

News & Notes

MEMBERS' MAGAZINE

ISSUE 228 | WINTER 2016



THE
ORIENTAL
INSTITUTE
OF THE UNIVERSITY OF CHICAGO

FROM THE DIRECTOR'S STUDY

We like to think that our scholarly research is always inspired by great ideas, and that we then find clever ways to test those theories. However, the truth is much more complicated — many of our best discoveries are, in fact, driven by technology. As new advances in computers and information technology become available, archaeologists and textual specialists find themselves able to ask new questions and larger-scale questions than ever were possible before. The three main articles in this issue of *News & Notes* highlight some of the innovative ways that we can do our fieldwork and analyze our data to see patterns in the past that had been in front of our eyes, but were invisible to us because we lacked the methodologies to tease them out.

Emily Hammer's article about the Oriental Institute's Center for Ancient Middle Eastern Landscape (the CAMEL lab) outlines some of the ways that digital technology — in particular the use of recently declassified spy satellite imagery — is transforming how we do "landscape archaeology." This is an approach to archaeology that does not just look at sites in and of themselves, but rather examines them as part of a patterned landscape of interconnected settlements, roads, irrigation canals, field systems, fortification systems, and pastoral encampments. The satellite images allow us to tease out the ways that the ancient civilizations of the Near East created and modified natural landscapes into cultural landscapes; at the same time, this technology allows us to see how human societies have both caused and been affected by environmental change. This kind of work would simply not have been possible forty years ago.

Foy Scalf and Anne Flannery's article describes one of the most ambitious undertakings of the Oriental Institute — the development of the "Integrated Database" (IDB). The IDB's goal is to digitize the many enormous data archives of the Oriental Institute — most of which have been until now recorded on paper or film. Traditionally these archives have been data "silos" — deep and massive, but difficult to connect with other data archives. Under Foy and Anne's direction, the IDB project staff has been working to digitize the different kinds of data archives, and then link them, so that a researcher will be able to jump seamlessly from looking up objects in the Museum's registry, to finding digitized images of the objects themselves and the sites where they were found, and then jumping to locate, download, and read the publication of those objects and their archaeological contexts. The IDB is emerging as both an invaluable tool for curation (of objects, images, publications, etc.), as well as an increasingly powerful tool that will speed up research and enable scholars to see things they never saw before.

Finally, the article by Yorke Rowan, Morag Kersel, and Austin "Chad" Hill shows how archaeologists combine field collections of artifacts with imagery from unmanned aerial vehicles ("drones") and digital terrain mapping to place the artifacts onto the landscape, define archaeological sites, and then decide where to place their trenches to start the work of actually excavating at their site of Marj Rabba.

Together, these articles show how technological advances are speeding up every aspect of research, from excavation, to broader-scale landscape archaeology, to the synthetic analysis of data. This digital revolution is allowing us to see and investigate the ancient world in an entirely new way — and it is sure to yield unexpected, wonderful insights in a "brave new world" of interconnected data.

Gil J. Stein, Director

In This Issue

- | | |
|-------------------------------|-------------------------------|
| 3 Exhibitions | 18 News |
| 4 CAMEL Lab | 23 Volunteer Spotlight |
| 10 Integrated Database | 25 Programs & Events |
| 14 Galilee | 31 Artifact Highlight |

THE ORIENTAL INSTITUTE

1155 East 58th Street
Chicago, Illinois, 60637

WEBSITE

oi.uchicago.edu

FACSIMILE

773.702.9853

MEMBERSHIP INFORMATION

773.702.9513

oi-membership@uchicago.edu

MUSEUM INFORMATION

773.702.9520

SUQ GIFT AND BOOK SHOP

773.702.9510

ADMINISTRATIVE OFFICE

773.702.9514

oi-administration@uchicago.edu

MUSEUM GALLERY HOURS

Mon: Closed

Sun-Tue, Thu-Sat: 10am-5pm

Wed: 10am-8pm

CREDITS

Editors: Rebecca Cain, Leslie Schramer, Tom Urban, and Amy Weber

Designers: Rebecca Cain and Amy Weber

News & Notes is a quarterly publication of the Oriental Institute, printed exclusively as one of the privileges of membership.



On the Cover: 1960 U-2 "spy plane" photograph of a mass-kill hunting trap ("desert kite") and other stone structures in southern Syria. Animals such as gazelle would have been stampeded from the broad to the narrow end of the trap.



