

CALLING ON GOD: THE GALLERY OBJECT DATABASE AT THE ROYAL ONTARIO MUSEUM

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Abstract.—The Royal Ontario Museum has embarked on an ambitious Renaissance project aimed at doubling attendance by the year 2007. Twenty-six individual gallery projects are proceeding almost simultaneously, drawing on collections from 20 disciplines, each with its own independent cataloguing system. A comprehensive Gallery Object Database (GOD) was developed in Microsoft Access 2003, containing a record of each of the 25,000 individual specimens or artifacts being considered for use in a gallery. Standards were developed in consultation with the curators and collection managers involved in the various gallery projects. A single database manager has control over creation of new records, which are then managed and updated by about 20 collection managers. The centralized database has eliminated the risk of double booking of objects into more than one gallery. Information such as specific conservation concerns (light, RH), conservation and mount making instructions, registration concerns, and exhibit location codes can be tracked in one place with current specimen location, preparation status, mount status, and gallery label text updateable. GOD information will ultimately be migrated into the main collections databases, complementing the much larger ongoing process of migrating the main collections databases from a variety of platforms into Access 2003

INTRODUCTION

In 2002 the Royal Ontario Museum (ROM) embarked on an ambitious Renaissance project (RenROM) aimed at doubling attendance by the year 2007. The project will result in over 300,000 square feet of new and updated galleries and public spaces opening over three phases including a landmark building addition designed by Daniel Libeskind, and major renovation of the heritage buildings (Royal Ontario Museum 2005). For the gallery planning process, following an extensive competition, the ROM contracted Haley Sharpe Design Limited (HSD) in Leicester, England.

It is estimated that some 20,000 specimens and artifacts will ultimately be installed in 26 new and refurbished galleries, which are being designed almost simultaneously. Each gallery has a design team consisting of designers and interpretive planners engaged by HSD and a coordinating curator from the ROM staff, who selects the objects and provides academic content. A contract academic advisor is hired where there is no one on staff with expertise in the particular collection discipline. Some galleries have several curators and a nominal coordinating curator. Other ROM academic and support staff, including collection managers, registrars, preparators, technicians, and conservators are also involved, as well as contract mount builders.

Gallery planning has been object driven. Initially, each ROM gallery team was asked to come up with their “120% list”—a wish list of the best and most significant material in the collections. Specimens and artifacts selected range in size from several metres long (mounted dinosaur skeletons) to less than a centimetre. Many were already on display and had to be moved, sometimes more than

Table 1. Selected multidisciplinary galleries in the RenROM project.

Gallery working name	Discipline collections involved
Age of Dinosaurs	Vertebrate Palaeontology, Invertebrate Palaeontology, Geology, Mineralogy, Entomology, Ornithology, Mammalogy, Botany
Age of Mammals	Vertebrate Palaeontology, Invertebrate Palaeontology, Invertebrate Zoology, Geology, Mineralogy, Ornithology, Mammalogy, Far Eastern, European, Textiles, West Asian, Ethnology
Earth and Early Life	Vertebrate Palaeontology, Invertebrate Palaeontology, Geology, Mineralogy
Earth's Treasures	Geology, Mineralogy, Ethnology, European, New World Archaeology, Egypt, China
Evoloution	All Life Sciences, Vertebrate Palaeontology, Invertebrate Palaeontology
Stair of Wonder	European, Mammalogy, Ornithology, Entomology, Invertebrate Zoology
Canadian Heritage	Canadians, European, Ethnology, New World Archaeology, Mammalogy

once, as gallery spaces were emptied for demolition and renovation. Unlike the old, mostly discipline specific galleries, the new galleries will be multidisciplinary. This means that any one gallery may have specimens from several different collections, and any collection may be providing specimens for several galleries (Table 1). A tracking method was required that would immediately flag all objects being considered for gallery use, along with their destination gallery and any other relevant information. As most of the ROM collections have been databased, it would seem logical simply to incorporate the gallery information into the existing databases. However, there were several historical roadblocks to this approach.

