BRITISH STEEL COLLECTION

BRITISH STEEL ARCHIVE PROJECT

final report

APRIL 2008 - DECEMBER 2010

By:
Dr Joan Heggie
Dr Jenny Search
Rachael Kenny
Tony King
Karen Oxley
Sally Sculthorpe
Simon Sheppard
Zoe Stewart
Thomas Warwick
Angela Whitecross
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This project would not have been possible without financial support from the following organisations:

- Teesside University
- Teesside Archives (funded by Middlesbrough, Redcar & Cleveland, Hartlepool and Stockton-on-Tees Borough Councils)
- Corus Teesside Cast Products
- Heritage Lottery Fund
- Community Trade Union
- European Social Fund
- Arts & Humanities Research Council
- Economic History Society
- Royal Academy of Engineering
- Museum, Libraries and Archives Council
- Technology Strategy Board (skTP)

In addition, donations have been received from corporate and community organisations, as well as members of the general public.

We would like to thank all the staff at Teesside Archives who have worked hard to ensure the success of the project, in particular Janet Baker, Helen Kendall, and Ruth Hobbins, who have been directly involved in the planning and delivery of the project. Thanks are also due to the members of the Steering Group and Advisory Board for supporting the project and to the Friends of Teesside Archives for agreeing to take over the co-ordination of the volunteer programme in the future, thereby enhancing the level of support which can be offered to Teesside Archives in the future.

None of these achievements would have been possible without the commitment and enthusiasm of the project team and volunteers, the support of colleagues, family and friends, and the willingness of the public to become involved in a project which demonstrates the importance of Teesside’s industrial heritage, both nationally and internationally.
Aims of the British Steel Archive Project
The British Steel Archive Project (BSAP) was an ambitious programme with four main aims:

- **ACCESS** - To make the British Steel Collection accessible to the public via diverse activities including:
  - Cataloguing
  - Conservation
  - Community Engagement Activities

- **SKILLS** - bring new skills to the area and enhance the current skills of the project team, archive staff and volunteers

- **COMMUNITY COHESION** - increase community cohesion through engagement with the British Steel Collection and increase understanding of Teesside’s industrial heritage

- **PROMOTE TEESSIDE** - as a site of actual and virtual tourism

Key achievements in each area are summarised below. These accomplishments reflect the dedication, skills and enthusiasm of the individual team members and the many volunteers who assisted them, as well as the success of the partnership between Teesside University and Teesside Archives.

**Catalogue**
- New website developed (via CALMView) for Teesside Archives with an embedded catalogue facility, containing the records from over 40 companies, including the largest deposit from Dorman Long & Co. Ltd. See: www.middlesbrough.gov.uk/teessidearchives
- Catalogues and/or Box Lists created for the entire British Steel Collection.
- Consolidation of the Collection into one room in the Archives with adequate space for expansion.
- Re-labelling of catalogued records and final locations entered into CALM catalogue.

**Conservation**
- Full Conservation Survey carried out.
- Equipment & materials provided for preservation & conservation work.
- 73% of re-packaging completed.
- Conservation work carried out on certain priority items.
- Over 7,000 photographs and glass plate negatives digitised.

**Community Engagement**
- Delivery of a total of 203 activities from April 2008 to December 2010 reaching over 5,500 people.
- 80 school workshops delivered to 37 different schools, reaching 1,956 pupils and 118 teachers.
- Awareness of the Collection raised by series of public events (22), activities (61) and presentations to groups (40).

**SKILLS**

**Volunteer Programme**
- 96 volunteers recruited.
- Volunteer Training Programme designed, developed and delivered.
- Skills training delivered in digitisation, collection care, indexing, oral history interview and research techniques, cataloguing, website maintenance & public engagement.

**Staff**
- CALM training delivered to Project Archivist plus all Teesside Archives’ staff.
- Skills of project team enhanced via opportunities for formal and informal training.
COMMUNITY COHESION & PROMOTE TEESIDE

- Project website designed to encourage involvement in the Project. Available from June 2008 & regularly updated; Image Gallery added in July 2009 to provide access to digitised images – over 3,000 images online.
- Activities were delivered across all 4 boroughs plus County Durham, Tyne & Wear and London.
- Regular media exposure in local/regional newspapers & TV; additional articles in publications targeted at specific communities e.g. Family History magazines, Local History, Business Archives.
- Project branding was introduced from the outset to foster a distinct project identity and promote Teesside.

Challenges

The risk analysis carried out during the application phase identified **Staff Recruitment & Retention** and **Funding Shortfalls** as two areas of concern. Despite applying to a variety of funding bodies, external income did not reach the target figure. Compromises therefore had to be made throughout the project to compensate e.g. the digitisation programme was not as extensive as had originally been planned.

Funding shortfalls underpinned difficulties in recruiting and retaining staff, as contracts could only be issued for 12 months initially, with extensions arranged as funds were raised. This was unsatisfactory for several reasons:

- Skilled people were unlikely to leave secure jobs to apply for short term posts;
- Successful candidates were understandably looking for the next job within months of starting work with the project. If they subsequently left, it took several months to recruit and train the new member of staff leaving the project with a shortfall of skills in key areas.

Changes to the day-to-day management team at Teesside Archives and the failure to fill key posts was an unanticipated challenge for the project to deal with. As a joint service, Teesside Archives is managed via the Joint Archives Committee but the building is situated in Middlesbrough, with Middlesbrough Borough Council as the lead authority. Structural changes within the Council also had an impact on the Archives, which led to uncertainty and contributed to the lack of a clear vision and strategy for the future. Three Principal Archivists have held the post since 2008. The first retired early, the second was promoted on a temporary basis to cover this role (15 months) but was not replaced, which left Teesside Archives short of one full-time qualified archivist. In July 2010, a new Archives Manager was appointed but another staff member subsequently left. Although these issues are now much improved with the appointment of the Archives Manager, cuts to local government spending are expected to raise new challenges for the future.

Nevertheless, despite these constraints, the project has been very successful and reached, or exceeded, all planned objectives. This reflects the willingness of the Project Team and Teesside Archives’ staff to work hard to overcome challenges and forge a strong and supportive working relationship.
Added Value
The success of the Volunteer Programme exceeded all expectations and contributed so much to the project, including a model for sustainability (see below) and over £100,000 in match funding.

The discovery of an album of industrial prints in the British Steel Collection and the subsequent research carried out by Joan Heggie into the life of the artist, Viva Talbot, has provided many additional benefits to the project. As well as giving lectures about Talbot to community groups and the public, Joan curated exhibitions of Talbot’s work which toured galleries in the region, including mima (Middlesbrough Institute of Modern Art). This enabled thousands of people to become aware of the project and, by default, the Collection. Exhibition venues alone recorded over 60,000 visitors between November 2009 and November 2010.

Future sustainability & impact
The project has been particularly successful in helping build the capacity of Teesside Archives to provide a service to its customers more reflective of the vision set out in Archives for the 21st Century (2009).

“The speed with which the digital world has been embraced across society means that people have come to expect information to be accessible online, at all times, and their approach to archives is no different. It is essential that the archives sector is able to respond to this challenge and continues to increase the proportion of records that are accessible online”.

The web-based CALM system provides Teesside Archives with the means to implement a planned programme of cataloguing to enhance accessibility. The website is also an essential tool in the promotion of what the Service now has to offer, as well highlighting new collections or items of interest.

Conservation equipment, tools and remaining materials have been transferred to Teesside Archives, to be used by conservation staff for the continued benefit of the British Steel Collection and other related archives where appropriate.

The Volunteer Programme developed for the project has been transferred to the Friends of Teesside Archives, a charity which supports the work of the Archives. Over 20 of the BSAP volunteers have elected to continue. The digitisation and IT equipment have therefore been transferred to the Friends of Teesside Archives to ensure volunteers can continue the planned programme of work.

The School Resource Pack developed by the Community Engagement Team provides a key resource for school teachers and education officers working within the MLA sector or with community groups. Developed with the curriculum in mind but flexible enough to be adapted for other needs, the pack offers 4 separate activities. Loan boxes for use with these activities have been transferred over to the Access & Education staff at Teesside Archives, who are also able to deliver these workshops.

Research outputs, such as publications, applications for funding and the exhibitions mentioned above, are contributing to the impact of the British Steel Archive Project. These will increase over the next few years as current research is completed.

Conclusion
The true impact of the British Steel Archive Project cannot be fully quantified at this point in time but in years to come. The project has provided the vision of what can be achieved when organisations work in partnership effectively, the motivation for others to get involved, the impetus to continue the work and the capacity to transform the Archives Service on Teesside into one which is prepared for the 21st century.

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Introduction to the British Steel Archive Project
“Archive services, alongside their duty to preserve the records of both the past and the present, also aim to make the information in their collections discoverable, accessible and relevant to all. This may be achieved by supporting independent and academic researchers to make optimal use of the materials available, and increasingly by developing cooperative partnerships to deliver cultural, research, education and information priorities.”2

The British Steel Collection was gifted to Teesside Archives by British Steel plc (subsequently Corus, now Tata Steel) in the early 1990s, but lack of funds, staff and storage space meant that the scope and contents remained largely unknown. It was also virtually inaccessible to the public as it was stored in three different locations with no lists or catalogues of the contents available.

The Collection is a significant industrial and social history archive, dating from the 1840s to the 1970s, which traces the growth and development of Teesside as an industrial region. Middlesbrough’s history, in particular, is directly linked to the expansion of the railways during the early part of the 19th century from Darlington and Stockton-on-Tees eastwards towards the mouth of the Tees estuary. The discovery of ironstone in the Cleveland hills and easy access to the coal fields in County Durham meant iron companies were soon attracted to the area. The Collection illustrates the complicated maze of business activities, mergers and amalgamations and relationships between the pre-nationalised iron and steel companies on Teesside and associated trade organisations.

Fifty separate organisations are represented in this archive, such as Dorman Long & Co. Ltd., Bolckow Vaughan & Co. Ltd., and Bell Brothers Ltd., with interests in mining, quarrying, iron and steel manufacture, steel fabrication and engineering, especially bridge building. In its un-catalogued state, the Collection filled almost 600 linear feet of shelving and was stored in unsuitable and substandard packaging. Many items, such as large ledgers and volumes, were not wrapped or protected in any way at all. The entire Collection was very dirty and many items were in need of conservation.

Teesside University had long been interested in accessing this important archive for research and teaching and in 2007, after two years of discussions and planning, a partnership was formed with Teesside Archives to create The British Steel Archive Project – a three year plan to preserve the Collection, make it available to all user groups through a variety of means, including an electronic catalogue, and involve different communities in the project through a programme of community engagement activities.

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This project exemplifies the ‘cooperative partnership’ referred to above, where the resources of two organisations were ‘pooled’ to deliver much needed access to ‘cultural, research, education and information priorities’. Teesside Archives, as the owner or custodian of the Collection on behalf of the public, was aware of the importance of the archive but had insufficient resources to catalogue it or make it accessible. Teesside University was eager to become one of the main users of the Collection and had the experience and organisational ability to lead the project but none of the ownership rights so often a requirement of funding applications. By working together, the project became a reality and the commitment of both partners to its success was reflected in the level of match funding, circa £800,000 over the life of the project.

**The British Steel Archive Project had four main aims:**

- **ACCESS** - To make the British Steel Collection accessible to the public via diverse activities including:
  - Cataloguing
  - Conservation
  - Community Engagement Activities

- **SKILLS** - bring new skills to the area and enhance the current skills of the project team, archive staff and volunteers

- **COMMUNITY COHESION** - increase community cohesion through engagement with the British Steel Collection and increase understanding of Teesside’s industrial heritage

- **PROMOTE TEESSIDE** - as a site of actual and virtual tourism

These aims enabled the team to develop different methods of engaging people with the Collection. Apart from raising awareness of the importance of local heritage, the team focused on STEM (Science, Technology, Engineering & Maths) subjects especially civil engineering, design & technology, architecture, education, history, English, genealogy, reminiscence and storytelling, citizenship and art.

**Project Management**

The British Steel Archive Project started in April 2008 and finished in December 2010. As the lead partner, Teesside University employed all the project staff and provided office space for all the team except the Conservator and the Archivist, who were accommodated in Teesside Archives in order to be near the Collection. The team were supported by the Principal Archivist (now the Archives Manager) and the Senior Conservator from Teesside Archives, especially where decisions were required about the catalogue structure or conservation work. Team meetings were held regularly (twice a month) and included a member of the Teesside Archives’ staff to encourage open communication. Minutes were taken at these meetings which were held alternatively at the University and the Archives to ensure fairness.

A **Steering Group** was formed to support the Project Manager with the management of the budget, submission of claims and the funding strategy. This group, which met quarterly to coincide with the claim periods for the largest funder, the Heritage Lottery Fund, included the representative from the Finance Department responsible for monitoring project finances and members of the central Funding Support Team. A business plan, timetable and funding strategy had been submitted as part of the application process, together with a list of key milestones. Each quarter, the Project Manager compiled a progress report which was measured against these milestones.

The Project Manager also reported to an **Advisory Board** on a quarterly basis, which was formed to represent the wider public. There were twenty members, representing sponsors, user groups, local and family history societies, community groups, heritage centres, museums and researchers (see www.britishsteelfollection.org.uk for list of members). These included two international members from Japan and Australia who, although not able to attend the meetings in person, were kept up to date with progress via the meeting notes. Professor Yasumoto from Komazawa University, author of a book entitled *The Rise of a Victorian Ironopolis: Middlesbrough and Regional Industrialisation* included a reference to the British Steel Archive Project in the acknowledgements.
“It is a great pleasure to me to see that while I was working on Middlesbrough and Cleveland history, the British Steel Archive Collection Project was launched... Collecting and restoring these documents, and producing an on-line list, are now proceeding under the auspices of the University of Teesside and Teesside Archives, aided by the Heritage Lottery Fund. This centrally controlled collection and storage of documents will in the near future achieve fruitful results.”

[Email correspondence dated 01.10.2010 from M. Yasumoto to J. Heggie.]

The remainder of this report is dedicated to sharing information about how the aims were achieved, what challenges were faced along the way and to highlight some of the unexpected outcomes which added long term value to the project.

