Railway. His interest in the railway came from his father who had in his early years worked for the company in the Leicester area before moving on to work in the newspaper industry. Roy is a person who, if he decides to do something, does it thoroughly and this applied to his collecting. The result is that the collection is now the largest, fully catalogued, publically available assembly of artefacts relating to the Midland Railway. The collection was for many years housed in Roy's house and garden shed so, as you can imagine, it doesn't include large items such as carriages, locomotives and signal boxes but it does contain everything else to do with the Midland.

The collection is part of the Midland Railway Study Centre which is a collaboration between the Roy Burrows Trust, the Midland Railway Society and the Derby Museum Trust. The material in the Study Centre comprises the collections of all three organisations. The Study Centre is located in the Silk Mill Museum, Derby. The Midland Railway Society, as well as contributing its own collection of material, is the major partner in managing the Study Centre and Derby Museums Trust provide and manage the infrastructure. The Study Centre is open to the public on selected days as detailed on the web site <http://www.midlandrailwaystudycentre.org.uk/>.

The Scope of the Collection

When the typical railway enthusiast thinks of railways, they tend to think first of locomotives and then the carriages and other obvious features such as buildings, signalling etc. All these are major and important parts of the railway but pre-grouping railways were complex organisations which covered a multiplicity of activities. One of the great strengths of the Roy Burrows collection is that it fully reflects this. So, for example, there are items from hotels such as silverware, cutlery, chamber pots and blankets. Also pre-grouping railways had huge numbers of horses for collection and deliveries and also for shunting. Therefore, vets were needed and the collection contains items from the Midland's vets' department. More obvious items are publicity

brochures and posters extolling the advantages of travelling by the Midland. Some of these were aimed at travellers from overseas, so for example there are posters in French. In total the collection contains nearly 40000 items.

Motivation for forming a Trust

Until some ten years ago, the collection belonged to Roy Burrows and as stated above, was stored in his house. Roy, like the rest of us, is not getting any younger and he was concerned that when he died, his executors would have to deal with the collection, which would then be broken up and sold, as none of his children share his passion for railways and railwayana. Having put so much time, money and effort into building up such a comprehensive collection, Roy was unwilling to contemplate it being broken up. He therefore started to think about ways of keeping the collection together. The best means of achieving this was to form a trust but this would require Roy to cede control to trustees and his heirs to forgo a substantial part of their inheritance. Roy, with the agreement of his heirs put the necessary arrangements in place and the Trust was formed. This was around ten years ago and since that time the Trust and the trustees have managed the collection.

With the formation of a trust comes a need to satisfy various legal requirements. The easiest of these is to hold regular meetings of the trustees with full minutes being taken. The trustees are charged with seeing that the trust is managed in a responsible manner and produces accounts which are independently audited. As the Trust's income is small, it is exempt from reporting to the Charity Commissioners.

Managing the Collection

The Trust's collection is large enough to be of national significance. So it is important that it is well managed with a clear structure in terms of:-

- Cataloguing to a high standard,
- Having an inventory,
- Proper storage to museum standards,
- Supervision for conservation and access.

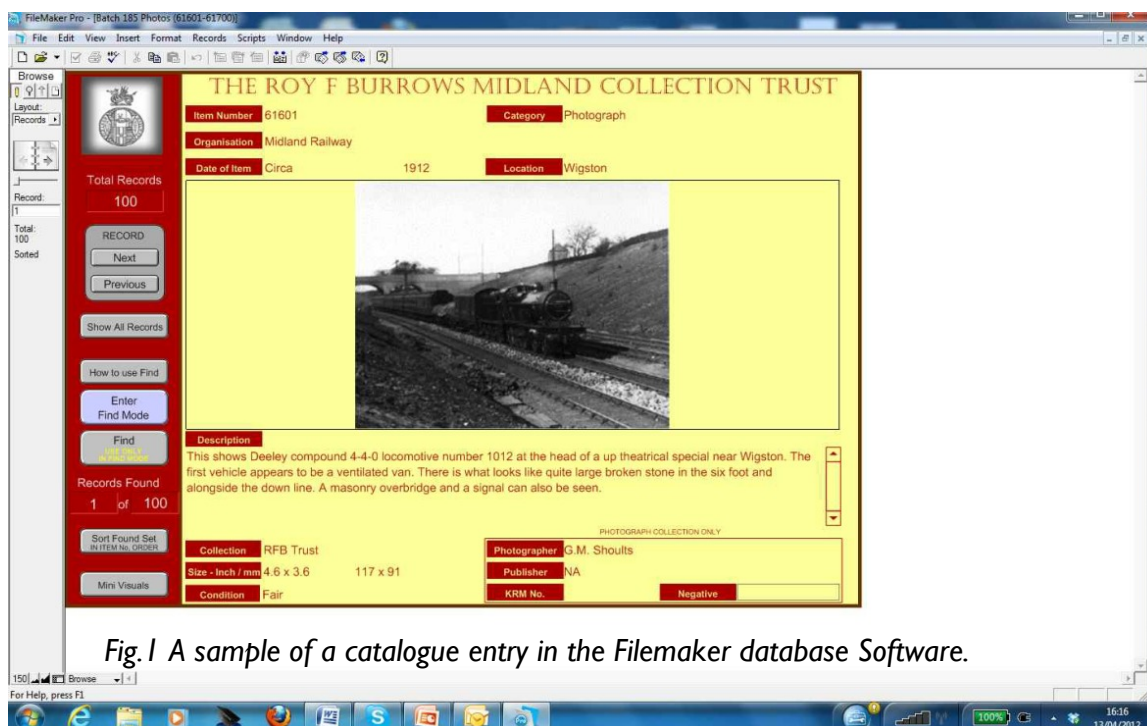


Fig.1 A sample of a catalogue entry in the Filemaker database Software.

Rather than inventing his own system of cataloguing, Roy took on board the system which was currently in use by the West Midlands Museum Service. This he modified to suit the collection using the experience of David Postle of Kidderminster Railway Museum (KRM). The latter have a system based on the "Filemaker" database software (fig.1) and the Trust adopted this as their tool. The catalogue also forms an inventory.

With such a large and varied collection it is vital that the cataloguing is well structured and uses procedures which can be adopted by anybody who volunteers to do the work (although nearly all the cataloguing has been done by Roy and his wife Anne). To this end, Roy has devised a series of flow charts which define the cataloguing process.