Anne Flannery, project manager for the Integrated Database, and Brian Porrett, IDB volunteer, discuss cataloging procedures for archival records from the Oriental Institute Megiddo Expedition. Photo by Foy Scalf.

MANAGING OUR PAST FOR THE FUTURE

The Oriental Institute Integrated Database Forges New Connections to the Worlds of Big Data and Digital Humanities, at a Critical Moment for Cultural Heritage Stewardship

By Foy Scalf and Anne Flannery

“THE PROJECT IS ONE OF THE MOST IMPORTANT IN THE WHOLE RANGE OF HUMANISTIC RESEARCH. IT IS AN URGENTLY NEEDED TOOL. THE INSTITUTE IS THE OBVIOUS AGENCY TO PRODUCE SUCH AN ENCYCLOPEDIA ORGANIZATION OF THE EVIDENCES REVEALING THE LIFE AND HISTORY OF ANCIENT MAN.”

— JAMES HENRY BREASTED

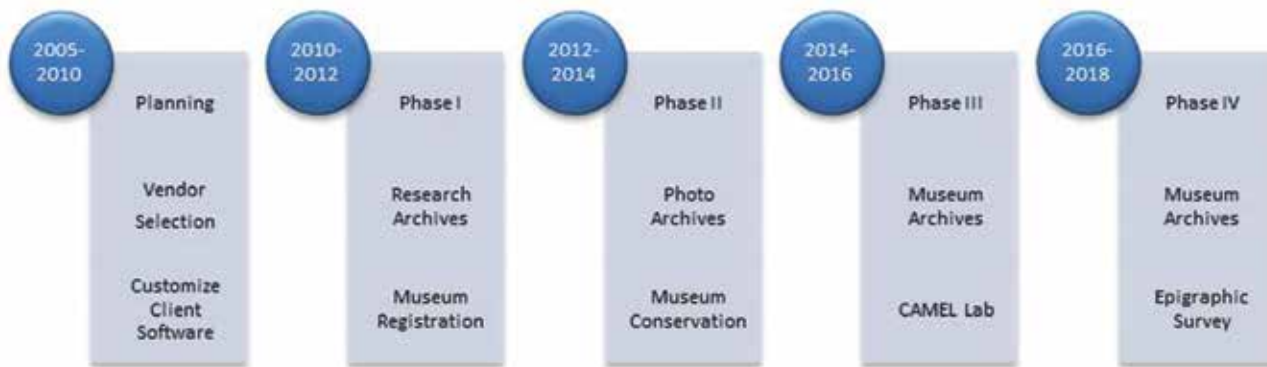
Recent global crises have heightened public awareness of the many threats facing sites that provide the “evidences revealing the life and history” of antiquity. These cultural heritage sites have already suffered from the damage done by early archaeological treasure seekers, urban encroachment, agricultural intensification, pollution, looting, and the simple ravages of time. And now they are at risk from groups seeking their destruction in order to meet ideological and political ends. It is in times such as these that those of us working in cultural heritage disciplines within museums and archival repositories realize the fundamental significance of the stewardship of this heritage. Furthermore,

these challenges strengthen our resolve to preserve the story of humanity for future generations. This cannot be accomplished without the daily management of our past with the goal of making it accessible to the most people possible.

The Oriental Institute is involved in many projects to excavate, restore, preserve, publish, and promote the languages and cultures of the ancient Near East. However, its mission to steward its internal collections is often overlooked. In order to fulfill the goals of maintaining, preserving, and accessing our collections according to the highest international standards, the Oriental Institute founded the Integrated Database Project (IDB), which requires a robust assemblage of database software, servers, and other infrastructure in order to capture institutional data and share it with the public. Although big data projects are sometimes criticized for the single-minded goal of data capture, the IDB does not fall into this trap. It quite literally helps to run the

part to funding from three successive grants, from the Institute for Museum and Library Services, the Oriental Institute, and Aimee Drolet Rossi. Since starting data migration in 2010, we have integrated the following departments into the IDB: Research Archives, Museum Registration, Museum Conservation, Photographic Archives, and the Museum Archives. The Center for Ancient Middle Eastern Landscapes (CAMEL) will finish their data migration in the coming months.

