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THE UNIVERSITY
of MANCHESTER

CONTINUING IN TRUST

The Future of Departmental Collections in
The University of Manchester

Neil Handley
Museum Researcher
The University of Manchester Orphan Collections Research Project

in collaboration with

Tristram Besterman, The Manchester Museum
Christopher Hunt, John Rylands University Library of Manchester
John Pickstone, Centre for the History of Science, Technology and
Medicine

Stella Butler, Consultant
Ian Taylor, North West Museums Service

June 1998.

Centre for the History of Science, Technology and Medicine

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FOREWORD

The University of Manchester is pre-eminently a place in which new knowledge is generated and transmitted; its current work and reputation rests on a scholarly pedigree of world renown, that can be traced back over one and a half centuries. The collections of artefacts held in its various departments and schools provide tangible evidence both of present endeavours and of this history. They are an integral part of the intellectual capital of the University, and through them we can gain a better understanding of the academic foundations of modern scholarship. However, it has become apparent that many of these collections are undervalued academically, and are consequently at risk.

We are therefore most grateful to the HEFCE/Museums Association initiative and the North West Museums Service for providing funds for a survey of departmental collections and for supporting the development of a University policy on their rationalisation, proper management and use. This work builds on the survey of university museums and collections in the North of England, which took place in 1989-90. The project has also been supported by the University and we are grateful to the Vice-Chancellor and to the Deans of the Faculty of Medicine and the Dental School for additional funds. Many members of the University and of allied institutions have assisted with the work, not least the honorary curators of the medical and dental collections. We hope they will all feel that this report addresses their concerns and carries forward the efforts they have made over many years to conserve and develop the various collections, often under difficult circumstances. We would like to thank Ian Taylor, Director of the North West Museums Service, Dr Stella Butler, consultant to the project, and especially Neil Handley, who was employed by the Centre for the History of Science, Technology and Medicine to carry out the work. This report and its various appendices are a testament to his energy and professional skills.

The report is, however, a beginning rather than an end. The recommendations that it contains set an agenda for the University so that it can make the very best use of these collections, and ensure that they are managed responsibly and appropriately. To that end, we have sought to clarify the relevant lines of accountability from departments to Council; we envisage the establishment of a University Collections Curators' Forum to support the work of all who work with departmental collections; and we propose that a University Heritage be formally constituted to advise Council on the care and use of artefacts, as well as on related issues such as the University's archives and historic buildings.

Improving the profile and management of departmental collections will increase their contribution to the University's teaching and research. As we approach the 150th anniversary of this institution, it is timely also to underline the importance of such material evidence in preserving and interpreting the vital heritage of the University of Manchester.

Professor John V. Pickstone, Centre for History of Science, Technology and Medicine.
Tristram Besterman, Director, The Manchester Museum.
Christopher Hunt, Director, The John Rylands University Library of Manchester.

PREFACE

This report is intended to be read in conjunction with the report, which it updates, from the Northern Universities Collections Survey, written by Kate Arnold-Forster and published as *Held in Trust* by HMSO in 1993.

Held in Trust revealed for the first time the diverse nature of departmental historic and teaching collections in the University of Manchester. It has been a privilege to survey these more thoroughly and to commend ways in which the University might seek to continue holding objects and specimens in trust for the twenty-first century.

Neil Handley, Museum Researcher.



ABBREVIATIONS USED IN THE TEXT

CHSTM	= Centre for the History of Science, Technology and Medicine
DCMS	= Department of Culture Media and Sport
HEFCE	= Higher Education Funding Council for England
JRULM	= John Rylands University Library of Manchester
MA	= Museums Association
MDA	= Museum Documentation Association
MGC	= Museum and Galleries Commission
MSIM	= Museum of Science and Industry in Manchester
NWMS	= North West Museums Service
UMG	= University Museums Group



EXECUTIVE SUMMARY

This report draws attention to the scope of the University of Manchester's Departmental Collections and records the activities of the University of Manchester Orphan Collections Research Project 1997-8. It sets the collections in their local, national and international context and advises on their future management, conservation and use.

The Main recommendations of the Project are summarised below:

A. TITLE AND FIDUCIARY RESPONSIBILITIES. (See Section 5.1).

- A1. The Council of the University of Manchester should recognise that it holds final responsibility for the collections within its departments and has a duty of care towards them. The departmental collections are held for purposes of teaching and research and, in some cases, for the public benefit.
- A2. The Governing Body of the collections is Council. Legal title (or the duty of trusteeship with respect to objects held on loan) rests with it. The University holds the collections under its general powers set out in the *Supplemental Charter*, granted by Letters Patent in 1973, Section IV, paragraph (g). (See also section 3.2.4).

B. SUBSEQUENT LINES OF MANAGEMENT ACCOUNTABILITY. (See Section 5.2).

- B1. The line of accountability for collections should be clearly delegated by Council to Heads of Resource Centres and thereby to Heads of Schools and Departments as appropriate. Each Head of Department with a collection should, in turn, nominate a responsible individual to represent the collection on a University-wide Collection Curators' Forum. (See Section 5.2.6). The University should continue with the establishment and development of the University Heritage Panel, to which the Collection Curators' Forum will be answerable. (See section 5.2.7).
- B2. A University Curator should be appointed to oversee collections throughout the University which are not the direct responsibility of either the Manchester Museum or Whitworth Art Gallery, and to offer additional assistance as required to departmental nominees. The Curator's title, responsibility and authority should be recognised throughout the University. (See section 5.2.8).

C. DOCUMENTATION AND ACCESS. (See Section 5.3).

- C1. The Departmental Collections Database should be maintained and extended so as to provide an up-to-date record of the University's holdings. The Objects Database should similarly be maintained and extended so as to provide a complete listing of all objects within the various collections and thus enable them to be audited and made more accessible. Currently, the collections are often little known and under used. Consideration should therefore be given to publishing details of the Departmental Collections, including posting records on the Internet as begun via the Orphans Project web-site.

D. A UNIVERSITY COLLECTIONS POLICY. (See Section 5.4).

- D1. The University Heritage Panel, through the Collection Curators' Forum, should advise Council on a future collections policy and the rationalisation of the existing University Departmental Collections:
 - D1.1. Based on an assessment of their significance and usefulness to the University, collections should be prioritised for investment or disinvestment.
 - D1.2. Those collections deemed worthy of retention should be adequately resourced to ensure proper levels of care and access.
 - D1.3. Objects which are not to be retained should be disposed of in accordance with MGC guidelines, using a formalised and properly documented procedure.
 - D1.4. Whilst the University should continue to collaborate positively with relevant museums in the preservation and display of artefacts, it should retain title to such material as is important to the University for its own purposes.
- D2. The University should make efforts to use the retained Departmental Collections in its research and teaching activities. The Orphans Project recommends that particular attention be paid to the collections' potential for use in continuing adult education and courses for the public. (See also Sections 3.3.4 and 3.3.5).

E. EXHIBITING UNIVERSITY HISTORY. (See Section 5.5)

- E1. The Departmental Collections should be recognised as constituting a three-dimensional archive of seminal achievement by the University. With this in mind, The Manchester Museum, John Rylands University Library and Whitworth Art Gallery, as well as individual departments, should continue to use the Departmental Collections when mounting permanent or temporary exhibitions and displays open to both members of the University and, where appropriate, the general public.
 - E1.1. Items from the collections should be considered for use in the new reception and display area beside the Main Quadrangle Gateway.
 - E1.2. The University should promote awareness of its role as a custodian of collections and encourage a corporate approach to issues of collections management, presentation and utilisation.
- E2. In view of the strength of the collections and their value in presenting the University's achievement, the University should explore the possible establishment of a Gallery of University History, preferably as part of The Manchester Museum, as a focus for the curatorial, educational and promotional activities discussed in this report. (See section 5.5).

1. INTRODUCTION

1.1. Background to the Orphans Project.

1.1.1. The University of Manchester Orphan Collections Research Project grew out of the Northern Universities Collections Survey of 1989-90, some results of which were published by HMSO as *Held in Trust* (1993). Professor John Pickstone, Director of the CHSTM was invited by Tristram Besterman of the Manchester Museum to direct a follow-up project, concentrating on the University of Manchester alone and not including the MGC registered museum and art gallery.

1.1.2. A Project panel was established to include Professor Pickstone, Tristram Besterman, Dr Stella Butler, Heritage Consultant and Ian S. Taylor, Director of NWMS. Joan Mottram, researcher for the Central Manchester NHS Trust Hospital Survey was co-opted onto the panel. Close links were also maintained with the University Librarian and Alistair Smith, Director of the Whitworth Art Gallery and current chairman of the University Museums Group.

1.1.3. Funding for the project was provided by the HEFCE/Museums Association, (to be distributed via the North West Museums Service). (See Appendix 2). Additional funds were provided by the University of Manchester (especially the Medical and Dental Schools).

1.1.4. The panel appointed Neil Handley, formerly Exhibition Officer at the John Rylands University Library, Special Collections Division, Deansgate, to the post of Museum Researcher to carry out the brief in respect of all the teaching and historic Departmental Collections of artefacts and specimens.

1.2. Definition of a Departmental Collection.

1.2.1. A "Departmental Collection" consists of at least two items of cultural value that are held by a university school, department or research division. It might consist of old equipment stored in a cupboard or a systematically arranged teaching collection such as has been used for instruction in pathology or zoology. It may have arisen from student project work in geology or archaeology or from an attempt to keep a record of a department's history. Some university collections may have no teaching function, being accumulations of portraits or furniture. Such 'accumulations' may, of course, be of equal value to a set of objects which has been collected deliberately. (Drysdale 1990: 24-5). Departmental collections may include, or be accompanied by, photographic collections or archives. In every case, however, they are NOT housed in a recognised museum or art gallery.

1.2.2. As a former director of the Manchester Museum (and former Chairman of North West Museums Service) pointed out, the standard definition of a museum is often not applicable to collections in universities. Some university collections simply happen to be housed in public museums. (Warhurst 1986).

1.2.3. The word 'Orphan' is recognised by the MDA (Museum Documentation Association) as a word to describe historic collections not housed in proper museums. It should not, necessarily, be considered to imply that a collection is improperly cared for, though sometimes there will be instances where a department does not have any member of staff who is responsible for the collection.

1.2.4. In the University of Manchester there are more than twenty collections which meet the definition. Some collections, such as those in the Medical and Dental Schools, use the word "Museum" to describe themselves. As a national debate has made clear, it is not necessarily the case that a collection should be described as a museum. Museums must, however, hold collections of original material, which are used in the four roles of Guardianship, Education, Access and Social Purpose. (MGC 1994 : 3). The Museum and Galleries Commission is still very much concerned with collections outside of public museums; much of the material in outside hands 'is equally part of the national heritage...(and) may eventually enter museum collections'. (Ibid. : 4).

1.2.5. The Orphans project is very grateful for the support it has received from HEFCE and the University, especially the Vice Chancellor and the Deans of the Medical and Dental Schools. Notably HEFCE recognises the importance of collections which are not part of museums and part-funds a number of HEMGCs (Higher Education Museums Galleries and Collections).

1.3. Scope and methods of Project surveys and listing.

1.3.1. The stated aims of the project were:

1) To review the collections as listed in *Held in Trust*...and to formulate and install practical policies and procedures for their use and maintenance, including questions of transfer, where appropriate, to the Manchester Museum or the Museum of Science and Industry in Manchester.

2) To assist the departments responsible to identify a purpose for these collections and to determine appropriate management strategies and practical ways of improving curatorial care.

3) To ensure that the collections are well-listed and maintained. The non-teaching collections in the medical and dental school were to be listed onto an appropriate database and subjected to a conservation survey, using specialist advice where appropriate.

1.3.2. All the collections were reviewed as teaching collections and/or for their historical importance. Discussions were held with a wide range of people on issues including present and future use, importance for teaching, publicity and access, curatorial responsibilities and collection policy. The people consulted included those directly responsible for collections (where such persons could be identified) as well as those with knowledge on departmental histories.

1.3.3. The Museum Researcher held meetings with Dr Stella Butler, consultant to the Orphans Project and liased with NWMS, the Manchester Museum, Whitworth Art Gallery, John Rylands University Library, the Museum Documentation Association, the University Museums Group, Museum Computer Group, North West Documentation Group and the Museums and Galleries Commission. Several universities, in particular those of Birmingham, Dundee, Edinburgh, University College London and St Andrews, were approached for information on how they have responded to similar problems.

1.3.4. The Museum Researcher investigated several specific questions from honorary curators on issues of conservation and consulted with Velson Horie at the Manchester Museum, the City Art Galleries Conservation Studio at Queens Park, and the National Trust. Issues of identification were settled through consultation with various curators from the Manchester Museum, Dr Stella Butler and with Chris Burton of the Computer Conservation Society.

1.3.5. Several professional visits were made including to view the Museum of Science and Industry, various stores at the Manchester Museum, Whitworth Art Gallery, St.Helens Museum, Thackray Medical Museum, Leeds, various departmental collections within the Central Manchester NHS Trust and the headquarters of NWMS in Blackburn.

1.3.6. A regular liaison was maintained with the Head of Curatorial Services and with the curators of science, industry, energy and air and space at the Museum of Science and Industry in Manchester. Links were also established with the University's Centre for the Development of Continuing Education which is responsible for organising courses for the public.

1.3.7. The Museum Researcher assisted towards an exhibition to celebrate the 50th Anniversary of the Birth of Computing, helped reorganise some displays in the Medical School, advised on improvements to displays within the Manchester School of Engineering, acted as a consultant to a collections and archives survey of the Central Manchester NHS Trust properties, answered a query from a widow looking to dispose of a collection of Physics instruments, reviewed a book issued by the Thackray Medical Museum for the *Social History of Medicine Journal* and organised an academic conference on "The Use of Historic Object Collections in Medical History and Medical Education". In a follow-up exercise he received an official visit from the Dr Stevens' Hospital Historical Centre, Dublin.

1.3.8. The Orphans Project was publicised in *Museums Journal*, *Museums and Arts Appointments*, *This Week Next Week* and via the distribution of a report on the medical objects workshop. (An abbreviated version of this was published in *SICG News*). The Museum Researcher also launched an Orphans Project Web-site on the Internet. (See Appendix 5).



2. ACHIEVEMENTS OF THE ORPHANS PROJECT.

DOCUMENTATION:

- Listing on computer database of significant part of Medical and Dental collections, plus basic listing of parts of collections in Physics and Astronomy, Computer Science, Entomology, Biological Sciences, History of Art, Architecture, Planning and Landscape, Engineering and Chemistry.
- Updating of the NUCS survey data onto an Orphan Collections Database.

MANAGEMENT:

- Formulation of management proposals in co-operation with existing informal UHD.
- Prioritisation of Departmental Collections according to historic or teaching significance.

RATIONALISATION:

- Transfer of Zoological Slide collection to the Manchester Museum.
- Transfer of spectacles collection from the MSIM to the Medical School Museum.
- Transfer of nineteenth century essential oil/drug bottles from the Department of Chemistry to the Medical School Museum.

RAISING AWARENESS:

- Organisation of highly successful workshop on "The Use of Historic Object Collections in Medical History and Medical Education".
- Launch of Orphans Project Web-site.
- The Centre for the Development of Continuing Education has used objects from the Departmental Collections in its courses for the public.

COLLECTIONS MANAGEMENT AND CONSERVATION.

- Encouragement of a single "History Store" for the Department of Computer Science. Similarly persuasion of Pharmaceutical Sciences to house all its collection in a single location.
- Introduction of formal collecting and disposal policy for the Medical School Museum.

3. SITUATION ANALYSIS.

3.1. CONTEXT

3.1.1. Orphans in university context.

3.1.1.1. As *Held in Trust* and other reports have detailed, many universities have amassed collections, particularly in the period 1890-1970, which are now seldom used for teaching or are even redundant. Certain initiatives have been tried to use collections for heritage displays and to fulfil a public relations role. For example the Dental Museum at the University of Liverpool was refurbished with financial help from NWMS. Universities which have carried out orphan-type research projects and employed staff on documentation duties have included University College, London and the University of St Andrews.

3.1.1.2. This report's recommendations concerning a curator's forum and a University Curator stemmed from observation of successful initiatives at the Universities of Birmingham, Dundee and Edinburgh.

3.1.1.3. The Manchester Orphans Project took place concurrently with a survey of all the university collections within the Western region of the South Eastern Museums Service (SEMS). This survey involves the Universities of Oxford, Reading, Southampton, Portsmouth, Buckingham, Oxford Brookes University and the Open University. Together these institutions hold at least ninety collections. The Orphans Project was kindly allowed to utilise the Collections database structure created for the SEMS survey by the Museum Documentation Association (MDA). This was an important gesture as it gives a certain level of compatibility to university surveys across the country and across different Area Museum Councils.

3.1.1.4. The Wellcome Unit for the History of Medicine at the University of Manchester is currently running a project investigating object collections and archives in the hospital buildings of the Central Manchester NHS Trust. The parallels between the Orphans Project and this were many as both surveys found important collections without proper management and, occasionally at risk.