The first three sections explain how access was improved via the catalogue, conservation work and the programme of community engagement activities, as well as how these activities contributed to improving skills, building cohesion within and across communities and raising the profile of Teesside.

A separate section is dedicated to the Volunteer Programme as it was one of the key achievements of the project. The model developed in this project has been successful in supporting the volunteers and keeping them engaged, but has also demonstrated the value of their contributions through the outputs delivered and the value of the match funding. This model has now been transferred to the Friends of Teesside Archives, a charity which supports Teesside Archives and more than twenty BSAP volunteers will continue under that system, thereby enhancing the skills base of the Friends organisation and building capacity to enhance the sustainability of Teesside Archives.

The final sections are dedicated to Enhancing Accessibility and Sustainability. The project has worked hard to provide different levels of accessibility, such as via the website, publications, marketing & publicity, as well as via more traditional routes like the catalogue and getting people involved in community engagement activities. The School Resource Pack is a key output from the project which promises to enhance accessibility to the British Steel Collection through its well-evaluated workshops and also promote the sustainability of resources produced within the Project. Other methods of enhancing sustainability include the transfer of conservation equipment and materials to Teesside Archives and the transfer of digitisation and IT equipment to the Friends of Teesside Archives to enhance the volunteer programme.

Thanks to the British Steel Archive Project, the contents of the British Steel Collection are now listed in accordance with archival standards and procedures and are protected for future generations. The work has transformed the Collection and enabled a greater understanding of both its diversity and potential. As can be seen in the following pages, it contains a huge variety of records, ranging from the corporate, legal and financial documents expected of a business archive, to thousands of photographs, maps, plans and engineering drawings illustrating the varied activities in which these companies were involved worldwide. Teesside companies, such as Dorman Long & Co. Ltd., were involved in the construction of some of the world’s premier civil engineering projects such as the Sydney Harbour Bridge in Australia, the Storstrom Bridge in Denmark, the Tyne Bridge in Newcastle and the Tees (Newport) Bridge in Middlesbrough. The world can now visit Teesside, both physically and virtually via the catalogue, to understand more about this large and comprehensive business archive. It is one of the most significant resources concerning the UK’s iron and steel industries and the people who worked in them and something which should be a source of great pride for the people of Teesside.

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3Email correspondence dated 01.10.2010 from M. Yasumoto to J. Heggie.
Funding Partnerships

Teesside University - Partner Organisation

Teesside University took the lead role in the partnership. With a strong track record in financial management of externally funded projects, principal responsibilities included providing central departmental support to the Project Manager regarding funding applications and financial budgets. In addition, the university employed all the project team, providing office accommodation and IT facilities as needed. Day to day management was carried out by the Project Manager.

Teesside Archives - Partner Organisation

Teesside Archives is the joint service for the boroughs of Hartlepool, Redcar & Cleveland, Stockton-on-Tees and Middlesbrough. Teesside Archives has overall responsibility for housing the British Steel Collection & making it accessible to the public beyond the life of the project. In addition to being involved in the planning and delivery of the project, the Archives provided office space and IT facilities for the project’s archivist and conservator, as well as the CALM software to enable the catalogue to be created.

Corus Teesside Cast Products - £60,000 over 3 years

Corus Teesside Cast Products was the first sponsor to support the project, recognising not just the importance of increasing access in the future but also their corporate responsibility for the continued safe storage of this industrial archive. Sadly, the future is uncertain for this company as the last blast furnace on Teesside was ‘moth-balled’ in February 2010.

Heritage Lottery Fund - £250,000 over 3 years

The application to the Heritage Lottery Fund in 2007 resulted in achieving a substantial grant for the project which has helped to raise the profile of the work being carried out, as well as the importance of the Collection both nationally and internationally.

Community Trade Union - £60,000 over 3 years

Community trade union, made up of the Iron and Steel Trades Federation (ISTC) among others, felt it was vital to raise awareness about the Collection and the region’s industrial heritage through different community engagement activities. Funding received contributed towards the salary of a full-time Access & Education Officer.
Funding Partnerships

Royal Academy of Engineering - £26,658 over 15 months

The Royal Academy of Engineering funded a part-time Access & Education Officer. Working with 12 schools across the boroughs of Hartlepool, Stockton-on-Tees and Redcar & Cleveland, the officer coordinated & supported qualified engineer volunteers who worked as mentors with schoolchildren. The children designed and worked on an engineering project over a school term with the assistance of the mentors.

AHRC - £48,000 PhD Collaborative Scholarship

Thomas (Tosh) Warwick was awarded the AHRC PhD Collaborative Scholarship offered by the University of Huddersfield, the subject of which was directly linked to the contents of the British Steel Collection. 90 days (45 weeks x 2 days) over a period of 12 months was committed to the collaborative partner, Teesside Archives. This was spent as part of the Project where Tosh worked closely with the BSAP Archivist, learning new skills in cataloguing, while using his research skills to support Simon in the writing of the company Admin Histories.

European Social Fund - £20,091

The recruitment and training of volunteers into the project was facilitated by this funding stream which was directly related to skills. In addition, vital equipment was purchased, without which it would have been impossible for the volunteers to make a useful contribution to the project. This included conservation, indexing, oral history and digitisation.

Economic History Society - £4,000

Funding from the EHS was linked to research outputs from the British Steel Collection. Two literature reviews were commissioned, researched and published on the project website.

Museums, Libraries & Archives Council - £2,500

‘Blast Furnaces & Birds’ was a partnership with RSPB Saltholme to provide a family learning opportunity. The project explored the industrial and natural heritage of the area and the connections to the iron & steel companies whose records are contained in the British Steel Collection.

Technology Strategy Board (Short KTP) - £17,390

Funding via this 17 week partnership between Teesside University and Middlesbrough BC provided the long-term, on-line accessibility to the British Steel Collection by connecting the electronic catalogue to the web via CALMView and ImageView software.
Meet the Team

Dr Joan Heggie  Project Manager
Apr’08 – Dec ‘10

“This has been a very interesting and varied project which has involved local people with an important heritage project. I have been involved with the British Steel Archive Project since the initial stages, working to raise awareness of the Collection as a resource which everyone can access.”

Simon Sheppard  Archivist
Aug ‘08 – Dec ‘10

“My main role within the project was to provide a detailed catalogue for the Collection which will be available both within Teesside Archives and also via the internet. This involved methodically appraising each document, assessing both the content and the provenance, and then using this knowledge to produce a detailed, accessible catalogue.”

Tony King  Conservator
Jun ‘09 – Sep ‘10

“My role in the British Steel Archive Project provided me with the opportunity to preserve an important historical collection and play a key part in improving public accessibility. This was achieved by assessing its status via the Conservation Survey, as well as cleaning, re-packaging and conserving items where appropriate.”

Karen Oxley  Administrator
Jun ‘08 – Jun ‘10

Karen’s role was to support the team in the delivery of the project, especially with the administrative requirements, budgets and co-ordination of activities. In particular, she worked closely with the volunteers to ensure they were well supported.

Zoe Stewart  Conservator
Aug ’08 – Jan’09

During her short time with the project, Zoe sourced conservation equipment and materials and helped to train the Collection Care volunteers. She also designed the Conservation Survey.

Tosh Warwick  PhD Student
May ‘09 – May ‘10

Tosh worked with Simon to learn more about the contents of the Collection and to research and help to write the company Admin Histories.
Meet the Team

Community Engagement Team

The role of the Community Engagement (CE) Team included working with education providers and community groups to raise awareness of the British Steel Collection and involving people in activities organised by the Project. The team were also responsible for the recruitment and induction training of all the volunteers.

Dr Jenny Search
CE Manager
Jul '08 – Dec '10

“My role was to lead the Community Engagement team in the development, delivery and evaluation of a wide range of activities to engage our audiences with the British Steel Collection. My background in science research and communication allowed me to incorporate a science and engineering slant into many of our activities. I have really enjoyed working with such a wide range of audiences and creating engaging resources for them”.

Angela Whitecross
Access & Education Officer
Jul '08 – Sep '09

North East History was Angela’s passion and with a Masters degree and experience of working in access & education in other venues in the region, she was well-qualified to incorporate archival records into new and interesting activities.

Rachael Kenny
Access and Education Officer
Jul '09 – Nov '10

Rachael came from an FE background where she mentored young people. Her role in the CE Team was primarily to coordinate and deliver the Ingenious project which involved working with 12 schools from across from the local area and 16 qualified engineer volunteers. Working on a range of projects with different children and engineers was extremely enjoyable and rewarding, even though it was challenging at times!

Sally Sculthorpe
Access and Education Officer
Nov '09 – Aug '10

Sally’s background in Museum Studies and experience of working with, and developing activities for, different audience types was invaluable during her time with the team.
Evaluation – Key Findings
Evaluation

The tender for the evaluation of the project was issued in August 2010 and Yvonne Hardman was appointed to carry out the work during the months of October and November the same year. The key findings shown in this section have been extracted from her full evaluation report, a copy of which can be downloaded from the project website – see www.britishsteelcollection.org.uk

The British Steel Archive Project (BSAP) has been a three year project to catalogue, conserve and engage the community with the British Steel Collection (BSC). This report considers each of these overarching aims together with an assessment of the following areas:

- The quality of internal evaluation carried out by the Community Engagement team;
- The quality of resources and outputs produced by the project;
- Public awareness and utilisation of the project;
- The volunteer programme; and
- The partnership between Teesside University & Teesside Archives.

The report finds that the BSAP has achieved high levels of success in delivering on the majority of its key aims, particularly in relation to access through cataloguing, conservation and community engagement and to skills development and enhancement. Community cohesion and promoting Teesside are aims where the impact of the project is more difficult to measure. However, anecdotal evidence and the work of the community engagement team and the volunteer programme do support some level of development of community cohesion through enabling engagement with the BSC and an increased understanding of Teesside’s industrial heritage.

Promoting Teesside is the only aim which has not been fully met by the project, with no active strategy for delivering this aim put in place. Some positive promotion of the region is likely to have occurred as a knock-on effect from other work on the project such as publicity though.

Overall the report concludes that the project has been very successful, in no small part because of the staff and volunteers’ commitment to the project. It has ensured the future of the British Steel Collection for generations to come which is the best possible outcome.

Key findings are as follows with supporting quotes from members of the advisory board and the project partners with an arm’s length involvement (unless otherwise stated):

- **Cataloguing**
  - This area of the project has been very successful in achieving its aims of listing and identifying items using bespoke software and making the catalogue available to the public.
  - Following the creation and completion of paper records - a box list - for the BSC, 3627 entries have been added (as at 9/11/10) to Calm, the collections management software used across the archives sector and put in place as part of the project.
  - Through the partnership between Teesside Archives and the BSAP, Calmview has been launched on the TA website. This is the public facing side of Calm, providing virtual access to the collection and a lasting legacy for the project.

  Supporting quotes
  - “A well catalogued and accessible collection that will be available for generations to come. The fact that the information can be accessed remotely is the icing on the cake.”
  - “The catalogue is excellent and is far more detailed than I would have expected given the time that Simon has had to work on this collection and produce this catalogue.”

- **Conservation**
  - This area of the project has been crucial to securing the long term future of the BSC and is a credit to staff and volunteers involved.
  - A significant number of items from the collection have been re-packaged using archival-standard materials, reducing the percentage of the collection requiring re-packaging from 70% to 23%.
  - In terms of remedial conservation, 15 items with the most severe level of physical damage have been restored and the percentage of the collection with surface dirt reduced from 55% to 30%.
  - Well over 7,000 images are in the digitisation process with almost 3,000 of these completed.

  Supporting quotes
  - “The lasting legacy of this project is to preserve and make accessible this very important world industry history that has left such a significant legacy in the built industrial heritage of the world.”
  - “Preservation of much priceless history of the area.”
- Community Engagement

- This has been a wide-ranging area of the project with high levels of activity, especially given the small numbers of staff involved.
- The CE team has consistently surpassed targets set for engaging with different sections of the community through its programme of workshops, talks, presence at regional and national events, a touring exhibition, volunteer programme and oral history project.
- The CE team successfully applied for additional funding for discrete projects for example Birds & Blast Furnaces funded by MLA and aimed at under 5s and their families and the Ingenious project funded by the Royal Academy for Engineering and aimed at schools.

Supporting quotes
- “The community engagement team have worked hard to raise the profile of the collection.”
- “I have been greatly impressed with...the way in which the project has been taken into the community - schools and local groups.”

- Quality of the internal evaluation by the Community Engagement team

- The CE team produced a range of paper-based evaluation forms tailored to different audiences and the feedback gathered was used proactively by staff to amend sessions where required.
- All the feedback was also thoroughly recorded, but this often proved time consuming for staff.

- Quality of resources and outputs produced by the project

- Across cataloguing, conservation and community engagement the quality of resources and outputs has been high.
- Some outputs originally planned in the HLF application did not come to fruition for a variety of reasons such as changing project personnel and cost. This was balanced out by other activities taking place which were not conceived of originally.

- Public awareness and utilisation of the project

- There is no single way of measuring the public awareness and utilisation of the project. It has to be seen as the cumulative effect of many different areas of activity.
- Awareness and use of the project can be demonstrated by: the distribution of BSAP/BSC branded material, BSAP featuring in the publicity material of other organisations, web coverage, media coverage, the work of the CE team, the volunteer programme, unexpected outcomes such as the Viva Talbot exhibition and an increase in Teesside Archives search room requests, donations to the BSC and BSAP website hits.
- When these indicators are considered together, there has been a good level of success in raising public awareness and getting people involved in the BSAP.

Supporting quote [from a PhD student volunteer]
- “I feel it is testament to the success of the BSAP that when I go to conferences throughout the country academics and students are aware of the archive and are keen to find out how it is developing.”

- Skills

- The aim of bringing new skills to the area was achieved through training on the volunteer programme with 88.5% of survey respondents saying they had developed new skills as a result of volunteering on the BSAP and through the employment of project staff from outside the area (43% had relocated).
- The aim of enhancing existing skills was met well with all the staff having CPD opportunities. Three out of four staff who went on to other jobs thought the BSAP was a factor in successfully securing their new post. Volunteers also enhanced existing skills with all the survey respondents saying they had at least one of their existing skills enhanced.