Unlike some museums which catalogue to folder or box level (e.g. "box contains material relating to the Midland Railway signalling"), the Trust's collection is catalogued to single document level. This facilitates the search for items by researchers who can identify exactly what is available. Also, thanks to Dave Harris, the Study Centre manager, the search can be done online, remote from the Study Centre.

All items are stored to recognised museum standards using, for example, acid free sleeves, where appropriate. Items which are fragile are identified as such in the catalogue and are not generally available. This is a particular problem with timetables which were intended to be ephemeral items and are one of the things that researchers most wish to consult. That said, the Trust aims to make as much of its collection as possible, available to researchers and the general public. A considerable amount of work has been done to examine ways of making the content of documents available without the need for handling. The obvious answer is scanning, but the bright lights used degrade the structure of paper and the handling of the documents produces damage, either by being placed flat on a scanner or having the spine removed so it can be put through an automatic page feeder. Photography using a digital camera and subsequent adjustment of the image using advanced software to remove distortion near the spine produces good results but is very time consuming.

Restoration

Whether or not an item should be restored is always a difficult question. Many within the railwayana community believe, for example, that an item that comes from a locomotive has more value if it is in the condition it was in when removed, rather than it being cleaned up and if necessary repainted. The Trust has generally not followed this route and items are, resources allowing, restored. The argument in favour of this is that in Midland Railway days, things were generally clean and well maintained, and the collection should reflect this.

With documents, we have looked at technologies such as encapsulating pages in thin silk. This leaves the text entirely legible but greatly increases the thickness of the original, is expensive and requires the spine of the document to be unbound or broken.

Finance and Future Challenges

For any small organisation, such as the Trust, finance tends to be a tricky issue. To date we have been lucky in that we have been bankrolled by Roy Burrows. This source of funding will cease on Roy's demise so the Trust will need some new sources of income. Achieving this is a major challenge. A business plan is in place but has yet to be implemented. This should be done within the next year.

One of the reasons the Trust needs additional income is to continue to enhance the collection. Items of interest crop up every year and these tend to be expensive because of their rarity. However, the trustees feel it is important that every opportunity should be taken to acquire items which render the collection more complete. The trust is always looking for opportunities to make its collection more widely available. This includes loans of items to outside organisations

but only when the items will be on display to the public and preferably with suitable material around to explain their significance.

Summary

The Trust manages and controls a collection of national significance which has been brought together by one man. The collection is available to the public in the Midland Railway Study Centre together with the collections of the Midland Railway Society and Derby Museums Trust. Although the trustees are all amateurs, the collection has been catalogued and is stored to museum standards.

TRAP becomes the Transport Archive Register

Grahame Boyes, Keith Fenwick and Tony Miller

The Tracking Railway Archives Project was established in 2000 as a joint initiative of 21 railway societies. Its initial purpose was to ensure that A2A (the Access to Archives on-line catalogue of archives in England and Wales), then being created, did not ignore the needs of railway historians. In the following months TRAP volunteers marked-up 3,600 pages of paper catalogues of railway records held in 45 county record offices and the National Railway Museum, in preparation for them being keyed-in to the A2A database. As a result the A2A catalogue included from the start a large quantity of railway records. And in the process, those who had been closely involved learned the language and methodologies of the professional archivists.

Following this success, the project team then gave thought to how this expertise could be used for the further benefit of railway historians. Out of this came the present project that we are demonstrating today. We were aware that there were many more collections, of considerable potential value, that were little known — or even unknown — perhaps because they were in lesser-known repositories such as local history libraries or museums, or perhaps because they were located remote from where one might expect to find them. The TRAP website was therefore created to provide a portal to these under-utilised sources, the aim being to describe these collections in just enough detail to enable researchers to identify where they might find the sort of material they are looking for.

For a mixture of reasons it has progressed only slowly. The National Register of Archives, which was originally hosting the site, was absorbed into the National Archives, and as a result the project and the website are now hosted by the Railway & Canal Historical Society. This has led to a decision to widen its scope to include canals. And consequently we are now re-naming it the 'Transport Archive Register', with the subtitle 'Where to find Railway and Canal Records'.

A2A was frozen some time ago, but we are aware that, during the intervening years, there has been continuing work on cataloguing more collections, including some important collections held by railway history and railway preservation societies. With no plans for adding any of this newly-available material to A2A, the gap that TRAP needs to cover is becoming ever wider.

We are therefore very pleased to have been invited to make this presentation, so that we can increase awareness of what we have done and are aiming to do. We would welcome ideas for developing the website. As well as adding details of archives held in record offices, libraries and museums that are not in A2A, we should particularly like those railway societies with their own archival collections to work with us to add descriptive details about them to the Register.

Description of the Transport Archive Register (To find the Register go to www.trap.org.uk)

The Register at present mainly covers railway- and canal-related records. This reflects its origins and the practical problems of expanding it to cover the wider transport field, but there is no reason why this might not change in time.

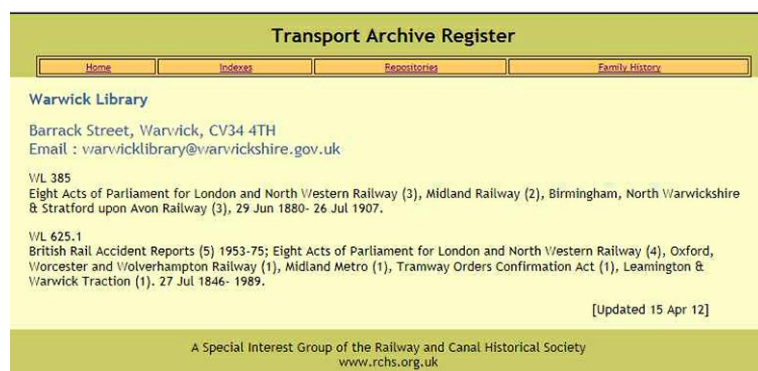
The home page outlines the scope of the Register and gives links to the national catalogues: TNA, A2A for England, ANW (Archives Network Wales) and SCAN (Scottish Archives Network).

From the home page, direct access is given to the list of Repositories covered by the Register and also to a page of general advice for those researching family history.

A series of Indexes allows researchers to home-in on the archives which may have material of interest to them. This may be for a particular railway, or for a particular subject, geographical area or person. All these indexes list the repositories with relevant material and provide direct links to the each relevant archive descriptions. This in turn provides a link to archive's on-line catalogue, where this exists.



Two example screen shots of archive descriptions are given below.