3.1.1.5. Ann Gunn is currently conducting a survey for the MGC on what actions universities across Great Britain are taking to safeguard their collections and increase their use and public or academic access to them. It seems likely that this will lead to the MGC encouraging further Orphans-type projects and joint applications for Registered Museum Status.

3.1.1.6. The University of Manchester is an apt institution to consider the best ways to protect or use its Departmental Collections. Not only does the University boast the largest university collection in the North of England (The Manchester Museum) but its former director Alan Warhurst conducted in 1983 what still remains the only nation-wide survey of university collections. The current director has, since December 1997, been Chairman of the Advisory Committee at North West Museums Service and, since 1995, convenor of the Museum Association's Ethics Committee

CASE STUDY

The University College London Collections Management Project was set up in 1996 to consider some 225,000 objects, ranging from prehistoric flints to examples of modern art. As well as five Registered Museums covering Egyptology, Art, Zoology, Geology and Classical Archaeology, the Project was anxious to embrace the departmental collections which included physics, chemistry, biological anthropology, physiology, comparative anatomy and electronics. The Project was funded by HEFCE via the local AMC following a survey of the collections by two external museum consultants. Their report led to the financing of a (temporary) Collections Manager and a team of documentation assistants. Several collections have been rationalised as a result and appropriate transfers arranged e.g. a Genetic Collection has been donated to the Science Museum. In the longer term the College will explore the feasibility of opening a gallery of university history as a venue for the display of some of the collections.

3.1.2. Orphans in national museum context.

3.1.2.1. The recommendations in this report have borne in mind several developments within the museum world nationally.

3.1.2.2. **The MGC Registration Scheme**, introduced in the early 1990s, has now entered its second phase. All public museums as well as institutional custodians of collections are being encouraged to adopt a standard set of policies ranging from acquisition and disposal procedures, levels of documentation and the environmental conditions under which collections are stored. Other fundamental requirements include formalising the status of collections, a planned approach to budgeting, access to professional curatorial assistance and the introduction of appropriate access arrangements.

3.1.2.3. Candidates for registration are required to adopt the Museums Association's formal definition of a museum. Currently this states "A museum is an institution which collects, documents, preserves, exhibits and interprets material evidence and associated information for the public benefit". Moves have been instituted in 1998 to alter this definition to put less emphasis on the "museum" as a place or designated building and, instead, to stress the role of the museum as a holder of collections. In this respect each departmental collection in a university might be considered to be a "museum", but it is likely that most of the Manchester collections would still fail to meet the definition in terms of the level of public access offered.

Departmental Collections can still aim to meet most of the requirements of MGC Registration as indicators of good practice. Meeting the MGC standards confers a signal that a collection is, in principle, worthy of support. Actual Registration has come to be regarded as a basic criterion for MGC or Area Museum Council grants.

3.1.2.4. Designated Museums. In a related move some twenty British museums (including the Manchester Museum) have been awarded the status of Collections of National Significance. Again a renewed emphasis is being placed on the quality of the collection and the information contained therein, rather than on the traditional, sometimes, superficial criteria that gained museums awards for visitor services, dramatic displays or quality cafeterias. It remains to be seen whether designated status will open up new avenues of funding for these museums and for the Manchester Museum's policy of extending its pastoral activities to offer greater support to the Departmental Collections.

3.1.2.5. Lifelong Learning. The Labour Government's support for this concept is viewed as an opportunity within the museum world to advocate the benefits of museum education, or, more generally, of educational activities that involve the use of objects and other material evidence. The HEFCE Corporate plan for 1997-2000 also acknowledged the value of lifelong learning (Point 7). The report *A Common Wealth* on the current state and prospects for museum education was published in January 1997 and remains the subject of intense debate. Significantly, this report noted that university students are a group less often provided with museum education services. With an eye to the future, however, it might be speculated that tomorrow's undergraduates will be much more used to object-based learning to which they have been introduced on visits to museums inspired by the National Curriculum. Indeed, they may demand or expect similar teaching techniques to be offered by further and higher education institutions.

3.1.2.6. A recent MGC survey discovered that visiting public museums was a pursuit for the highly educated. 82% of adults claiming to be interested in visiting museums or galleries had completed academic studies beyond the age of 21. This suggests that many graduates feel a need to acquire further education of the sort offered by the hosts of collections of objects.

3.1.2.7. Museum Professionalism. There has been a rapid rise in the number of courses available to train tomorrow's collection curators and professional qualifications are increasingly demanded by public museums. The History of Art and Archaeology Department of this University runs a highly respected Master's programme in Museum and Art Gallery Studies. It would indeed seem ironic if a university prominent in the training of curators were itself to be the custodian of unprofessionally maintained collections.

3.1.2.8. There has also been an expansion in the number of specialist professional groups. In 1997 a national Medical Curators Group was established. On account of these support networks it is increasingly feasible for staff professionally trained in, say, museum documentation and display procedures, to gain access to the specialist knowledge that responsibility for university collections undoubtedly requires.

3.1.2.9. Legislation. A creeping programme of European and government directives has meant that orphan-type collections cannot always be kept in the manner that has sufficed for the last few decades. Strict rules, for instance, on the storage of spirit specimens, radio-active material or pharmaceuticals have meant that some items in collections would now be

considered hazardous. Such items require professional standards of storage and the days of a departmental “museum cupboard” will also fade.

3.1.2.10. Biological Collections. The University should view its SBS collections as particularly valuable at a time when even public museum collections are under threat. The Biology Curators Group has launched a ‘Collections at Risk’ initiative to highlight the importance of collections in the study of life on the planet and the importance of such studies to the community.

3.1.2.11. University/Art Gallery collaboration. In History of Art, universities have long collaborated with art galleries. The Department of Art History and Archaeology in Manchester works with the Whitworth Art Gallery and is developing connections with the Tate Gallery (Liverpool). This gallery also has a new University Network including the universities of Keele, Liverpool, Liverpool John Moores, Staffordshire, Central Lancashire and the Manchester Metropolitan University. This Network oversees MA teaching modules provided by the gallery on Theorising Visual Culture.

3.1.2.12. In the History of Science, Technology and Medicine there are important museum-academic collaborations in South Kensington (The Science Museum), Cambridge and Oxford. There is informal collaboration in Manchester between CHSTM and MSIM. There are plans to develop post-graduate programmes which would link The Manchester Museum, MSIM and the art galleries with CHSTM and History of Art and Anthropology. Such links, though still rarer than those in Practical Art or the History of Art, have proved successful elsewhere. The Thackray Medical Museum is looking to devise a degree course in association with the Society of Apothecaries. There is surely scope for museum experts to devise courses utilising both their own collections and those on site in the University departments.

3.1.3. Orphans in international museum context.

3.1.3.1. The University of Manchester enjoys a world-wide reputation for its pioneering teaching and research, especially within the fields of science and medicine. Distinguished visitors from abroad are often received by various departments or come to the University to give lectures and attend conferences. Occasionally they are shown the university treasures: The original Reynolds Tank, for instance, in the Simon Building has prompted Far Eastern academics to bow before it, such is the respect that they have for the distinguished professors of the past. Many such visitors express surprise that the University Museum does not specifically interpret the history of the University.

3.1.3.2. In other countries the story is quite different. There are numerous examples of American universities which have object-rich displays on their past. Plans are afoot in Italy to create a centralised museum of the University of Bologna. The great strength of the Manchester collections, scientific instruments, is also the subject matter of many university museums. In the Netherlands the University of Leiden's collection was opened to the public by a charitable trust and now receives state funding as the Museum Boerhaave, a national museum of science and medicine. The Istituto e Museo di Storia della Scienza di Firenze was inaugurated as long ago as 1930 on the initiative of the University of Florence and holds around 5000 original scientific instruments, apparatus, didactic and experimental devices. The Museo is now a non-profit making Public body controlled by a Council of Administration which includes University and Government ministry representatives.

CASE STUDY.

The University of Toronto is trying to draw up a proper computer database of its entire collections of scientific instruments. The University has very large collections though many are "not catalogued and are sitting in forgotten corners". The project began in October 1997 with the launch of a pilot web-museum, the "University of Toronto Museum of Psychological Instruments". The project is being spearheaded by a Ph.D. student doing research into scientific instrumentation but enjoys the enthusiastic backing of the Director of the Institute for the History and Philosophy of Science and Technology. Negotiations are currently taking place with the Department of Museum Studies to involve them in the listing exercise and in the planning of new public displays.

3.2. COLLECTIONS MANAGEMENT

3.2.1. Delegated Management Responsibility.

3.2.1.1. Ultimately, each departmental collection belongs to the University of Manchester and, below that, to the individual departments in which they are housed. Anomalous situations may arise however, especially when departments have moved accommodation; thus, for instance, the Department of Psychology finds itself the custodian of Rutherford's laboratory bench, an historic remnant from the Physics Department. It is most important that every departmental collection should, in addition, have a single nominated person to take responsibility for the collection. This could be a technician or even a retired member of staff though it would be far preferable if the nominee was a current member of the teaching staff with a strong influence in the department.

3.2.1.2. The future of Departmental Collections must be treated as an official issue by departments and not be subject to the whim of interested individuals, no matter how honourably those persons may feel they are acting.

3.2.1.3. The individuals with whom the Orphan Collections Project has maintained contact are listed in Appendix 4:

3.2.1.4. It should not be assumed from the list of Project contacts that those named have full, official, departmental recognition for their role in respect of collections and each department should take steps to select an individual to receive such recognition. The responsibility might be noted in the job descriptions of those who are named and all such nominees ought to be offered support and allowed time to participate in the University of Manchester Collection Curators' Forum.

3.2.1.5. Even where a named individual has responsibility for the care of a collection it will sometimes be necessary for them to seek *guidance from* heads of departments, for example when contemplating disposal of objects. Whilst each department with a departmental collection will want to devise its own collecting and disposals policies it is important that these should be written down and meet with the approval of the University Heritage Panel.

3.2.2. Access to curatorial advice.

3.2.2.1. Several of the Departmental Collections are, additionally in need of professional curatorial advice. This could either be provided by the new post of University Curator or via other professionals, including outside consultants and the staff of the Manchester Museum or Whitworth Art Galleries, though it should be recognised that these last two institutions are not, at present, funded sufficiently to engage in extensive outreach work to the Departmental Collections.

3.2.2.2. Advice could well be offered on various issues of storage, conservation and documentation, as well as display and interpretation. The Orphans Project has enabled limited advice of this nature to be passed on concerning the storage of metal items or the damaging effects of light.

Displays in the School of Engineering and the Medical School have benefited from advice given during the course of the Orphans Project and the Dental Heritage Unit has done much to improve its documentation records as a result.

3.2.2.3. In practice there are already several examples of good links being formed in Manchester. The Curator of the Earth Sciences Collection seeks conservation advice from the Manchester Museum. The Keeper of Entomology at Manchester Museum helped the Orphans Project Researcher to identify butterfly and moth specimens within the School of Biological Sciences and the Keeper of Zoology inspected the bone and spirit collections of the same school. The Tabley House Collections Trust can call upon Jennifer Harris at the Whitworth Art Gallery who has exclusive access to the Tabley textile collection whilst their other collections, including the paintings are cared for by a Consultant Curator who works several days a year on site. The manager of the Jodrell Bank Science Centre has the alternative approach of linking with the Curators' Forum of Cheshire Museum Service.

3.2.2.4. The Department of Computer Science has collaborated with the Museum of Science and Industry in Manchester (MSIM) over exhibitions to mark the fiftieth anniversary of the first stored programme computer. The curator of Science has also offered advice on storage in the past and listed the collection as it stood in the 1980s. Where links such as this exist they are to be encouraged; the CHSTM also has strong links with MSIM. An independent museum in Central Manchester, however, cannot in practice provide all the support needed at a university campus some two miles away. The curators of departmental collections of a scientific nature are encouraged to approach CHSTM if they need advice on identification of objects. On the other hand, a professionally qualified University Curator might be better able to meet this need.

3.2.2.5. It is a condition of MGC Registration that a collection should have access to professional advice. As a centre for professional museum training the University should be seen to be committed to seeking out the very best advice for its own collections.

3.2.3. Acquisition and Disposal Procedures and Relations with Other Museums.

3.2.3.1. It is highly desirable that each department should produce formal policies on how they will collect in future and, more importantly, how they will proceed should they wish to dispose of material (whether or not it has already been recorded as belonging to a Departmental Collection). It is no longer acceptable that potentially historic material should be binned. The existence of a detailed, formal collections policy will be essential for any department contemplating an application for MGC Registration status.

3.2.3.2. As a result of the Orphans Project a formal policy has been devised for the Medical School Museum which has been approved by the History of Medicine Committee and which will be subject to review on a pentennial basis. A University Curator would be able to assist departments in drawing up similar policies and the University Heritage Panel would wish to oversee

their implementation as well as advise on difficult questions of acquisition or disposal.

3.2.3.3. The Museum of Science and Industry in Manchester currently enjoys a close co-operative role with several University departments. In cases where the MSIM is willing to accept items on long-term loan (not involving a transfer of title) the Orphans Project would support the lending of partial or full university collections. We wish to encourage collaboration with MSIM in the preservation of scientific and technological material and in the development of displays. There is a need, however, for the University to develop secure means of preservation which do NOT depend on other institutions. While the MSIM will continue to have a major role in collecting science and technology artefacts in North West England, the University should assume responsibility for its own artefacts as it may wish to display them, now or in the future.

3.2.3.4. Ultimately the interests of the objects must come first and transfers of objects plus title could be countenanced as part of a collections rationalisation exercise. Care must be taken, though, to ensure that Registered museums do not simply cherry pick, leaving Departments with a still significant but compromised collection.

3.2.3.5. As part of the Orphans Project, the Departmental Collections were classified according to a simple scheme:

Collection Grading.

1. Archaeology	= C
2. Architecture	= C
3. Chemistry	= B
4. Computer Science	= A
5. Dental School	= A
6. Earth Sciences	= A/B
7. Engineering	= B
8. Entomology	= B/C
9. GMAU/UMAU	= C
10. History of Art Slides	= C
11. Jodrell Bank Arboretum	= A
12. Jodrell Bank Science Centre	= A
13. JRULM portraits of non-conformist ministers	= C
14. Medical School	= A
15. Manchester Computing	= C
16. Pathological Sciences	= A
17. Pharmacy	= C
18. Physics	= B
19. Tabley House	= A
20. Timber Ecology	= C
21. Town Planning	= A
22. Zoology Bones	= B
23. Zoology Slides	= A/B
24. Zoology Spirit Specimens	= B/C

Grade A collections are of the highest order and the University would lose much if these collections were to be discarded. The departments holding some of these collections might be in a position to seek MGC Registration (subject to discussions with the University Heritage Panel).

Grade B collections may have scope for rationalisation.

Grade C collections ought to be rationalised as a matter of some urgency, though it should be noted that some objects within these collections are of the highest importance. Since the grading was carried out a number of items (including the Waterhouse drawings from the Architecture Collection) have been transferred.

3.2.3.6. A list of recommended future transfers appears as Appendix 1 to this report.

3.2.3.7. Whilst recognising that the primary aim of most departments is not to further the cause of history, it is certainly the case that each School or department exists to further the reputation of the University of Manchester and the University is strongly advised to encourage departments to think of ways in which they can preserve material evidence of past activities. It is to be hoped that policies can be drawn up to consider individual items of importance, not just those held as part of larger collections. Advice on these matters would be available from a University Curator and the University Heritage Panel. Cross-departmental networking in order to co-ordinate collecting would come via the Collection Curators' Forum.

3.2.4. Title.

3.2.4.1. Departments ought to take steps to verify legal title to the collections in their custody. They may find that collections or individual objects are held, in fact, only on loan (See section 3.2.5). Proof of title may be requested if a department (for altruistic or other reasons) should seek to transfer a collection to a Registered Museum and the museum will almost certainly request a proper transfer of title. In the past, museums were more willing to take items on loan and university departments saw this a means of retaining ownership of prestigious items without the work involved in caring for them. Such arrangements are less likely to be approved in the future.

3.2.4.2. Legal Title to the departmental collections is vested in the Council of the University of Manchester. Under the University's *Supplemental Charter*, granted by Letters Patent in 1973, Section iv, paragraph (g) specifically empowers the University:

"To act as trustees or managers of any property, legacy, endowment, bequest or gift for purposes of education or research, whether in the University or elsewhere, or otherwise in furtherance of the work and welfare of the University".

3.2.4.3. Those departments which decide that they are unable to look after their collections, (and which are not legally restricted in their actions, as is the case for departments holding some types of human material), should

consider the welfare of the collection to be paramount and consult the University Heritage Panel about possible transfers to a better repository. In future, departments ought only to accept material on the University's behalf according to formal collecting policies, the wording of which would allow them to make such a transfer in the future. An explicitly worded policy such as this can help ensure that departments only collect and retain objects in accordance with their ability to care for them. It can also prevent disputes arising with the relatives of donors who have given things to the University, expecting them to be held in perpetuity.