Supporting quotes
- “The training programme for volunteers was excellent and offers a model that other voluntary groups might want to emulate.”
- “Skills have certainly been introduced to the area, the results can be seen by the success of the project. The project team and volunteers will pass on their skills to future volunteers so these skills will benefit greatly any future projects that we take part in.”
- **Volunteer programme**
  - Overall the volunteer programme has been a great success and fully embedded into the BSAP as a vital part of its delivery. The programme has sustainability through the Friends of Teesside Archives who will take over BSAP volunteers who wish to continue after the end of the project.
  - The original target of 50 volunteers has been achieved almost twice over with 94 people on the database and the value of match funding through volunteer time from September 2008 to July 2010 has been £88,817.63.
  - Supporting quote (from a volunteer)
    - “There has been a well worked programme of work so as to achieve a tremendous amount of output against the targets of the project. I have felt a great sense of achievement, appreciating the original input in pre-computer days and learned in new areas of working practices that may be useful in the future. Most of all it has been great fun to boot!”

- **Partnership between Teesside Archives and Teesside University**
  - The partnership, which has been very successful overall, has been based around the fact that Teesside Archives own the BSC and Teesside University applied for the funding to run the BSAP and has employed the project staff.
  - Some challenges have been faced in working together, but these have been overcome primarily by the project team continuing to work hard and prove the project’s worth by getting results.
  - Both parties have high hopes the continuation of the partnership in the future and agreed it could provide a model of collaboration for other institutions and organisations to follow.
  - Supporting quotes
    - “It has brought the often hidden world of academia to be relevant to the working class of Teesside, destroyed the dusty image of museums/archives and created a kind of fusion in that the past is suddenly vital to the present.”
    - “It was a positive partnership, of value to both parties.”

- **Community Cohesion**
  - Community cohesion is difficult to quantify, but a sense of a shared past and being able to take pride in that heritage can contribute to creating a more cohesive community.
  - The BSAP has enabled many people from the Teesside area to get involved with the BSC and increase their understanding of the area’s industrial heritage.
  - The legacy brought by the project will ensure it goes on to have a positive effect in the future. Cataloguing and conserving the BSC will ensure it is there for future generations to use and understand; not only the next generation, but generations to come.
  - Supporting quotes
    - “[The project] helps conserve community memory and enhances our perspectives and value of the area we live in.”
    - “The project certainly made more people aware of local industrial heritage; reminding older people and introducing it to younger ones.”

- **Promote Teesside**
  - This was the only part of the project where a plan for delivery was not put in place and as such this area was not proactively pursued, meaning any successes were unintentional.
  - If this was to have had a more serious chance of success links with Middlesbrough Council’s tourism department would have been essential as a starting point; as would pursuing more active links with international iron and steel heritage sites and organisations.
  - Ultimately this aim was beyond the scope and resources of the project team, particularly in terms of time and staff available to actively pursue this aim.
  - Supporting quotes
    - “I think this probably requires further development as the project is really only a small part of any tourist appeal of the area.”
    - “The fact that the steel industry has had such an impact on the development of the industrial world, both at home and abroad, has resulted in an increased interest in Teesside that can only have a positive impact on tourism, in any sense of the word.”

Overall the BSAP has been very successful and this is a testament to the staff and volunteers who have worked on the project.
Catalogue
Catalogue

Summary

As the primary means of information about the contents of the British Steel Collection, the creation of an electronic catalogue was of vital importance. Linking the catalogue to the internet and enabling worldwide access became a reality in early November 2010 (see image below). As part of the process, an entirely new website for Teesside Archives was designed and populated. The catalogue is embedded in the website: www.middlesbrough.gov.uk/teessidearchives

As at December 2010, the records of 40 of the 50 companies are now searchable online, with additional catalogues being added as they are completed.
Background
When the Collection was originally gifted by British Steel plc (later Corus) in the early 1990s, only some of the records were actually physically transferred. This was due to the lack of space in the Archives’ building. To assess the full extent and significance of the Collection, additional space was needed so that the balance could be transferred. This was achieved in 2006 during the planning phase of the project. Initially the Collection was located in two separate rooms on the 4th floor of the Archives.

On the recommendation of David Powell, Surveying Officer at the Business Archives Council of Scotland (BACS), a full shelf-listing was compiled. As the name suggests, this listed the contents of each shelf, but did not go into detail about what was in each box. In July 2006, the Surveying Officer visited Teesside Archives to carry out a Feasibility Study of the British Steel Collection. His report, entitled ‘Recommendations for the preparation, arrangement and cataloguing of the archives of British Steel held at Teesside Archives’ is available on the project website. The report concluded that, “The archives of the pre-nationalised British iron and steel companies of the north east of England are of local, national and international importance” and provided an important measurement of significance upon which to apply for funding.

This image shows the records on shelving prior to the start of the project. Items were placed onto shelving neatly as they were delivered from the Corus Records Centre, but with no attempt to order or sort items at that stage. Outer packaging, if it existed at all, was rarely of archival quality. Boxes were overfull, overweight and often in poor condition. The entire Collection was substantial, filling 186 shelves (approximately 550 linear feet). This made it the largest single collection held at Teesside Archives, even before it was catalogued.

Phase 1 (August 2008 – August 2009)
Simon Sheppard, the Project Archivist, was based in the Teesside Archives building in Middlesbrough throughout the project. Close proximity to the Collection was essential, as was contact with the Principal Archivist(s), but it was also necessary because the CALM cataloguing software was located on the Middlesbrough Borough Council IT network. This required Simon to have an IT account for both Middlesbrough BC’s network and the University’s. Regular contact with the Principal Archivist(s) enabled timely discussions about how the catalogue would be organised and structured within the new CALM software system so minimal delays were experienced during Phase 1. In the final months of the project, Ruth Hobbins, the current Archives Manager, worked with Simon to populate the new web pages and approve the design.


‘There have been three Principal or Acting Principal Archivists during the life of the project. David Tyrrell retired in February 2009 and Janet Baker was then Acting Principal Archivist from then until July 2010. Since that date, Ruth Hobbins has been in the role, now re-named Archives Manager.”
Simon’s principal task during Phase 1 was to create a detailed ‘box list’. This ascertained to which company each item in the Collection belonged, what type of record it was and what period of time it covered. However, since accessibility was such a key objective, the decision was made to encourage use of the British Steel Collection by the public by using the Shelf List as the finding aid.

This is quite unusual in that many projects like to wait until the cataloguing phase is complete before allowing access. The challenge for Simon was to compile the box list while it was, technically, accessible. To do this, he used the original Shelf Listing (compiled in Microsoft Excel) as the starting point. The picture (above) shows an example of one page from the shelf list.

To compile the full box list, Simon unpacked and examined each item in every box. He then allocated the item to a company, ascertained the date range and decided what type of record it was. He then entered the information into the box list. As can be seen from the picture of the box list below, much more information was then known about each entry.

As items were unpacked as part of the listing process, it made sense for Simon to place them into acid free envelopes (where appropriate) and re-package the items into archival standard outer boxes where this had not been done already by the Conservator.

During the summer of 2009, records unrelated to the British Steel Collection were moved to other locations to free up more space and the Collection was consolidated into the larger of the two strong rooms. This made the archivist’s job much easier and provided the much needed space to move the Collection around. The box list was completed by the end of August 2009, representing the end of Phase 1. The data was then sorted by company name to be more user-friendly. A copy of the full box list was lodged in the Search Room in Teesside Archives as a ‘finding aid’ to help both staff and members of the public access the Collection. This detailed and exacting process revealed that there were actually records from 50 separate companies or organisations within the British Steel Collection, not 40 as had been originally estimated.

Phase 2 – (September 2009 – December 2010)

Archive users are, like the population in general, becoming more computer literate and this carries with it an expectation that collections held within archives will be, at the least, searchable via the internet. This opinion was supported in a recent report, which recommended that a primary aim of any archive should be to provide ...”[C]omprehensive online access for archive discovery through catalogues and to digitised archive content by citizens at a time and place that suits them”.6

Iraqi Patent Ref: BS.TSB.5.1.29
The CALM cataloguing software and related training was provided by Teesside Archives as part of their contribution to the project. This software operates using a hierarchal system, similar to a family tree, to demonstrate how records are linked together within each company. In addition, CALM enables accession, conservation and location data to be stored within the same system.

Three elements were purchased as part of the overall licence:
- CALM catalogue;
- CALMView – the element needed to connect the catalogue to the web interface; and
- ImageView – the means of uploading images into the catalogue.

By installing the CALMView & ImageView software, Teesside Archives embraced the concept of extending access to their varied and significant collections to a worldwide audience.

Merging Databases

Until July 2010, Simon concentrated on transferring the records of as many companies as possible from the box list into the cataloguing software. Assistance was given by other team members and volunteers to avoid delay. For example, the details of several thousand engineering drawings, maps, blueprints and plans were logged into an Excel database by Collection Care volunteers under the supervision of the Project Manager or the Conservator. They also recorded details of the size and assessed the conservation status of each plan. Many deeds, patents and agreements were listed by Tosh Warwick and two volunteers into similar databases. Lastly, as part of the digitisation programme, images were copied ‘in-house’ by volunteers and logged into a database. Creating these databases had several benefits: the exact numbers of each type of record were established; the conservation status could be assessed and allocated; and, with a small amount of manipulation, the databases could be ‘merged’ into the CALM software, negating the need for information to be retyped.

Using this system, an additional 3,230 drawings, plans & blueprints have been listed, including 1,305 of the Sydney Harbour Bridge alone; approximately 100 deeds & legal agreements; 55 patents; and more than 4,000 images (as at end November 2010).


6See Conservation section for more information about this material.
Over time, these databases will be imported into CALM to provide the item level entries in the catalogue. This has already happened with some glass negatives, such as Reference BS.TSB.7.2.4 [Tees Side Bridge & Engineering Company Ltd.], where the details of almost 200 negatives have been merged into the catalogue, along with a thumbnail image of each at item level. Providing this amount of detail makes the catalogue much more interesting for the user.

Over 4,400 items have been catalogued so far, of which approximately 4,000 are within catalogues available to search online. The records of Dorman Long & Co. Ltd., dating from 1889 to 1970, represent the largest single company in the Collection. Almost 2,000 of the entries within CALM relate to this one company. With the additional items from the databases mentioned above, and the balance of the images as yet not entered, these figures will swell to over 12,000 items. The documentary records are impressive but the majority of the images in the British Steel Collection are also within Dorman Long’s holdings.

Phase 3 - (July - October 2010)

During this period, Simon worked almost exclusively on the interface between the electronic catalogue, CALMView and ImageView to ensure long-term, on-line accessibility to the British Steel Collection (and, by default, the wider holdings of Teesside Archives) was achieved on schedule. Funded via a short Knowledge Transfer Partnership, this phase involved an extensive evaluation of other Archive sites which used the same software. Recommendations were made about design, layout, wording and best practice. Although the software has a default design, there is some scope to personalise it and enhance the user experience. This was done with the full agreement of staff at Teesside Archives, who then were able to upload a considerable amount of useful information which had never been on their previous website.

Although support to change the content of the pages and the setup of CALMView was available from Axiel (the software providers), the answers were sometimes slow to come through, meaning that the schedule was delayed. Fortunately, Simon volunteered to attend evening classes during 2009/2010 on HTML and Web Page Design. These basic courses provided enough knowledge to ensure that most issues were solved by Simon himself. Without this training, however, it is doubtful that the objective of linking the catalogue to the web could have been made during the life of the project. For more information about the evaluation and the recommendations made, please go to the project website.

This new facility offers an ability to respond to changing circumstances without having to involve IT support. The authorised account administrator within the Archives can upload new catalogues, change text on any of the pages, update information to highlight new additions, special collections or even populate the Image Gallery facility with new digital images. This should mean that users are continuously aware that things are changing, thereby enhancing the chances of them returning to use the site again.

This new facility within CALMView offers Teesside Archives the ability to respond to changing circumstances without having to involve IT support. The vision was to provide an electronic, searchable catalogue on a web interface. Thanks to Simon’s dedication and determination, willingness to learn new skills and desire to see the task completed, the British Steel Collection is now accessible.
Conservation

Counterpart Lease for an Iron Foundry in Middlesbrough
On Tees between Henry Sidney and others to Messrs Gilkes, Wilson and Co. dated 16th November 1847
Conservation

Introduction

Conservation includes the repair or consolidation of archival records which have been damaged by mould, insects and neglect, or just because they have been well used. It also includes their preservation by cleaning, digitisation and repackaging into acid free and archival standard envelopes and boxes. Digitisation facilitates the use of surrogate images or hard copy prints by the public, so that the original remains safely in storage and free from handling. This is very important for document or items which are either in very poor condition, or are likely to be ‘high demand’ - items which the public will want to see again and again.

Background

Two conservators have worked on the project; Zoe Stewart [Aug ‘08 – Jan ‘09] and Tony King [Jun ‘09 – Sep ‘10]. Both have worked very closely with the Senior Conservator for Teesside Archives, Helen Kendall, who has been able to give advice, support and additional skills training where appropriate. Helen was also invaluable in providing information about sourcing and ordering the appropriate equipment, tools and repackaging materials to ensure supplies were available when needed in the initial stages of the project.

A primary aim of the British Steel Archive Project was the preservation and conservation of the Collection. In order to best prioritise the limited time and resources of this three-year project, a condition survey was imperative. Firstly, the survey would provide a detailed picture of the state of the Collection which would serve as the basis for the long-term conservation plan. Secondly, each item on the Box List (created by the Project Archivist) would be allocated a single condition number which would be entered into the Box List to act as an indicator of the availability of the item to researchers.

Although the Collection had been inspected and handled during the move to Teesside Archives and while research work was carried out, no detailed survey work had been completed as to the condition of the contents. During this initial inspection, some items had been identified as not suitable for production in the Search Room owing to severe damage or the presence of mould, but there was no way of telling to what extent this had impacted upon the Collection in the intervening period.

Conservation Survey

Instead of using the National Preservation Office Preservation Assessment Survey, which uses a standard form and a sample approach, a method more closely suited to the needs of the project was employed. A form was designed to be printed off and completed by the Conservator; one form for each item4. The form recorded standard information from the NPO survey, such as storage conditions, staff training and handling standards but catalogue status was omitted. This streamlining was important as, instead of taking a statistical sample, the survey assessed every individual item in the Collection. By assessing and filling in a survey form for each item, a detailed record was created regarding the conservation status of the entire Collection. This formed a resource which Conservators can use to get a condition report for any item in the archive. A copy of the full Conservation Survey Report, which includes examples of the form used, is available on the project website.