...Continued

Transport Archive Register			
Home	Indexes	Repositories	Family History
North Eastern Railway Association Collection Ken Hoole Study Centre, North Road Station Museum, Darlington Archon Web site www.ner.org.uk Email : librarian@ner.org.uk			
Photographs C80 albums of photographs of locomotives (including industrial locomotives), carriages, wagons (including private owner wagons), uniforms, mileposts, snowploughs, accidents, stations, bridges and topography of the NER and the NER area. Also the centenary celebrations of 1925 and 1930. Pre 1948.			
Rule and instructions books Stockton and Darlington Railway and NER Rule Books, 1854-1920. Books and pamphlets of instructions to staff issued by the NER, LNER, BR and Railway Clearing House, 1898-1992, including: Consolidated Index of Traffic Agreements (1906-1992); signalling circulars and signal box operating instructions (1898-1923).			
Reports and accounts Derwent Valley Light Railway annual reports and accounts, 1971-78.			
Locomotive diagrams C180 diagrams and general arrangement drawings of locomotives, chiefly issued by NER and LNER, pre 1948.			
Carriage diagrams C80 diagrams and drawings of NER and LNER carriages, including official diagrams issued by NER and LNER.			
Wagon diagrams C130 w/wagon diagrams, chiefly Hull and Barnsley Railway, NER and LNER, including official diagrams issued by NER and LNER.			
Gradient diagrams 27 Hull and Barnsley Railway and NER gradient diagrams, some also showing curves and speed limits.			
Siding diagrams 6 volumes NER siding diagrams.			
Signalling diagrams 27 Hull and Barnsley Railway signalling diagrams, 1907-23.			
Working timetables NER, LNER and BR working timetables, 1895-1991. 43 items			
[Updated 13 Apr 12]			
A Special Interest Group of the Railway and Canal Historical Society www.rchs.org.uk			

The Editor apologises for the poor quality of the reproduction of these screen shots - despite his best efforts he could not produce them at any better quality. Please visit www.trap.org.uk to see the real thing.

You want to give us how many razors ? Accommodating large collections of artefacts.

Dr Joan Unwin

***Archivist to the Company of Cutlers in Hallamshire
Honorary Research Fellow, The University of Sheffield.***

Abstract

During the 1990s, a collector began giving some of his collection of open razors to the Company of Cutlers in Hallamshire. When he died, he had willed the remainder to the Company, totalling 1,400 razors. In the 1940s, a generous benefactor bought a collection of silver and gave it to the Company - nearly 230 Sheffield hallmarked pieces of silver. In the late 1950, over sixty hunting knives were given to the Company. This paper will explore the benefits and problems created when large numbers of similar items are given.

This paper was given at a conference organised by The Business Archives Council and The Historical Model Railway Society in Derby, April, 2012. The conference title 'Archives, Artefacts, Amateurs and Academics' attracted me because it very neatly summed up my work. I am an archivist and academic dealing with artefacts, as well as meeting and working with amateurs. 'Amateurs' in this context is taken to mean people who have knowledge about specific subjects, driven largely by enthusiasm or by collecting things. I welcomed the opportunity to talk about large collections of artefacts given to the Cutlers' Company by amateurs and collectors.



Figure 1. The Cutlers' Hall, Sheffield, built in 1832 and extended in the 1860s and 1880s.

The Company of Cutlers in Hallamshire

The Cutlers' Company was established by an Act of Incorporation in 1624, initially to control the organisation of Sheffield's cutlery trades, by limiting apprenticeships and controlling work practices in the manner of mediaeval guilds. From 1860, it admitted steel and tool manufacturers as Freemen. The Company has always been active in lobbying governments and representing local manufacturing interests. It defends the name 'SHEFFIELD'.

The Company is based at the Cutlers' Hall in the centre of Sheffield, opposite the parish church, now the Cathedral. There have been three Halls on the same site since 1638 and the present Hall, built in 1832, is a Grade II* listed building. It is the venue for the Company's grand occasions and home to its incredible collections, much of which has been given as gifts. The Company's collections include furniture, cutlery, paintings, silver and archives. They cover the period from the 17th century to the present, with storage chests from the early years of the Company; knives dated to the 1660s; Sheffield hallmarked silver from the start of Sheffield's Assay Office in 1773 and a piece hallmarked in 2011. About fifty portraits of locally important people adorn the walls of the Hall and the safe contains an unbroken run of the Company archives from 1614.

The Rodwell Razors

Retired Naval Commander Rodwell had an interest in open razors, which he seems to have started to collect in the 1970s, apparently acquiring them in antique shops. From the papers accompanying his collections, it is possible to trace the way he assembled the collection. He appeared on local radio and in newspaper articles describing his collecting, which resulted in people sending him their old razors. His aim was to collect examples of products from as wide a range of manufacturers as possible - from Sheffield, the rest of the UK, Europe and the Far East, using trade directories for information. His razors were not of the first quality and he attempted some restoration, contacting Sheffield manufacturers for help.



Figure 2. Boxed pair of open razors with ivory scales, made by Mappin and Webb, Sheffield. (CC ref. 050146,147)

In the late 1980s, he approached the Cutlers' Company and offered his collection - it subsequently appeared that he also gave a small number to the Worshipful Company of Barbers in London. Between 1989 and 1996, Commander Rodwell sent about 350 Sheffield-manufactured razors to the Cutlers' Company in twenty-four batches, which included single razors, pairs and seven day sets. When he died in 2008, the Commander's son contacted the Company saying that his father had left the remainder of his razors to the Company - which resulted in a collection of about 1,400 razors.

The razors sent to the Hall in the 1990s were in reasonable condition and many are on display, but a number of those bequeathed in 2008 were in a poor state. An attempt had been made to prevent rust, by oiling the razors and wrapping them in tin foil. Not a good idea.



Figure 3. Razors treated with oil and wrapped in tin foil.

This remarkable group of open razors typifies a collector's strengths and weaknesses. The collection has a large number of 'ordinary' razors, which have value in the evaluation of styles and material, blade shapes and handle styles. The non-Sheffield razors are useful for comparison. The accompanying papers listed the first 900 razors simply by manufacturer or merchant, with attempts to quantify and analyse the collection on the basis of these manufacturer. As well as some documentation, there are associated items, such as unused scales for the handles, strops, hones and a few early safety razor blades. On the minus side, there are many similar razors; some in poor condition, which makes display a problem and there is a serious health and safety issue in handling the razors.