3.2.5. Collections held on loan.

3.2.5.1. Several objects on display in departments are there on loan from other institutions. Examples would include the aeronautical engines in the foyer of the Simon Building or the Manchester Medical Society material in the foyer of the Stopford Building. Individual items are housed on University walls but belong to the University Settlement (a charitable organisation established originally for poor boys). In the past, when proper procedures have not been in place, there has been the danger that loan items might be discarded as though they had been University property. It is, perhaps, even more important that the University curates loan items to high standards. This was made clear when the inadequate storage arrangements of two silver lawn tennis cups within the Pharmacy Department (lent by the Manchester Pharmaceutical Association) were stolen in January 1998.

3.2.5.2. Departments are urged to take all steps to ensure that they either have valid title to all objects within their care or that ownership of any item is without doubt. Loans are, of course, an excellent way of brightening display facilities and of cementing industrial and professional links. It is recommended that departments entering into loan agreements do so only for short (though potentially renewable) periods.

Case Study.

In 1971, Professor Morton offered the North West Museum of Science and Industry (still part of UMIST) a model of an AEI 500 megawatt turbine. The museum accepted it into the collection whilst leaving it to be conserved and displayed in situ at the Department of Engineering's Simon Building. It remained in the foyer until the space was required to build a cafeteria.

Around 1990 the Department apparently contacted the successor museum, the Museum of Science and Industry in Manchester by telephone and was told that the Museum no longer wished to have the model. Apparently the informal means of approach led to some confusion. The museum may not have realised that the Department was talking about an object the museum had already accessioned and documented. In any case, the model was given to an Apprentice School.

In 1997 the Museum contacted the Orphans Project enquiring about its model and seeking a description so they could improve their records. After some investigation the events detailed above were discovered, as well as the fact that the Apprentice School had subsequently closed and the model thrown in a skip.

The moral of this tale is that Departments must be sure that they have the right to throw things out or pass them onto other institutions. Proper records should be kept of all decisions relating to collections and a Departmental staff member given responsibility for the management of such collections and the associated records.

3.2.6. Personal Collecting.

3.2.6.1. Many of the collections at the University have been formed through the individual collecting enthusiasm of members of staff, particularly within what is now the School of Biological Sciences or the Department of Earth Sciences. The Osborne Reynolds collection has also been safeguarded largely through the efforts of a single interested professor. There is, however, a danger that individuals may come to regard collections as their personal property. It is our view that any collection amassed in the course of professional research should be considered the property of the University of Manchester and remain within the University after the student or member of staff has left. The current (voluntary) policy of the Department of Earth Sciences might serve as a model in this respect:

In agreement with NERC guidelines the Geology Department (sic) encourages students (both those funded by NERC and by other sources) with collections of rocks, fossils and minerals to leave them in the thesis research collection at the end of their project.

3.2.6.2. This policy takes into account that material may have been collected at considerable expense. Of course a policy such as this would not apply where the individual concerned could show that he or she had devoted his or her personal resources to the collection process

3.2.6.3. Of greater concern is the fact that members of staff in charge of university collections may, themselves be private collectors. It is important that these two activities should never become confused as the University cannot afford to house and curate the collections of private individuals and does not wish to risk seeing its own possessions subsumed into the personal collections of others.

3.2.6.4. On the other hand, it is undoubtedly the case that those persons who are practised in collecting may well be some of the best qualified staff to look after departmental collections. The expertise of the Honorary Curator of the Medical School Museum, gleaned through a lifetime of collecting and dealing, has undoubtedly added to his ability to identify and interpret the objects in the School's collection.

3.2.6.5. It is also to be hoped that members of staff with purely personal collections may wish to offer them, either by gift or bequest, to the relevant department in cases where the collection could be considered to be of significant academic value or historic interest. Therefore it is not recommended that responsible staff should refrain from collecting, however departments and schools may wish to consider securing an undertaking from curators not to engage in any collecting activity which may put them in conflict with the best interests of the relevant departmental collection.

3.3. COLLECTIONS USE.

3.3.1. A 3-D Archive for the University.

3.3.1.1. The various departmental collections should be considered as forming part of a wider three-dimensional archive, of use to researchers in the various departmental disciplines and to historians of the University. This archive, if cared for in a suitable fashion could become equally useful to archives which exist in purely two-dimensional form including collections of papers and other written records.

3.3.2. Academic Workshop.

3.3.2.1. As part of the Orphans Project brief to raise the profile of the Departmental Collections, the CHSTM and Wellcome Unit for the History of Medicine sponsored a workshop on "The Use of Historic Object Collections in Medical History and Medical Education". It was an attempt to bring together professional museum curators, university historians and medical course facilitators and encourage the greater USE of collections. Taking place on 13th-14th March, papers were offered on the methods involved in using objects for study and a practical exercise "The Object Game" was piloted. (A fuller report is contained in Appendix 3).

3.3.3. Research.

3.3.3.1. Some of the Departmental Collections are well known to researchers, most notably the Unwin Town Planning Archive, but any collection of objects can also be of value. It can present questions that the researcher may then go to the textual sources to investigate or can be the subject of scientific analysis. It can provide the *raison d'être* for a PhD thesis or act as the illustration and verification of research already conducted.

Case study.

The collecting policy of the Department of Earth Sciences states that postgraduate students and researchers are allowed to use samples from the collections for analysis. Copies of the results are given to the curator for computer entry. The curator ensures that only one specimen of a particular type is used for analysis so as to keep other examples intact. Material is also loaned to outside researchers. The Wager and Brown collection was used recently as a set of terrestrial comparisons with samples of Martian meteorites I.e. a collection from 1958 was found to tie in nicely with a very topical area of modern study.

The department's policy points out that, "Material obtained during a research project has often been collected at considerable expense, studied rigorously using costly equipment and forms the basis of publications. A good well documented collection kept in the department and accessible to people can aid further advances in research. Also, material that has previously been analysed will always be available to other people who may wish to apply new or different analytical techniques".

3.3.3.2. There are, of course, inherent costs in curating a research collection but as John F. Peake has pointed out in an article on "Cost and Benefits"

(Horie 1989 : 47) the value of a collection accrues primarily through use. Since levels of use correlate with availability, it follows that good curation can add value to a collection as researchers will want to use it and will divert their funds towards the institution which can provide it for them.

3.3.3.3. It is desirable that pre-existing collections should be brought back into use whenever possible. This might be more likely to occur if Manchester students were to have been exposed already, through teaching, to the use of object collections in their subject. An academic research project could test the value of the levels of documentation a collection enjoys, or it might be initiated with the express intention of providing documentation where none previously had been produced. Academic supervisors are strongly encouraged to draw the attention of collections to their students and to support those who may wish to use them in research.

3.3.3.4. The University should also encourage its staff to engage in research that exploits collections. This has happened to an extent in the School of Biological Sciences; Dr. Ennos, for instance has utilised the Granada Arboretum to carry out research into the mechanics of plants whilst Professor Ferguson has studied crocodile skulls in order to publish on the cleft palate.

3.3.3.5. It must be borne in mind that collections once used heavily in research may come back into fashion. The sub-committee of the House of Lords Select Committee on Science and Technology supported the retention of reference collections in systematic biology as recently as 1991.

3.3.3.6. In order to facilitate research it is essential that public forms of documentation be made available. The University of Toronto is currently compiling a Web index of its collections which it is hoped will draw attention to the material resources available at that institution. General printed handlists, however, might prove effective in this facilitative role.

Case Study.

Dongho Chun is a Korean postgraduate. He arrived intending to do his doctorate on Arthur Hughes but found that all the material is either in London or America, so he changed subject to considering the 1st Lord de Tabley's collection of paintings; he was introduced to Tabley House by his supervisor.

Dongho is interesting as an example of a higher degree student using a university collection as the basis for his thesis; also as a student drawn towards a university collection by the intervention of an academic supervisor; also for his experiences of the practicalities involved in trying to use a university collection, even one which is set up as a public visitor attraction.

Dongho has been to Tabley House 3 or 4 times and expects to make a similar number of visits this academic year. He has to get a taxi from Knutsford as there is no other public transport though he says he enjoys the journey on account of the scenery! His research requires access to the actual paintings. He cannot glean everything from the list of paintings lodged in the Vice-Chancellor's office (though that is useful). His thesis has also made extensive use of the Tabley archives currently at JRULM Deansgate.

Dongho has found the administrative staff consistently helpful, but did not feel the place to be geared up to receiving scholars. There were no study facilities though they were able to find him a desk and chair in the Staff room and were happy to take him down in the cellars where the computer is.

3.3.4. Student Teaching.

3.3.4.1. In common with the NUCS survey of 1989-90, the Orphans Project has discovered that teaching material from collections is still necessary to a significant range of subjects. These include various scientific disciplines as well as Art History and Archaeology. The Archaeology course maintains a substantial collection designated as a teaching collection and whilst there is talk that the collection may be reduced in size it is certain that it will continue to exist and be used in the near future.

3.3.4.2. Where collections have been used in teaching the response has often been very positive. The main example must be the demonstration practical which occurs within earth science, zoological, entomological and pathological teaching. Specimens are laid out on desks along with supporting materials and students have to study them and answer questions. It has been implied that, by introducing a more 'human', less abstract element to courses, teaching with objects can attract more students to science disciplines (Porter 1996). One Manchester biologist, faced with an item from the zoological collection is reported to have announced that it was "wicked". He did not use the word in its traditional sense but in the modern slang - he thought the exercise was great!

3.3.4.3. Models have also been used as suitable illustrative material for lectures, for example in the teaching of architecture. We believe that historic objects can enliven lectures and make teaching in higher education more attractive. This recommendation applies to all subjects though it will obviously be easiest to introduce within the programmes of the CHSTM on the history of science, technology and medicine, or within the revised courses in Museum and Art Gallery studies.

3.3.4.4. It has to be admitted that the use of collections in teaching has been neglected by various reviews of further and higher education. In November 1997 Jeremy Warren of the Museums and Galleries Commission was forced to issue this stinging rebuttal of the Dearing Report over the omissions in its one and only reference to collections (Section 12.30):

The Dearing Committee concentrated exclusively on these collections as public amenities provided by universities. This emphasis gives a false impression as well as a dangerous one, at a time when universities are increasingly forced to justify every element of their expenditure. The Dearing Report fails to understand that university museums (and collections) exist...to contribute directly to their institutions' teaching and research effort.

3.3.4.5. Warren's response is important for the Orphans Project which does indeed seek to persuade the University to regard the Orphan Collections as worthy of public display but is just as concerned to encourage their use within the University for teaching and research i.e. to continue the purposes for which the objects were originally collected.

3.3.4.6. Some collections have formal or informal loan procedures for teaching on an interdepartmental level; for instance Pathological Sciences lends specimens for use in Nursing training programmes. Other collections could contemplate the establishment of parallel teaching

collections to sit alongside their historic collections, and consisting primarily of duplicate items. The Medical School Collection could certainly achieve this although its Honorary Curator could never devote the time to oversee teaching initiatives that utilised such a collection. Objects in such teaching collections could not simply be treated with abandon, but departments might be justified in affording them a lesser level of curatorial care.

3.3.4.7. It is also the belief of the Project that historical evidence in general (not necessarily including objects) be discussed in all subjects. There is a widespread acceptance across the campus that this would be interesting; it is to be hoped that it can come to be seen as useful too. The Honorary Curator of the Dental Collection would be keen to pilot some teaching initiatives involving objects and it would be welcomed if the University would grant the space and time for such pioneering effort to occur as part of its wider, constant quest for excellence.

3.3.4.8. An understanding of history enables a student of a subject to understand the 'wider picture' and the context within which he or she is studying. In particular it will reinforce the notion of change, encouraging students to think ahead and identify trends of development or regression. Non-core study modules with an historic content seem to be popular and may therefore contribute to a student's psychological welfare, increasing their enjoyment of the course and, as a result, their commitment to its successful conclusion.

3.3.4.9. It is to be hoped that the Orphans Survey will have raised awareness of existing three-dimensional resources within the University's walls. *Held in Trust* (p1) emphasised that a 'lack of basic information' was often the main cause that limited the value of collections 'as a resource within their parent institutions'.

Case Study.

Studying the history of a subject can be an interesting end in itself as well as a method of completing a degree. As part of a Third Year undergraduate project in 1995-6, a student in the Department of Computer Science, Kulwinder S. Gill created a new Website called The Virtual Museum of Manchester Computing. Working under the supervision of Dr Ulrich D.F. Nehmzow, Gill devised a series of pages including a historical account and description of various machines devised in Manchester (the Mark I, Mercury, Transistor Computer, ATLAS and the MU5), the personalities involved (such as F.C. Williams, Tom Kilburn and Alan Turing) a chronological time chart and a summary of the departmental library's holdings. Components from the machines in question remain in the department and the Website is a useful interpretative tool for them. The pages are regarded by the department as a lasting resource, worthy of updating and can be read at <http://www.computer50.org/kgill/index.html>.

3.3.5. External Education.

3.3.5.1. The Departmental Collections would be of particular interest to members of the public engaging in the various external programmes of the University. Objects would provide for such people a particularly attractive and user-friendly medium for the communication of ideas and information. This might be the case especially for those members of the public who have not previously had much formal education, but it would apply equally to the highly qualified. Object-based work should be considered as adding an extra facet to the teaching methods which currently include book-based learning, lectures, field projects, audio-visual and group session work. *A Common Wealth* stated that collections of objects were ideally placed to contribute to processes of lifelong learning on account of the 'public's desire to engage in informal and self-directed learning' (p4).

3.3.5.2. Objects provide the opportunity for self-learning through the application of the senses and proponents of the experiential learning theory have suggested that the acquisition of sometimes totally unfamiliar skills can be very rewarding even to the most highly educated students. There is certainly an increasing emphasis within Higher Education on individual resource-based projects and the resources to be put on offer to students will frequently include artefacts. *A Common Wealth* called, consequently, for educational institutions at all levels to establish good practice in learning directly from objects, specimens and works of art (p66).

3.3.5.3. Historical objects can have value across all disciplines, not just history. They can help to create an atmosphere in which learning is enhanced. They grab the attention and stimulate, cross language and ability barriers, encourage students to use their visual memories and introduce concepts such as materialism, functionalism and authenticity. Broken or incomplete objects may be able to do this equally effectively. (Durbin 1991).

3.3.5.4. *A Common Wealth* also suggested that whilst the levels of scholarship in public museums might on occasion equal that of the best universities, the museums served a broader public. The unstated implication was that universities as a whole (not just university museums) need to extend their public appeal and judicious use of the orphan collections in extra-mural activities may help close the gap.

3.3.5.5. It is in the field of the public understanding of science that the orphan collections would seem best placed to serve. Many Physical Science departments already view science museums as important partners in this role and in Manchester the CDCE has co-operated with MSIM to deliver courses, for instance an introduction to the history of science, that include an element of access to objects. Such links for the University are extremely healthy and are to be encouraged, but it would seem sensible for the CDCE to utilise the material resources on its own doorstep. Links between museums and universities often rely on personal links alone which are not enough to ensure a regular input of object-based work to the courses on offer each year. In addition, the Orphan Collections would provide ample scope for displays and demonstrations during Science Week.

3.3.5.6. It is important, however, to recognise that very few adult educators have any specific training in using either museum or home-based object collections and professional development priorities for staff within the CDCE ought to include the acquisition of the appropriate skills. There may be an instructional role here for the Museum and Galleries Studies unit of the History of Art Department.

3.3.6. The role of collections in University publicity and promotion.

3.3.6.1. The opportunity to use collections as visual advertisements of a proud record of achievement should be exploited whenever possible. Actions could include physical displays or electronic publishing via the Internet.

3.3.6.2. In May 1998 the Computer Science Department showed off some of its equipment during a public open day and it was also convenient for the department to have objects and archives which it could display as part of the fiftieth anniversary of computing celebrations.

3.3.6.3. The CDCE has used museum objects in Science Week events. It is to be hoped that they will want to use the objects on their own doorstep in the future.

3.3.6.4. Collections should be mentioned and shown when prospective students or staff visit departments. The aeroengines in the foyer of the Simon Building or the spectrometers in the Schuster Building are the sort of thing that will remain in the memory of a visitor.

3.3.6.5. Items from Departmental Collections might be used to illustrate a departmental prospectus or newsletter. They will often be suitable backdrops for camera crews interviewing members of staff. Displays in the Dental School featured recently in the BBC drama serial *City Central* though unfortunately they were masquerading as part of a hospital in a fictional city. The conservation of an important historic object would be a news story in its own right and project a favourable image of the department concerned in the media.

3.3.6.6. The collections at Jodrell Bank and Tabley Hall are different to the other collections included in the Orphans Project as they provide a tourist experience for day-trippers or holiday makers. No chance to identify this enjoyment with the University of Manchester should be lost and these sites might consider umbrella marketing efforts with the Museum, Art Gallery and John Rylands Library.