Zoe designed the form and completed just over 20% of the Conservation Survey before she left the project. Tony continued with the survey, completing it by the end of September 2009. In total, 3,316 items were surveyed and all the Conservation Status codes allocated. A grading system was used to assess three condition criteria:

- physical condition;
- biological condition; and
- level of dirt

Footnote:
4For the purposes of the Conservation Survey, several of the same type of record (e.g. ledger) can be considered to be one item.
A Conservation Status code [0-4] was allocated to each item, where 0 indicated ‘good condition, stable’ and 4 indicated ‘unfit for use/immediate attention required/very unstable’. A similar grading system was used to assess re-packaging priorities. It was acknowledged that access to the records by the public might have to be restricted until conservation work was carried out. As planned, these codes were originally entered into the Box List (Finding Aid) so that the public were made aware that some items were inaccessible. The codes were then gradually and methodically entered into the CALM catalogue by the archivist as each company’s records were transferred.

Despite the fact that the British Steel Collection is an industrial archive and many of the records are ones which would have been kept in the workplace, only 25% required any type of physical repair. However, being stored for years in less than ideal conditions meant that 63% required cleaning - a lot of records! As can be seen from the picture above, many volumes were sitting on open shelving without any protective wrapping. Almost three quarters of the entire Collection (2,559 items) required re-packaging – this involved removing all steel pins, paperclips and staples from documents and replacing them with brass paperclips; placing the item into an appropriately sized acid free envelope and re-boxing within a proper archival box or other suitable outer wrapping. The vast majority of plans and similar items were rolled and stored in map boxes, however, the number of plans per box was far too high (often 25-30 plans per box) and the boxes themselves were old and substandard in quality. Tony worked with a team of volunteers to undertake the majority of this re-packaging work, including reducing the number of plans to a maximum of 6 per box and replacing all the old boxes with new archival map boxes. By September 2010 the number of items requiring re-packing had reduced to 645 items or 23%.

To address the concern about the volumes which had no outer protection, a system was devised, evaluated and implemented. Bespoke boxes were considered to be too expensive for the number of volumes requiring this work (over 800). Tony sourced a roll of Tyvek material – a strong, breathable material which is mould resistant and spent some time experimenting to find the best method of wrapping the volumes. Eventually, this was found to be a system of making ‘envelopes’ of Tyvek in which the newly-cleaned volume can be placed and secured with a single piece of acid-free tying tape. As can be seen in the picture above, the catalogue number can be written directly onto the Tyvek material with a fine-tipped permanent marker which does not mark the contents. This proved to be a cost-effective and simple way of dealing with a considerable number of large bulky records. As mentioned in the Cataloguing Section of the report, much effort was spent with the help of volunteers in the logging of plans & drawings. As at the end of November 2010, 3,225 plans had been entered into various Excel databases and will gradually be imported into the appropriate level of the catalogue.
Conservation Work

A certain amount of conservation work was carried out during the project, primarily on items which fell in category ‘4’ status. Improvements to the statistics are less dramatic than in other categories. The 53 items originally rated as ‘4’ were reduced to 38. Although this seems a modest improvement, it must be remembered that any item rated as ‘4’ for physical damage was in an extremely poor condition and required extensive conservation work. Shown below are some examples of conservation work undertaken.

Exhibition Boards - Over thirty Sydney Harbour Bridge exhibition boards were identified as a priority for conservation due to the use of inappropriate materials and their unprotected state. These boards consisted of photographic prints adhered to mount board which had then been stuck to a piece of plywood.

The boards were taking up a lot of space on the shelves and the images were exposed to dust and damage. In addition, adhesives used in the past and rusty staples were causing concern. All 34 boards were treated by: removing the acidic window mount; surface cleaning; trimming excess mount board; and splitting the plywood from the mount board. The images were then encapsulated in polyester and wrapped in acid free paper.

Glass Plate Negatives (GPNs) - During the late 19th and early 20th centuries, photographic negatives were made from sheets of thin glass with a light sensitive emulsion applied to one side. In the early days of glass plate negatives, the photographer applied the emulsion immediately before taking the image so the plate was exposed while still wet. Commercially produced plates were soon available which had the emulsion pre-applied and could be used in a dry state, these are known as ‘dry plates’. Once fixed, the plates could be treated with varnishes for protection or undergo re-touching or formatting processes involving the painting out of areas with opaque paints or picking out details with a pencil. From these negatives, positives prints were made by placing photo-sensitive papers under the glass and exposing them to light.

Conservation Issues - The British Steel Collection is home to over 6,000 glass plate negatives of various sizes from 15 x 12 inches down to 3 x 3 inches. The vast majority are in good condition but they are susceptible to damage and deterioration from many sources. The most obvious is physical damage in the form of breaking of the glass support or damage to the image layer from grating.

Plates are often stored in the original boxes in which they were purchased. In these they lie flat which sometimes places a lot of weight on the bottom plates and allows movement and abrasion if the box is in poor condition. Additionally these boxes are nearly always made from non-archival standard materials and are potentially damaging to the images. The image layer is vulnerable to attacks from mould which can cause the emulsion to flake off, leading to areas of loss in the image. Fingerprints on the emulsion are difficult to remove and will damage the image.
Conservation Solutions - Standard procedure when dealing with glass plate negatives in overall good condition is to dust with an extremely soft squirrel hair brush then place each individual plate in a folded (4-flap) enclosure made from a paper specifically designed to store photographic material. The plates are then grouped together in small batches and boxed in such a way to ensure the plates stand on end rather than lie horizontally. However, if the plate is broken or in multiple pieces, has missing sections, or has a weak and flaking emulsion layer, a different approach is needed. This glass plate negative suffered physical damage probably due to its large size. At 15 x 12 inches, the plate is difficult to handle and store due to its weight and brittleness. The bottom left corner and a smaller section along the top edge had broken off. The image below shows a group of men in identical formal dress, with the person in the centre of the front row holding a baton, indicating this may be a band or an orchestra. There are small areas of loss to the emulsion layer, the most noticeable being over one of the men’s faces which, given the exactness of the area damaged, implies this may have been removed deliberately.

Although the conservation work required was minimal, this plate needed a more complicated housing method. First of all the adhesive tape applied as a temporary fixing method was removed with tweezers. The glass side was cleaned with Industrial Methylated Spirits (IMS) and water which removed a good deal of dirt. No treatment took place on the image side due to the delicacy of the emulsion. A ‘sink mat’ enclosure was made to house the negative from photographically compatible mount board. This facility enables the plate to sit in the enclosure which has a rigid base board, walls higher than the plate and a hinged solid lid. Each sink mat is made to fit exactly around the plate, as it is essential to stop the glass moving and damaging the emulsion. The plate is placed face down (emulsion side down) on to the baseboard and there are two gaps in the parallel sides of the walls to ease removal if necessary.

The image above shows the sink mat which was made for the GPN. Some modifications were necessary to cope with the requirements of this plate. Firstly the base and lid were made from a double thickness in order to make as stiff a structure as possible to help support the weight of the negative. The broken corner was separated from the rest of the GPN by small spacers in order to stop grating and damage to the delicate broken edge.
Conservation

This was a severely damaged 'Kalamazoo' binding which needed urgent repair. A method to provide a secure new binding which also preserved as much of the original structure as possible was developed.

After cleaning the textblock, it was freed from the binding by cutting the webbing straps. Japanese paper linings were pasted to the spine of the text block between the straps. The straps were then stuck to manila strips and the gaps between the straps filled with mount board to create 2 flanges.

Split boards were made using 2 pieces of millboard with mount board between. The boards were attached and paste paper covers applied. The ledger was then placed in a custom-made phase box.
Digitisation Programme

The digitisation programme was developed and supervised by the Project Manager who worked with 8 volunteers. Policies and procedures for logging the images, dealing with copyright issues and storage were all addressed in the early part of the project, so that by the time the volunteers were trained, the system had been agreed with Teesside Archives. In total, over 7,000 images were digitised, over 4,000 processed through Photoshop and over 3,000 of these reached the Image Gallery on the project website.

Containing more than 20,000 images in various formats, the British Steel Collection is a very rich resource indeed. Likewise, because pictures are very popular resources, every effort was made to facilitate access by the public while the project was still underway. Using trained volunteers represented a practical way to maximise the potential for in-house digitisation. Basic photographic and IT equipment was purchased for use within the archives building to ensure the archival records were only removed from the strong rooms to a controlled area and that minimal handling was experienced.

The equipment included:
- Canon 40D EOS digital camera (10 million pixels) with 4Gb SD card
- 28mm & 50mm standard lenses
- 100mm Macro lens
- Remote shutter release
- Right angle viewfinder
- Stand alone Dell PC
- External 1TB hard drive for backup
- Kaiser Copy Stand with Cold Lights
- Adobe Photoshop CS3

Digitisation System - All images were captured in RAW format and transferred from the camera to the PC after every batch was completed or when the volunteer finished their session, whichever was the earlier. The number of images transferred was checked and agreed to the paper log of the work carried out. Images were then moved through the system as follows:

- RAW images saved at 300 dpi using camera number;
- Image description and other details logged into Excel database in batches;
- Images renumbered with a Unique ID number allocated by database;
- Tiff Copy of renumbered images made;
- Tiff images processed in batches through Photoshop (trim, levels, curves, balance only) - no repairs or manipulation;
- Web copy made (jpg);
- Periodically, web images uploaded to Image Gallery on project website together with description & copyright data from Excel spreadsheet.
Images were selected for digitisation in a strict order using the Box List as a guide. Starting from Bay 1, Shelf 1, items identified as photographs, GPNs or lantern slides were processed by logging the shelf location reference as identification. Once the image had been digitised and the unique number allocated, this then became the primary means of identification. As images are transferred into the CALM catalogue system and receive a final catalogue number, it is likely that the items will be relocated within the strong room. This will require the image spreadsheet to be updated from CALM with the catalogue number and the final location reference. The unique ID number is also loaded into a field in the CALM system, thereby providing a cross reference between the two systems.

The Collection contains over 80 photograph albums which have not been digitised at this stage due to the amount of time each album takes to process. Digitisation of larger items, such as maps, drawings and blueprints is vital to improve access to the Collection but the in-house equipment was not able to cope with the size. A limited number of documents were selected and trials undertaken with North Yorkshire County Record Office and Northumberland Archives Service in the summer of 2009. Although the quality of the digitised image was paramount, hard copy prints were also requested to use as surrogates in community engagement activities, displays and even in the Archives Search Room. Sadly funding was never raised to continue with the outsize digitisation programme during the life of the project however, those which have been produced demonstrate the potential for use in the future.

Ref ID 641: Unidentified GPN thought to be of Cochrane & Co., Middlesbrough
Community Engagement
Community Engagement

Introduction

The Community Engagement team was guided by the targets included in the HLF bid. Over the course of the project, progress was evaluated continuously, activities were amended or new ones developed to reach different audiences.

The table below shows the original HLF targets and the actual numbers achieved. Target numbers were exceeded in all areas, including the ‘0-5 year olds’ category which had not been listed in the original bid. Data for people with disabilities was not collected at our events however, given the total number of people reached (5,511), it is statistically probable that at least 50 of them (less than 1% of the total) would be within this category.

Postcodes collected at our family workshops showed that 14 families came from outside the North East region. At large events such as history fairs and shows, where BSAP was not the organiser, there was no mechanism for collecting postcode data but, since over 20,000 people visited these events, a proportion of these were likely to be tourists. N.B. Website visitor numbers are discussed in the Enhancing Accessibility section.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Target</th>
<th>Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 5 year olds</td>
<td>0</td>
<td>126</td>
</tr>
<tr>
<td>6 - 10 year olds</td>
<td>To reach these age groups - no numbers specified</td>
<td>3259 young people reached through both school workshops and public events</td>
</tr>
<tr>
<td>11 - 16 year olds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 - 18 year olds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 - 25 year olds</td>
<td>To reach these age groups - no numbers specified</td>
<td>2252 adults reached through events and 96 adult volunteers.</td>
</tr>
<tr>
<td>26 - 59 year olds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60 +</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Groups supporting older people</td>
<td>100</td>
<td>293</td>
</tr>
<tr>
<td>Adult literacy</td>
<td>No number specified</td>
<td>4 bespoke sessions were delivered to 16 ESOL students.</td>
</tr>
<tr>
<td>Ethnic minorities</td>
<td>30</td>
<td>56 counted plus several schools had high numbers of students from different ethnic backgrounds.</td>
</tr>
<tr>
<td>Rural populations</td>
<td>200</td>
<td>approx 800</td>
</tr>
<tr>
<td>Urban populations</td>
<td>1000</td>
<td>approx 4600</td>
</tr>
<tr>
<td>Low income and unemployed</td>
<td>50</td>
<td>54</td>
</tr>
<tr>
<td>Disabilities</td>
<td>50</td>
<td>Data not collected</td>
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<tr>
<td>Tourists</td>
<td>1500</td>
<td>Data not collected</td>
</tr>
<tr>
<td>Young people</td>
<td>250</td>
<td>3259</td>
</tr>
<tr>
<td>Volunteers</td>
<td>50</td>
<td>96</td>
</tr>
<tr>
<td>Steel workers past and present</td>
<td>100</td>
<td>126 (at least)</td>
</tr>
</tbody>
</table>
The Community Engagement team delivered a total of 203 workshops, talks and events to over 5,500 participants. A further 20,000 people were made aware of the project by attending conferences and fairs where the BSAP had a presence and circa 60,000 visitors attended host venues during the period when the Viva Talbot exhibition was in situ. Over 20 different activities and workshops were developed over the course of the project. These were rigorously tested, evaluated and improved throughout the project, especially the most popular activity, the Bridge Building Challenge.