ROM COLLECTIONS DATABASES

ROM specimens and artifacts currently reside in 20 independent discipline collections, with data residing in about 30 databases (Table 2). Most of these (nine humanities with parallel registration databases, and six sciences) were downloaded from the Canadian Heritage Information Network (CHIN) platform in 1993 into Microsoft Access v. 2.0. The remaining databases were developed independently of CHIN on a variety of platforms. Except for certain numeric or date fields, no rules of entry were ever imposed by either CHIN or the ROM. Participating disciplines initially selected fields from an extensive dictionary of fields (see CHIN 2002a, 2002b) but received little guidance in how the fields were intended to be used. This resulted in considerable disparity not only in how data were recorded but also in the selection and content of fields from one database to the next. There is no mechanism for searching all the databases at once or for communicating information between databases. When CHIN devolved the databases to their home institutions in 1993, ROM selected Access 2.0 as a temporary platform until resources should come available to select and implement a permanent solution. Unfortunately, the resources to realize this transfer have not materialized. The Access 2.0 databases are becoming unstable, and the software is no longer supported. Work is underway to develop institutional standards for migrating the existing databases to Access 2003. This process comes too late to benefit the exhibit design process for RenROM.

Table 2. Status of ROM collections databases in 2005.

Natural Science collection databases:		
Discipline	Platform	Downloaded from CHIN
Botany	Access 2.0 (flat file) using CHIN fields	No
Entomology	Access 97 (relational)	No
Geochronology	Superbase (relational)	No
Geology	FoxPro (flat file)	No
Invertebrate Zoology	Access 2.0 (relational)	No
Herpetology	Access 2.0 (flat file) using CHIN fields	Yes
Ichthyology	Access 2.0 (flat file) using CHIN fields	Yes
Invertebrate Palaeontology	Access 2.0 (flat file) using CHIN fields	Yes
Invertebrate Zoology	Access 2.0 (relational)	No
Mammalogy	Access 2.0 (flat file) using CHIN fields	Yes
Mineralogy	Superbase (relational)	No
Mycology	Access 2.0 (flat file) using CHIN fields	No
Ornithology	Access 2.0 (flat file) using CHIN fields	Yes
Vertebrate Palaeontology	Access 2.0 (flat file) using CHIN fields	Yes
World Cultures collection databases:		
Discipline	Platform	Downloaded from CHIN
Canadiana	Access 2.0 (flat file) using CHIN fields	Yes
Egyptian	Access 2.0 (flat file) using CHIN fields	Yes
Ethnology	Access 2.0 (flat file) using CHIN fields	Yes
European	Access 2.0 (flat file) using CHIN fields	Yes
Far Eastern	Access 2.0 (flat file) using CHIN fields	Yes
Greek and Roman	Access 2.0 (flat file) using CHIN fields	Yes
New World Archaeology	Access 2.0 (flat file) using CHIN fields	Yes
Textiles	Access 2.0 (flat file) using CHIN fields	Yes
West Asian	Access 2.0 (flat file) using CHIN fields	Yes

For each discipline database in World Cultures there is a corresponding Registration database that includes Conservation fields.

Early in the project, HSD developed a set of Object Reference Sheets (ORS) in a Microsoft Excel workbook, one object per sheet, which included a low resolution image of the object and salient information provided by ROM staff, such as dimensions, weights, and special conservation concerns as an aid to design development. There was space to add gallery location codes, storage location, preparation tracking, and other information as the gallery development progressed. The plan was to print multiple hard copies of each sheet to distribute to all stakeholders—designers, curators, conservators, mount makers and installers. This system was cumbersome and there was no easy way to sort entries or to compare lists between gallery projects. More importantly, the ROM had no control over the data. Objects can be selected or rejected right up to installation. A live, ever-changing approach was needed.

At the same time, some of the gallery teams were keeping their own databases, often Excel spreadsheets, of all objects selected for their gallery, regardless of the discipline collection in which they were kept. While some of the fields resembled fields in the collections databases (catalogue number, genus and species), much of the information required for gallery design did not exist in all the current

databases (dimensions, conservation concerns, common names, general comments relevant to the storyline).