3.4. FINANCE.

3.4.1. Current Funding Opportunities.

3.4.1.1. Although the Orphans Project was not primarily concerned with financial issues it is appropriate to pass a few comments, not least since this report is submitted in full recognition of the fact that many of its recommendations, especially that of a new display or Gallery of University History, would require additional resources to carry them out.

3.4.1.2. Most of the Departmental Collections are without separate funding although stationery, space-tax, lighting, heating and room cleaning may often be provided under the main departmental budget. The Medical School Museum is unusual in having a small endowment fund, of £1000, set up on behalf of the museum by a former pupil. The interest from this has allowed the purchase of a reproduction leech jar. It has been agreed that no more than 10% of the fund may be spent at any one time so as to keep the original investment intact. The museum also has access, by precedent, to the Needham fund from which visiting lecturers are paid.

3.4.1.3. Unlike many public museums, the Departmental Collections would not benefit especially from an acquisitions fund. It is far more important to seek ways of financing the care and maintenance of the collections already held, although it is acknowledged that the educational value of the Departmental Collections might be enhanced if specific acquisitions were made possible. Collaborative bids for conservation supplies, perhaps subsidised by the University or at faculty level, would be a welcome first step.

3.4.1.4. **The University.** The NUCS Survey of 1989-90 called for 'the special nature of university collections whose primary role is their value to scientific or historical teaching and research (rather than display or other public functions) [to be] taken into consideration in assessing of grant criteria by trusts and bodies that are in a position to offer financial assistance'. (Arnold-Forster, 1993 : 33). In the absence of much progress on this matter it may be that the University itself will have to take a more interventionist role.

3.4.1.5. The University should give serious thought to funding a University Curator with an attached budget for small scale improvements to collection storage, environmental conditions, security, display and documentation.

3.4.1.6. Alternatively, the University Heritage Panel could control an umbrella budget (even a very small one) for distribution around the various Departmental Collections according to the greatest perceived need.

3.4.1.7. Another solution may be to use resources for promotional activities (e.g. conferences) to improve display facilities or mount temporary exhibitions as an integral part of the event. The display and (more important) the safe storage of collections should always be considered as an issue when refurbishing departmental buildings or at the design stage when planning new construction projects. The proposed new Link Building for the Medical School is a case in point and the display facilities within the Dental Hospital should be regarded as an excellent model to follow.

3.4.1.8. **The Manchester Museum.** Should additional funding streams be available to the Museum for outreach and pastoral work, as a result of its designated status, high priority should be given to supporting the implementation of the University's policy on the care of and access to the Departmental Collections.

3.4.1.9. **MGC Registration.** Those Departmental Collections which have the potential to become Registered by the MGC should evaluate the advantages of doing so, either individually or collectively. Registration is a pre-requisite for certain funding bodies. Decisions on making Registration Bids should only be reached in consultation with the University Heritage Panel. Registration might also allow the more effective use of resources and the improvement of collections by enabling departments to exchange items with public museums that maintain a policy of only exchanging material with registered museums.

3.4.1.10. **The National Lottery.** Any lottery bids would have to be made in very close consultation with the Manchester Museum and John Rylands Library, each of which has submitted bids recently and may plan to do so again. As the University has already received major lottery grants, further bids might (but not necessarily would) be given a lower priority. Nevertheless, the possibility of a Departmental Collections Bid submitted by the University or perhaps the new Collections Committee should not be dismissed.

3.4.1.11. The ground has altered somewhat with the passing of the 1997 National Heritage Act. Recent indications suggest that collections care (as opposed to new building projects) will appeal to the Heritage Lottery Fund and a Small Project Bid (for projects costing less than £100,000) may well be successful, with a possible 90% of funding being offered. The HLF could now support stand-alone access and educational projects, both those designed to increase public enjoyment and understanding of the University's heritage, as well as any project to *conserve* and *protect* that heritage for the future. The University would have to take steps to improve the public interface of the collections, however, as conservation projects which did not also provide for increased access to the collections would be unlikely to gain a grant.

3.4.1.12. If the difficulties over access could be overcome then the new HLF Revenue Grants Programme (which can cover costs associated with people, equipment or materials) might be of particular interest

3.4.1.13. **Merchandising.** In common with moves already afoot in the Manchester Museum and Whitworth Art Gallery, the Departmental Collections could be considered as potential sources for income generation via the sale of images. Objects which might be of (limited) value in this respect include the Reynolds Tank, the Richard Neave models in Pathological Sciences, the Einstein blackboard, Rutherford's bench (if restored) and almost any portrait.

3.4.1.14. It is, perhaps, advisable that the collections continue to be made available to film and television companies free of charge because of the benefits of free publicity for the University which may derive, as long as any assistance is fully acknowledged.

3.4.1.15. **Sponsorship.** The Dental School has shown that major commercial sponsorship for temporary displays can work well and departments should consider making space available for relevant companies to exhibit material in cases which may subsequently be of use in displaying Departmental Collections. As the Drysdale Report (Drysdale 1990 : 64) noted, however, soliciting sponsorship is unlikely to be a realistic aim on the part of part-time or even unsalaried staff. A corporate approach spearheaded by a University Heritage Panel working with a Collection Curators' Forum, might be better placed to make the attempt.

3.4.1.16. **Research Funding.** Departments in receipt of specific research project funding should aim to encourage projects which involve the use of existing collections and portions of the money might legitimately be spent on improving the conservation of the collection to ensure its fitness for use.

3.4.2. Insurance.

3.4.2.1. Insurance lists, previously held by Estates and Services now come under the remit of the Finance Office. Although the University (via the Finance Office) has taken out insurance for the works of art in the Christie Building and Whitworth Hall, all other works of art or museum-type objects are insured on a purely departmental basis. Many departments make no specific mention of objects from collections in their insurance returns. There is thus no centralised list of works of art in the University more recent than 1975. For this reason it is recommended that the Orphans Project database be completed and extended to embrace all museum-quality items (including single items not in collections) across the University. Such a list would, however, still exclude the collections of the Whitworth Art Gallery and the Manchester Museum (in which all objects are insured).



3.5 COLLECTIONS CARE.

3.5.1. Conservation and Environment.

3.5.1.1. INTRODUCTION.

The University Departments have responsibility for a large number (several thousand) of objects of historical significance. We believe Departments have a moral duty to preserve these objects in perpetuity. Handling objects and displaying or storing them incorrectly can contribute to their physical deterioration. This section of the report therefore aims to provide a framework for limiting this deterioration to a minimum (preventative conservation) and to give some basic guidelines for consolidating or restoring damaged or decayed objects (remedial conservation). In time, it is hoped that departments may be encouraged by a University Heritage Panel to sign up to formal conservation policies.

3.5.1.2. OBJECTIVE.

The objective of any collection-holding department should be to ensure the maximum possible care and protection for any objects it has elected to retain, either in ownership or on loan, in storage or on display.

3.5.1.3. CURRENT CONDITION OF THE COLLECTIONS.

The state of the Departmental Collections has been discovered to be quite good, perhaps surprisingly so. There was, admittedly, an engine nosecone held together with sellotape and a pair of rubberised goggles that had disintegrated. A lizard head in the Dental Museum had dried out through lack of staff expertise to top up the spirit. The condition of the Biology Spirit Specimen collection, though poor, was not a major cause for concern as much of it had already been discarded once before, but it would benefit from a more regular programme of maintenance such that future generations have a genuine choice in deciding whether the collection is worth rescuing from the rubbish again.

3.5.1.4. CURRENT ENVIRONMENT.

3.5.1.4.1. The Biology Spirit Specimen Collection was found in a brick shed open in part to the elements. The Blakett Magnet was discovered dripping wet in the moat of the Schuster Building. The Engineering and Chemistry collection cupboards were in damp and dusty environments. Generally, however, the environmental conditions under which the Orphan Collections are stored are adequate, if far from ideal.

3.5.1.4.2. The survey showed that many objects are stored in air-conditioned rooms where the environment will be dry at least. Far worse is the fact that collections have moved so often. Museum objects do not so much require optimum conditions as stable conditions and this stability is prevented when object collections are compelled to live transient existences. A good box with a well fitting lid can provide a micro-environment for an object as well as buffer it from wooden or metal shelving. A curtain or blind on a window can be just as effective as an ultraviolet light filter. Spirit specimens should be kept out of contact with direct sunlight and away from heating pipes. Those preserved in alcohol should be recognised as a potential fire risk (even though spirit specimens do not fall under the Highly Flammable Liquids Act). All collections should be stored in no smoking areas, away from electrical fittings and never directly beneath water pipes.

3.5.1.4.3. Steps should be taken to ensure that all new storage facilities are planned with the environmental needs of the objects in mind.

3.5.1.5. RECENT CHANGES.

As a result of the Orphans Project certain maintenance procedures have been carried out. It is not always possible to say whether these procedures would have happened eventually, or whether the Project was the spur. Nevertheless the entomological specimens have been topped up with pest-detering chemical crystals and the non-conformist minister portraits in the library have been stored in an upright position and given some basic cleaning.

3.5.1.6. PREVENTATIVE CONSERVATION.

CURRENT PROBLEMS.

3.5.1.6.1. The main problems seem to relate to metal items, especially medical instruments or discarded scientific equipment. Many of these have tarnished, either through over-exposure to light or moisture. Engineering and Chemistry collections were found to be still decaying but the medical and dental collections suffered most of the damage in the past and through the efforts of honorary curators have now stabilised. The Museum Researcher has given these honorary curators advice on metals conservation following consultations with the City Art Galleries' conservation studio in Queens Park and the National Trust.

3.5.1.6.2. The fundamental issues of storage space and environmental conditions mean that no Departmental Collection should be added to unless the department can provide appropriate storage or display facilities. In deciding whether it meets the necessary criteria a department should aim to meet the following points as a minimum standard.

3.5.1.7. PREVENTATIVE CONSERVATION.

MINIMUM STANDARDS.

- Objects should be isolated from direct sources of heat and shielded from sudden or extreme fluctuations in temperature.
- Sensitive materials should be protected from excessive exposure to sources of natural and artificial light. Leather and silk-lined cases are especially vulnerable from light damage, either from unfiltered fluorescent tubes or from natural daylight and a last-ditch conservation measure may have to involve removing favoured items from display.
- Sensitive materials should be protected from exposure to air pollution and excessive sound or vibration.
- Objects should be protected from mechanical damage and deterioration due to abrasion or contamination. Most of the problems with metals can in fact be reduced by very simple expedients such as preventing rusted items from cross-contaminating adjacent objects, wrapping small items in acid-free tissue and wearing cotton gloves when handling items.
- Dustcovers should be provided whenever possible, preferably reaching almost to floor level and made of unbleached cotton. Storage items including covers and boxes should, whenever possible, be manufactured from inert materials. An example would be Corex boxes, of a corrugated plastic which does not give off vapours and is the favoured box of the Manchester Museum. Departments are reminded that wooden cupboards and shelves may themselves give off vapours and objects unavoidably stored next to wooden fittings should be suitably buffered.
- Handling and movement of objects should be kept to a minimum and only carried out with the permission of the departmental nominee. Techniques of handling should minimise the risk to the object (e.g. wearing gloves, not carrying too many items at once). Historic working machines or apparatus should be run or operated only after careful thought has been given to the conservation implications for the object and preferably after a Professional Conservator or other expert's advice has been sought.
- There should be no eating, drinking or smoking near collections. (See also **Security**).

- “Good Housekeeping” is to be encouraged including the general cleaning of storage areas when this does not compromise security). All storage areas, cupboards and shelving units should be kept in good repair. Periodic checks should be made by departmental nominees to see that collections have not deteriorated further and there have been no floods, infestations or mould growth.

3.5.1.8. REMEDIAL CONSERVATION.

- Departments must realise that the condition of an object is the result of that object’s history. Any wear and tear may itself be of historic significance and give unique indications (visual or otherwise) of the object’s ‘life’ and use. Given, therefore, that most departments have no access to professional conservation facilities, it is recommended that remedial conservation be confined to measures that will consolidate objects.
- Exceptions to this rule would be made in the case of trained museum technicians working in the Department of Pathological Sciences or in the case of hardware in the Department of Computer Sciences, restored by members of the Computer Conservation Society. For other departments, full object restoration for the purpose of display should be carried out only by professional conservators. Advice on appointing a conservator can be obtained from the North West Museums Service.
- The Orphans Project believes that certain items, most especially the Blackett magnet in the Department of Physics and Astronomy, as well as the various pieces of furniture associated with Rutherford, should be restored. In each case the restoration should aim to reproduce the condition of the object as it was when in use, and not the condition as it was when new.

3.5.1.9. REMEDIAL CONSERVATION.

MINIMUM STANDARDS.

- Departments should restrict themselves only to the very basic cleaning of objects. Light dusting and soft-brushing only should be attempted.
- Rust and chemical accretions should generally be left alone. In the case of objects which have always been well maintained, some light oiling may be permitted. Commercial silver cleaners should not be used.
- Departments are advised not to acquire any object which is offered to them if it will require extensive remedial conservation.

3.5.1.10. A FURTHER NOTE ON SPIRIT SPECIMENS.

It is important that the University should follow best practice with its spirit specimens, especially in the light of the 1989 conference on their preservation held in Manchester to which the then Department of Environmental Biology as well as Pathological Sciences contributed. As the publication from that event (Horie 1989) acknowledged, the conservation of spirit specimens had become “a subject that has been a Cinderella of museum conservation”. Even the sludge at the bottom of a dried-up specimen can retain information of considerable merit but Spirit specimens are worth conserving properly and it should be recognised that they will change with time and require constant surveillance. Instances of mould

growth are to be tackled with urgency and recognised as indicators of inappropriate storage conditions. The fluid not only protects the specimen from normal decay but affords mechanical protection to the specimen when it is handled. The vessel containing the specimen may itself be of historic interest.

3.5.1.11. TOWARDS A CONSERVATION PLAN.

Each department will need to consider what measures are most appropriate to the consolidation or improvement of collection condition. Typical examples of actions that might feature in a conservation plan would include:

- Introducing periodic assessments of a representative sample of a collection to establish whether objects are deteriorating.
- Undertaking to monitor levels of temperature and relative humidity on a regular basis and acting to remedy large fluctuations.
- Introducing sticky traps to monitor for insect pests.
- Installing blinds or curtains in stores or display areas.
- Purchasing conservation-friendly storage boxes.
- Testing objects or display materials for ozone, CFCs or radioactivity.
- Sending departmental nominees on object-handling training courses.

3.5.2. Storage.

3.5.2.1. Storage facilities vary, the most common fault being that simply too much stuff is crammed in one box or cupboard. Metal cupboards, whilst secure, are not always the most suitable type to store museum objects but can be made harmless if the shelves are lined with a buffering material or the objects are also stored in boxes inside the cupboard.

3.5.2.2. The Orphans Project is grateful to the Faculty of Medicine, Dentistry and Nursing for agreeing to purchase Corex inert boxes for the medical and dental collections. Smaller collections, which might only need a few boxes could perhaps be provided with them under the auspices of the University Heritage Panel.

3.5.2.3. Providing adequate space is extremely difficult, especially when departments such as Earth Sciences are subject to a space 'tax'. The Project welcomes the initiative of the Computer Science Department to collate all its smaller objects in a single location, to be designated the "History Store" and the agreement of Pharmaceutical Sciences to follow the example. A collection is easier to control and curate if it is stored in one place. The choice of location should include an assessment of how easy it would be to evacuate in the event of a disaster such as flooding. Stores should not have to double up as office or workspace or include non-collection material. Exceptions are permissible when utilising or teaching with the collections may require accommodation alongside the objects themselves, as with the Department of Archaeology. Once designated, storage areas should not be reclaimed for other purposes.

3.5.3. Documentation.

3.5.3.1. Proper documentation is essential to allow a collection to be managed effectively. It is the basis from which other activities stem, including conservation assessments, insurance audits, storage space allocation and properly-planned exhibitions.

3.5.3.2. The Project came at an interesting time, for the Manchester Museum itself, with the appointment of a new post of Registrar, has been rethinking its approach to collections documentation. One of the main points the Museum has identified is the need for compatibility across the records of all its collections. The same applies to the University Departmental Collections.

3.5.3.3. The Orphans Project has compiled a database which attempts to give an object-level listing of what there is and where it is. Any fuller form of cataloguing would have been quite impossible within the limited time frame. The listing exercise concentrated on the medical and dental collections and also on other smaller collections such as Engineering, Computer Science and Timber Ecology but no attempt was made to enter data on collections for which lists already exist such as the Pathology Specimens (or are alleged to exist, such as the Zoology Bones).

3.5.3.4. Each department should aim to maintain detailed inventories of what it possesses. These may involve only a simple two or three word description and a location code. Staff should audit the list regularly, perhaps once every two or three years.

3.5.3.5. Where documentation already exists it should be unearthed and treated as an important departmental document. In common with good museum practice, it would also be advisable for departments to retain copies of documentation on objects which have been discarded.