School Resource Pack
A School Resource Pack has been produced, containing the most successful and popular activities. Primarily aimed at KS2 (Key Stage 2, ages 7-11 years), the activities can be easily adapted for other age groups. The activities have been organised into four workshops, each containing detailed instructions for teachers, or educators in the MLA sector, to enable them to deliver the workshops. The workshops can be run sequentially, or as a standalone activity and the necessary equipment can be borrowed from Teesside Archives via a ‘loan box’ if it is not available in the school or venue. The resource pack can be downloaded from the project website (free of charge) at www.britishsteelcollection.org.uk

Overview of Event Development
Angela and Jenny joined the project in July 2008 and immediately began raising awareness about the British Steel Collection around the region and developing activities and resources for use in a variety of community engagement projects. This included liaising with schools, museums, archives and libraries across the four boroughs and meeting other education officers. Initial contact with working men’s clubs was also initiated and by the end of 2008, activities for schools, families and ex-steel workers had been developed, delivered and evaluated. February 2009 marked the 75th anniversary of the opening of the Tees (Newport) Bridge, which was built by Dorman Long & Co. Ltd. Items relating to the construction of the bridge and the opening ceremony in 1934 feature in the Collection. A series of workshops to celebrate the anniversary were delivered to a number of local schools in Middlesbrough. This led to a successful collaboration between a primary and a secondary school (Newport Primary and Ormesby School - see page 41), which inspired Jenny and Joan to apply for an Ingenious grant from the Royal Academy of Engineering to extend this programme across the other three boroughs. Gaining this funding meant that a second Access & Education Officer (Rachael) was employed to coordinate this element of the project. With assistance from the project administrator, Karen, the volunteer engineers and the schools were recruited in time for delivery to start in September 2009. For more about the Ingenious project, please go to page 41.

During the second half of 2009, initial contacts made with museums across Teesside came to fruition. The team delivered activities to many members of the public as well as schoolchildren at a variety of venues across the region. In September 2009, Angela left the project to accept a bursary to study for a PhD in History and was replaced by Sally later the same year.

At the start of 2010, the team reviewed the project targets and prioritised those that had not been reached. Sally focused on contacting former steel workers and built relationships with different community groups, Rachael delivered the Ingenious project and Jenny concentrated on co-ordinating other school-based delivery. By the end of the project, the team had received many requests from schools to run workshops and this had inspired the design and development of the School Resource Pack. Having the pack will enable teachers or education officers in museums and archives to continue to run these activities in the future.
Event Delivery

Background

In order to appeal to schools, interactive workshops with cross-curricular links were developed to engage children with the British Steel Collection. The activities targeted the following subjects: English, History, Science, Design & Technology and Citizenship. Many primary schools in the region deliver a topic based on bridges in KS2, so the activities fitted perfectly. Some of the activities were adapted for use in more informal settings with families and these were particularly successful during holiday periods. Other activities were developed for different groups such as ex-steel workers. In total, over 20 different activities were developed for different audiences and venues. More details can be found in APPENDIX 1: Summary of CE activities.

As the project did not have its own public venue, events were originally scheduled in local schools or at Teesside University. These were relatively successful however it was felt that some potential participants may have been discouraged from attending events at the University which may have seemed intimidating. By working with venues where there was an existing customer base, much larger numbers of people were reached. The team built strong relationships with local venues, especially museums and libraries, and were often requested to deliver activities on site. Furthermore, as awareness of the project increased, the team started to get requests from new venues and schools to deliver activities. A full list of the venues used throughout the project can be seen in APPENDIX 2: Venues used for delivery of CE.

In the next section, the 203 events have been broken down into those attended by the public (adults, families and holiday activities) and workshops for schoolchildren delivered in a more formal setting with teachers present.

Events delivered to the public

Over the course of the project, 101 events were delivered reaching 3,439 members of the public. A breakdown of these can be seen in the table below. Public events were held at 81 different venues, including libraries, children’s centres, museums, hotels and universities across the region and beyond. The project also had a presence at 22 fairs and conferences which contributed to raising awareness of the British Steel Collection to over 20,000 attendees.

<table>
<thead>
<tr>
<th>Type of Event</th>
<th>Number held</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family activities including: Bridge building challenges, craft activities and family activity days</td>
<td>52</td>
<td>874 adults and 1303 children</td>
</tr>
<tr>
<td>Steel Stories Workshops</td>
<td>9</td>
<td>175 adults including 81 ex-steel workers</td>
</tr>
<tr>
<td>Talks &amp; Presentations</td>
<td>40</td>
<td>1085 adults including at least 69 ex-steel workers</td>
</tr>
</tbody>
</table>
School workshops

80 school workshops were delivered to 37 different schools reaching 1,956 pupils and 118 teachers. These workshops were held in 31 different venues including schools, museums and libraries. A single venue was often the site of delivery to more than one school. For example, in October 2009, 16 workshops were delivered over 3 days at Kirkleatham Museum. The British Steel Archive Project delivered activities to school children in all four boroughs of Teesside and also in neighbouring County Durham. A list of the schools that worked with the project can be found in APPENDIX 3: Schools receiving CE.

Breakdown of school workshops by borough:
- 715 pupils in Middlesbrough
- 359 pupils in Stockton-on-Tees
- 380 pupils in Hartlepool
- 413 pupils in Redcar and Cleveland
- 89 pupils in other boroughs (all in County Durham)

School workshops by year group/key stage

<table>
<thead>
<tr>
<th>Key Stage</th>
<th>Age of pupils (approx)</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (years 1 - 2)</td>
<td>5 - 7</td>
<td>119</td>
</tr>
<tr>
<td>2 (years 3 - 6)</td>
<td>7 - 11</td>
<td>1379</td>
</tr>
<tr>
<td>3 (years 7 - 9)</td>
<td>11 - 14</td>
<td>166</td>
</tr>
<tr>
<td>4 (years 10 - 11)</td>
<td>14 - 16</td>
<td>226</td>
</tr>
<tr>
<td>FE students</td>
<td>16+</td>
<td>66</td>
</tr>
</tbody>
</table>

As seen in the table above, KS2 pupils were the largest group to receive BSAP workshops. The topics fitted this stage of the curriculum the best and primary school pupils are traditionally easier to access as their timetables are more flexible. However, almost 400 secondary school children also participated in BSAP workshops during the project.

Community engagement across the region

Both public and school events were held across the four boroughs of Teesside. The chart below shows the total number of events held throughout the project and the boroughs where they were delivered. Most events took place in Middlesbrough but this was not unexpected as both project partners (Teesside University and Teesside Archives) are based there. It was also easier to make contacts in this borough using the networks of Teesside Archives’ Access & Education team and because the project, naturally, had a higher profile. Middlesbrough has a strong identity as a ‘Steel Town’ which ensured there was a high level of interest in the project.

During the evaluation of project activities, it was noted that Redcar & Cleveland had not received many events in comparison to the other boroughs. This borough was then prioritised which boosted the number of events in that area. It was also noted, however, that Hartlepool had received fewer events than other boroughs but the number of participants at the public events held there (n = 3,897) were second highest behind Middlesbrough (n= 4,701). Several events were held in Hartlepool, such as the Archives Awareness Day in 2010, which attracted large numbers of visitors.

Note: School workshops that took place over a number of visits to the same pupils have only been counted once. For example four sessions delivered to an ESOL class has been counted as one event.
Talks & Presentations

Talks and presentations to groups were delivered by members of the Community Engagement team and by Joan. Recipients included community groups and societies e.g. Rotary & Probus Clubs, Retired Men’s Associations and local history groups. The talks reached a large number of adults (n = 1,085), especially men who had previously worked in the iron and steel industries. The talks therefore had the benefit of being a two-way process, as the audience were encouraged to contribute some of their knowledge of the area and the industry, as well as their personal memories, to help the project.

Conferences and Fairs

The whole team took part in representing the project at 22 conferences and fairs. These included local and national history fairs, academic and other professional conferences across the region and further afield. These events provided an opportunity to raise awareness of the project to large numbers of people.

Community Engagement Activities

As mentioned, over 20 activities were developed to meet the needs of a wide range of audiences and venues. The activities included: bridge building workshops suitable for school children and family groups; creative crafts for youngsters; and Steel Stories sessions aimed at adults, especially those with an interest in the iron and steel industry (see Appendix 1). The team were flexible in their delivery of different activities which were adapted and/or combined to meet the needs of the audience.

Two of the main activities, the Bridge Building Challenge and Steel Stories are described in more detail below.

Bridge Building Challenge

The Bridge Building Challenge turned out to be the staple workshop and has been included as one of the activities in the BSAP School Resource Pack. It has proved very popular with both schools and families.

The workshop uses K’NEX kits provided by the project to build a bridge. In a school setting, it was combined with additional activities to introduce the concept of an archive and the importance of bridge building to Teesside. Students investigated the strength of different shapes and were then challenged to build the cheapest bridge of a certain length and height. Finished bridges were tested using weights to see how strong they were and students decided which were the best by considering both strength and cost.

Family bridge building challenges were originally scheduled as 1 hour workshops but it became obvious they were better suited to a more informal drop-in format. This allowed participants to do as much or as little as they wanted, depending on their age, interest and ability. The workshop was also adapted to incorporate activities based around World War 2, as there was demand for this during the project. These WW2 based challenges also complemented the Bombs and Barrage Balloons exhibition developed by the team.

A summary of the different types of bridge building workshops and the number of participants can be seen in the table below.

<table>
<thead>
<tr>
<th>Workshop</th>
<th>Number of events</th>
<th>Number of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family drop-in workshop</td>
<td>34</td>
<td>1272</td>
</tr>
<tr>
<td>WW2 challenge for families</td>
<td>3</td>
<td>258</td>
</tr>
<tr>
<td>WW2 challenge for schools (delivered as part of a larger workshop)</td>
<td>3</td>
<td>98</td>
</tr>
<tr>
<td>Key Stage 2 school workshop</td>
<td>28</td>
<td>673</td>
</tr>
<tr>
<td>Introductory session for the RAEng Ingenious project schools</td>
<td>10</td>
<td>364</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>78</strong></td>
<td><strong>2665</strong></td>
</tr>
</tbody>
</table>
Feedback from children who took part was overwhelmingly positive. Opinions were gathered from 205 young people at 15 different bridge building events. The vast majority (97%) of participants enjoyed the bridge building challenge; the remainder thought it was okay.

Participants often made more than one type of bridge. They usually started with one of the easier designs (beam or truss) and then went onto a more difficult design (cable stayed or arch). Some even designed their own bridge. Having designs of different levels of difficulty meant children could be encouraged to build a particular bridge depending on their age or previous experience using K’NEX.

Most of the children (71%) who took part in the workshops were of primary school age (5-11 years old). The activity was developed with 7-11 year olds in mind and most respondents thought the activity was either challenging or just right for this age group, although most people thought it was suitable for children up to 16 years too. Participants were happy with the quality of the workshop. Most respondents rated the instructions (86%), the helpfulness of staff (100%) and the equipment (100%) as excellent.

Feedback from staff (n=19) at the venues demonstrated that participants were either engaged (n=6) or very engaged (n=13) with the activity. They thought the workshop was either the same quality (n=9) or better (n=8) than other workshops they had seen. They all thought the activities were well prepared. More information can be found in APPENDIX 4: Data supporting evaluation of public workshops.

“Fantastic, it engaged all the ages of the children I had with me today - they didn’t want to stop building and the staff were fabulous with the kids and parents :)
”
Parent attending bridge building workshop.

Intergenerational Learning

A number of statements were prepared in line with Generic Learning Outcomes from the Inspiring Learning for All framework developed by the MLA9. Participants were asked to place stickers next to the statements they agreed with. Most participants made strong bridges that held all of the weights (75%) and were pleased with their finished bridge (55%). 70% of respondents agreed that they knew more about bridges which demonstrated an increase in knowledge and for 35% it was the first time they had made a bridge from K’NEX, indicating that they had learned a new skill during the workshop. 40% of respondents worked as part of a team and many of these teams were intergenerational due to the activity being delivered during the school holidays. Another indicator of intergenerational learning was the high proportion of adults who said they got involved building the bridges (95%).

9See http://www.inspiringlearningforall.gov.uk/ for more information (accessed 17/12/10).
All the accompanying adults (n=38) who completed questionnaires thought the activity was worthwhile. Most (51%) spent between 15 and 45 minutes building bridges, although six respondents spent over an hour. One of the advantages of the workshop was that people could spend as little or as long as they wanted doing the activities. The team observed several cases where children were very interested and would stay for a long time, often building all of the designs and/or working on their own creation. Most of these children were working with their parents.

“This was a hugely inclusive activity which engaged lots of different levels of learning in a fully participative way so that links could be made with the heritage of our area - we’ll be spotting bridges all the way home. Really fun and saw great team work between two siblings who can be competitive who do not usually work well together.”

Parent attending bridge building workshop

Steel Stories

The Steel Stories workshop was originally a photo recognition activity. Participants were asked to comment on copies of images from the British Steel Collection (BSC). Early events were organised at working men’s clubs to try and target ex-steel workers, but attendance was disappointing. When Sally joined the team, this was one of her priorities. She put together some ideas and contacted several community groups. Carol Reynolds of CSV RSVP (the retired and senior volunteer programme within Community Service Volunteers) invited us to a lunchtime friendship group in Middlesbrough which included several ex-steeland workers. Ideas were discussed with them and a pilot session arranged.

At the pilot session, people were mainly interested in seeing pictures from the places where they used to work. They wanted opportunities to browse pictures and to share their memories. Sally then created folders of images organised by workplace (where possible) and included any information known about each image as a label. There was also a folder of unidentified images.

Steel Stories were much more successful when key workers or contacts in the community group helped to publicise them. The final Steel Stories session at Skinningrove was the most successful of all, having been publicised by John Roberts and the Skinningrove Local History Group. Some of the BSAP research volunteers were also involved in this activity as they had been tasked with developing a small exhibition relevant to the local area. 37 people attended the activity; 18 were former steel-workers but most participants had some link to the industry (e.g. family member worked in the industry). During this event, many people featured in images from the BSC were identified. People chatted to others about the pictures, the exhibition and their memories. Several people stayed for well over an hour.
Partnerships and Communities
The Newport Bridge Project

The Tees (Newport) Bridge in Middlesbrough, built by Dorman Long & Co. Ltd., and once the largest lift bridge in the world, was 75 years old in February 2009. To commemorate this, the Community Engagement team worked with children and teachers from Newport Primary School and Ormesby Secondary School on an anniversary project.