RENROM GALLERY OBJECT DATABASE

The fragile nature of the existing ROM collections databases and the fact that they are not related made it impractical to consider adapting the existing databases for gallery tracking purposes. A tracking system was needed immediately. The decision was made to develop a single comprehensive Gallery Object Database (GOD) in Microsoft Access 2003 that would hold a record of every object or artifact being considered for use in a gallery, along with a reference image. There were several reasons for selecting Microsoft Access 2003 as the platform for the GOD: it is an off-the-shelf product; it is compatible with many other database programs, so existing data in other formats could be readily extracted; most collections staff were already familiar with using an earlier version of Access so there was not a steep learning curve; and finally, Access 2003 was already being considered as an interim platform for the main collection databases. This account is presented from the perspective of the coordinating curator of a gallery and a primary database user (JW), the designer and manager of the database as well as a user (WP), and the coordinator of the Access 2003 migration (JS).

There are presently about 25,000 records in the Gallery Object Database, with 114 fields (listed in Appendix). As each curatorial team made its initial selection of objects for a gallery, data were loaded into the GOD from various sources, including the main collection databases as well as the early team gallery lists in spreadsheet or database format. Subsequent additions have been appended in blocks or sometimes one at a time. Much information has had to be entered manually.

The GOD is a flat file database application with a central database (back end) consisting of a single table for all of the data and several supplementary lookup tables used in the forms, and 30 or more linked databases (front end) for each gallery as well as Conservation, Production, Exhibit Design, Marketing Communications and other stakeholders. The forms for each of the linked databases filter the data so that collection managers and curators assigned to each gallery work only with the records relevant to that gallery. World Cultures artifacts have unique ID numbers (accession numbers) across all departments. Natural History disciplines have independent catalogue numbering systems so the same ID number can be duplicated across collections. Thus the unique identity (Access primary key) of each object is a combination of its catalogue number [ROMID] and its collection number [DisciplineID].

The system will not accept duplicates, so the same object cannot be designed into more than one gallery. Records of objects flagged for deletion from a gallery [DisplayStatus = deleted] are removed from the working form but are kept in the database in case the object is reinstated at a later date for the same or a different gallery. Only the database manager can add or delete records.

Curatorial, Conservation, Design, and Production teams each have unique concerns about the mounting and display of an artifact or specimen and fields are provided for each to document their wishes and concerns. For example, Design may want an artifact to be displayed at a certain angle, the Curatorial team may require a different angle to show a particular detail and Conservation may require

Figure 1. Curatorial screen of the Gallery Object Database main form.

a specific angle for protection and security of the artifact. Before a mount is constructed, Production can analyze the various concerns in the database and, if necessary, a compromise is reached.

Each record has a general image of the object as well as an image of its completed mount, once it is constructed, and the object on its mount. Some of the mounts are quite complex and, since the person who installs the object in a gallery is not necessarily the person who designed the mount, photographs of the mount and the object on its mount are crucial. The images are stored together in a single directory and for speed of delivery across the ROM network have all been resized to a uniform 300 pixels \times 300 pixels, averaging about 25KB. Access programming code is used to display each image in forms and reports. Only the database manager is able to add new images. Where possible the image filename corresponds to the object's ROMID so that a simple update query updates the image field in the database eliminating typing errors. Each record also includes a hyperlink to a full size image of the object, which can be opened in a graphics program to see details and to print.

For each record, the form has grown to three pages containing Curatorial, Caption and Production data. A list of fields is given in the appendix. Figures 1 to 3 show the form for a single artifact in the "Gallery of Canada: First Peoples."

APPLICATIONS, BENEFITS AND LESSONS

One benefit to the collections staff was the immediate upgrading of many old computers to handle the demands of Windows 2000 or higher. The GOD is proving its value in many phases of gallery development.

Scheduling.—Objects were initially assessed on their need for conservation

Curatorial Caption Production

RenROM Gallery Object Database

Print Page Find ROMID

Caption

Walter Ochpowace's horse mask with eagle clan lightning symbol

Plains Cree
Ochpowace Reserve, Saskatchewan
Cotton cloth, beads
circa 1900

At the turn of the twentieth century horse masks were sometimes worn by Plains Indians in mounted parades, horse dances and mock battles. In this example, yellow lightning bolts, ending in a stylized eagle claw, emanate from the horse's eyes. This image relates both to the golden eagle and the mythical Thunder Bird whose flapping wings produced thunder and from whose eyes came lightning. In the nomadic days of intertribal warfare such symbols were painted on war horses to give them supernatural powers of endurance, speed and agility.

Ochpowace was the hereditary chief and grandson of Loud Voice, the Cree chief who signed Treaty Four on behalf of his Cree people in 1874.