A Collection of Hunting Knives

Very little is known about a collection of large knives given to the Company in 1957 by the Neepsend Steel and Tools Co. Ltd, Sheffield. There is no information as to the origin of the knives or why they had been assembled. They were unusual examples of local and foreign manufacture and were intended for both local and foreign markets. They date from the late 19th and 20th centuries and some seem be intended for decorative display.



Figure 4. Hunting knife made by Joseph Beal. Overall length 33cm, the tapering blade is engraved with a foreign river scene; the handle is carved and turned wood in three sections. (CC ref. 020032)

The group is an eclectic mix of 'hunting knives', knives used in crop harvesting and some intended as weapons. There is a wide variety of blade styles and includes examples of 'Bowie' knives and in size, the collection ranges from small daggers, a few inches long to machete-type knives. Some are Sheffield-made, notably by the firm of Joseph Beal and carry their trademark of a boar's head. There are knives made by foreign makers, as well as many obviously intended for foreign markets and having non-English words on the blade. Many have attractively worked and decorated handles using an array of materials, from wood, pearl, ivory, metal, horn and stag antler – attractive but impractical.

Again, there are plus and minus points to consider. This unusual and varied collection encompasses an assortment of styles and materials, giving an insight into a niche market of knife collecting. But there is no accompanying documentation and there is the whole issue of 'the knife culture', which makes displaying these knives problematic.

Sir Stuart Goodwin's gifts

Sir Stuart Goodwin was one of the most generous benefactors in Sheffield in recent times. He was knighted in the Coronation Honours, 1953 and it is estimated that he gave away more than £500,000. Stuart Goodwin became a member of the Cutlers' Company in 1943 and, in 1945, he bought the Bradbury Collection of silver, which he gave to the Company.

In 1945, the personal collection of Frederick Bradbury of Thomas Bradbury & Sons, Sheffield silversmiths, was auctioned. This collection was noteworthy, in having at least one piece of silver hallmarked in every year since the Sheffield Assay Office opened in 1773 and up to 1840. The collection represented a wide range of domestic objects from candlesticks to teapots and jugs, demonstrating a variety of decorative styles. Having the Bradbury collection, which had examples for every year, the Company's desire was to bring the collection up-to-date, i.e. from 1840 to 1945, and the idea of a 'Year Piece' developed. The Company then searched out silver items hallmarked between 1840 and 1945. This did not meet with any enthusiasm from Bradbury who was not keen on Victorian silver, but the Company went ahead. The sequence, 1840-1945, was not actually completed until 1999, when the Lord Mayor of London, Lord Levene, presented the Company with an inkstand - the 'missing piece' for 1847.



Figure 5. An inkstand made in 1847 by Henry Wilkinson and Co.- the 'missing piece' for 1847. (CC ref. 010786)

Obviously, the Company needed to acquire new pieces each year to maintain its unique collection. Stuart Goodwin had established a trust to enable the Company to buy Sheffield assayed pieces for any missing years since 1773, but the trust also provided for an annual Goodwin Silver Competition. This competition, open to Sheffield silversmiths and art students, ran until the 1980s, when funding could not keep up with costs, and gradually the tradition of retiring Masters Cutler giving a piece of silver at the end of their term of office, became established. The Company now has over 600 silver items, almost all hallmarked in Sheffield, including pieces commissioned for celebratory events.

There are very obvious plus points for the Company in having this unique collection of Sheffield hallmarked silver. The prestigious display enhances the Cutlers' Hall and it is an inspirational resource for students, but this comes at a price. There was little documentation from the collector as to the provenance of the items. The costs are high in order to insure and securely display the items, as well as for cleaning and routine maintenance.

Summary on accommodating large collections.

Acceptance of such gifts has to coincide with the collecting policies of the organisation. The 'value' of a collection can be judged using various criteria. A collection's aesthetic value provides the 'wow' factor for the public and its financial value offers an investment to the organisation and increases its pride in its possessions. The collection may have rarity value – not only as 'one-offs' but as examples of extinct manufacturing processes. Historical and social value of items is an increasingly important criterion in showing how we used to live and engaging with people who can often say, 'We've got one like that!'

Large collections cannot be judged just on quantity versus quality; large collections should be more than a sum of the parts.

Acknowledgements :

The Company of Cutlers in Hallamshire for permission to use the collections and images.

Editor's Note:

Dr Paul Sillitoe was booked to attend and address the Workshop, but for reasons beyond his control he was unable to do so. He had however, submitted this written paper and whilst it obviously was not presented, I have taken the decision to include it in the Proceedings. In my view the paper addresses an area which is not only relevant to the subject matter of the workshop, but also to ongoing debates in the wider archival sphere.

Can You Read This?

The Instruments of Power Project: Enhancing archival interpretation and research uses of technical drawings

Dr Paul J Sillitoe RMARA

Instruments of Power aims to develop new ways to make technical drawings more accessible for researchers, by making them more understandable for archivists. The project follows on from recently completed doctoral research. (1) The theoretical findings of the PhD thesis will now be transformed into practical guidance for, and in consultation with, archivists and researchers.

Archival research values of technical drawings

A technical drawing's purpose is to communicate, to known standards, the information that is required to produce, operate, maintain, or record a physical artefact. Technical drawings graphically represent such information more concisely and coherently than is possible through a textual description – literally, 'a picture tells a thousand words'.

Archival technical drawings therefore facilitate historical research by encapsulating information in ways that texts alone cannot. Some such drawings record historically engineered infrastructure, products, and processes that still require care and management. (2) Other archival technical drawings represent historic transport, machinery, and buildings that have long gone out of use, but have become foci for model engineering, enthusiast restoration, industrial archaeology, or heritage conservation. (3)

Archival problems for technical drawings

Yet technical drawings pose problems for many archivists – especially those who have little engineering or science background knowledge. (4) Firstly, the graphical conventions of technical drawing are a special language with different dialects and many accents. (5) If archivists do not understand the language, they cannot start to understand properly what the data in a drawing represent. (6) Secondly, technical drawings often illustrate objects or processes within specialist subject areas that are unfamiliar to archivists, and expert advice is not always available. Thirdly, data that indicate a technical drawing's contexts of creation and use can be hidden within the drawing's often complex structure. Finally, many technical drawings exist in multiple copies, used or re-used in similar or different contexts. Some might be found in aggregation, others

individually, divorced from any apparent context. (7) A technical drawing's status as a reliable record might therefore be difficult to assess.