The daily work of this project has involved over a dozen staff members and up to two dozen interns and volunteers. Adoption of the system has been organized in phases, with CAMEL and Museum Archives currently part of Phase III. We hope to complete the IDB's start-up phases with Phase IV in 2016–2018, at which point we will take stock of the status of the project and plan for further long-term goals. These include ensuring the accuracy and comprehensiveness of information gathered on inter-



Timeline of the OI IDB project.

Oriental Institute, and many staff can't imagine doing their jobs without it. Managing this material is an enormous task involving dozens of faculty, staff, interns, and volunteers. Internally, the IDB helps us to organize collections, record exact locations for all objects, plan exhibits, run a library, improve work (in)efficiencies, and gather together a vast array of supplemental information. Because of the IDB, our information is updated regularly, is more accurate and complete, and is easier than ever before to access. Never before has more information about the OI's vast ancient Near East collections been available, and much has been made public for the first time. Prior to the IDB, there was no public source for searching our varied collections apart from the Research Archives library catalog. The IDB is now the official institutional repository for all information and data produced by the Oriental Institute.

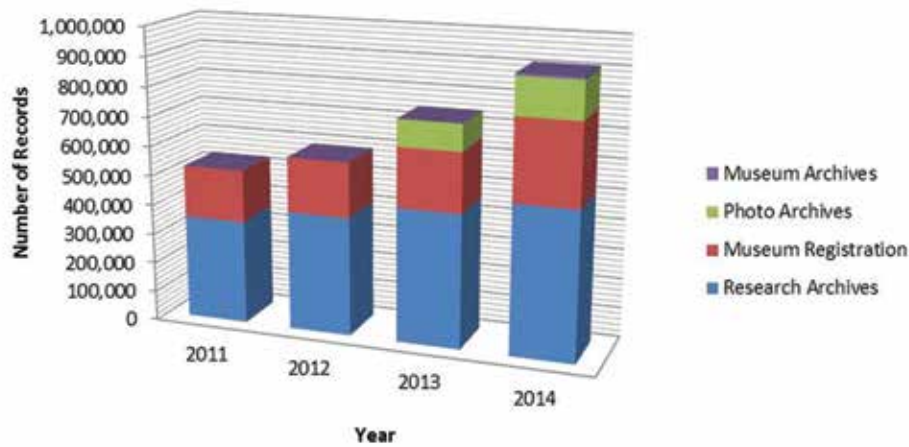
Although Breasted foresaw the need for such information-gathering projects (see "Fulfilling Breasted's Vision: The Oriental Institute Integrated Database Project," *Oriental Institute News & Notes* 218, pp. 9–13), the modern version of the IDB project has a history that began with meetings and discussions in the 1990s. However, it took over a decade to secure funding and get the project off the ground, while the first departments migrated their data into the system in 2010–2012. Over the last five years, the project has made tremendous strides, thanks in large

part to funding from three successive grants, from the Institute for Museum and Library Services, the Oriental Institute, and Aimee Drolet Rossi. Since starting data migration in 2010, we have integrated the following departments into the IDB: Research Archives, Museum Registration, Museum Conservation, Photographic Archives, and the Museum Archives. The Center for Ancient Middle Eastern Landscapes (CAMEL) will finish their data migration in the coming months.

The project is called the "Integrated" Database because of how the data are structured. Every unit shares the same database so that we can now link our data together in ways that were



Visualization of OI departmental integration.



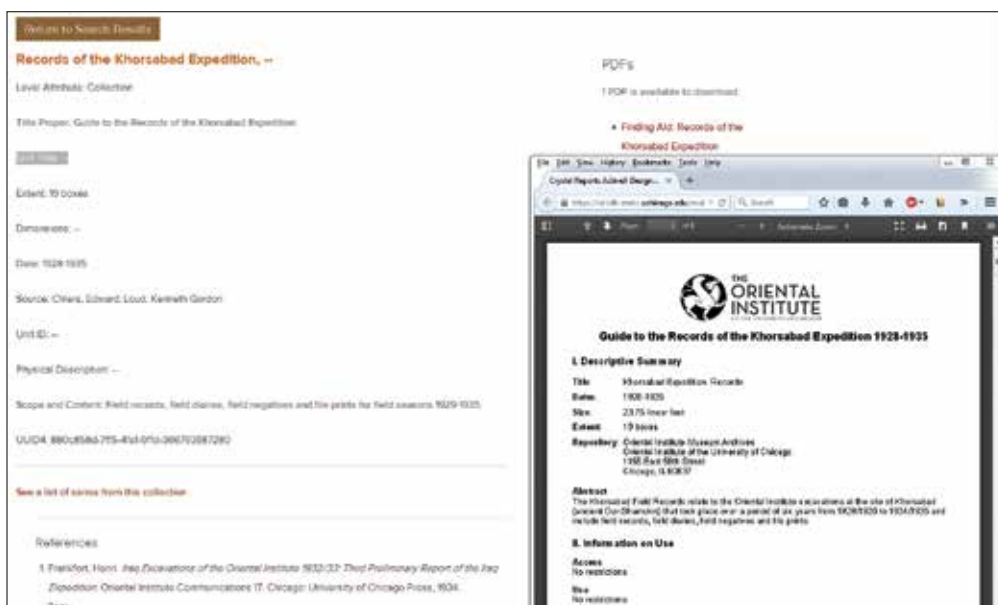
Growth of database records, 2011-2014.