913.14.49 Edmund Morris Collection

Guidelines

Caption Fields

ROMID: 913.14.49

Title: Walter Ochpowace's horse mask with eagle clan lightning symbol

Maker: Culture: Plains Cree

Geography: Ochpowace Reserve, Saskatchewan

Material: Cotton cloth, beads Date: circa 1900

Narrative: At the turn of the twentieth century horse masks were sometimes worn by Plains Indians in mounted parades, horse dances and mock battles. In this example, yellow lightning bolts, ending in a stylized eagle claw, emanate from the horse's eyes. This image relates both to the golden eagle and the mythical Thunder Bird whose flapping wings produced thunder and from whose eyes came lightning. In the nomadic days of intertribal warfare such symbols were painted on war horses to give them supernatural powers of endurance, speed and agility.

ROMIDGroup: 913.14.49 CreditLine: Edmund Morris Collection

Group Title

Plains Cree horse masks

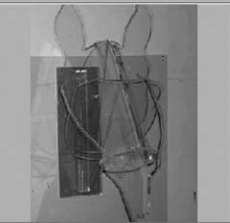

Record: 247 of 1028 (Filtered)

Figure 2. Caption screen of the Gallery Object Database main form. "Group Title" refers to text that applies to more than one specimen.

Curatorial Caption Production

RenROM Gallery Object Database

Print Page Find ROMID

Mount: 913.14.49-MT.jpg MountObject: 913.14.49-MO.jpg

Discipline: Ethnology
Gallery: First Peoples
Height: 55.0
Length: 29.0
Width: 29.0
Depth: 29.0
Diameter: 29.0
Unit: cm
Dim: L 55.0 x W 29.0
Weight: Light (1-5kg)
Display Handling: Discuss mounting of horse mask with Ami Drownstone.

Object: 913.14.49.jpg

ROMID: 913.14.49
Object: Horse mask
Material: Cotton cloth, beads
Description: Horse mask beadwork on cloth

MountRequired: Yes
DateObjectIn: 09-Sep-05
DateObjectOut: 29-Sep-05
ObjectLocation: Conservation, CC213-A.04.078
MountLocShelf: CC2R-102.028 Box: shelf

MountMaker: Calvin Burns
Mount Complete: Yes Date Complete: 22-Sep-05
Mount Remarks: Plexi frame with screws
Display Comments:

Assessor: Julia Fenn
RiskLevel: 35-50%
Duration: 5 years
Enclosure: Yes
Display/Mounting: Display fully supported in the round, not folded.

Treatment: Completed Hours: 8
LightLevel: 150 lux, No UV

Conservator: Julia Fenn
DateTaken: 20-Jun-05
Returned: 28-Jun-05
Installer: Andy O'Mara
DateTaken: 14-Dec-05

DateTaken: 09-Sep-05
DateReturned: 29-Sep-05
MountType: No direct metal contact
MountLighting: No spotlighting
PlinthSize: Wall mount

Record: 247 of 1028 (Filtered)

Figure 3. Production screen of the Gallery Object Database main form.

(A)	(B)
[Genus] [Species]	[Title]
[Object], [ObjectNature]	[Culture]
[Geography (locality)]	[Geography]
[Period], [Date (age in years)]	[Material]
[Narrative]	[Date]
[ROMID] [CreditLine]	[Narrative]
	[ROMID] [CreditLine]

Excalibosaurus costini

Ichthyosaur

Lyme Regis, England

Early Jurassic, 180 million years old

Excalibosaurus was named for its long sword-like snout, extracted from the rock like the legendary sword of King Arthur.

47697 Gift of the Louise Hawley Stone Charitable Trust

Walter Ochapowace's horse mask with eagle clan lightning symbol

Plains Cree

Ochapowace Reserve, Saskatchewan

Cotton cloth, beads

circa 1900

At the turn of the twentieth century masks were sometimes worn horse by Plains Indians in mounted parades, horse dances and mock battles. In this example, yellow lightning bolts, ending in a stylized eagle claw, emanate from the horses eyes. This image relates both to the golden eagle and the mythical Thunder Bird whose flapping wings produced thunder and from whose eyes came lightning. In the nomadic days of intertribal warfare such symbols were painted on war horses to give them supernatural powers of endurance, speed and agility.