3.5.3.6. There is a wide range of approaches in current use:

- Both the medical and dental collections already had substantial manual documentation systems including simple and full names, unique numbers, dates, locations, condition reports, donor information and full descriptions (including object colour, shape, dimensions, inscriptions etc). These collections really require a fully computerised system for use as an effective collections management tool, such as is enjoyed by Tabley House. This would prove especially useful in the answering of outside enquiries or when arranging loans to other museums. The Orphans database could act as the basis for such a system but the departments' honorary curators and volunteers will need access to proper computing facilities with sufficient power to run the ACCESS 97 software.
- Earth Sciences uses a professional database package, FOXPRO, though interestingly this is not the same package used for geological items in the Manchester Museum. Where there is thought to establishing new departmental collection databases it is suggested that ACCESS 97 be used as a widely available programme and one which will be compatible with the Orphans database and future databases run by the Manchester

Museum. A major argument in favour of the well known programme is the high turnover in collections-responsible staff. Even at Tabley House there is in effect, only one individual who understands fully the PARADOX database in use.

3.5.3.7. Several departments, including Physics, Computer Science and the Jodrell Bank Science Centre are considering writing CD-Roms as fashionable means of storing images and, possibly, making money. Whilst welcoming these initiatives, the Orphans Project is keen to point out that such ventures often derive out of (rather than precede) full documentation exercises. It is also worth mentioning that the long term archival quality of CD-Rom or otherwise scanned/digitised images is far from guaranteed. **It is certainly, not an option to produce digital archives in order to discard the original objects.** This warning applies in particular to the contents of historic slides.

3.5.3.8. The format in which records are produced is just as much a matter for debate as the format in which they are preserved. It is recommended that hardcopies be run off. These may well prove easier for many voluntary staff to use. When not in use, these records should be considered valuable and stored in a fireproof, locked cupboard or safe. Spare copies might be kept on another site for added security. Copies of data on ACCESS 97 could be lodged with the Manchester Museum in its capacity as a leading participant in the University Heritage Panel.

3.5.3.9. The Orphans Project also intends to make any records of works of art available to the Whitworth Art Gallery. The Gallery often receives enquiries about works within the university which it cannot answer due to a lack of information. A central list of individual works of art (to update the list of 1975) should be drawn up forthwith.

3.5.3.10. Although some old lists of University objects survive, it has not always been easy to tally these lists with the objects found on the ground. In order to prevent this problem in future it is highly recommended that objects within collections should be assigned unique numbers. This number should be a prominent field in any database and should also be marked on the object itself. For small departmental collections, not expected to grow much, if at all, in future, a simple numeric system will suffice. Larger collections, especially those which are growing, may wish to consider a museum-style accession number system in the form of 1998.012 which would be the number assigned to the twelfth object acquired in the year 1998. The Medical School Museum already does this and it is recommended that the Dental Heritage Unit could follow suit.

3.5.3.11. Advice on marking and labelling objects is available free on the internet from the MDA. See <http://www.open.gov.uk/mdocassn/labels.htm>. In essence, any number should be difficult (but possible) to remove and fairly easy to spot for purposes of identification (but not so prominent as to ruin an object on display).

3.5.3.12. There is a North West Documentation Group to which all departmental nominees, volunteers and honorary curators would be welcome to belong. The group intends to act as an informal regional forum

to enable people to discuss common problems, share experiences and act as an informal training provider with talks, demonstrations and practical sessions. For further information, contact Andrew Moore, Documentation Officer, Rochdale Museum Service, The Arts & Heritage Centre, The Esplanade, Rochdale, OL16 1AQ.

3.5.4. Security.

3.5.4.1. Departments have a responsibility to provide accommodation for University collections which forms a suitable environment for the physical security and preservation of the objects therein. Protection should, ideally, be afforded against such hazards as theft, vandalism, fire and flood. In terms of preventing criminal activity it should be noted that measures may need to be enhanced all the more now that the University of Manchester is committed to raising awareness of its departmental collections and publicising them for use. Departments lack many of the basic safeguards of public museums because there is generally little control over access to the building, no room attendants or CCTV and 'opening' hours are usually much longer. Several incidents have occurred recently to raise fears about the level of security afforded to the departmental collections. These have included:

- Two silver cups stolen from a display case in the School of Pharmacy. The items were insured but the case had already been assessed by the Orphans Project as unsafe.
- A human foetus removed by a cleaner from the Withington Hospital Pathology Museum and taken to a local school. The specimen was recovered and the incident has prompted a review of security including revised cleaning procedures.
- A Dental Heritage Unit locked store was broken into by surveyors measuring up for renovation work. A Yale lock was sawn through to gain entry and apparently no attempt was made to trace the keyholders.
- Medical Museum table-top display cases have been defaced by having stickers and even posters pasted on to the glass despite being yards away from a manned reception desk.

3.5.4.2. As a great many of the objects within the departmental collections are uninsured (or otherwise irreplaceable) it is imperative that thought be given to security arrangements.

3.5.4.3. THEFT: 1. Collections should be stored in locked cupboards, preferably within locked rooms. Locked cupboards which form part of the walls of corridors are not ideally suited to storing historic collections. A locked room can provide a 'protective shell' for the cupboards (Dovey 1991). Although not all departments will want a steel-door storeroom such as those at Tabley House, they would do well to nominate a single secure room of a size which can accommodate the whole collection (and preferably nothing else). Basement storage areas can be lonely and are also better avoided. It is recognised, however, that teaching collections will probably be stored in laboratories or classrooms. These collections may, however, enjoy greater staffing levels which will have a deterrent effect.

2. Shared storage areas are to be avoided if at all possible. There is a risk that items may become confused with collections or that non-collection items may introduce dirt, fumes or pests that will harm the

collection. Personal collections, even those of an historic value, should not be stored alongside those belonging to the department. Shared storage areas necessarily involve multiple person access to stores which can compromise security.

3. Access to buildings is likely to be an issue of increasing importance to all University departments in the near future. At the moment there are various arrangements across the campus. The Department of Chemistry is one of the few where visitors, officially at least, are required to sign in on entry.

4. Individual objects, including busts and paintings, are to be found in lonely corridors and dark, isolated areas of buildings. These areas are not only insecure but unbecoming for the proper display of prestige items.

5. Controls must be exercised over collections store keyholders. These may include departmental technicians, honorary curators or portering staff. In any case, portering staff should be aware of where collections are stored and who holds the necessary keys. They should have contact details for part-time or honorary curators.

6. Particular caution needs to be exercised when dealing with contractors. Collections are vulnerable during building works to both theft and accidental damage. Free access to normally secure areas must not be allowed. If necessary, collections must be moved (according to museum standards of handling and transport) to temporary, alternative secure storage. This stipulation would apply equally when in-house work is being carried out, for instance by Estates and Services.

7. Controls on access to collections by researchers are highly recommended. Public museums have fallen victim to apparently genuine researchers on several occasions in the 1990s. Whilst constant supervision may be impractical in terms of staff time it may be possible for instance to obtain only the objects relevant to a researcher and to grant him access to these in a room away from the main collections store.

3.5.4.4. VANDALISM: All members of staff should stay alert for instances of vandalism to display facilities or large objects on open display. If necessary, barriers such as ropes might be used to cordon off items. These cordons would act both as a psychological deterrent (marking out forbidden space) and as safety devices, preventing accident or injury to both the object and the person viewing it.

3.5.4.5. FIRE: Unlike many public museums, the departmental collections are often stored in modern or refurbished buildings which may utilise fire-resistant or retardant materials (This should never be assumed however). There are specific fire alarms for very few collections. It should be noted that Spirit Specimens may contain flammable liquids which would present a fire hazard. Smoke could damage many sensitive objects to a point beyond which they could not be restored. Smoking in the vicinity of collections should be prohibited in all cases. Collections are not suitable for display in common room areas where smoking is permitted and should not be stored in close proximity to kitchen areas or electrical plants.

3.5.4.6. FLOOD: Likewise, almost none of the collections is safeguarded against flooding. Basement storage areas are best avoided, as well as any accommodation directly under water pipes. Material is best stored a few inches above the floor, in case of inundation, and away from departmental

sprinkler systems. It is suggested that departmental nominees approach the Manchester Museum or Whitworth Art Gallery IMMEDIATELY in the event of any flood damage to collections. (In the case of archives the nominee should approach the JRULM).

3.5.4.7. Some specific reference to collections should be made in all departmental disaster plans. not withstanding the need for security, the storage of collections should always be planned so that, in the event of a natural disaster, the collection can be evacuated easily.



The Departmental Collections: A SWOT Analysis.

■ STRENGTHS

- Extensive collections of historic and/or teaching material
- Knowledge of University staff
- Enthusiasm of volunteers

■ OPPORTUNITIES

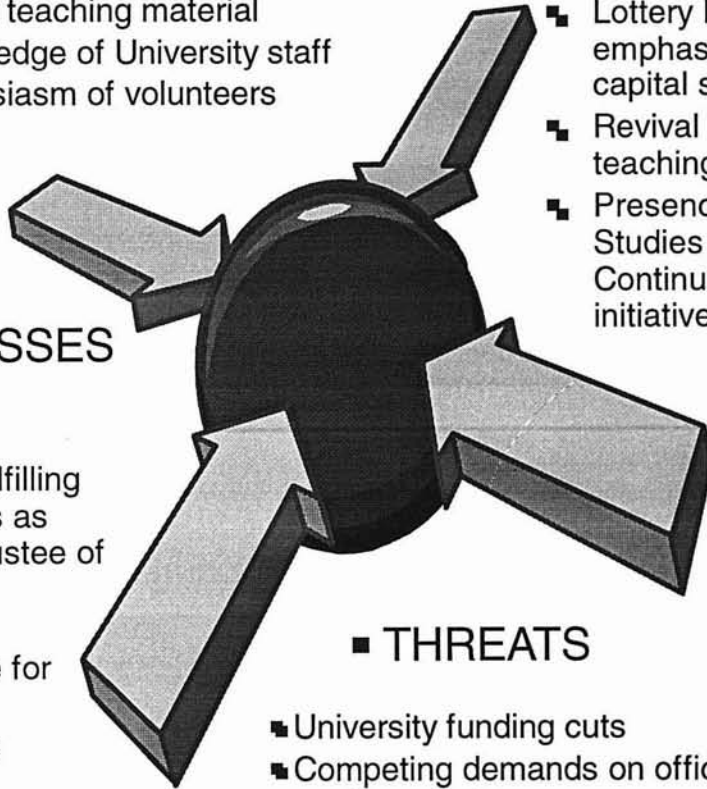
- Potential of electronic communication
- Lottery Funds: Less emphasis on grand capital schemes
- Revival in object-based teaching.
- Presence of Museum Studies Course and Continuing Education initiatives

■ WEAKNESSES

- University not consistently fulfilling responsibilities as legal owner/trustee of Departmental Collections.
- Lack of space for storage
- Existing space insecure or environmentally unsuited.
- Staff lack curatorial expertise/resources
- No clear delegation of management responsibilities to Heads of Department
- Collections sometimes viewed as personal hobbies of interested individuals
- Lack of full records

■ THREATS

- University funding cuts
- Competing demands on office space and equipment storage areas
- Lack of clear management lines
- Staff retirements will lead to loss of information
- Possible sale of collections
- Unregulated disposal of items may leave University vulnerable to legal challenge.



5. RECOMMENDATIONS.

5.1. Title and Fiduciary Responsibilities.

5.1.1. The status of the Departmental Collections needs to be formalised within the University.

5.1.2. The Council of the University of Manchester should recognise that it holds final responsibility for the collections within its departments and has a duty of care towards them. This duty applies equally to single objects of cultural value which are not part of collections. Legal title is invested in the University and the 'Governing Body' for all collections should be acknowledged as the Council.

5.2. Management and Lines of Accountability.

University Heritage Panel.

5.2.1. The University needs some form of official body with a remit that crosses all the various Orphan Collections. This report's recommendations concerning a curators' forum and a University Curator stemmed from observation of successful initiatives at the Universities of Birmingham, Dundee and Edinburgh. To do nothing would not be acceptable as many other universities, some with a lesser pedigree than Manchester, have introduced effective measures which suit their way of working.

CASE STUDY

Manchester's former partners within the original Victoria University took differing approaches. The University of Leeds set up a University Archive for teaching, display and research 'including collaboration with other collections of historic interest throughout the University, especially in the mounting of University and departmental exhibitions'. (HIT p.66). In effect, the library was taking charge of the university's heritage, recognising the fact that many departments had more important paper archives than object collections. The University of Liverpool established a Heritage Group as early as 1987 (HIT p 72f). This had two sections: Fine Art, and Other Departmental Collections, including archives and scientific equipment. This Special Collections sub group (previously the Senate's Committee on Scientific Equipment of Historical Interest) gathered equipment (including manuals) and lodged it centrally with the University Archives. Over a thousand items from the 1880s to the 1980s were identified and brought together. The group also began to review other equipment due for disposal and assess it for historic interest.

5.2.2. The Orphans Project believes that a central store is not feasible and the size of the University requires a different approach. The recommended solution has two tiers.

5.2.3. The University Heritage Directorate already exists in embryonic form and includes the Directors of the JRULM, CHSTM, Manchester Museum, Estates and The Secretary and Registrar. It is proposed that this body be formalised and developed and that it be responsible for advising the University on all matters of 'Heritage' including artefacts (acquisition,

storage, use, disposal), Archives, Historic Buildings and Displays. It is important that the committee include curatorial representation and that it works in conjunction with existing bodies such as the History of Medicine Committee and outside bodies such as the MSIM. Its role would be to offer advice on future collecting, identifying themes in the development of the University worthy of illustration and advocating temporary exhibitions at University and departmental levels. The UHP would also vet all suggestions for disposals from Departmental Collections, so that no material of importance is lost to the University.

5.2.4. In accordance with the recommendation that collections committees be given a small budget to distribute (HIT p32) it is suggested that the Panel be responsible for issuing University grants for improvements to storage, security, documentation or display or for employing a University Curator.

Collection Curators' Forum.

5.2.5. The second tier would be a formal but more flexible gathering of nominated individuals from each collection. The primary purpose would be to encourage networking and joint solutions to common problems of documentation, conservation and storage. Meetings might take place in different departments each time and might include invited speakers from the museums sector. Each member of the forum would be responsible for issuing an annual report to the University Heritage Panel and to contact the Panel for advice at other times when issues of disposal or plans for displays came up. Nominees would be delegated by their Heads of Department to look after the interests of the collection on behalf of Council.

CASE STUDY.

A Working Party on the Resourcing and Management of the University Collections at the University of Edinburgh met in June 1995 to consider MGC proposals to revise the existing Pictures, Galleries and Collections Committee. A new Collections Advisory Committee (CAC) was established to include a Convenor, University Curator, University Librarian, the Director of Information and Public Relations Services, a representative of the University Secretary and a representative from each Faculty Group which holds a University-recognised collection. The CAC meets three times a year to receive reports from the Curator of University Collections (a senior academic) and Sub-committee of University Curators and to advise and assist in matters of acquisition, disposal and exhibition. "The aim of the University Collections Committees (is) not to centralise authority but to stimulate the creation of a common vision and thus aspiration to allow the collections to move into the future with security". (Minutes, 5.3.1998). The sub-committee, drawn from all collection-holding departments, is convened by the Curator of University Collections and meets to co-ordinate funding applications, identify common problems and give preliminary consideration to policy issues. The CAC also oversees one all-embracing Collections Policy on acquisition which has been approved by the University Court. A recent success for the CAC has been to preside over the opening of the Natural History Collection to the public.

5.2.6. Together a Manchester UHP and CCF could work to oversee policy on collections, avoiding the pitfalls of the past where too much devolution has resulted in uncoordinated activities and duplication of effort. (See also Section 5.4). It is to be hoped that these committees would draw the

departmental collections together with the Museum, Art Gallery and Library. 'Access' to the collections could be defined by the committees even if this is to be restricted. Most importantly, the UHP and CCF will shape policy on future collecting.

University Curator.

5.2.7. An individual with appropriate academic and museum training should be appointed on a full-time basis (possibly on a short-term contract in the first instance) to carry on the advisory and practical role of the Orphans Project Museum Researcher. This individual would maintain and expand the Orphans ACCESS 97 Database, carry out programmes of object marking and cataloguing and answer to the University Heritage Panel. He or she would be a member of the Collection Curators' Forum and be responsible for liaising regularly with the membership issuing advice, drawing up formal collection policies, as well as commissioning new displays, condition surveys or conservation work as resources permitted. He or she would also co-ordinate applications from Orphan Collections for MGC Registration status. Some collections, including Earth Sciences, are almost ready to bid for this but it is vital that a uniform approach be taken across the University.

5.2.8. The Curator would also be available to assist, if desired, the public visitor attractions at Jodrell Bank and Tabley House and would liaise with The Manchester Museum, John Rylands Library and Whitworth Art Gallery.

University Curators have been appointed at the Universities of Dundee, St. Andrews and Birmingham.