previously impossible. Major efficiencies have been harnessed by this kind of information sharing. For example, each department kept bibliographic information about its work in a variety of formats and file types. Whenever a bibliographic note had to be made, the data were entered from scratch, over and over again. However, now that we have integrated, when a reference is needed — citations of a papyrus, notes on conservation materials, printed reference of a photograph — users can look up the reference in the extensive catalog of the Research Archives and simply “attach” the records together, making a relationship in the database so that the system knows a particular object was published in a particular book or article. Furthermore, the reverse is also true; for example, we can now easily list all the OI objects or photos published in a particular book. By integrating the data from internal departments, the OI has made a major step forward in how information about cultural heritage is managed, organized, and shared.

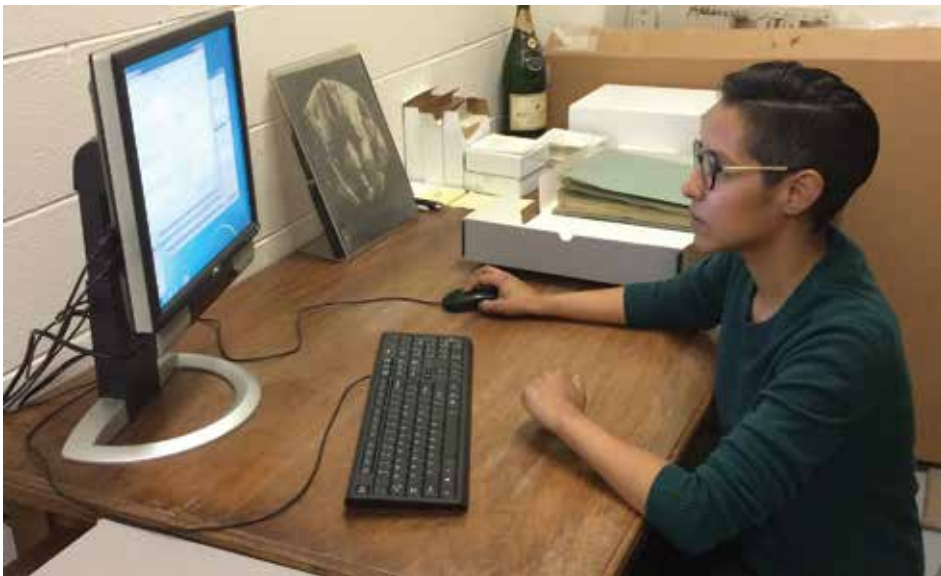
We now have roughly 1,000,000 records in the database, consisting primarily of 500,000 library items, 300,000 museum objects, 130,000 photos, and 10,000 archival records. Over the past four years, we’ve added nearly 400,000 records to the database, through either major migration or old-fashioned data entry. Additionally, in response to overwhelming demand, there are now over 214,000 (and counting) digital images in the integrated database. Over 50,000 represent scans of photos and negatives. In addition, volunteers have scanned over 25,000 museum registration cards, and they have also begun scanning the accession records so that the full provenance of an object is at our fingertips. The library has images of over 1,000 books and over 3,000 PDFs of publications attached to the corresponding catalog record. Almost 4,000 field registration cards from the Persepolis Expedition have been scanned. Over 20,000 large-format negative scans from the Epigraphic Survey have been incorporated. We have

also assembled biographical data on hundreds of scholars associated with the Oriental Institute, incorporating this information into the provenance of each item and the finding aids for the Museum Archives.