The owner, Ochapowace, was the hereditary chief and grandson of Loud Voice the Cree chief who signed Treaty Four on behalf of his Cree people in 1874.

913.14.49 Edmund Morris Collection

Figure 4. Fields used to build labels and examples for (A) a natural history specimen and (B) a world cultures artifact.

treatment or a display mount. Regular status reports from the database aid in scheduling priorities.

Design and text writing.—Lists can be generated by display case code for checking against detail drawings and text development. As well as object name, locality, age, donor recognition, and other provenance information, there are fields for descriptive narrative label copy. Copy for individual specimen labels can thus be generated directly from the designated fields in the database, requiring only minor editing and formatting (Fig. 4).

Object and mount status tracking.—Date and current location are tracked when an object is removed from storage for conservation or mount design and construction. This is vital because the object may go back into regular storage, or may be stored elsewhere until installation. The mount may stay with the object, or be

stored separately. At the same time that the galleries are being updated, there is a ROM initiative to provide images and data on its website of 5,000 featured objects in the museum's collection. Since most of these objects are planned for exhibit and are therefore in the GOD, a separate section on the Curatorial page is reserved for tracking these objects through the professional studio photography process. At any time an object can be in one of many stages of the gallery process—conservation, production, photography, installation—and the database ensures the current location of object and mount is always available.

Images.—Two versions of the main form are provided, one of which displays the image of an object automatically on entering the record. However, scrolling through the records too quickly can cause the database to crash, as network access to the images cannot keep up with the display. A second form necessitates the user clicking a button to display the image. This would make it possible to use images larger than 300×300 pixels. However, limitations of the local area network can result in problems when printing reports with several records containing several large images per page. There is a trade-off between network speed and image size.

Collections database standards.—Basic taxonomic and provenance data were extracted from the main collections databases. In the process, errors, omissions and inconsistencies in the heritage data were noticed and corrected. Thus the standards for the heritage data were improved. While the GOD is considered a temporary database, and will not be maintained after the end of the RenROM project, curators and collections staff are anxious not to lose the information that has been generated about the specimens and artifacts during the process. As the main collection databases are migrated into Access 2003, provision will be made to import this information, enhancing the main databases. Thus, even though the GOD is not permanent, its development complements the standardization process for future migration of heritage data.

SUMMARY

The Gallery Object Database was developed to address an immediate need that could not be met using existing digital resources. It was populated with data from a variety of sources: spreadsheets, databases, text files, email messages, and scribbled notes. Fields were defined in consultation with a diverse group of stakeholders to address curatorial/collection management, text development, and conservation/installation information requirements. Tightly enforced standards and control over record entry have resulted in a versatile database that can be used by all the various groups involved in the gallery development and installation.

A primary goal of the main collections standardization project has been to improve our databases so that they can serve multiple needs across the museum. The Gallery Object Database process has benefited from earlier standards work already underway and has also served to demonstrate additional uses for information that should be considered within the main collections databases, including gallery design and preparation applications and image management.

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Appendix. Field structure of the Gallery Object Database. Asterisk (*) denotes an Access primary key field.