CASE STUDY.

Following a survey by Frank Atkinson in 1993, the University of Dundee was faced with three options. Namely 1) to establish a museum and resource it. 2) to appoint an itinerant university curator. 3) maintain the haphazard status quo. Rightly the University found the third option unacceptable and so appointed Ruth Neave as full-time curator, based in the Academic Secretaries Department. She is now beginning her second three year contract fully funded by the University, and has responsibility for some 6000 objects including medical, chemistry, zoology and art collections. Her role complements that of the various honorary curators whom she assists in object listing, conservation and by the provision of web pages.. Another of her roles is to organise an exhibition programme, as a result of which the collections were deemed eligible for MGC Registration status. Many of them, however, remain in isolated cupboards, only partially documented, and it is believed that there are many years of work ahead to guarantee the future of the collections.

CASE STUDY.

*The University of Birmingham appointed James Hamilton as part-time Curator of Art and Artifacts in 1992. He also employs part-time documentation assistants out of a budget totalling £33,000 p.a. Hamilton's office is within the main Library but he is answerable to the University Registrar. He looks after collections in Archaeology, Biological Sciences, West African Art and the Chamberlain Pathology Collection. He has also acquired control over the University's pictures and silver and has played a role in the commissioning of contemporary art to decorate university buildings. He has published on the role of University Curators in the 1990s. (See **Select Bibliography**).*

5.3. Collections Documentation and Access.

5.3.1. The Orphans Project Object Database should be extended to complete the listing of collections already begun and to include a list of individual works of art (portraits, busts etc.) throughout the campus. This proposal is intended to form part of an HLF Lottery Bid by the Manchester Museum. Details from these lists could be made available via the Internet.

5.3.2. Whilst a University Curator would be the person most able to carry out this task, it could also be made possible if departmental nominees or honorary curators were to contribute to a documentation exercise, using copies of the Orphans Project Object Database, either through borrowing the laptop computer on which it resides, or, more practically, by loading ACCESS 97 software onto their own computer terminals. If this latter approach were adopted, there would still need to be an individual to take responsibility for co-ordinating the data which had been generated.

5.3.3. Each object within a departmental collection should be ascribed a unique number to be marked on the object itself according to MDA standards.

5.3.4. The Orphans Project Web-site should be revised to act as an electronic gateway to information about the departmental collections. Information for the site could be gleaned from the Orphans Project Collections database if this is kept up to date.

5.4. A University Collections Policy.

5.4.1. A formal Collections Policy should be drawn up (and approved by Council) reflecting the issues of collection, retention and disposal raised in this Report.

5.4.2. This might incorporate existing departmental policies such as those of Earth Sciences or the Medical School Museum. Departments without acquisition or disposal policies should be encouraged to devise such policies in consultation with the University Heritage Panel, according to a set pattern.

5.4.3. The UHP, through the CCF, should advise Council on the rationalisation of the Departmental Collections, perhaps taking the Collections Grading exercise (See Section 3.2.3.5) as a starting point. Based on an assessment of their significance and usefulness to the university, collections should be prioritised for investment or disinvestment.

5.4.4. Those collections deemed worthy of retention should be adequately resourced to ensure proper levels of care and access. This should include improvements that allow physical access to inspect the objects themselves.

5.4.5. Those collections which are not retained should be disposed of in accordance with MGC guidelines, using a formalised and properly documented procedure.

5.4.6. The Departmental Collections should be recognised as playing a full role in the University's educational, research and public remits. A University Policy should, therefore, reflect the determination to retain title to such material as is important to the University for its own purposes, whilst continuing to cement collaborative links with relevant museums, both locally and nationally.

5.4.7. The University's own purposes will include research and teaching activities and we recommend that particular attention be paid to the collections' potential for use in continuing adult education and courses for the public. This would be to continue a process which has already begun in some subject areas.

5.5. Exhibiting University History.

5.5.1. The recent creation of a first-class display space in the reception area by the gateway to the Main Quadrangle should afford opportunities for the display of University Heritage, including objects. The content of such displays should be explored by the University with the UHP as a matter of urgency.

5.5.2. The imminent development of a new gallery at MSIM on Manchester Science, Technology and Medicine will afford further opportunities for advertising the University of Manchester's central role in the creation of modern science, but, so important is this role (and the University's heritage more generally) that neither temporary exhibitions here, nor permanent exhibitions elsewhere, can fully meet the need. To display and promote its historic and continuing importance, the University of Manchester ought to have a top-class permanent display on site.

5.5.3. A new facility would provide the public display space required before several of the Departmental Collections could attain full MGC Registration status.

5.5.4. The obvious agent is the Manchester Museum, but the Museum would need new resources and an extended remit.

5.5.5. It is proposed that the best eventual site would probably be Coupland I Building, which is contiguous with the Museum and which contains Rutherford's Laboratory, scene of his work on nitrogen in 1917, and adjacent to the room in which the first programmable computer was built in 1948.

5.5.6. The scope of any new exhibition would be likely to follow that of the Special Exhibition *Research and Discovery in and Around Manchester* held at the Manchester Museum in 1962 to mark the visit of the British Association. This contained many objects borrowed from departments which had also been shown two years earlier in an exhibition entitled *Pioneer Research* including apparatus from Joule, Dalton, Rutherford, the engineers Whitworth and Royce, various models and parts of the prototype Ferranti Mark I computer.

5.5.7. We recommend that the University conduct a feasibility study on long-term and short-term options, including possible funding sources. Such a task could be carried out by a University Curator, guided by the University Heritage Panel.



6. GAZETTEER.

There follows a brief summary of the University of Manchester Departmental Collections. The Orphans Project contact name is included in each case. A full version of the database entry for each collection has been lodged with the appropriate head of department or departmental nominee. The entire database can be viewed at the Manchester Museum at the Director's discretion. A copy has also been lodged with NWMS.

Department of Art History and Archaeology

Archaeology Collection

Architecture Building

Instructor, Mr. K. Maude

The Department runs an excavation collection and a teaching collection, though the split is far from clear. The excavation collection is of predominantly local, Roman material, but there is some pre-history represented and a few Near-Eastern finds. Pottery predominates but there are also skeletal remain, for instance from Brean Down. The Roman material represents perhaps 75% of the collection.

There is also a mass of slides and some drawings, plus a collection of aerial photographs, partly paid for by Professor G.D.B. Jones, consisting of black and white negatives and prints dating back to the early 1970s. The department still has two Second World War aerial photography cameras and a Second World War photographic developing tank.

The collection has been acquired entirely from the collecting activity of the Archaeology department staff and students. Collecting is the department's primary means of discovering evidence: Students are taught how to collect, resulting in a large number of acquisitions. Recent fieldwork has taken place at Kitullagh in Western Ireland and Bowness-on-Solway.

Manchester School of Architecture

Architecture Collection

Architecture Building

Kantorowich Librarian, Mrs. V. Gildea

A collection of architectural slides, drawings and students' models. Also works of art including sculpture, paintings, photographs and works on paper within the Architecture and Planning Building, some of which were originally on loan from the Arts Council.

The drawings include buildings related to the University of Manchester and important drawings by James Wyatt for alterations to Durham Cathedral in 1795 and works by Waterhouse (of the Manchester Museum, Manchester Town Hall and Royal Exchange) and Lutyens. The prints include works by Piranesi. (N.B. The original working drawings by Waterhouse for university buildings are in the custody of the Design Services Group, Beyer Building)

The models include "history models" of historic buildings as well as some kit models (including one of the Lloyds of London Tower).

**School of Biological Sciences
Biology Cine-film Collection
Stopford Building
Dr. H.D. Jones**

A collection of 1950s/1960s educational films in metal canisters on various biological subjects including a film on the "Behaviour of the Sea Anemone, Metridium" by Batham and Pantin, a film on an important area of Manchester research: "Industrial Melanism", films on insects and Australian wildlife and a film of archive interest to the former Department of Zoology "Roscoff in 1966" referring to field trips in North Brittany.

Also a film on the Glossop wine circle.

**Department of Chemistry
Chemistry Collection
Chemistry Building
Chief Technician, Dr. E.M. Armstrong**

A varied collection of items relating to the work and personalities associated with the Department of Chemistry. It includes bronze busts of Chaim Weizmann by Sir Jacob Epstein, 1932, and Professor Dixon by Millard, but consists mainly of old electrical equipment including spectrometers, a potentiometer, scales, Owens College specimen tubes and nineteenth century carved wooden crystal models. Also a collection of departmental group photographs dating back to the 1870s.

There is a small archive including old books about Bragg, a couple of letters to Beevers and to and from the 1993 Nobel Prize winner, Michael Smith. Also a large display case containing a 1976 Periodic Table by the Fisher Scientific Company incorporating glass tubes containing the elements (occasionally as compounds and omitting any radioactive elements).

Various decorations about the department are of interest including four plaster medallion portraits of eighteenth century figures on the 4th floor landing, some decorative roundels on the building exterior outside the entrance and photographs e.g. of the British Association Meeting of 1887 (includes Schunk, Schorlemmer, Joule and Roscoe).

A collection of nineteenth century essential oil/drug bottles associated with the W.J. Bush Company was recently discarded by the department with six examples being transferred via the Orphans Project to the Medical School Museum. Other items have been transferred to the Museum of Science and Industry including Dalton's flask, Leyden Jars and walking stick barometer, and apparatus associated with Joule, Roscoe, Rutherford and Dixon, a 1975 Torsion electronic balance (donated in 1993) and various special apparatus and tubing dating from the 1850s and 1870s (donated in 1991).

**Department of Computer Science
Computer Science Collection
Computer Science Building/IT Building
Professor H. Kahn**

A collection of computer parts including monitors, mainframes, central processor units, control panels, circuit boards, printers and tape machines as well as a 1930s calculating machine and stone pub-sign from the demolished College Hotel.

The collection illustrates the pioneering work of the University from the late 1940s until the 1970s and includes components from the Mercury Computer of the 1950s, the ATLAS machine of 1963 and the MU5 computer of 1974. Most items in the collection were either made or used in the department and some of the material is unique.

A small number of items on loan to the departmental collection has been sub-loaned to the Museum of Science and Industry in Manchester. These include a notebook belonging to G.C. Toothill, a Williams Tube, Mark I drumhead and various manuals.

There is also a departmental photographic archive of negatives and slides.

**Turner Dental School
Dental Heritage Unit
Turner Dental School and Hospital Building/Coupland III Building
Honorary Curator/Archivist, Mr. C.R. Stockdale**

A collection of dental instruments, equipment, prosthetics and skeletal material including both animal and human specimens. Objects in the collection concern the development of the School and the work of the Manchester Dental Hospital.

Prominent in the collection is a group of student instrument cabinets from the early twentieth century, x-ray equipment, various dental chairs including a folding chair from the 1820s, spittoons, drills and handpieces especially from the Claudius Ash company. There is a collection of equipment from a private practice in Altrincham and of anaesthetic machines dating from 1900-1972, numerous false teeth and items associated with the social history of dentistry, especially the Manchester Dental Hospital.

There is a mixed group of comparative anatomy skulls and demonstration pieces, formerly used in teaching and dating from the nineteenth century. Some of the original glass domed mounts have survived.

The archive includes hospital records, including almost thirty minute books with copper plate writing dating from 1883 and a large collection of dental textbooks.

The Dental Heritage Unit's holdings actually comprise three separate collections: The Manchester Odontological Society, the Lancashire and Cheshire Branch of the British Dental Association and the old Manchester

Dental School Museum. Unfortunately no records survive to prove from which collection most objects came. Individual donations have increased the size and scope of the collection since then. These have included donations from former students. The growth of the collection has increased in pace due to publicity within the profession and the Manchester area. The Unit is now actively seeking more material, including contemporary objects.

Department of Earth Sciences
Williamson Building
Curator/Librarian, Mrs. A.L. Edwards

The Geology Collection comprises igneous, metamorphic and sedimentary rocks as well as minerals and fossils, including some 98 trace fossils. The three subdivisions are 1) Teaching Collection, 2) Main Reference Collection, 3) Research (Thesis) Collection. Some of the material is at least a century old, including the Krantz material from Germany. The collection is notably strong on material from Eastern Europe.

Among the Reference Collection important material includes: 1) the Harwood Mineral Collection (half of the total; the other half is in Cardiff), 2) Petrological collections including clastic, carbonates, igneous, metamorphic and regional rocks. In the 1950s the department was the first institution in England to provide laboratories for experimental petrology. 3) Trace fossils.

The 1950s and 1960s material was, in some cases, used in quite pioneering research (e.g. the trace fossils) and is likely to be considered of historic value quite soon.

Manchester School of Engineering
Engineering Collection
Simon Building
Laboratory Superintendent, Mr. T.D. Evans

A collection of scientific equipment, machines, aeronautic engines, pictures, slides, models and archives.

The objects include material relating to Professor Osborne Reynolds, including his famous Reynolds Tank from 1883 and a fine portrait of Reynolds by John Collier from 1904. Also various gauges and measuring equipment relating to Sir Joseph Whitworth, student trophies, engineers' drawing scales, posters, a section of a concrete canoe and a series of engines including a Napier Lion Series VII engine, which won the Schneider Trophy in 1927, and a De Havilland Goblin Mk III from 1941.

The Holzapffel Lathe from 1839 may have belonged to Whitworth but its provenance is unproven. The lathe was donated at some point to Owens College but was sold in 1919, to be donated back (and restored in 1974) in 1965.

The models include miniature aircraft, a display on Dutch Sea Defences, a 200 mega watt oil-fired boiler and teaching models (for instance of a connecting rod) which may have been used in Reynolds' time.

The archives include student records, departmental financial records and the records of the Engineering Society. Also the papers of the late Peter Rowe (though these refer mainly to his consulting activities outside of the University). Also the glass lecture slides of Professor A.H. Gibson and a potentially important archive of photographs from the construction of the Manchester Ship Canal (some of which are reprinted from "The Engineer") including a diary from 1926 relating to the Ship Canal work of Sydney B. Hall. (Father of Professor W.B. Hall).

A collection associated with Edgar Morton consists of geological archives (currently housed in a commercial repository in Stockport) and a rock collection which has already been transferred to the Manchester Museum.

Material of relevance to the history of the School is also to be found in Coupland I Building, e.g. a plaque commemorating John Hopkinson (in whose memory the Electro-technical laboratory was equipped in 1899).

School of Biological Sciences

Entomology Collection

Stopford Building

Dr. S.E.R. Bailey

A large and high quality teaching collection consisting of a set of insect drawers, boxes and spirit jars containing numerous specimens, especially British Lepidoptera, but also Apterygota, Exopterygota, Odonata, Ephemeroptera, Plecoptera, Dermaptera, Orthoptera, Hemiptera, Endopterygota, Mecoptera, Megaloptera, Neuroptera, Coleoptera, Trichoptera, Diptera and Hymenoptera. The collection includes that of the Congleton Education Office of Lepidoptera with hand illustrations of larvae and the remnants of Dr Askew's personal collection including Coleoptera and Diptera.

Stored with the Entomology Collection, there is also a small selection of plant anatomy models and slides including Dr Askew's kidney slides with King's College labels.

A small set of archive items including 1950s student notes and photographs remains in the Williamson Building.

Field Archaeology Centre

Archaeological Units' Temporary Collection

Chief Archaeologist, Ms. R. McNeil

Director of UMAU, Mr. J. Walker

The Field Archaeology Centre's units hold all types of archaeological material on a temporary basis. Material from the various sites is stored until reports and processing are complete when material is usually transferred to permanent repositories, usually Registered Museums, including the Manchester Museum. Material has been known to stay in the unit for up to five years.

Material from the following sites is currently being held:

- 1) Langley Hall (Very few finds).
- 2) Central Manchester, including Castlefield Roman Fort and the medieval Hanging Ditch near the cathedral. Finds include a 14th c. decorated leather scabbard and other leather artefacts.
- 3) Ordsall Hall, Salford.
- 4) Smithills Hall, Bolton.

The Archive consists of over 10,000 maps including historical maps from 1848, slides, the Wetlands Archive, Textile Mills survey archive, excavation reports and all the publications of the Unit since 1980.

History of Art and Archaeology
History of Art Slide Collection
Architecture Building
Slide Librarian, Mrs. L. Vickers

A teaching and reference collection of slides constituting one of the largest slide libraries in the country including original transparencies of architectural structures and slide reproductions of works of art. The collection includes a very small number of original glass slides and a larger number of older images which have been transferred to modern slide format.

The collection has five main divisions: 1) History of Art Departmental Collection - Art and Architecture. 2) Whitworth Collection - formerly belonging to a Bury Grammar School teacher, with a preponderance of Cistercian architecture. 3) Cockermouth Collection - held on behalf of the School of Architecture. 4) Cordingley Collection - a private collection built up within the former Extra-Mural Studies Department. 5) Margaret Ramsden Collection - a private collection built up by an MA student.

The bulk of the collection is modern but, having been established in the 1950s, some of the slides will be becoming of interest to historians in the near future.