Given such difficulties, many archival technical drawings remain uncatalogued and inaccessible to researchers. At the same time, better-understood related textual records, of comparable research value, might be made available without their graphical counterparts. The archival resources for researching the histories of enterprise and business, and especially the products of engineering and industrial manufacture, are therefore unbalanced. Archival scholarship had not addressed these problems for technical drawings.

Enhancing understandings of technical drawings

Every technical drawing typically possesses an abundant range of physical and intellectual data elements. Physical elements include, for example, a drawing's size, the material of its support medium, and the process by which the drawing was created. Data for some such physical elements might not be tangibly apparent, necessitating data extraction by inference rather than by direct observation.

Intellectual elements include, for example, the languages used, the presence of amendments and annotations, and the use of certification signatures and dates. Many such data elements might be recorded using special conventions that are quite different from those used in other types of record. Data might again be hidden, but now intellectually, rather than physically.

Within diverse technical drawings, data for some physical and intellectual elements will always be available in every drawing. Many data elements, though – especially intellectual elements – are only present in less than 100% of drawings. Even if they are present, different technical drawings often display those types of data in different ways – some times textually, sometimes graphically, and frequently in different places within a drawing. Moreover, the terms used to express such data are inherently those of the designer or engineer – often quite unlike those of the archivist.

Nonetheless, I hypothesised that archivists did not need to search for, or understand, every data element within a technical drawing. They only needed to be able to extract the key information that they required for appraisal and description. Much of that information is of the same type as that required for any more conventional genre of record – the name of a creator, a date of creation, and scope and content, for example.

The aim of the PhD research was therefore to discover whether sufficient key information could always, or almost always, be found within a technical drawing, no matter what its subject, form, or function. Such generic information, if identified and described, could form the basis for practical guidance to a better understanding of technical drawings.

In summary, the problems to be investigated therefore were:

1. How could a technical drawing best be broken down into a set of data elements that represented the drawing's individual physical and intellectual characteristics?
2. How could those individual physical and intellectual characteristics best be expressed in terms relevant to archivists?
3. How could the frequencies of occurrence of those individual terms within a technical drawing be robustly measured?
4. How could those individual terms that were always, or almost always, present in a technical drawing be assessed for their value to archivist and researcher understanding?

Diplomatic analysis

A new development of diplomatic analysis was conceived as the theoretical lens through which the first problem would be addressed. Diplomatic is a form of textual criticism, first described in the late seventeenth century. (8) It was used then to help authenticate or disprove disputed grants of monastic privileges – diplomata. In diplomatic criticism, a text is viewed as comprising many ‘internal’ and ‘external’ elements, which, in combination, represent the text’s physical and intellectual make-up.

Diplomatic was widely developed and applied over the next three hundred years, but still only to textual records. The most significant expansion to traditional diplomatic theory came late in the twentieth century, (9) with an innovative development for its use with records created in electronic environments. (10) However, diplomatic had still not been applied to graphical records such as technical drawings.

The PhD research made that leap. Diplomatic theory was extended to allow the creation of data elements that were appropriate to technical drawings. Other developments were made to accommodate technical drawings that originated as reprographic reproductions – clearly a form of production not envisaged in traditional diplomatic theory. Some limited use was also made of archives and records theory, especially in relation to the concept of context.

Language

Language was to be the key to making technical drawings more understandable to archivists. Using British Standards for technical drawing, (11) a comprehensive set of data elements was created, representing physical and intellectual characteristics likely to be found within a technical drawing. This initial Data Definition Model provided a theoretical view of a technical drawing using the technical terms normally to be found within it.

A second Data Definition Model was then created using the terms derived from diplomatic, archives, and records theory. Those two models were then mapped to one another, to form an Interdisciplinary Data Definition Model. Within the model, technical terms could thus be viewed in terms familiar to archivists, and vice versa. The language barrier had been overcome.

Statistical survey

This Interdisciplinary Data Definition Model was still a theoretical one. However, the theoretical terms had great practical value for the investigation of the third problem – determining the frequencies of occurrence of individual terms within a technical drawing. The terms provided a solid foundation for the statistical survey of a sample of technical drawings that was next undertaken.

The PhD research focused on manually originated technical drawings, in Britain, between the 1920s and the 1980s. That period led to the wide-scale replacement of hard-copy drawings by outputs from computer aided design (CAD) systems. It was considered that drawings of this period would be some of the most highly developed and complicated that archivists were likely to encounter.

The core of the research therefore comprised a detailed quantitative survey and analysis of a statistical sample of complex technical drawings. The population to be researched was sampled (12) from a large and diverse aggregation of technical drawings from British commercial vehicle manufacturers. (13) The survey statistics, results, and findings can therefore be directly inferred to that technical drawings’ population. (14) They can only be generalised with decreasing validity and reliability to other technical drawings’ populations. However, the general engineering nature of the sampled drawings places them towards the centre of a broad spectrum of subjects likely to be found represented by many other technical drawings.

The survey had two complementary objectives. Firstly, it identified and counted the frequencies of occurrence of individual data elements that had already been identified from theory. Secondly, it enhanced the Interdisciplinary Data Definition Model by adding to or amending those theoretical elements, in an iterative process. The final result of the survey was a robust count of the number of occurrences of every physical and intellectual data element that was found within the sample. At the same time, the Interdisciplinary Data Definition Model had been converted from a theoretical model to an empirical one.

Results and Analysis

The survey investigated 642 individual data elements across the 400-drawing sample. Some quarter of a million individual pieces of data were therefore collected. Of the 642 data elements surveyed, 268 provided data of sufficient importance to warrant further analysis. They were aggregated into seventy-four sets of reported results.

Of those seventy-four sets, thirty-four occurred in all or almost all cases, (15) and were considered to be potentially useful to archivists' and researchers' understandings of technical drawings. The intellectual information that those data sets contain includes, for example, that for drawing provenance, subject matter, depicted content, scale, and original referencing. In addition, a technical drawing's support and process media and materials can be identified at a high level, while data for support dimensions, orientation, and format are ubiquitous.

Forty further aggregations of data elements were identified as occurring less frequently within the sample. They have potential to be useful to understanding if they are found to occur more frequently in other samples of technical drawings.

The research outcomes also went beyond the mere identification of generically useful information. They included, for example, where such data elements might be most commonly found located within a technical drawing, the forms in which they might appear, and the labels by which they might be indicated. Such interpretations provide underpinning for the practical application of this research in published guidance. Archivists would then have a tool with which they could more confidently make processing decisions about technical drawings. Researchers would benefit from the improved archival management of technical drawings that such increased confidence should bring about.