For the Oriental Institute Museum Archives, the IDB is a revolutionary advancement. For the first time in almost 100 years, we are well on our way to having a publicly accessible catalog of the fascinating material stored here. We have never had a complete catalog of this material and only scattered selections have been known to outside researchers. Over the last year, we have begun cataloging the entire archival collection and presenting it online through the Online Collections Search at oi-idb.uchicago.edu, the public interface of the integrated database. Already we



Records of the Khorsabad Expedition Collection, with links to the references in the Research Archives catalog and a download of the finding aid for the collection.



Elisa Landaverde, IDB volunteer, cataloging materials in the Museum Archives. Photo by Foy Scalf.

have cataloged over 10,000 records including 100 collections, 3,700 boxes, 2,200 folders, and 3,700 items. We have designed reports that will produce finding aids according to the international Encoded Archival Description standard for the collections. These finding aids are attached to collection records in the database and can be directly downloaded by public users. Prior to this, researchers had no way of knowing what was in the archival collection without contacting the archivist directly. Lacking information about the content of the archival collections, it would be difficult or impossible for a researcher to know that the collection might be useful for their research. This advancement is invaluable for researchers internal and external to the OI. A complete, comprehensive catalog will take many years and the help of many individuals to produce, but we have already made enough progress that users can get an excellent general outline of what is available in the archives.

The Integrated Database project is a long-term, large-scale, big-data project in the growing field of digital humanities. Producing a tool of this scale involves the labor of many individuals, including staff, faculty, students, and volunteers, all dedicating their time to further the mission of the Oriental Institute. An unexpected bonus from this project was the exponential increase in the number of volunteers working with us at the OI. They perform much of the laborious scanning, data entry, and accuracy checking needed for the success of the IDB. Many of them go on to serve as unofficial ambassadors for the OI and all things ancient Near East by recruiting others and spreading the word about their work here. It must be said that without the generosity of these individuals through their financial support and daily labor, projects such as the Integrated Database would never become a reality. The importance of this information to human history is such that we all owe them a debt of gratitude.

LEARN MORE

If you would like to volunteer for the project, applications can be submitted through the Oriental Institute website oi.uchicago.edu/support/research-archives-volunteers

Readers can search any of the collections mentioned in this article through the online collections search at oi-idb.uchicago.edu

Instructions for what to expect and how to use the database can be found on our instructional Wiki page oicollectionsearch.wikispaces.com

For regular updates on the progress of the project, readers should visit the IDB web page oi.uchicago.edu/research/oriental-institute-integrated-data-base-project-idb

For further visualization of our data structure, a bundle map of the OI EMu Schema is also available at emudata.fieldmuseum.org/emu-schema-map/edgebundle-oi.html



THE ORIENTAL INSTITUTE

The University of Chicago
1155 East 58th Street
Chicago, Illinois 60637
oi.uchicago.edu

UCHICAGO Arts

INFORMATION

MEMBERSHIP

YOUR PARTNERSHIP MATTERS!

The Oriental Institute depends upon members of all levels to support the learning and enrichment programs that make our Institute an important — and free — international resource.

As a member, you'll find many unique ways to get closer to the ancient Near East — including free admission to the Museum and Research Archives, invitations to special events, discounts on programs and tours, and discounts at the Institute gift shop.

\$50 ANNUAL / \$40 SENIOR (65+) INDIVIDUAL
\$75 ANNUAL / \$65 SENIOR (65+) FAMILY

HOW TO JOIN OR RENEW

ONLINE: oi.uchicago.edu/getinvolved

BY PHONE: 773.702.9513

ON SITE: at the Gift Shop

GENERAL ADMISSION

FREE

ADULTS

\$10 suggested donation

CHILDREN 12 OR UNDER

\$5 suggested donation

MUSEUM & GIFT SHOP HOURS

Closed Monday

Sun-Tue, Thu-Sat: 10am-5pm

Wed: 10am-8pm

THE MUSEUM IS CLOSED

January 1

July 4

Thanksgiving Day

December 25

ACCESSIBILITY

The Museum is fully wheelchair and stroller accessible. The University Avenue west entrance is accessible by ramp and electronic doors.

PARKING

FREE parking half a block south of the Museum on University Avenue, after 4pm daily and all day on Saturday and Sunday.

GROUP VISITS

For information about group visits, please go to:
oi.uchicago.edu/museum/tours.