Nuffield Radio Astronomy Laboratories
Jodrell Bank Science Centre and Arboretum
Manager, Mrs. S. Chaplin

A Visitor Centre including a small collection of modern photographs, working models and replicas of scientific equipment associated with astronomical research in general and the Jodrell Bank Mark I (Lovell) Telescope in particular.

The historic collection includes an 1880 orrery by Philip Sons & Nephew, various stamps and first-day covers, a bronze bust of Copernicus, models of satellites, the NASA space shuttle, engineer's models of the Mark I and Mark II telescopes, the original analogue position indicator system for the Mark I telescope, a soil core taken before construction of the telescope, meteorite fragments and items associated with the Apollo missions. The collection is also deemed to embrace the 1950s radio telescopes themselves and the original control computers from the MERLIN outstation (still on site).

There is also an extensive archive and various pictorial records including Sir Bernard Lovell's early photographic negatives, media documentaries on cine-film or VHS video and the slide collection of the engineer Charles Husband who toured world telescopes whilst planning Jodrell Bank.

Recent collecting has concentrated on reflecting major research and personalities associated with Jodrell Bank itself. The meteorites were held originally on loan but were recently donated by the widow of Howard Axon from the University's metallurgy department. There is a policy of asking the Chief Engineer to report when laboratory equipment becomes redundant so that it can be considered for acquisition.

The Granada Arboretum constitutes one of the finest botanic collections in the North West of England, embracing some 2000 species, including the National Collections of species of Malus and Sorbus, together with a collection of Calluna by the Heather Society. Also some hybrids.

A number of wooden implements is included within the exhibition inside the Environment Discovery Centre.

John Rylands University Library of Manchester
Non-conformist Pictures Collection
JRULM Dixon Street Store
Reader Services, Mrs. J.C. Sen

A collection of pictures relating to non-conformism, primitive Methodism, the Hartley Victoria College and other religious themes.

The collection consists mainly of portraits in a number of different media including etchings, prints, drawings and photographs. Other items include a print of a Bellis engraving of "John Wesley and his Friends at Oxford", a photograph of the First Conference of the United Methodist Church, 1897 and an illuminated manuscript of the resolution of the Primitive Methodist church in 1907.

The Collection is known to have been in the Medical School Library some twenty years ago but its origins are unknown and further information is sought.

Medical School Museum
Stopford Building
Honorary Curator, Mr. W.A. Jackson

The museum's main collections comprise: medical, surgical and pharmaceutical equipment, instruments, photographs, ephemera, trade catalogues and medals relating to the history of the medical school and medical teaching in Manchester, including the collection of the Manchester Medical Society. There are various items associated with individuals such as the orthopaedic surgeon Harry Platt, the artificial hip specialist John Charnley, or Joseph Jordan the founder of the first recognised school of anatomy in Manchester.

Also a granite memorial to Huxley commemorating the opening of the first University medical school.

Material has come from the Medical School and related departments including Pathological Sciences, Chemistry and divisions of the School of Biological Sciences. Also from those teaching hospitals, within the Manchester area, which are connected with the University. Private donations have included the Hull-Grundy collection of medals. (1978). Indeed, private donations have been so numerous that there is a fair amount of duplication in the collection. Objects have also been transferred from the Museum of Science and Industry in Manchester.

Department of Pathological Sciences

Pathology Museum

Stopford Building/Hope Hospital/Withington Hospital/MRI-CSB

Laboratory Manager, Mr. P. Sullivan

A "museum" collection of classical pathology representing the main body systems, including spirit specimens and skeletal material. This is now one of the largest of its type in the north West. The collection is spread across four sites and includes a group of important models by Richard Neave depicting stillborn and miscarried babies.

Some of the spirit specimens are in original glass pots with gutta-percha seals but the number of these is few. Some old cylindrical jars survive, supposedly manufactured in Eastern Europe. Most are displayed in modern perspex jars filled with yellow Wentworth fluid.

The MRI site also includes a set of historic records including some books which are apparently listings of the collection. At least one refers to the "MRI Museum". There are also sets of lantern slides and some superb photograph albums from before the Second World War, showing bone x-rays etc. The nineteenth century brown-cover books belonged to Professor Delepine (First Procter Professor in Pathology 1891).

Department of Pharmacy and Pharmaceutical Sciences

Pharmacy Collection

Coupland III Building

Lecturer, Dr. G.B. Lockwood

A small collection of materia medica (including type specimens) and items of interest to the social history of the department and pharmaceutical profession, including pieces of an opium pipe, a portrait of Siebold, certificates from Manchester College, an English delftware Drug jar, glass chemist's shop sign and two silver tennis cups.

The Colin Melville microscopy books (mainly in German) remain in the department though several historic books have been transferred to JRULM.

Department of Physics and Astronomy
Physics Collection
Schuster Building
Professor R. Marshall FRS

A small collection of equipment, medals, photographs and archive items including personal memorabilia associated with distinguished physicists and former members of the department. Items include a piece of a blackboard autographed by Albert Einstein in 1921, papers and equipment belonging to Sir Arthur Schuster, a transit circle and spectroscopes, an autograph of Pierre Curie signed the day before he was killed and the bookcase of Ernest Rutherford.

Rutherford's laboratory bench, where he first achieved the artificial disintegration of nitrogen in 1917, is also preserved by the University in the former Physics building (Coupland I) in premises currently occupied by the Department of Psychology. Coupland I also contains a number of historic wall plaques commemorating Manchester scientists.

Department of Planning and Landscape
Town Planning Collection
Architecture Building
Kantorowich Librarian, Mrs. V. Gildea

The Department holds two separate collections:

1) Sir Raymond Unwin Archive, consisting of documents, manuscripts, lecture notes, personal papers, an 1887 diary, obituary cuttings (and letters of sympathy from Eleanor Roosevelt and May Morris), some books, photographs and glass slides, with particular reference to Unwin's work at Hampstead Garden Suburb. This is essentially an archive, not a museum collection, but its departmental status has meant that it has been treated separately from most university archive collections. The only objects as such, are a series of glass negatives from 1902. Prints have been produced of some of these.

2) A large, separate collection of glass slides depicting examples of architecture and town planning. These were used by Unwin in lecture tours across the country.

In addition the department holds a library collection of maps including some of historic interest.

School of Biological Sciences
Spirit Specimen Collection
Stopford Building/Williamson Building Spirit Store
Dr. S.E.R. Bailey

A series of zoological specimens stored in either alcohol or formaldehyde. Some possibly in formalin. Specimens have been acquired either through field collection or donation, including transfers from the Manchester Museum. It is not known, however, from what date the earliest specimens survive. Most palpably "historic" specimens probably left the department

on the reorganisation of Biological Sciences in 1986.

The last active period of field collection ended around 1980 with expeditions to Salcombe in Devon. When new specimens have been required since then they have been purchased from commercial suppliers.

The current technician, Mr G. Kenyon, rescued many items from being discarded circa 1995 and this is the origin of some of the material on the floor in the Williamson moat store, including small sharks, squid and lobsters.

Tabley House

Administrator, Mr. P. Startup

A great Regency picture collection in a splendid gallery and adjoining rooms of an eighteenth century stately home. The collection includes an exceptionally fine series of English paintings, including "Tabley: Windy Day" by J.M.W. Turner (1808) and works by William Dobson, Sir Peter Lely, Reynolds, Northcote, Francis Cotes, Henry Thompson, James Ward, Calcott, Fuseli, Lawrence, Opie, Martin and Danby. There is a particularly strong collection of equestrian pictures and of fish pictures, relating to the Mere.

The Palladian house was designed in 1761 by John Carr of York for Sir Peter Byrne Leicester Bt and completed in 1769. The Gallery was created within it during the years immediately before 1809 and further alterations were undertaken between 1840 and 1845. The house also displays important examples of Gillow, Bullock and Chippendale furniture as well as various small items. The collections in store include silver (mainly Regency dining ware), textiles and social history items.

Visitors may also enter the 17th c. St Peter's Chapel, adjacent to the house which was re-erected in 1927 and contains exquisite pews and a fabulous Burne Jones stained glass window.

The tea-room includes relics of the old hall (1272) which collapsed the same year due to brine extraction.

The collection is run as a visitor attraction but currently retains the status of a potentially disposable asset. A consultant curator is employed on a freelance basis to advise the Board of Trustees.

The Tabley Archive is split between the Cheshire Record Office and the John Rylands Library, Deansgate.

**School of Biological Sciences
Timber Ecology Collection
Stopford Building
Dr. R.A. Benton**

A series of timber samples, mainly rectangular blocks of wood which represent the items listed in the HMSO Key to Hardwoods. The collection consists primarily of uniformly-sized samples from the tropics, especially Malaya, with a smaller number of British and European woods.

Some samples have been sawn or chipped deliberately in experiments. Others feature beaded edging.

There was formerly a collection of microscope slides too as well as a collection of 215 + samples of wood "Timbers showing defects, diseases, special features etc.". Of this latter collection the prepared slides of no 207 and 215 remain in the custody of Dr Ennos, though the samples themselves have been discarded. (Some of them by Dr Gemmil circa 1950).

The surviving collection was formed in the 1950s (or maybe earlier) when the Botany Department ran an evening course in timber technology for the Timber Trades Association, specifically to illustrate the HMSO Key to Hardwoods. Dr Gemmil's work on Plant Anatomy shows that the department had an academic interest in timber before 1950. A record in the Report to Council of 1903-4 refers to an evening class for teachers of "Manual Training" on the growth of timber. It is believed the collection was put together in-house.

**School of Biological Sciences
Zoology Bone Collection
Stopford Building
Dr. D.W. Yalden**

A collection of zoological bone specimens consisting of various types of vertebrate, both mammal and non-mammal. A highlight is the antler structure of an Irish giant elk. A collection of dogs' heads remains from the Joint Matriculation Board practical exams.

Some of the items in the locked cupboards do not belong to the collection but are held on loan from the Manchester Museum.

Also a slide collection dating back to the 1890s which, under the auspices of the Orphans Project, it has been decided to transfer to the Manchester Museum.

Also a small modern book collection of works which complement the object-based teaching.



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The Vice Chancellor

The Academic Secretary

The Vice Chancellor's Executive Assistant

The Staff of the Manchester Museum

Mr Tristram Besterman, Director

Dr Sean Edwards, Keeper of Botany

Dr David Green, keeper of Mineralogy

Mr Velson Horie, Conservator

Dr Mike Hounsome, Keeper of Zoology

Mr Colin Johnson, Keeper of Entomology

Mr Andy Milward, Display

Mr Robert Morris, Registrar

The Staff of the Centre for the History of Science, Technology and Medicine

Professor John Pickstone, Director

Dr Jon Agar

Dr Jeff Hughes

Dr Mark Jackson

Ms Joan Mottram

The Staff of the Whitworth Art Gallery

Mr Alistair Smith, Director

Mr Julian Tomlin, Curator (Administration)

The Staff of the John Rylands University Library of Manchester

Mr Christopher Hunt, Director

Dr Diana Leitch, Assistant Director

Mrs Jacqui Sen, Reader Services

The Staff of the Jodrell Bank Science Centre and Arboretum

Mrs Sylvia Chaplin, Manager

The Staff of Tabley House

Mr Peter Startup, Administrator

Mrs Brenda Folds, Assistant Administrator

The Centre for the Development of Continuing Education

Mr David Riley

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Ms Catriona Finlayson, Assistant Curator
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And individually....

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Mr John Burnett, Curator of Medicine, National Museums of Scotland
Mr Chris Burton, Computer Conservation Society
Mr Andy Elkerton, Collections Manager, The Mary Rose Trust
Mr James Hamilton, Curator of Art and Artifacts, University of Birmingham
Professor Brian Hibbard, Honorary Curator, Royal College of Obstetricians
Ms Suzie Hillhouse, Assistant Curator, University of St Andrews
Mr Chris Jowett, Convenor of Collections Committee, University of
Edinburgh
Mr Tom Lawley, former curator, University of Manchester Pathology
Museum
Ms Sarah Lawrance, Exhibition Concepts Limited.
Dr Ghislaine Lawrence, Curator of Clinical Medicine, The Science Museum
Ms Emmeline Leary, Museum and Galleries Commission
Mrs Stella Mason, Keeper of Collections, Royal College of Surgeons
Ms Lorraine McClean, Royal College of Surgeons of Dublin
Mr Donald McCleod, Head of the Tabley Trustees
Ms Ruth Neave, Curator, University of Dundee
Mr David Pantalony, IHPST, University of Toronto
Mr Charles Pettitt, former Keeper of Zoology, The Manchester Museum
Ms Jane Weeks, freelance museum consultant



SELECT BIBLIOGRAPHY.

There follows a list of books and articles which were either consulted during the Orphans Project or might be considered useful by departmental curators. The list includes some basic Museum Studies texts and works of specialist interest for instance with regard to spirit specimens.

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APPENDIX 1.

List of Recommended Transfers.

- Transfer on loan of Whitworth Engineering items to the Museum of Science and Industry in Manchester. The MSIM collection complements that of the School of Engineering so well that there is a suspicion that the two collections may formerly have been one. An alternative plan would be to display the Whitworth items in the Simon Building though the transfer is the Project's preferred option.
- Transfer of Biology Cine-films to a suitable repository. The collection should be advertised in *Museums Journal*. The two films of local significance should be offered to the North West Film Archive at MMU.
- Rutherford's Bookcase and Laboratory Bench should be brought together, and (subject to Geiger-count testing) be displayed in Coupland I Building.
- It is proposed that the Manchester Museum should formally acquire the Zoology Bone Collection whilst leaving it for the time being on loan to the SBS in the Stopford Building.
- The Timber Ecology Collection should be formally acquired by the Manchester Museum. It may then be stored either at the Museum or on loan at the Environment Discovery Centre, Jodrell Bank Granada Arboretum.
- Items in the Manchester School of Engineering relating to the history of computing should be transferred to the "History Store" within the Department of Computer Science.
- Similarly, in the absence of a departmental nominee to represent their collection, Manchester Computing might consider transferring any historic items it holds to the Department of Computer Science subject to the agreement of that Department and the guidance of the University Heritage Panel.
- Mineral material relating to Henry Roscoe, Professor of Chemistry at Owens College from 1857, presently believed to be held in the Department of Chemistry, should be investigated by the Manchester Museum and considered for transfer. If the provenance of the material is confirmed, this is likely to be a collection of great relevance to the Museum.



APPENDIX 2.

HEFCE/Museums Association Output Requirements for Funding.

- Policy Statement for the University re maintenance and use of orphan collections, detailing future responsibilities and resources.
- Long-term mechanisms for developing and executing these policies e.g. Collections Committee.
- Secure permanent preservation of valued artefacts in orphan collections or in appropriate general museums.
- Assurance that material in the orphan collections is properly cared for.
- Good listings, on appropriate database, of the medical and dental collections.
- Raising the profile of the orphan collections (e.g. by conference) and stimulating their use.
- Raised awareness of the importance of artefacts which may now lie outside the orphan collections, and which may then be selected for care in the orphan collections or elsewhere.



APPENDIX 3.

Report on Academic Workshop.

(See section 3.3.2).

As part of the Orphans Project brief to raise the profile of the Departmental Collections, the CHSTM and Wellcome Unit for the History of Medicine sponsored an academic workshop on "The Use of Historic Object Collections in Medical History and Medical Education". It was an attempt to bring together professional museum curators, university historians and medical course facilitators and encourage the greater USE of collections. Taking place on 13th-14th March 1998, papers were offered on the methods involved in using objects for study and a practical exercise "The Object Game" was piloted.

The workshop was attended by representatives from the Medical School, Dental Heritage Unit, CDCE, CHSTM, MSIM and Manchester Museum and was well received. The Project is grateful to the Manchester Museum for hosting an evening reception to accompany the workshop. A report was issued to all participants of which a shortened version is included here.

Aims of the workshop.

The event was organised by the Orphans Project Museum Researcher, Neil Handley, with assistance from Dr. Mark Jackson of the University's Wellcome Unit for the History of Medicine to provide a useful networking opportunity for those involved in medical museums, medical teaching and medical history research. A range of short papers was delivered answering three main questions.

HOW? How should one study medical objects. How do we develop the skills to do so? How can we frame questions about objects in order to benefit from researching them?

WHAT? What collections exist for study? What research has already been carried out on them? What kinds of people, e.g. curators or historians, are carrying out this research and what should their respective roles be?

WHITHER? Where do we go from here? What should departments like the CHSTM do in the future to introduce objects into teaching programmes? Is there scope for introducing history *via objects* into medical curricula?

Friday 13th March.