Consultation and Practical Guidance

Consultees are now sought to help assess the reported results, and their practical utility in understanding technical drawings. The consultation will be held principally online. It is anticipated that the results will be made available in groups, each with a commentary and some questions. Consultees will be asked for their views as to which of the generically useful information would be of most value to their understanding of technical drawings, either as an archivist, researcher, or both. Wider comments would also be welcomed. Those views will be used to inform practical guidance to the understanding of technical drawings that is proposed to be published as the principal outcome for the *Instruments of Power* Project.

If you would like to participate in this consultation, or seek further information, please contact: paul@sillitoe-uk.net

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(1) The PhD research upon which this project is based was funded by the Arts & Humanities Research Council, and was undertaken at the University of Liverpool: P. J. Sillitoe, 'Instruments of Power: Developing and Applying Diplomatic Analysis to Enhance Archival Interpretation and Research Uses of Technical Drawings', PhD Thesis (University of Liverpool, 2011). This follow-on project is independently undertaken and funded.

- (2) For example, the historical infrastructure of the canals network, much of which is still in use more than two centuries after its construction.
- (3) See, for example: C. J. Heap, 'Engineering Drawings – their Selection, Storage and Use', *Business Archives: Principles and Practice*, 63 (1992), 41-2, 47; J. Sime, 'Technical Records: The User and His (sic) Needs', in *Proceedings of the Annual Conference, 1983* (Business Archives Council, 1983), 64-80. The British Steel Archive Project intended to use its 'plans' of 'iconic and recognisable structures' to promote a newly catalogued archive: J. K. F. Heggie, 'The British Steel Archive Project: Forging New Kinds of Partnerships to Preserve Significant Business Archives', *Business Archives: Principles and Practice*, 98 (May, 2009).
- (4) G. E. Gorman and P. Clayton, *Qualitative Research for the Information Professional: A Practical Handbook*, 2nd ed. (London, 2005), 15.
- (5) K. Baynes and F. Pugh, *The Art of the Engineer* (Guildford, 1981), 15; H. Belofsky, 'Engineering Drawing: A Universal Language in Two Dialects', *Technology and Culture*, 32, 1 (1991), 23-46; J. K. Brown, 'Design Plans, Working Drawings, National Styles: Engineering Practice in Great Britain and the United States, 1775-1945', *Technology and Culture*, 41, 2 (2000), 195-6, 235-7.
- (6) E. S. Ferguson, *Engineering and the Mind's Eye* (Cambridge, MA, 1992), 87-8.
- (7) Heap, 'Engineering Drawings', 47.
- (8) Dom Jean Mabillon's pioneering *De Re Diplomatica* [Concerning the Matter of Diplomatic] (Paris, 1681) introduced the use of the term 'diplomatic' in this sense.
- (9) For a succinct summary of the history and development of diplomatic, see: C. Williams, 'Diplomatic Attitudes: From Mabillon to Metadata', *Journal of the Society of Archivists*, 26, 1 (Apr, 2005), 1-24.
- (10) L. Duranti, *Diplomatics: New Uses for an Old Science* (Lanham, MD, 1998). The main body of this text was originally published as six journal articles, between 1989 and 1992. The six articles were republished in book form, with a new Introduction, in 1998.
- (11) Principally, the BS 308 series British Standards for engineering drawing [office] practice during the period 1927 to 1972. The BS 1192 series for architectural and building drawing [office] practice was also used, as were other British Standards to furnish data for drawing sizes, drawings' media, and drawings' requirements for microform reproduction.
- (12) A complex sampling strategy was required, for a population size $N \geq 65,000$, sample size $n = 400$.
- (13) Access to these drawings was kindly facilitated by the Trustees and Director of the British Commercial Vehicle Museum, Leyland, by Bruce Jackson, County Archivist, Lancashire, and by Richard Myring, Project Archivist.
- (14) Confidence Interval +/- 5 percentage points, Confidence Level 95%.
- (15) A frequency of occurrence of 91% or greater was considered to be sufficient to classify a data element as 'almost always' occurring.

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British Standards

The quantity and range of British Standards used precludes their citation in full here. The two series of particular note are:

British Engineering Standards Association / British Standards Institution. BS 308 series of British Standards for engineering drawing [office] practice, 1927 –1972.

British Standards Institution. BS 1192 series of British Standards for architectural and building drawing [office] practice, 1944 –1969.

Archives, Artefacts, Amateurs & Academics -Alliance or Atrophy?

***Dr Roy Edwards – University of Southampton
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Abstract

In the UK and Europe the financial climate and public sector cuts are impinging on the museum, libraries and archives sector. Examples include: the Local Authority owned Silk Mill Industrial Museum in Derby with its important archives and collections was “mothballed” in April 2010. From France Marie-Noëlle Polino reports that the Cie des Wagons-Lits collections, carefully conserved by a society of amateurs and former WL employees are to be sold by the company's new owners.. We suggest that we stand at a crossroads and urgently need to address ways in which the Academy and the Amateurs can better use their knowledge to protect the transport heritage.

Much is being done by societies of transport and technology enthusiasts, to maintain, archive, document, and preserve the transport heritage legacy of the UK and Europe. In the UK some of these societies have taken advantage of Apprenticeship Schemes and are training young people to continue the work. In particular “Modern Image” preservation has a younger age profile. But the pool of professionally experienced volunteers in all fields is ageing and action must be taken, particularly to maintain the records of transport companies.

How can the community of amateur historians and enthusiasts work with those in the academic/education community to ensure that these records will be available for future generations to use? How best can the community of archivists, enthusiasts and academics engage to facilitate the use of records and ensure ‘private’ collections are kept safe? Can we spread the use of such records to include school education?

The survival of records and artefacts is best ensured by their use, NOT just by the academy but in the wider educational community. The history of business, of technology and of the two combined is an effective tool to encourage the young to enter these professions/crafts. Crucially, we need to think how best we can engage with the wider public and tell the stories of business and technology. This paper seeks to address these issues.

Paper

The study of economic history has died a death in England. Only the London School of Economics has an independent department, those at Kent, Leicester, and East Anglia have long closed and staff absorbed into economics or history departments, depending on their expertise. The rise of the ‘Research Excellence Framework’ has led to lists of ‘approved’ journals’ often based on spurious correlations of alleged quality. In this world of four journal submissions per period, a scholarly monograph of 80 to 100, 000 words is deemed to be the equivalent of a 6-8,000 word article placed in the ‘right’ journal. Indeed one of your authors has been told, ‘anyone can get a book published’.