Function	Field	Description	DataType	Size
System	ID	A unique number assigned automatically to each record.	AutoNumber	5
System	User	The logon username of the last individual who changed this record.	Text	255
System	RecordDateofChange	The date on which this record changed.	Date/Time	8
Object-Reference	Department	The department to which this object belongs.	Text	255
Object-Reference	Discipline	The departmental discipline to which this object belongs.	Text	255
Object-Reference	DisciplineID*	The ID for the departmental discipline to which this object belongs	Number	2
Object-Reference	Database	The departmental database where this object resides.	Text	255
Object-Reference	DatabaseID	The ID for the departmental database where this object resides.	Number	2
Object-Reference	ROMID*	The unique ROM identification number assigned to this object.	Text	255
Object-Reference	ROMIDGroup	The ROM identification number assigned to or group of objects.	Text	255
Object-Reference	ROMIDGroupCaptionRecord	A yes flag indicating this record is the caption record in a ROMID group of records.	Text	255
Object-Reference	ROMIDStatus	Administrative field for verifying the ROMID number for this object against the Registration source table.	Text	255
Object-Reference	DateROMIDChanged	The date on which the information changed in the ROMID field.	Date/Time	8
Object-Reference	CatalogueNumber	A catalogue number assigned to this object.	Text	255
Object-Reference	PreviousNumber	A number that had previously been assigned to this object.	Text	255
Object-Reference	Genus	The scientific genus to which this object belongs.	Text	255
Object-Reference	Species	The scientific species to which this object belongs.	Text	255
Object-Reference	ObjectNature	A description of the nature of this object, e.g. study skin, mount, skull.	Text	255
Object-Reference	Object	The name of this object.	Text	255
Object-Reference	Material	The material from which this object is made.	Text	255
Object-Reference	Description	A detailed description of this object.	Memo	65,535
Object-Reference	Location	The current location of this object.	Text	255
Object-Reference	LocationDate	The date on which the location of this object changed.	Text	255
Object-Reference	Comments	Curatorial comments associated with this object.	Text	255
Object-Reference	Hierarchy	Information indicating the prioritizing of objects for display.	Text	255
Object-Reference	Rotation	A numeric indicator of the display rotation of this object.	Text	255
Object-Reference	LocalUse1	Local field to store information of a temporary nature associated with this object.	Memo	65,535
Object-Reference	LocalUse2	Local field to store information of a temporary nature associated with this object.	Memo	65,535
Object-Reference	LocalUse3	Local field to store information of a temporary nature associated with this object.	Memo	65,535
Object-Reference	Height	The maximum height of this object.	Text	255

Appendix. Continued.

Function	Field	Description	DataType	Size
Object-Dimensions	Length	The maximum length of this object.	Text	255
Object-Dimensions	Width	The maximum width of this object.	Text	255
Object-Dimensions	Depth	The maximum depth of this object.	Text	255
Object-Dimensions	Diameter	The maximum diameter of this object.	Text	255
Object-Dimensions	Unit	The units used to measure this object, e.g. cm.	Text	255
Object-Dimensions	Dimensions	A concatenation of the maximum measurements of this object or additional measurements.	Text	255
Object-Dimensions	Weight	An approximation of the weight of this object.	Text	255
Object-Status	DateAdded	The date on which this object was added to the database.	Date/Time	8
Object-Status	DisplayStatus	An indicator, Yes or Deleted, whether or not this object will be displayed.	Text	255
Object-Status	DateDeleted	The date on which this object was deleted from the display	Date/Time	8
Object-Status	ReasonDeleted	The reason this object's display status was changed to deleted.	Text	255
Object-Photography	Image	The image filename of this object.	Text	255
Object-Photography	HyperlinkImage	A hyperlink to an image of this object.	Hyperlink	2,048
Object-Photography	MountImage	The image filename of the mount for this object.	Text	255
Object-Photography	MountObjectImage	The image filename of this object on its mount.	Text	255
Object-Photography	PhotoType	The type of photography needed for this object, used primarily for the ROM 5000 project.	Text	255
Object-Photography	DateToPhotography	The date on which this object was taken to photography.	Date/Time	8
Object-Photography	DatePhotographed	The date on which this object was photographed.	Date/Time	8
Object-Caption	NarrativeLevel3	A level 3 narrative associated with a group of objects including this object.	Memo	65,535
Object-Caption	GroupNarrative	A caption narrative associated with a group of objects including this object.	Memo	65,535
Object-Caption	GroupTitle	A caption title associated with a group of objects including this object.	Memo	65,535
Object-Caption	Title	A title associated with this object.	Memo	65,535
Object-Caption	ObjectStatus	The status of this object whether an original, cast, replica, model or reproduction.	Text	255
Object-Caption	Maker	The artist or maker of this object.	Text	255
Object-Caption	Designer	The designer of this object.	Text	255
Object-Caption	Culture	A cultural description of this object.	Text	255
Object-Caption	Geography	A geographical description of this object.	Text	255
Object-Caption	Period	A period description of this object.	Text	255
Object-Caption	Date	A date description of this object.	Text	255
Object-Caption	NarrativeObject	A Level 4 narrative associated with this object.	Memo	65,535

Appendix. Continued.