Students from both schools attended a series of workshops led by Jenny and Angela. They learned about the BSAP and worked together to design and create a bench to commemorate the 75th anniversary of the Newport Bridge inspired by material from the BSC. The winning design was made with assistance from a local forge and was unveiled at a celebration event in May 2009. It is currently sited near the entrance of Newport Primary School. Ormesby School also designed a bench for their own grounds which they named ‘River of Steel’.

The success of this project prompted an application for an Ingenious grant from the Royal Academy of Engineering to enable the idea to be delivered across the other boroughs, with the added dimension of including professional engineers as mentors to enhance students’ learning.

Ingenious Project
Engineering New Partnerships in Public Engagement: Bridging the past and the present through school projects

The funding received from the Royal Academy for Engineering (RAEng) enabled a second Access & Education Officer to be employed on a part-time basis (Rachael Kenny). Rachael worked 3 days per week on the project which involved recruiting and training professional engineers in public engagement skills to enable them to work effectively with school pupils. Rachael also coordinated delivery of the workshops. 16 engineers were recruited, 15 of whom delivered at least one session in a school. 12 of the engineers attended a public engagement skills training workshop delivered by Jenny.

The final delivery event between St Hild’s Church of England School & Lynnfield Primary School (both in Hartlepool). The pictures show the cranes which the students designed and made with guidance from one of the volunteer engineers.
The engineers mentored secondary school students to develop an engineering activity inspired by the BSC. This activity was then delivered to a primary school. Five of these collaborative projects were delivered successfully across three boroughs of Teesside. Three of the projects focused on bridges, one on cars and one on cranes. Additional workshops were delivered to two primary schools which, unfortunately, could not be partnered with a secondary school.

- Total number of workshops held = 54
- Total number of sessions attended by engineers = 31
- Total contact hours by engineers = 82.5
- Total number of teachers reached = 27
- Total number of primary school students reached = 455
- Total number of secondary school students reached = 73

More information about this project can be found in the final evaluation report on the project website: BSAP Ingenious Evaluation Report.

**Blast Furnaces & Birds**

The British Steel Archive Project (BSAP) received funding from the MLA (the Museums, Libraries and Archives Council) to work in partnership with RSPB Saltholme to provide a family learning opportunity. This project explored the industrial heritage of Saltholme in Port Clarence, on the north bank of the river, and its connections to the iron and steel companies whose records are contained within the British Steel Collection. The project was viewed as an example of best practice and is now a case study featured on the MLA website: www.mla.gov.uk/about/region/North_East

Workshops took place throughout the February half-term in 2010. Several workshops were open to the general public but four different Sure Start groups from across Teesside were invited to take part. Each group attended a two hour workshop which consisted of an introduction from the BSAP team where participants were shown archive material from the British Steel Collection; a tour of part of Saltholme nature reserve; and an art workshop, led by professional artists, to creatively interpret what they had seen and discovered about the natural and industrial landscape of this part of Teesside. In total, 147 individuals attended over the three days; 12 Sure Start staff, 20 parents/carers and 32 children aged between 2-14 (median age = 3.5). Most of the family groups (15/20) were classified as unemployed or low income groups.
After the workshops, the artists took the individual pieces created by the participants, embellished them and sewed them together to form four large hangings, one for each of the Sure Start Centres. Celebration Events were held at each Sure Start Centre to present participants with certificates and their banner.

More information about this project, including the final evaluation report, can be found on the project website: Blast Furnaces and Birds Evaluation Report.

Exhibitions
Exhibitions were developed using images from the BSC for several events over the life of the project including: Project Launch (2008), Discover Middlesbrough (2008 & 2009) and the Lackenby Beam Mill 50th Anniversary celebration in October 2008.

In addition, the bespoke display developed for Discover Middlesbrough 2009 ‘Bombs & Barrage Balloons’ was then exhibited in several venues across the Tees Valley.
Bombs & Barrage Balloons exhibition

The Bombs and Barrage Balloons exhibition was developed during 2009 to coincide with the 70th anniversary of the outbreak of World War 2 and the 70th anniversary of the Battle of Britain in 2010. It was developed with the help of BSAP volunteers to highlight the important contributions made by the iron and steel industries on Teesside to the national war effort. It also explored the significant role of women in the industry during wartime.

At the start of 2010, Sally arranged for the exhibition to tour a number of libraries in the region. It spent a month at each library and toured 10 venues in total. Talks and workshops were also delivered by members of the CE team in the libraries to complement the exhibition. The map below shows the location of the libraries across the Tees Valley. These events reached over 200 people and an unknown number will have seen the exhibition during the month, thereby raising the profile of the BSC and the project.

Feedback from the libraries demonstrates that the talks and workshops were enjoyed by participants and well attended. Nine of the libraries commented that the exhibition helped to bring in new visitors or generated interest in the library.

“The exhibition was popular at Marton Library and I knew the accompanying talk would go well at our regular coffee morning.”
Acklam Library

“We did seem to have quite a lot of enquires and also people then came in to look at Darlington Industries too and the material in the Centre for Local Studies.” Darlington Library

“The members of the audience were really responsive, asked a number of questions and participated in the after talk discussion. Feedback after the talk was very positive.” Stockton Library

A map showing the locations of the libraries that hosted the Bombs and Barrage balloons exhibition during 2010.
Plotting was done using http://maps.google.co.uk
Volunteer Programme

Introduction
Indexing
Collection Care
Digitisation
Small Research Projects
Teesside Iron and Steel Memories Project
Event Support & Public Engagement
Volunteer Events
Volunteer Programme

Introduction

The volunteer programme has been one of the outstanding successes of the BSAP, contributing over £100,000 of match funding. The original target to recruit 50 volunteers was almost doubled and the interest from the public was so high that some people had to be turned away.

96 volunteers in total were recruited over the life of the project and 90% of these actively contributed to some part (or parts) of the Project. The volunteers were an extremely valuable resource, not only as a source of match funding, but also because of the practical and valuable difference they have made to the Project.

This section contains further information about how the volunteer programme was set up, the training and the different categories of volunteering.

Setting up the volunteer programme

Before recruiting volunteers it was important to ensure a high standard of support and training was in place. With assistance from Karen, the Community Engagement Team took primary responsibility for researching other volunteer programmes around the country and for creating a full set of policies to support staff and volunteers alike. All of the documents listed below can be found on the project website: www.britishsteelcollection.org.uk

- Volunteer Handbook
- Volunteer Health and Safety Policy
- Volunteer Equal Opportunities Policy
- Volunteer Grievance and Complaints Policy
- Volunteer CRB Policy
- Volunteer Lone Working Policy
- Volunteer Disciplinary Policy

Given that the commitment to the volunteers would last the lifetime of the project, it was important to get equipment and training in place which would result in the volunteers feeling valued, supported and adequately trained. It was recognised that people are often more productive when they are interested in the subject and so different areas of volunteering were identified to facilitate choice.

In September 2008, during the Discover Middlesbrough celebrations, funding from the European Social Fund enabled a number of skills taster sessions to be run over a six-day period. In these sessions, which included digitisation, conservation work, family history research and indexing, participants were introduced to the type of equipment they might use and the kind of work that might be required of them. The Project Team were involved in delivering or supervising the training and so potential volunteers were also introduced to the team. 45 people took part in these taster sessions and 17 participants went onto to become volunteers for the Project.

Further volunteers were recruited through advertising and also by making contact with people who had already registered an interest in being involved in the Project in some way.

The first step for the majority of volunteers was to attend the Induction Training course, which included a tour of the archive building, in particular the storeroom where the British Steel Collection is housed, the public search room and the conservation suite. In addition, a presentation was given about what might be expected of the volunteers, how they would be allocated work and how they would be supervised. This was felt to be important in
order to clearly set out what the role of the volunteers was in the Project and, more importantly, manage expectations on both sides. They were also given an overview of each category of volunteering. During the project, 82 volunteers completed the Induction Training10.

Rather than being assigned to a task, the volunteers were then encouraged to select 2 or 3 categories of volunteering in which they were interested. They were then allocated to the next level of skills training based not only upon their choice of subject but on their availability to work with the appropriate team members on certain days or times. Handling training was then delivered by the Conservator to ensure the volunteers working directly with archival materials were able to handle them safely. Each team member took responsibility for at least one category of volunteering and they arranged and delivered the skills training required. Each volunteer had a Training Record form in their file which was updated to record the different training sessions attended. Once the volunteers completed their induction and skills training, they were ready to start work with the team.

<table>
<thead>
<tr>
<th>Training received</th>
<th>Number of volunteers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volunteer Induction</td>
<td>82</td>
</tr>
<tr>
<td>Basic Handling</td>
<td>56</td>
</tr>
<tr>
<td>Cataloguing</td>
<td>2</td>
</tr>
<tr>
<td>Event Support Training</td>
<td>8</td>
</tr>
<tr>
<td>Indexing</td>
<td>24</td>
</tr>
<tr>
<td>Introduction to Archival Digitisation</td>
<td>12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Training received</th>
<th>Number of volunteers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Collection Care</td>
<td>9</td>
</tr>
<tr>
<td>Oral History Interviewing</td>
<td>14</td>
</tr>
<tr>
<td>Photoshop (images)</td>
<td>1</td>
</tr>
<tr>
<td>Public Engagement Skills</td>
<td>15</td>
</tr>
<tr>
<td>Small Research Projects</td>
<td>27</td>
</tr>
<tr>
<td>Transferring image database to web database</td>
<td>1</td>
</tr>
</tbody>
</table>

The tables above show the breakdown of training delivered to the volunteers. The majority (n=55) received both the induction and basic handling training before participating in further skills workshops. 26 volunteers were active in more than one area of volunteering across the Project, which demonstrates a high level of commitment and enthusiasm.

1010 people who went through the induction training went no further in the programme.
Volunteer Categories

Indexing -
Simon Sheppard (Archivist)

Indexing volunteers worked from home on their own computer, which facilitated the work being fitted around their own commitments. Principally, indexing is used to transcribe books or ledgers which contain a lot of names and addresses or other personal details which may be of use to family historians or researchers. By transcribing the data into an Excel spreadsheet, the information can be searched easily. In the BSAP, four ledgers from the Ormesby Furnaces\textsuperscript{11} in Middlesbrough dating from 1882-1919 were indexed which amounted to 19,000 lines in the database.

Photographs of each page of the ledger were taken (by the digitisation volunteers) and then sent in batches on a cd to volunteers who transcribed the information into a database designed to represent the original layout of the register. The volunteers sent their completed section back to Simon to be checked and were then sent a new batch of images to transcribe. Volunteers also received feedback regarding the transcription work they had completed which provided an element of ongoing training. Two of the volunteers also became ‘checkers’, helping Simon to process the work so that volunteers were not waiting too long for feedback or new images. Simon then collated the work into the master database. The index was taken to the National History Fair in Newcastle (September 2010) as a demonstration and one member of the public found many of her ancestors on the list.

The database is now available in the Search Room at Teesside Archives for members of the public to use but can also be used in outreach work or to illustrate family history talks.

Collection Care -
Tony King (Conservator)

Six volunteers were trained to carry out collection care work over the life of the project and worked on Tuesdays with the Conservator in the Archives. The numbers were smaller than in other volunteering categories due to the level of supervision required by the Conservator but the work these volunteers have been doing has been of great importance to the future well-being of the Collection. In the early days, the work focused on removing thousands of rusting paper clips and pins from documents and files and replacing them with brass paperclips. Volunteers were also trained to carry out basic cleaning of documents/ledgers if needed. Once cleaned, the items were placed in new, clean, archival envelopes before being boxed. This work had a real impact on the Collection by offering better protection for documents, safer handling conditions for staff and, in general, improving the appearance of the Collection.

\textsuperscript{11}Ormesby Furnaces, Register Book Foundry Employees [1882-1919], Ref 2.6.4 – 2.6.7
Approximately 500 boxes of material have been re-packaged in this way and replaced with an archival box, representing the vast majority of the Collection. In addition, the volunteers also constructed map boxes ready for the repacking of the rolled plans, blueprints and engineering drawings. 3,230 plans were re-boxed in this way, including 1,315 relating to the Sydney Harbour Bridge. Volunteers also logged the information about each plan into an Excel database which can be searched easily. Photographic prints were also encapsulated in polyester and glass plate negatives sorted and listed. Lastly, the volunteers helped to repackage the volumes in the Tyvek envelopes created by the Conservator and to clean the shelving as the Collection was moved around the strongroom to its final location.

Logging blueprints

**Digitisation -**

Joan Heggie (Project Manager)

The aim of the digitisation programme was to copy as many images as possible within the time frame of the project. Lack of funding meant that a programme of digitisation had to be developed in-house however, this provided two benefits:

- The risk to images from sending them off site (especially glass plate negatives and lantern slides) was reduced; and
- A small number of volunteers were trained who could continue the work after the project ended.

Teesside Archives provided a small room which was converted into a digitisation suite and the BSAP purchased the relevant equipment (see Conservation Section for a list of equipment used). Procedures were drawn up to ensure a routine was followed by all volunteers and work logs were completed during each session.

Twelve volunteers were trained during the project, of which eight regularly attended 3 hour digitisation sessions on a Tuesday supervised by Joan. All the volunteers received skills training where they were instructed in the safe and effective use of the digital camera, the different techniques required for photographing prints and glass negatives and how to transfer images from the camera to the PC. A second stage of training involved using Adobe Photoshop CS3 to orientate, trim and balance the image.

Images were taken in RAW format before being transferred to the PC and stored as the ‘captured’ image. Information about each image was logged in a database and a unique number generated. The RAW images were then renamed with their unique numbers and a copy saved as a ‘tiff’. The tiff image was later saved as a ‘jpg’ once trimmed, oriented and balanced. As the images were part of an archive, no attempt was made to ‘repair’ any major damage within Photoshop.
Over 7,000 images have been copied by the volunteers and over half of these processed through Photoshop and allocated their unique reference ID. More than 3,000 thumbnail images have been uploaded into the Image Gallery with their corresponding descriptions for the public to search (see project website). As the vast majority of the photographs in the Collection were not encapsulated and glass negatives remain so fragile, the digitisation programme has facilitated early access by the public to these images, which otherwise would have been difficult to provide.