This matters to the theme of the paper because economic/business history is labour intensive. It relies on integrating theory and practice, perhaps with quantitative analysis, and based on archival evidence rather than running a variety of numbers through econometric models. History requires locating archives, exploring the background to the business/industry/technology, and interrogating the documents. This often results in having to change comfortable theoretical assumptions and to explore new leads, in other archives.

We would argue that this matters because business/technological history matters. It has much to contribute to debates on re-balancing the British economy, the origins of environmental change, and debates on technology and society. History has also been of importance in interpreting the role of banks in the recent financial crises. We also are aware of the fact that irreplaceable business archives including the collected artefacts of some businesses are, as we write, being broken up and in some cases sold to the highest bidder. It is salutary to note that on 11th May 2011 the Railway Gazette reported:

FRANCE: Having disposed of its remaining train catering interests to Newrest last year, the French Accor hotels group has now announced plans to dispose of the historic assets that it acquired with the takeover of the Compagnie Internationale des Wagons-Lits. The company has called in Christies to auction off the Wagons-Lits collection of posters, crockery and glasses in a sale expected to raise between €3m and €4m. (1)

The biggest items in the sale, which is likely to take place in Paris or London later this year, will be seven remaining coaches from the Wagons-Lits fleet, which have been leased to SNCF's charter train subsidiary Trains Expo for the last 18 months. Indeed, two of the company's former Orient Express vehicles are reportedly scheduled to form part of the Littéra-tour exhibition train being organised by the Ministry of Culture, which will be roaming the French network between May 26 and June 7.

In the straightened economic times of 2011, other collections that we had previously thought "safe" such as Derby's Silk Industrial Museum, have been at very short notice, "mothballed". Whatever that term "mothballed" may mean, in the long term, it currently means that the Museum is closed, except for certain days when the "amateur" Midland Railway Archive that has a lease on part of the building is open. This lack of public access to what was a definitive record of the main technologies developed over the industrial history of a major city like Derby troubles us.

Given the visitors attracted to Heritage sites, the public are just plain interested in technology and business history, although the latter is especially poorly served by the media and education. It is salutary to go through the television programme listings of 'In Our Time', presented by Lord Bragg in the UK. There have been programs on the alphabet, Marx and capitalism, material culture and two on the industrial revolution. Chaos, blood, Darwin and dreams have also figured under those programs listed as science. There has been discussion of information technology and nuclear physics (not engineering) and Thomas Edison. If we were to be cynical, or even uncharitable, these would be the obvious contenders for those uninformed about business and technology in human history. Yet technology and business have radically altered how those in the West and even the Third World, live. It is the source of the wealth that succours scientific enquiry, the arts, literature and philosophy. Yet there seems almost an embarrassment surrounding this. Technology and business are very nearly subjects that dare not speak their name. "Ah! but," we hear our readers say, "The Society for the History of Technology is thriving, so is T2M." So they are and mightily too, but does the output of their scholars reflect the fact that without business or military funding, technologies that are now commonplace would not exist? Is the history of business involvement in technology given its proper place? We think not.

Education is not much better. A levels and degree programs in the history of art and of science abound. But of technology, of business history? As far as the authors can tell there are no history of technology programs in the UK apart from Imperial College (and this focuses on the sociological/cultural rather than technical elements) and business history has never had a dedicated degree program.

And yet there is an opportunity here. Manufacturing is suddenly important again, and engineering is being seen as the saviour of the British economy. But still history is neglected. Evan Davies' recent program 'Made in Britain' broadcast on the BBC this year, was history light, and much journalism remains a-historical even when discussing the dynamic of business and its role in the economy. Yet as historians we know how history relates to the present and can inform the future. Perhaps it is time to look away from the academy and toward the wider education of children and adults. Given both the increasing financial constraints, and the unsympathetic treatment of our scholarship by the REF in Britain, we need to find support elsewhere.

Of course there are other reasons to engage with this wider constituency. Because individuals lack formal qualifications, this does not mean they are incapable of understanding the academic debate. The public worked in business, so oral history may be collected to re-enforce the archival record. While research is accorded supposed priority, it is somewhat ironic that recent calls to monitor 'impact' met with a furious reaction from academics. We have very little faith in what vice chancellors or governments might do with a set of impact metrics, but given public funding, historians should be able to justify research in history and the social sciences as either informing public debate, or telling an interesting story. The fashion for 'social science' in business history has to some extent marginalised the immensely important role of the story. The 'social science' method, though a worthy pursuit in its own right, can lead us away from considering the core story as represented by the prime source evidence. The centrality of such stories to our interpretation of evidence, and understanding of the historical process needs, in our view, to be re-stated. It is also the attribute of our profession that the wider public most identifies with. The question is how best to tap into this vein of interest?

The role of the Amateur

Both of the authors are members of the Historical Model Railway Society (HMRS). This educational charity has as two of its objects "...the study and recording of information relating to all the railways of the British Isles; public education on matters concerning railways of the British Isles." We are aware of the large number of archives and collections of artefacts in the hands of the HMRS housed in a large purpose built building to which both members and the public, have, by arrangement, access for the purposes of study. Other charities, heritage railways (in Britain and the rest of the world) also have archives and almost like the proverbial iceberg there are countless archival items and artefacts in private hands. Indeed, in early 2011 one of the authors was able, on behalf of a recently deceased HMRS member, Dennis Monk, and in compliance with his wishes for them to be placed in a national archive where they could be publicly consulted, to arrange that The Locomotive Books of Mr Samuel Johnson, (Chief Mechanical Engineer of the Midland Railway from 1873 to 1903), be deposited at the National Railway Museum. (2) These books, as a record of Capital Expenditure on, and Costs of Repairs to, locomotives give an insight into the working of the Midland Railway Company that had been thought lost. Mr Monk did business and economic history a great service when he, as a senior employee at Derby works, saved them from the fire.

Though most members of the HMRS, educational charities and heritage railways would not see themselves as business historians, the fact that they study, collect documents and artefacts in pursuit of their hobby, means that they have the raw material which is the stuff of life for business history. Though our examples thus far come from railway history sources, we hasten to say that the role of the enthusiast is not limited to this form of transport or industry.