Function	Field	Description	DataType	Size
Object-Caption	DateCaptionChanged	The date on which information in any of the caption fields was changed.	Date/Time	8
Object-Caption	DateCaptionSent	The date on which the caption was sent to Haley Sharpe for editing.	Date/Time	8
Registration	Source	The acquisition source of this object.	Text	255
Registration	CreditLine	The credit line associated with this object.	Memo	65,535
Registration	ReproductionRights	The reproduction rights of this object.	Text	255
Registration	MoralRights	The moral rights of this object.	Text	255
Registration	ExhibitionRights	The exhibition rights of this object.	Text	255
Registration	CopyrightDetails	Copyright details for this object.	Memo	65,535
Conservation	ConservatorAssessor	The name of the conservator who assessed the conservation requirements of this object.	Text	255
Conservation	TreatmentRequired	An indication as to whether or not conservation treatment is required by this object or is completed.	Text	255
Conservation	AssessedHours	The number of hours assessed to treat this object.	Number	4
Conservation	RHLevel	The relative humidity level required by this object.	Text	255
Conservation	LightLevel	The light level required by this object.	Text	255
Conservation	DurationofDisplay	The duration of display for this object.	Text	255
Conservation	Enclosure	A description of the enclosure in which this object will be displayed.	Text	255
Conservation	Conservator	The name of the conservator who took this object for treatment.	Text	255
Conservation	ConservationTaken	The date on which this object was taken to Conservation.	Date/Time	8
Conservation	ConservationReturned	The date on which this object was returned from Conservation.	Date/Time	8
Gallery Design	Gallery	The gallery where this object will be displayed.	Text	255
Gallery Design	ClusterCode	The gallery cluster code assigned to this object.	Text	255
Gallery Design	ClusterName	The gallery cluster name assigned to this object.	Text	255
Gallery Design	ExhibitModuleCode	The gallery exhibit module code assigned to this object.	Text	255
Gallery Design	ExhibitModuleName	The gallery exhibit module name assigned to this object.	Text	255
Gallery Design	ObjectGroupCode	The gallery object group code assigned to this object.	Text	255
Gallery Design	ObjectGroupName	The gallery object group name assigned to this object.	Text	255
Gallery Design	ObjectNumber	A unique number assigned to this object for ordering and prioritizing within the display.	Text	255
Gallery Design	DateCodeChanged	The date on which a change was made to any of the Haley Sharpe fields.	Date/Time	8
Gallery Design	HSDSheet	The HSD sheet number on which this object appears.	Text	255
Gallery Design	HSDKey	The key number that relates this object to the layout drawing on the HSD sheet.	Number	4

Appendix. Continued.

Function	Field	Description	DataType	Size
Gallery Design Gallery Design Production	HSDDisplayCase	The HSD case or open display code assigned to this object.	Text	255
	HSDDisplaySurface	The HSD display surface code assigned to this object.	Text	255
	DisplayHandling	Curatorial comments on special requirements when handling or displaying this object.	Text	255
Production	DisplayMounting	Conservation comments on the methods required to display or mount this object.	Text	255
	MountDisplayComments	Mount makers' comments on object display considerations.	Text	255
	MountRemarks	Mount makers' production remarks about this object.	Text	255
	MountRequired	An indication as to whether or not a mount is required for this object.	Text	255
Production	MountTaken	The date on which this object was taken to be mounted.	Date/Time	8
	MountReturned	The date on which this object was returned from mountmaking.	Date/Time	8
	ProductionIn	The date on which a mount maker checked this object in for mount making.	Date/Time	8
	ProductionOut	The date on which a mount maker returned this object to the department.	Date/Time	8
	ProductionLocation	The storage location of this object during production of the mount.	Text	255
	MountMaker	The name of the mount maker assigned to make the mount for this object.	Text	255
	MountComplete	An indication as to whether the mount has been completed.	Text	255
	MountCompleteDate	The date on which the mount was completed.	Date/Time	8
	MountLocationShelf	The storage shelf location of the mount for this object.	Text	255
	MountLocationBox	The storage box location of the mount for this object.	Text	255
	MountType	The type of mount used to display this object.	Text	255
	MountLighting	The type of display case lighting needed to display this object on its mount.	Text	255
	PlinthSize	The size of plinth used to display this object.	Text	255
	InstallationTaken	The date on which this object was taken for installation into the gallery.	Date/Time	8
	Installer	The name of the individual who took this object for installation in the gallery.	Text	255
	InstallLocation	The temporary storage location of this object before installation into the gallery.	Text	255
	InstallDate	The date this object was installed in the gallery.	Date/Time	8