Small Research Projects -
CE Team and Joan Heggie

Several volunteers, including members of the U3A group from Saltburn, worked on small research projects. These volunteers received training in how to search for material in libraries and archives and learned how to reference resources correctly. Training sessions were delivered in Teesside Archives and in Middlesbrough Central Library.

Initially, volunteers were able to carry out research on topics of their own choosing with support from a team member. When assistance in creating an exhibition was required, volunteers were given a brief of what they needed to research e.g. volunteers assisted in the development of the Bombs & Barrage Balloons exhibition and a bespoke exhibition for the Steel Stories event in Skinningrove.

In addition, the volunteers have worked on images for the 2010 and 2011 Calendars and items required for exhibition display boards.

Research volunteers in Teesside Archives

Several volunteers carried out research on different aspects of Cargo Fleet – the geographical area, the community and, of course, the iron and steel company, including the headquarter building which is still standing. Many of these volunteers worked for Cargo Fleet and have personal memories of the works, the buildings and the workforce, which has been invaluable during the research project.
Teesside Iron and Steel Memories Project -
Karen Oxley (Administrator)

The oral history project aimed to collect memories from people about their experiences of living and working within the iron and steel communities on Teesside with a view of forming an exciting digital resource for researchers to use in the future.

Consent and copyright forms were developed to ensure that the correct permissions were gained in advance of the interview, as well as a full set of policies and procedures to support the volunteers in carrying out this important work. Volunteers received comprehensive oral history training covering interview techniques and instruction on how to use the digital recording equipment. They were then matched with people who had expressed an interest in sharing their memories.

The interviews were digitally recorded and then transcribed if possible. The interviewee was always offered a copy of the original recording, the digital transcription and/or a paper transcript. By the end of the project, 39 oral history interviews had been carried out with 29 of these transcribed. Nine volunteers were trained to carry out these interviews and many contributed a lot of time to the project with some volunteers carrying out up to 8 interviews.

This quotation from an oral history interview was used as part of an exhibition at a Steel Stories event in Skinningrove.

“I can remember one chap in particular who used to walk home from Skinningrove Works and walk past our house in his clogs. So on a morning coming off night shift you could hear him clogging up the street and going to work you could hear him clogging down the street you know.” Eddie Beaumont

Copies of the recordings and transcripts will be deposited in Teesside Archives within six months of the end of the project, where they will be preserved as a permanent public reference resource.

Event Support & Public Engagement -
Jenny Search & CE Team

In total, 23 volunteers received training in either Event Support or Public Engagement skills. The aim of this training was to enable volunteers to take part in Community Engagement activities. The training included facilitation skills, activity and exhibition development and dealing with difficult participants. Over the life of the project, volunteers attended 9 Community Engagement events to assist the team, including conferences, fairs and school workshops.

The Public Engagement skills training was developed particularly for the engineers recruited to take part in the Ingenious project “Engineering New Partnerships in Public Engagement: Bridging the past and the present through school projects”. Trained engineers mentored senior and primary school children and worked with them on an engineering project inspired by the resources in the Collection. 15 engineers attended 31 sessions in schools as part of this project. More information about the Ingenious project can be found in the Community Engagement section of this report or on the project website www.britishsteelcollection.org.uk
Volunteer Events

An annual forum was held where volunteers shared their experiences and had an opportunity to input suggestions or voice any concerns. This was an important method of maintaining high levels of volunteer engagement with the project. To show our appreciation to all project volunteers, biannual social events were also organised, normally a summer excursion and a Christmas party. These days out were relaxed and informal, designed to update the volunteers with progress and for volunteers to meet and socialise with each other. This was particularly useful for those who worked at home (e.g. research and indexing volunteers).
Enhancing Accessibility
Enhancing Accessibility

In addition to the improvements to access provided by the catalogue, this section of the report highlights the ways in which accessibility has been enhanced, both to the project itself and to the British Steel Collection.

Marketing the British Steel Archive Project & the British Steel Collection

From the outset, it was considered very important to ‘brand’ the project with a unique identity. This was for two reasons:

- To ensure both Teesside Archives and Teesside University were represented fairly
- To overcome the difficulty of having to incorporate 4 x different borough council logos into marketing material

By using one logo for Teesside Archives as the umbrella organisation representing the four borough councils worked well and helped identify and establish Teesside Archives as the partner in the project. Difficult decisions had to be made about using limited funds to produce marketing materials with initial sponsors’ logos, when other funding applications and sponsorship might be forthcoming and items might need to be re-printed. It was felt, however, that delaying the design and issue of promotional materials would be detrimental, in that raising awareness of the project quickly in the wider community was vital to attract volunteers and further funding.

A colour scheme of chocolate brown, beige and cream completed the branding and basic items such as business cards, letterhead paper and compliment slips were printed. Each member of the team was issued with business cards to ensure the public were able to reach the right person and electronic signature blocks were also placed in email correspondence.

Other marketing items produced included pencils, pens, badges, a folder for training materials and a mini-disc in a bespoke sleeve (see below). This item was designed specifically to be viewed on a computer and was seen as quite unusual. They could be sent to people in the post at minimal cost and/or given away at fairs, conferences and events. Included on the disc was information about the background of the project, the aims and objectives, images of the Collection and a Donation Form and Gift Aid Form. Since the University is a charity exempt from registration, these forms were incorporated to encourage donations by members of the public.

In the first year, a leaflet was produced about the project which also contained a tear-off slip at the end for people to complete and submit if they wanted to give a donation or volunteer. Leaflets were placed in Teesside Archives, all museums and libraries in the four boroughs plus other venues in the region. They were also given out at every activity, presentation or event. In 2009 this leaflet was revised to incorporate a new image and the contents updated.
Calendars were produced for both 2010 and 2011 containing images from the Collection. The images were carefully selected and researched before being digitised in-house, which kept the costs of producing them as low as possible. The calendars were sold not only to increase awareness about the project, but to raise funds, and they were taken to every presentation & event. A mail-order form was also made available on the project website for people to download, complete and submit. The calendars epitomise the care that has been taken throughout the project to produce high quality marketing materials. They also emphasise the standards of digitisation and emphasise the need for accompanying information to be accurate and well-researched.

The British Steel Archive Project website - www.britishsteelcollection.org.uk was a vital tool to raise awareness about the project and to engage the public in the volunteer programme or activities. Designed by Manuscripti Ltd. and branded with the project colours and layout, the website became the public face of the project and so it was important that members of the project team could maintain and update it. Manuscripti produced a simple template website which could be amended as the project progressed and this worked well overall. The site was made ‘live’ in June 2008 and, after initial maintenance by the Project Manager, Karen took over the responsibility of updating the site and added new pages as needed to illustrate the growing and diverse activities of the project and to keep people up to date with progress.

The ‘What’s On’ pages were used to post information about upcoming events and activities; Tony King, the Conservator, used the ‘Featured Items’ page to illustrate how he carried out conservation and preservation work on items from the Collection; and well-researched ‘company histories’ were added by Stephen James, an academic in the Business School at the University.

By mid 2009, the digitisation programme had progressed well and it was decided that incorporating an Image Gallery feature into the website was essential to facilitate access to the Collection. This part of the website required more complicated design and maintenance so a different company, NTS-Online, was commissioned to set it up in a way that it would appear to be identical to the other pages.

The Image Gallery, which went ‘live’ on 1st July 2009, features over 3,000 digitised images from the British Steel Collection and also provides an interactive feature whereby visitors can send comments or information on any of the pictures directly to the project team. These comments will be incorporated into the catalogue when the images are uploaded to the CALM system.

The chart below demonstrates that visitors to the project website increased over the period from June 2008, when the website was launched, until the end of December 2010. Data shows that numbers remained steady for the first year but then doubled when the Image Gallery facility was launched in July 2009.

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1Benjamin Talbot (1864-1947) was born in the Midlands and spent 10 years in America before coming to Teesside. He was Managing Director of both the Cargo Fleet Iron Company and South Durham Steel and Iron Company Ltd., and the inventor of the Talbot Tilting Furnace. The records of both these companies are included in the British Steel Collection.

1See www.manuscripti.com. This company also designed and produced the mini-discs mentioned above.

1NTS-Online also designed the Beamish On-Line Collections pages. See www.nts-online.co.uk
Publicity

Gaining publicity in local/regional press or other media was considered to be a positive way of marketing both the project and the Collection. It also helped raise public awareness. Both partners had access to a Press Office and channelled information through them to the wider media when appropriate. Many articles have appeared in local newspapers, and there has been interest in the project from local radio and the regional news. In addition, articles have been published in family history magazines, local history journals and the professional journal, Business Archives.

Research

In 2008, the BBC Inside Out programme made a short documentary about Joan Heggie’s research on Viva Talbot which benefitted the project immensely. As interest in Talbot grew, Joan started to give presentations about her to community groups and local history societies which provided an opportunity to also publicise the Project. Two exhibitions of original woodblock prints were also developed and displayed in museums and galleries in Middlesbrough and Redcar. Visitor figures to these venues during the period November 2009- November 2010 were in excess of 60,000. In addition to the exhibitions, Joan has published an article from her research and more are in the pipeline. Applications for funding to continue the research in the future will also publicise the connections to the British Steel Collection and Project.

Sustainability

- colours
- pictures
- stronger
- make
- patterns
- interested
- chat
- competition
- contents
- bridge
- decorative
- win
- general
- families
- parts
- K’NEX
- build
- textures
- big
- lengths
- water
- school
- shapes
- compared
- mosaic
Projects of this type can have immense impact during the time they are active and the team is in place. The challenge comes once the project is finished and the knowledge and skills of the team have dispersed to new locations and jobs. Sustainability is best achieved if that knowledge and skills can be passed on to others to continue the work over the longer term. The British Steel Archive Project has been particularly successful in helping build such capacity at Teesside Archives to provide a more comprehensive service to its customers in the future. This has been achieved in a number of ways:

The web-based CALM system provides the Archives Manager at Teesside Archives, Ruth Hobbins, with the means to plan and implement a programme of cataloguing to enhance accessibility by the public to the other collections in her care. Some of these collections are already catalogued but the information is not stored in an electronic format. These can be reviewed for accuracy and transferred into the CALM system. Where accessions remain un-catalogued, the end of the project offers a timely opportunity to carry out a Collections Survey to understand more fully what these holdings are, how they might be prioritised and their potential for raising additional funds to help with the cataloguing.

The CALM system also has a locations database embedded within the software which could be used to enhance the service in the Search Room by making retrieval of records more efficient. All strong rooms in the Archives building can now be entered into this database and the process of recording locations can begin.

The new website created for Teesside Archives during the project will also be an essential tool in the promotion of what the Service now has to offer, as well highlighting new collections, items of interest, events and additional services.

Improving the skills of existing staff and volunteers was a key aim of the project and all the team at Teesside Archives have received training in how to use the appropriate elements of the CALM software. In addition, Simon, the Project Archivist, has written ‘User Guides’ to aid staff in carrying out tasks within CALM. Jenny has also worked with the Access & Education staff, Jacqui Bareham and Michelle McCarthy, to ensure they are confident about delivering BSAP activities in the future.

All conservation equipment, tools and remaining materials have been transferred to Teesside Archives, to be used by conservation staff for the continued benefit of the British Steel Collection and other related archives where appropriate. This also enables volunteers to continue working on collection care tasks across the wider Archives, under the supervision of the Senior Conservator, Helen Kendall, thereby enhancing the potential that other inaccessible resources will be transformed.
The Volunteer Programme developed during the project has been transferred to the Friends of Teesside Archives, a charity which supports the work of the Archives. In addition, over 20 of the BSAP volunteers have elected to continue with this organisation, thereby ensuring the skills and knowledge the volunteers have to offer will continue to make an impact in many areas of the Service. The Friends of Teesside Archives have appointed a Volunteer Coordinator who will manage the volunteer base and liaise with the Archives Manager and Senior Conservator on a regular basis.

Digitisation and IT equipment have therefore been transferred to the Friends of Teesside Archives to ensure the volunteers can continue the planned programme of work.

The School Resource Pack developed by the Community Engagement Team provides a key resource for school teachers and education officers working within the MLA sector or with community groups. Developed with the curriculum in mind but flexible enough to be adapted for other needs, the pack offers 4 separate activities. Loan boxes for use with these activities have been transferred over to the Access & Education staff at Teesside Archives, who are also able to deliver these workshops, as has all the K’NEX equipment and other community engagement resources, such as art materials.

Research outputs, such as publications, applications for research funding and the Viva Talbot exhibitions mentioned previously in this report, are contributing to the lasting impact of the British Steel Archive Project. These will increase over the next few years as current research is completed and written up. Tosh Warwick will submit his PhD thesis in the near future, the subject of which has a direct link to the British Steel Collection.

Strengthening Partnerships
This project has demonstrated that a great amount can be achieved in a short period of time when partners work effectively towards common goals. As with any project of this nature, there is now scope for developing new ideas for collaborative projects in the future. Maintaining the impetus and building on the success of this project also makes sense from a business perspective. Services offered by each organisation to its customers (students, researchers, academics, members of the public) can be enhanced further by working together. Joint applications for funding are now being developed to ensure these important ideas for future partnership working are taken forward.
**Vision for the Future**

The vision for the future is simple:

- that the British Steel Collection be fully accessible to the public and used in a variety of ways by people in all walks of life;
- that the legacy of this project be the empowering of local communities, individuals and staff members to increase the usage of all the resources held in Teesside Archives;
- that new educational resources be developed to incorporate materials about Teesside's important industrial heritage from the Collection in new and innovative ways, such as an Interactive Learning Wall and Second Life spaces; and
- that the dream of creating new projects using previously inaccessible material, such as 'Bridging the World' (see below), be realised in the near future.

**Bridging the World**

This project will focus on the engineering and industrial heritage of the Tees Valley - specifically on the contribution made by two world leading bridge-building companies to the changing structural landscape around the world during the period from 1890-1970. For much of the twentieth century, but especially during the period 1890 - 1970, Dorman Long & Co. Ltd. (Middlesbrough), and Cleveland Bridge & Engineering Ltd. (Darlington), were predominant in the design, manufacturing and construction of many of the most famous bridges at home and abroad. Many are considered to be iconic structures, such as the Sydney Harbour Bridge (Australia, 1932), the Howrah Bridge (India, 1943), the Victoria Falls Bridge (Zimbabwe/Zambia, 1905); the Tyne Bridge (Newcastle upon Tyne, England, 1928), the Storstrom Bridge (Denmark, 1937), the Forth Road Bridge (N. & S. Queensferry, Scotland, 1964) and the Transporter and Tees (Newport) bridges over the River Tees in Middlesbrough (1934 & 1911).