Tristram Besterman gave an address in the Mammal Gallery of the Manchester Museum, one of the oldest parts of the Museum, designed by Alfred Waterhouse. The displays form an excellent example of Victorian taxonomic attitudes, of interest to all historians of Comparative Anatomy and Zoology, though, most unusually, they also include live creatures. He spoke about the Museum's plan for the Gallery including the transfer of the Wellcome Trust's *Science for Life* exhibition from Euston Road. This exhibition will be amended to incorporate object displays providing an historical context. Items from the Medical and Dental School collections may be used in these display cases. He also gave an account of the contemporary scientific research being carried out by the Museum, for example the extraction of venom from frogs, (the peptides therein will, it is hoped, assist in the development of new drugs in Queen's University, Belfast and as novel taxonomic diagnostic indicators for frog classification) and biomedical research, in conjunction with the government of Egypt, on ancient Egyptian mummies, forming part of a major epidemiological study on schistosomiasis in the Nile Valley.

Saturday 14th March.

Professor John Pickstone welcomed delegates to the CHSTM on what he considered to be an almost unique theme for a conference in such a department. He introduced the Department's temporary Museum Researcher and the University of Manchester Orphan Collections Research Project.

Neil Handley spoke briefly on the medical related collections covered by the Orphans Project and then posed a series of introductory questions. By referring to a reconstructed grave display in the National Museum of Bahrain he drew attention to the failings found even in public museums when it comes to direct interpretation of objects. He suggested that it was difficult for historians to engage with objects, especially since most literature which considered them could be accused of antiquarianism or even object fetishism and some such works were decidedly short on analysis. Visually, a hand-illustrated twentieth century medical history book (by C.K.Wilbur) was hardly very different from a seventeenth century surgical manual such as Woodall's *Surgeon's Mate* (1639).

A discussion followed. Gaby Porter from MSIM raised the issue of contemporary collecting and how it could involve very few items being acquired as long as collecting was carried out according to a very careful process. Tristram Besterman warned that the workshop should not consider only objects in displays, as a static exhibit is a very crude form of communication. Professor Bryan Hibbard bemoaned the fact that undergraduates tend to have to have objects "drip fed" to them via lectures if they are to consider them at all. Postgraduates, in his experience, have tended to be more positive and voluntary modules have been well attended. The Royal College of Obstetricians has good links with a midwives' course that involves some historic artefacts and there has always been strong media interest in the college collections. Helen Fryers informed the meeting that the Thackray Medical Museum now offers teaching modules to 3rd year

medics at the University of Leeds and is trying to build links with Sheffield University. The museum is looking to set up a degree course in association with the Society of Apothecaries.

Overall it was felt that objects featured too little in current educational initiatives and it was revealed, for instance, that only one University includes history in its Pharmacy course. Claudia Castaneda of the CHSTM pointed out, though, that the leap was not necessarily impossible to envisage as there were already models of object analysis evident in university history of technology courses. Finally, the Internet was considered as a new forum for the presentation of information and listings of collections.

John Burnett began the formal papers by speaking on *How to Study Medical Artefacts*. He expressed surprise that for such a materialist society, the British were astonishingly unaware of objects. Most medical collections did not really help raise awareness of the unique quality that objects possess in being three dimensional. A notable exception is the Wellcome Galleries at the Science Museum where three-sided cases allow visitors to view objects rather than "pictures behind glass". Delegates were invited to inspect and attempt to identify a wooden object associated with the manufacture of ear trumpets. The idea was to show how 'difficult' items can be considered by looking at shape, form, markings, signs of wear etc. John recounted a long list of potential questions to 'ask' of objects including: What is it? Where has it been? What does it relate to? Individual objects should be considered as representing 'packets of questions'.

Neil Handley then joined John Burnett in running 'The Object Game' whereby four objects from the Departmental Collections were presented and delegates asked to consider the questions they might put to the objects in order to gain most from studying them. The objects were 1) A pair of Barnes Obstetric Forceps with ebony handles, fenestrated blades and finger ring. 2) A set of bone dentures with attached springs and porcelain false teeth fixed in with rivets. 3) A skull of an Asian salt water alligator with a complete set of teeth. 4) A formaldehyde fumigator. The objects all raised very different themes and the forceps in particular aroused considerable discussion. Interesting themes to emerge included the experience of women in forceps deliveries, the notion of the perfect body and the conflict between form and function in the creation of artificial body parts, the trend away from comparative anatomy in Biological teaching, the techniques of fumigation and the benefits of being able to handle and inspect objects.

Jenny Wetton then spoke on *Ophthalmic instruments and Pharmaceutical Collections at the Museum of Science and industry in Manchester*. Jenny referred to specific instances of research behind displays on spectacle manufacturers and the forensic examination of John Dalton's eye in order to test his theories on colour blindness. The Museum is concerned about access to collections for research purposes but is also wary of prejudging what people might want to use them for.

Andy Elkerton, Collections Manager for the Mary Rose Trust, Portsmouth, gave a review of the Mary Rose Project, homing in on the part of the ship which contained a barber-surgeons chest (as well as a separate area of

accommodation which may have been the Tudor surgeon's personal quarters). Andy distributed line drawings and showed slides of objects which the Trust cannot identify with certainty. He also produced a replica urethral syringe which caused much consternation amongst male members of the audience. He drew attention to a PhD project by Brendan Durham on the barber-surgeon's material being supported via the Thackray Museum Trust and the University of Bradford. He also issued an open invitation for a medical historian to help write up the findings so far.

Ghislaine Lawrence of the Science Museum spoke on *Object-based Research - A New Model*. She admitted that even historians based in museums have used objects merely to illustrate publications derived mainly from textual sources. There is a need for a model of study and there are two that already exist and are actually very similar, namely the Archaeological and Anthropological Model (The AA Model) and the Material Culturist Model which grew out of Folk-Life studies.

A discussion of these models prompted Ghislaine to distinguish between the definite inferences and the possible inferences that one can make from objects and to confess that many definite inferences were not that important. In her opinion, however, the AA method was inadequate for the study of mass-produced non art material (such as most medical instruments are). There is the need for a new model which recognises that objects may modify the views one derives from textual sources but their prime usefulness is in raising questions....the historian can then return to the texts to find out why the objects are as they are.

The "Use of Objects" is, at least, now being considered as an issue, in a similar way to the debate over the use of oral history. It is notable, however, that no one has ever considered the "Use of texts" to be an issue to historians.

Bill Jackson, Honorary Curator of the Manchester Medical School Museum, expounded upon his Master's thesis, submitted in 1996, on the history of the stomach pump. Bill made several points on the difficulties in framing an object-based thesis in such a way as to satisfy historians and in gaining the necessary access to the collections he wished to study. It emerged that there are sometimes instances where museum listings are inadequate, even inaccurate, and that certain opinions can only be justified through an understanding brought about by physical inspection of actual objects.

Ruth Neave spoke on *Initiatives at the University of Dundee*, pointing out that her responsibilities were very similar to those of the Orphans Project and represented a genuine and workable solution to the problems encountered by departmental collections. She has made herself "indispensable" over the past three years and has worked effectively with the Duncan and Jordanstone Art College's Exhibition Design course (utilising a Chemistry collection to provide a theme).

The honorary curator of the Medical Collection, Laura Adam, has instigated an undergraduate special study module for medics on *Perspectives on Medical Advances*. This two week module includes eight sessions, three of which involve objects. A typical topic was changes in stethoscope design.

Students have also been granted an opportunity to engage in hands-on demonstrations of early cardiographs from the 1860s. The course also teaches students how to use various types of historical evidence. The Modern History course is planning to introduce a comparable element on sources to which the curator will be supplying a three dimensional input.

Stella Mason provided an introduction to the collections of the Royal College of Surgeons and pointed out that collections have been at risk since at least the eighteenth century! The College now employs some lecturers who are specialists in education rather than surgery but this has not necessarily meant an increase in the opportunities for object-based teaching. Stella hinted that the College is concerned that current undergraduates arrive knowing less than their predecessors on anatomy and that greater use of spirit specimens might be a solution to this perceived problem. Unfortunately, only something like 25% of the Pathology Collection and 50% of the Anatomy Collection is thought to be “relevant” to current courses. There is much to be said for specimens, however: They provide added value, complement IT and CAL packages, are suitable for self-directed study and (beware and take note) they could not easily be collected again.

Mark Jackson attempted to draw together several of the issues raised by earlier speakers, especially the notion of objects as “windows”, “means of entry” and “packets of questions”. He then gave a summary of developments in medical education, particularly following the 1993 General Medical Council report *Tomorrow's Doctors* which introduced the notion of core courses backed up by special study modules; modules which provide a means of entry for marginal subjects to be included in the curriculum. Mark was not necessarily happy with the idea of branding medical history as marginal and welcomed decisions by Imperial College and the University of Liverpool to include medical history in their core courses.

After tea, delegates met to have a final discussion on the issues raised during the day. There was a lively debate on the extent to which museum studies training prepares even curators for using objects constructively. John Pickstone denied that the workshop had been merely “preaching to the converted”; he recognised, for example, that the CHSTM itself, whilst “keen”, had not actually done a great deal in terms of using objects. He expressed the hope that this workshop might encourage such use in Manchester and elsewhere.

The workshop report was produced and distributed in line with this sentiment to act as a record of important discussions and as an attempt to encourage follow-up activities.

Recommendations from Workshop.

- There should be more opportunities for medical curators to meet with each other. This could take place under the auspices of the new Medical Curators' Group or the Scientific Instrument Curators' Group, but it should be recognised that there is a separate and specialist interest to be served.
- These meetings should be extended to include mainstream medical historians as well as medical educators and practitioners. There are clearly lessons to be learned by academic historians from curators and vice versa.
- Curators should be aware that historians with an interest in using objects look to them to give a lead. Curators should therefore use every opportunity to emphasise the object-centred nature of their work and researches.



APPENDIX 4.

Departmental Contacts for the Orphans Project.

(See Section 3.2.1).

The individuals with whom the Orphans Project has maintained contact are:

- Archaeology Teaching Collection. Mr K. Maude, Instructor.
- Archaeological Units (GMAU and UMAU) Ms R. McNeil, Chief Archaeologist GMAU and Mr J. Walker, Director UMAU with various contract staff qualified in handling archaeological finds.
- Architecture Building Collection. Mrs V. Gildea, Librarian, Kantorowich Library.
- Chemistry Collection. Dr E.M. Armstrong, Chief Technician.
- Computer Science Collection. Professor H. Kahn with Dr R. Giordano, both full-time members of current teaching staff.
- Dental School Museum, Mr C.R. Stockdale*. Honorary Curator and a retired member of the Profession. Assisted by a team of volunteers within a 'Dental Heritage Unit'.
- Entomology Collection, School of Biological Sciences. Dr S.E.R. Bailey, member of current teaching staff, with Mr G. Kenyon, Teaching Laboratories Technician.
- Geology Collection, School of Earth Sciences. Mrs A.L. Edwards*, Curator/Librarian. A paid part-time curator with professional museum training.
- Engineering Collection, Manchester School of Engineering. Dr D. Walton, semi-retired member of current teaching staff with Mr T.D. Evans, Laboratory Superintendent.
 - ◊ Osborne Reynolds Exhibition. Professor J.D. Jackson with Mr R. Burrows, Laboratory Technician.
- History of Art Slide Collection. Mrs L. Vickers, Slide Curator. Full-time curator of a mainly non-historic collection.
- Jodrell Bank Collection. (Nuffield Radio Astronomy Laboratories).
 - ◊ Jodrell Bank Science Centre. Mrs S. Chaplin*, Visitor Centre Manager. Full-time professional manager.
 - ◊ Granada Arboretum and Woodland Discovery Centre. Dr. R.A. Benton, semi-retired member of current teaching staff at School of Biological Sciences.

- John Rylands University Library Non-Conformist Minister Portraits Collection. Mrs J.C. Sen*, Deputy Head of Reader Services, with the staff of the Methodist Archive.
- Manchester Computing Collection. No contact at present. Previous contact Mr. M.P. Kelly.
- Medical School Museum. Mr W.A. Jackson*, Honorary Curator and a retired graduate of the University's School of Pharmacy. Assisted by a volunteer.
- Pathology Collection, Department of Pathological Sciences. Mr P. Sullivan*, Laboratory Manager with:
 - ◊ Hope Hospital Branch Museum. Mr R.D. Dixon-Lee*, Technician.
 - ◊ Withington Hospital Branch Museum. Mr B. Harkiss*, Technician.
- Pharmacy Collection, Dr G.B. Lockwood with Dr D. Sharples, both members of current teaching staff.
- Physics Collection, Department of Physics and Astronomy. Professor R. Marshall FRS. Full-time member of current teaching staff.
- Tabley House Collection. Mr D. McCleod*, Head of Board of Trustees, with an administrator and a freelance art curator.
- Timber Ecology Collection, School of Biological Sciences. Dr R.A. Benton, semi-retired member of current teaching staff.
- Town Planning (Unwin) Collection. Mrs. V. Gildea, Librarian, Kantorowich Library.
- Zoology Collection, School of Biological Sciences.
 - ◊ Bone Collection. Dr D. Yalden, member of current teaching staff.
 - ◊ Spirit Specimen Collection, School of Biological Sciences. Dr. S.E.R. Bailey, member of current teaching staff, with Mr G Kenyon, Teaching Laboratories Technician.

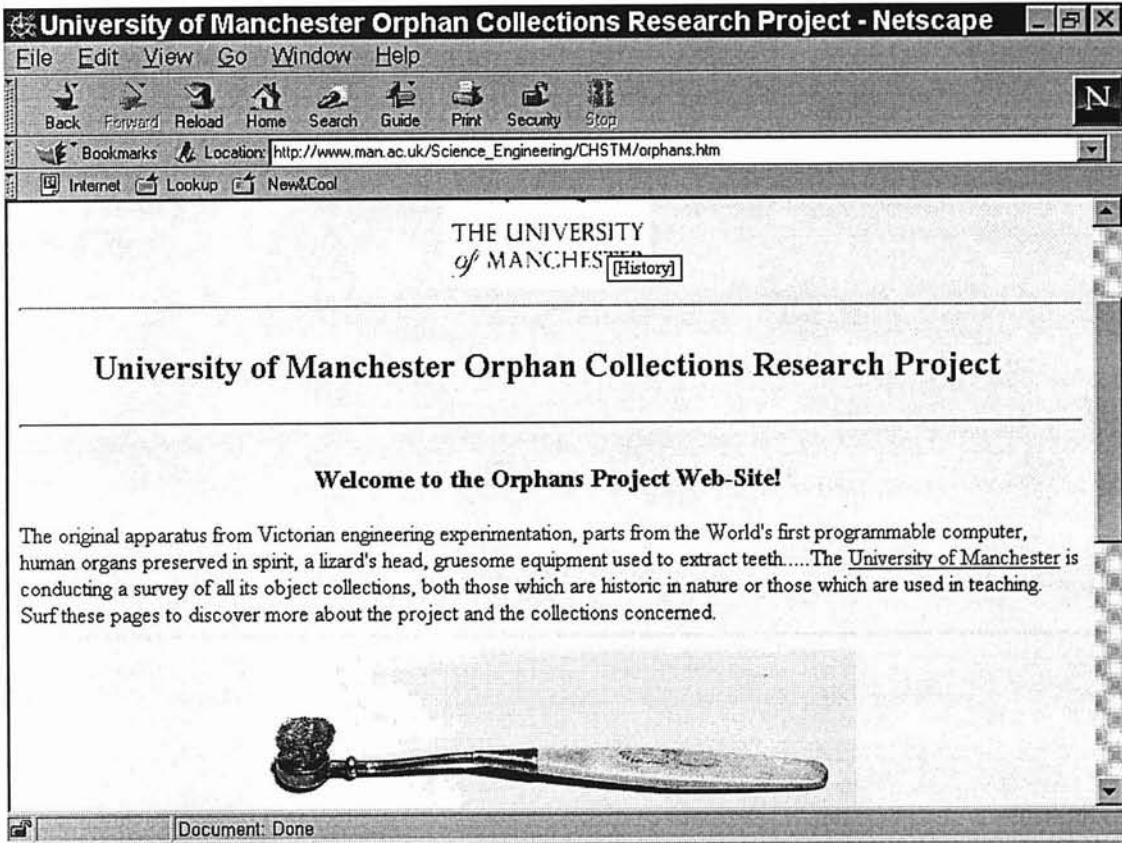
* indicates those staff who do not spend the majority of their university working time on other matters. Even in these cases the amount of time spent on the Departmental Collections may be small.

It should not be assumed from the list above that those named have full, official, departmental recognition for their role in respect of collections and each department should take steps to select an individual to receive such recognition. The responsibility might be noted in the job descriptions of those who are named and all such nominees ought to be offered support and allowed time to participate in the University of Manchester Collection Curators' Forum.



APPENDIX 5.

The Orphans Project Web-site.



APPENDIX 6.

Collections Database Entries.

There follows a series of database reports for each departmental collection, including the Jodrell Bank Science Centre and Arboretum and Tabley House. Much of the survey information could be regarded as potentially sensitive. In consequence, most copies of this Final report will not contain this appendix, or will only contain significantly edited versions of the database entries. Each department is in possession of a full version of the record relating to its own collection and full versions of the database entries for all the collections are held by The Manchester Museum and North West Museums Service.