An example of this is the National Forklift Truck Heritage Centre and holds artefacts and documents on this important form of mechanical handling. Its curator, James Brindley (*a famous historical name from another form of transport*) has followed an:

...interest in science and technology (which) began at an early age whilst still at school... has influenced a varied and interesting working life. It has also spilled over into his social life with the hands on building of two museums; one to house and exhibit steam and oil engines and the other a safe location from which to tell the story of materials handling. A varied working life has included service in the Royal Air Force and a career in engineering and management with a major forklift truck manufacturer. In 1993 he became a Director of the Fork Truck Association and in the same year was awarded a Science degree by the Open University. Having taken early retirement at the end of 1999 his main focus has been the care of the museums and the assembly of a comprehensive archive about the history of British and Overseas forklift truck manufacturers. (3)

Clearly Mr Brindley is an enthusiast, however, the collection he has put together is an important source for understanding the origins of the supply chain, and the history of mechanical handling.

The role of Education

The national strategy for archives launched recently in the UK perhaps affords an opportunity to introduce archives into mainstream education. At Keystage Three there are opportunities for archives, museums and heritage sites to make a real difference. The National Curriculum documents state that the curriculum should provide opportunities for pupils to:

appreciate and evaluate, through visits where possible, the role of museums, galleries, archives and historic sites in preserving, presenting and influencing people's attitudes towards the past"...

and a note adds...

This includes using museums, galleries, archives and historic sites to generate and answer questions about the past, and engaging pupils' interest so that they continue visiting and using them in their lives beyond school. (4)

The National Archives Education and Outreach Department has capitalised on this and runs very successful visits for schools where pupils of all Key Stages can interact with the real historical documents that they hold. However, Andrew Paine and his team, realising that a visit to Kew is not possible for all schools, have, together with South East Grid for Learning, developed videoconferencing as a means of bringing the archives to children. Their video conference programme is over subscribed and last year won the best schools videoconference programme award from Ja.Net.

With such promising shoots some may be tempted to be complacent. However we are conscious that political initiatives have a habit of changing rapidly and as noted below The National Curriculum for England and Wales is under review.

In an article in the Observer newspaper (28/082011), Labour MP Tristram Hunt notes the fall in the number of young people studying history at GCSE, the examination taken in the United Kingdom by school students at age 16. The National Curriculum for England and Wales for Key Stage 3 (covering the ages 11 to 14 years) states:

History fires pupils' curiosity and imagination, moving and inspiring them with the dilemmas, choices and beliefs of people in the past. It helps pupils develop their own identities through an understanding of history at personal, local, national and international levels. It helps them to ask and answer questions of the present by engaging with the past. Pupils find out about

the history of their community, Britain, Europe and the world. They develop a chronological overview that enables them to make connections within and across different periods and societies. They investigate Britain's relationships with the wider world, and relate past events to the present day.

However, the web page from which the above is taken is headed by the by a prominent box containing the following text:

The DfE (the United Kingdom Government's Department for Education) is conducting a review of the primary and secondary National Curriculum. This site contains the statutory programmes of study for National Curriculum subjects which maintained schools must follow until a new curriculum is in place. (5)

Prior to any change being made, History is not a compulsory study for school students beyond the age of 14 and only some 30 % of state school students study it beyond that age. This, we would contend, is worrying. As Hunt has put it,

This elimination of the past is nothing short of a national tragedy. We can rehearse arguments about the 'competencies' history provides – the ability to prioritise information; marshal and argument; critique sources. But such utility fails to do it justice. History is so many things: the material culture of the past; understanding lost communities; charting the rise and fall of civilisations. Yet history also provides us with a collective memory; it gives us a connection to place, time and community. And that sensibility is being lost. (6)

More importantly, knowledge of history is required to appreciate where we are now, as the past determines the possible option set facing economy and society, a notion familiar to economists as path dependency (history matters!). If economists at the Bank of England/Treasury had understood the past 100 years of industrial history, they would have realised that that a 20% devaluation in sterling is not enough to resurrect a manufacturing base hollowed out by global competition. Notions of somehow re-balancing the British economy should therefore be informed by an understanding of the past embedded in archives and artefacts.

The picture is not entirely bleak however. The Historical Association (HA) proclaims itself to be “the voice for History” and actively promotes public involvement in the subject. The HA offered Public History Committee Dissertations Prizes for the first time in 2011 and “the Chair of the HA Committee for Public History, Dr Andrew Foster, commented that it was encouraging to see such a varied set of entries in this first year of the competition, all of a high standard, well presented, closely argued and with excellent technical apparatus.” He went on to say that the range of topics discussed had been large and that it was interesting that the winner's topic “..perhaps appropriate(ly) at this time of need ..(had addressed) how archivists need to 'sell' their services to colleagues in the public sector, not to mention the wider public.” (7)

Neither are all archives, museums and heritage sites publicly funded, many, in a similar way to the Historical Model Railway Society's huge collection of drawings, photographs and documents are curated and made publicly accessible by enthusiasts. In many cases even large scale working transport artefacts are preserved, restored and used on heritage sites such as The National Tramway Museum at Crich, Derbyshire and the many preserved railways throughout the world. What your authors believe is necessary is that all these various groups should be aware of each other and become a part of an ongoing dialogue. We think that together professionals, academics, amateurs and enthusiasts can make a real difference, perhaps even moving to work together to ensure that the resources we have are secured, supported and sustained in order to maintain a public understanding of the past. Perhaps, if we work together we may be able to do something which as Hobsbawm states, shows our importance.

The destruction of the past or, rather, of the social mechanisms that link one's contemporary experience to that of earlier generations. is one of the most characteristic and eerie phenomena of the late 20th century. Most young men and women at the century's end grow up in a sort of permanent present lacking any organic relation to the public past of the times they live in. This makes historians, whose business it is to remember what others forget, more essential at the end of the second millennium than ever before. (8)

What more spurring do we need? Let us get on with the task.

Conclusion

Working together, one an amateur scholar and the other a professional academic has taught both of us a great deal. Each of us has been able to give the other insights on techniques and prime sources that we may never have discovered alone. This situation has changed praxis for both of us and will enable us to better understand each other. We have made positive steps by engaging the Business Archives Council and the Historical Model Railway Society in dialogue and action. Together and with both societies we are helping to organise a workshop in Derby on 20th and 21st April 2012, at which amateur heritage organisations, professional archives, industrial archaeologists and business historians will come together to discuss ways in we may together, strengthen, support and solidify our separate structures to enhance public access to the roots of history. We very much hope that this paper will form the beginning of a continuing, purposeful and empowering dialogue.

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