This project will focus on using the business records, engineering plans and photographic archives of the British Steel Collection and the Cleveland Bridge Collection (both held at Teesside Archives in Middlesbrough) to develop activities, educational materials and exhibitions to raise awareness of and celebrate these bridge-building achievements. The planned programme of activities will involve communities in England (especially the 5 boroughs of the Tees Valley), but also further afield in the UK and at key sites abroad, such as India, Australia, Africa and the Middle East. In addition, innovative educational resources and bespoke exhibitions will be researched and created to map and illustrate the structural legacy created by these companies. As many bridges as possible will be included from the many which these companies were involved in building. Community involvement will be encouraged through the setting up of virtual 'steel communities' to explore the sense of identity individuals and wider populations have with their bridge, the commonalities experienced in industrial communities world-wide and the importance of local culture in understanding these experiences.
Appendices
## Appendix 1

### Summary of Community Engagement activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Brief Description</th>
<th>Main use(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Big bridges</strong></td>
<td>The K’NEX kits can be used to build 5ft replicas of real bridges including the Sydney Harbour bridge</td>
<td>Extra workshop for schools who had already received a bridge building challenge and with older play scheme participants during the summer holidays.</td>
</tr>
<tr>
<td><strong>Bridge building challenge</strong></td>
<td>Participants use K’NEX to build a bridge.</td>
<td>There are different versions for families and schools.</td>
</tr>
<tr>
<td><strong>Building bridges</strong></td>
<td>Participants use K’NEX to build a particular type of bridge. The group finds out about the different types of bridges and their applications.</td>
<td>Developed during the RAEng Ingenious project and adapted for the school resource pack for KS2 students.</td>
</tr>
<tr>
<td><strong>BSC workshop</strong></td>
<td>Activities using pictures and documents from the BSC to introduce an archive.</td>
<td>Introductory workshop to celebrate the 75th anniversary of the Newport Bridge with KS2 &amp; KS3 pupils.</td>
</tr>
<tr>
<td><strong>Creative crafts</strong></td>
<td>Pictures from the BSC were used as inspiration for collages and large pictures created by participants.</td>
<td>Available for younger children at family events and playschemes.</td>
</tr>
<tr>
<td><strong>Creative writing task</strong></td>
<td>Participants complete a creative writing activity around the theme of “bridges”.</td>
<td>KS3 students along with “What is made of steel?”</td>
</tr>
<tr>
<td><strong>ESOL (English for speakers of other languages) resources</strong></td>
<td>A set of worksheets and activities using the BSC as a way of engaging ESOL students with their local area as well as practising English</td>
<td>ESOL student classes at a sixth form college.</td>
</tr>
<tr>
<td><strong>It’s getting hot in here</strong></td>
<td>Clothes for dressing up to show health and safety clothing past and present.</td>
<td>At large family-based events. This has also been developed into a KS1 and KS2 activity as part of the School Resource Pack.</td>
</tr>
<tr>
<td><strong>Photo activity</strong></td>
<td>Images from the BSC are shown to participants with simple questions to get people talking.</td>
<td>Adults and children as an introductory activity. It is also used in the public engagement skills workshop.</td>
</tr>
<tr>
<td><strong>Photo matching activity</strong></td>
<td>Participants are given half an image and have to find the person with the other half of their picture.</td>
<td>Ice breaker activity for adults and school children, can also be used to split a large group into teams.</td>
</tr>
</tbody>
</table>
### Summary of Community Engagement activities (cont.)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Brief Description</th>
<th>Main use(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public engagement skills</strong></td>
<td>A training session for people interested in working with the public and school children.</td>
<td>BSAP volunteers and engineers taking part in the RAEng Ingenious project.</td>
</tr>
<tr>
<td><strong>Older &amp; Newer &amp; quizzes</strong></td>
<td>Older and Newer is a guessing game using photographs from the BSC Collection. Various quizzes were developed for different events.</td>
<td>Originally developed for events for older people but also delivered at family and volunteer events.</td>
</tr>
<tr>
<td><strong>Smash &amp; Save</strong></td>
<td>A dialogue event where participants discuss merits of different structures in the region and have to choose one to smash and one to save.</td>
<td>Suitable for KS3, KS4 students and adults. Included in the school resource pack.</td>
</tr>
<tr>
<td><strong>Steel processing</strong></td>
<td>Samples of materials are used to describe the process of iron and steel making.</td>
<td>At large family-based events with more interested participants.</td>
</tr>
<tr>
<td><strong>Steel Stories/Photo recognition</strong></td>
<td>Participants browse and comment about images from the BSC.</td>
<td>Older people especially ex-steelworkers or those with an interest in industrial heritage.</td>
</tr>
<tr>
<td><strong>Tower building</strong></td>
<td>Participants use K'NEX or newspaper to build the highest tower they can in a certain amount of time.</td>
<td>Team building activity, adapted for large family events/shows using newspaper.</td>
</tr>
<tr>
<td><strong>What is made of steel?</strong></td>
<td>Toys and household objects are sorted into metal and non-metal and used to talk about steel and different materials. A magnet board with images of different items was also produced.</td>
<td>Large family-based events or an introduction to other activities.</td>
</tr>
<tr>
<td><strong>Other activities</strong></td>
<td>Picture pairs, cut-out bridge card, short quizzes and brinteasers, bridge word search, bridge drawing competition, museum object worksheet.</td>
<td>Used as short activities in a number of different environments.</td>
</tr>
</tbody>
</table>
Appendix 2

List of Venues used for delivery of CE:

- Abingdon Primary School, Middlesbrough
- Acklam Library, Middlesbrough
- Archibald Primary School, Middlesbrough
- Berwick Hills Primary School, Middlesbrough
- Blue Bell Hotel, Middlesbrough
- Borough Hall, Hartlepool
- Bowesfield Primary School, Stockton-on-Tees
- Brotton Library, Redcar & Cleveland
- Bydales School, Redcar & Cleveland
- Captain Cook Birthplace Museum, Middlesbrough
- Chandlers Ridge Primary School, Middlesbrough
- Cleveland Ironstone Mining Museum, Redcar & Cleveland
- Corus Sports and Social Club, Redcar & Cleveland
- Darlington Library
- Dorman Museum, Middlesbrough
- Dormans Club, Middlesbrough
- Dormantown Primary School, Redcar & Cleveland
- Durham Castle, County Durham
- Durham University, County Durham
- Egglescliffe Library, Stockton-on-Tees
- Egglescliffe Parish Hall, Stockton-on-Tees
- Fens Primary School, Hartlepool
- Footsteps Children's Centre, Stockton-on-Tees
- Gateshead International Stadium
- Grangefield School, Stockton-on-Tees
- Guisborough Library, Redcar & Cleveland
- Hallgarth Community Arts College, Middlesbrough
- Hartlepool Art Gallery
- Hartlepool Central Library
- Hemlington Children's Centre, Middlesbrough
- Hemlington Initiative Centre, Middlesbrough
- ILOP Unit, Middlesbrough
- Junction Farm Primary School, Stockton-on-Tees
- Keadler Community Centre, Middlesbrough
- Kings Manor School, Middlesbrough
- Kirkleatham Museum, Redcar & Cleveland
- Kirklevington Primary School, Stockton-on-Tees
- National Railway Museum, Shildon, County Durham
- Loftus Library, Redcar & Cleveland
- Lynnfield Primary School, Hartlepool
- Manor College of Technology, Hartlepool
- Marske Library, Redcar & Cleveland
- Marton Country Club, Middlesbrough
- Marton Library, Middlesbrough
- Masonic Hall, Middlesbrough
- Masonic Hall, Stockton-on-Tees
- Middlesbrough Central Library
- Middlesbrough College, Middlehaven
- Middlesbrough Town Hall Crypt
- MIMA (Middlesbrough Institute of Modern Art)
- Museum of Hartlepool
- Nature's World, Middlesbrough
- Newcastle Central Premier Inn

- Newcastle University
- Newport Primary School, Middlesbrough
- Northallerton Town Hall
- Norton Library, Stockton-on-Tees
- Norton Primary School, Stockton-on-Tees
- O'Grady's Hotel, Redcar
- Ormesby School, Middlesbrough
- Oxbridge Lane Primary School, Stockton-on-Tees
- Pallister Park Primary School, Middlesbrough
- Park End Community Centre, Middlesbrough
- Parkmore Hotel, Stockton-on-Tees
- Preston Hall Museum, Stockton-on-Tees
- Red Bams Hotel, Redcar & Cleveland
- Redcar Children's Centre
- Redcar Library
- Riverside Building, Skinningrove, Redcar & Cleveland
- Roseberry Library, Redcar & Cleveland
- RSPB Saltholme, Middlesbrough
- Sacred Heart RC School, Redcar & Cleveland
- Scotch Comer Hotel, North Yorkshire
- Seaburn Centre, Sunderland
- Skelton Library, Redcar & Cleveland
- South Bank Library, Middlesbrough
- Southbank Pakistani Mosque, Middlesbrough
- Southlands Centre, Middlesbrough
- St Augustine's Church Hall, Kirby in Cleveland, North Yorkshire
- St Giles Church, Gilesgate, County Durham
- St Hil's Church of England School, Hartlepool
- St Mary's Centre, Middlesbrough
- St Mary's College, Middlesbrough
- St Mary's RC Primary School, Redcar & Cleveland
- St Michael's RC School, Stockton-on-Tees
- Stewarts Park, Middlesbrough
- Stockton Central Library
- Stranton Centre, Hartlepool
- Tall Trees Hotel, Yarm, Stockton-on-Tees
- Teesside Archives, Middlesbrough
- Teesside University, Middlesbrough
- The Athenaeum Club, Hartlepool
- The Institution of Mechanical Engineers, London
- The Shambles, Stockton-on-Tees
- TWAM Discovery Museum, Newcastle-upon-Tyne
- Wellcome Library, London
- Wellington Square empty shop unit, Stockton-on-Tees
- West Middlesbrough Children's Centre, Whinney Banks
- Primary School, Middlesbrough
- Westgarth Primary School, Redcar & Cleveland
- Whinstone Primary School, Middlesbrough
- Wilton Golf Club, Redcar & Cleveland
- WMNT (West Middlesbrough Neighbourhood Trust)
- Resource Centre, Middlesbrough
Appendix 3

List of Schools receiving CE activities (including the Ingenious project):

Abingdon Primary School, Middlesbrough
Benwick Hills Primary School, Middlesbrough
Bowesfield Primary School, Stockton-on-Tees
Bydales School, Redcar & Cleveland
Chandlers Ridge Primary School, Middlesbrough
Cockfield Primary School, County Durham
Crooksbaun Primary School, Stockton-on-Tees
Dormanstown Primary School, Redcar & Cleveland
Eldon Grove Primary School, Hartlepool
Fens Primary School, Hartlepool
Emington Primary School, Redcar & Cleveland
Fairfield Primary School, Stockton-on-Tees
Fens Primary School, Hartlepool
Grangefield School, Stockton-on-Tees
Hallgarth Community Arts College, Middlesbrough
Kings Manor School, Middlesbrough
Kirkleatham Hall Special School, Redcar & Cleveland
Kirklevington Primary School, Stockton-on-Tees
Lynnfield Primary School, Hartlepool
Manor College of Technology, Hartlepool
Newport Primary School, Middlesbrough
Norton Primary School, Stockton-on-Tees
Ormesby School, Middlesbrough
Oxbridge Lane Primary School, Stockton-on-Tees
Pallister Park Primary School, Middlesbrough
Pennyman Primary School, Middlesbrough
Pittington Primary School, County Durham
Sacred Heart RC School, Redcar & Cleveland
South Bank Primary School, Redcar & Cleveland
South Hetton Primary School, County Durham
St Gerard’s RC Primary, Middlesbrough
St Hild’s Church of England School, Hartlepool
St Margaret Clitherow’s School, Middlesbrough
St Mary’s College, Middlesbrough
St Mary’s RC Primary School, Redcar & Cleveland
St. Michael's RC School, Stockton-on-Tees
Westgarth Primary School, Redcar & Cleveland
Whinstone Primary School, Middlesbrough
Appendix 4

Data supporting evaluation of public workshops

Responses from children

Feedback forms were made available at many of the bridge building challenges. Children were asked to place stickers on sheets to indicate their views, whereas teachers, venue staff and parents were given questionnaires to fill in. We gathered opinions from 205 young people at 15 different events.

These statements were designed to demonstrate learning outcomes relating to knowledge and understanding, skills and enjoyment, inspiration & creativity. Participants were asked to place a sticker next to any of the statements they agreed with. Note: Some of the statements were added later in the project so the number of respondents varied from 43 to 87 for the different statements.

The number of responses has been converted to the percentage of people who saw the statement.

Response from accompanying adults

Accompanying adults were often parents or grandparents but also included other relatives or friends. They were asked “Did you get involved?”

Respondents were asked to rate how suitable they thought the workshop was for different age groups. The activity was developed with 7-11 year olds in mind and most respondents thought the activity was either challenging or just right for this age group, although most people thought it was just right for slightly older children (up to 14 years) too. Most people thought it was too hard for under fives. We would agree with this and due to the small pieces included in the K’NEX kits we recommended that participants were 7 or over to take part. However younger children often came with their siblings. Most people thought the activity was also suited to 16+ with less than half thinking it was too easy.

Learning outcomes from the bridge building challenge workshops

How suitable was the activity for the age range

Ages of children taking part

Length of time spent building bridges
Contact details

BRITISH STEEL ARCHIVE PROJECT
Social Futures Institute - SSSL
Teesside University
Middlesbrough
TS1 3BA UK
Tel: 01642 384478
Email: britishsteel@tees.ac.uk
www.britishsteelcollection.org.uk

TEESSIDE ARCHIVES
Exchange Buildings
Exchange Square
Middlesbrough
TS1 1DB UK
Tel: 01642 248321
Email: teesside_archives@middlesbrough.gov.uk
www.middlesbrough.gov.uk/teessidearchives

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