

Newsletter

Winter Issue / 2001

COLLECTION MANAGERS COMMITTEE OF THE TEXAS ASSOCIATION OF MUSEUMS

Neglect of an Obvious Issue: The Storage of Human Remains

A version of this article appeared in CRM No. 6 - 2001. The authors realized the box dimensions they established were too large for a person working alone to handle. This is an edited version of the article with adjusted storage box dimensions. CRM (Cultural Resource Management) is a publication of the Department of Interior and can be found online at <http://www.cr.nps.gov/>

*Vicki Cassman,
Kristen Martin,
Jennifer Riddle,
and Sali Underwood.*

For museums and universities, the care and housing of Native American human remains recovered from archaeological contexts has become an issue of the utmost importance since the enactment of NAGPRA in 1990. While anthropologists, museum managers, and Native American communities negotiate and struggle with NAGPRA issues, a publicly available housing standard has yet to be devised and agreed upon by these diverse communities. Published information regarding the care and storage of human remains is vague at best and assessment of appropriate housing for human remains is compounded by a lack of communication between the different parties

within anthropology and the Native American community. This lack of communication is especially apparent within anthropology, where each sub-discipline has a different and often informal "code of ethics" regarding the preservation and respectful housing of human remains, and no public consensus exists between sub-disciplines. The following article considers the issue of long-term storage and care of human remains in terms of preservation, NAGPRA requirements, and research needs.

Our discussion is inspired by a recent opportunity that was presented to the Department of Anthropology and Ethnic Studies at the University of Nevada, Las Vegas. Our existing building, which houses classrooms, laboratory, and storage facilities, will be demolished, and a new building

erected in its place. Planning a new building allows those of us working in the storage facility, which contains archaeological and forensic collections, to make recommendations for upgrading storage. During our evaluation, we gave special attention to the housing of all human remains in the care of the Department.

Our primary goal was to identify and balance the concerns of Native Americans, the needs of researchers, and the cost and space limitations of storage. In light of this goal, we sought two specific genres of information. We first searched for published literature that would guide us in our assessment of preservation, storage, and size constraints as they related to the storage of human remains. Professional

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FROM THE CHAIR

Dear Friends and Member,

It is with mixed feelings that I tell you of Kate Hogue's departure to a different state. I am saddened at losing such a competent board member, but excited personally for this wonderful opportunity that this is affording her. I know that Santa Fe will come to know what a wonderful asset she is, just as we did. We will be looking to fill the second year of her term in the spring. Also, Kathleen Koonce has taken a position in Oklahoma, I know that she will be greatly missed, and we wish her the best.

I want to wish each of you the best of holidays. As each of us deals with the difficulties this season has brought, not only economically, but also emotionally, please know that you are not alone, and that we all have been touched by what is going on in the world. It is my hope that we can support each other through phone calls, notes, and just by being there. Take care of yourselves, and I hope to see each of you in Houston in January.

*Warm Wishes for the
Holiday Season,
Kandy Taylor-Hille*

MEMBER SPOTLIGHT

I began my museum "experience" in 1991 while in college working on a B.A. in History/Museum Studies and then a M.A. in History with a Museum Studies Emphasis. Primed to work in the museum field, I volunteered at as many and varied museums and positions as I could. I have worked in eight museums in my short ten years. Of course, many were at the same time. What energy one has in college. It would be as Registrar at The Heritage Society, in Houston, that allowed me to become involved in the Collection Managers Committee.

*...let us know what you want
to learn more about.*

CMC has helped me come out of my shell and expand my horizons. I would have never thought of myself as a person who could coordinate workshops until CMC posed the challenge. Anyone who would be interested in such challenges should contact the CMC board before elections next year. I have been a part of CMC for three years and highly recommend it to anyone working with collections.

The CMC, an affinity of group of Texas Association of Museums, has tried to provide workshops that help both newcomers and others wanting to learn about new technology or techniques.

KATHLEEN KOONCE

Outgoing CMC Office at Large.

Working on the Collection Managers Committee board for the last two years has really expanded my experiences in the museum field. The committee is a great way to network, as well as gain more knowledge, or refresh your memory on collection management skills. During my tenure, I have organized three workshops; collections storage-hands-on workshop, computers in collection management, and recently digital imaging in museums.

I know ideas for workshops would be appreciated; let us know what you want to learn more about.

*If you would like to spotlight yourself
or someone you know, contact
Carolyn Spears, CMC Secretary.*

2000-2001 CMC OFFICERS

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CMC Newsletter

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May, August & November.*

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literature seems to focus mainly on excavation, transportation, and reconstruction (Bass, 1995; Ubelaker, 1989; White, 2000). Unfortunately, the literature neglects the issue of long-term housing of human remains. The second component of our evaluation involved assessing the needs of Native Americans, Physical Anthropologists, Museum Curators and Collection Managers, Conservators, and Archaeologists.

Discussion of Perspectives

Native Americans -

Different tribes have different needs when it comes to demonstrating proper respect for a deceased individual. Therefore, it is important to consult with the appropriate tribes when considering specific housing needs. Consultations specific to our collections revealed that, in general, it is important for human remains to resemble a human form in storage. The bones should not be randomly scattered throughout the box, nor should different parts of an individual be stored in separate areas or containers. For example, crania are sometimes housed separately from the post-cranial skeleton. We have found that this arrangement is offensive and disrespectful to Native Americans and others. It is preferable that the body be presented in a manner that is as close to its position prior to excavation or retrieval as possible, keeping in mind that a box for a fully extended adult is too large and awkward to be safely handled. Finally, bone should be in contact only with inert organic materials.

Collection Managers and Conservators -

Collection managers' and conservators' main concern is preservation. They often make decisions about box materials, size, durability, organization, cataloging, and registration. Because our collective experience has shown that handling causes the most damage to human osteological remains, it is vital to create an environment that allows access, while simultaneously reducing damage caused by excessive handling.

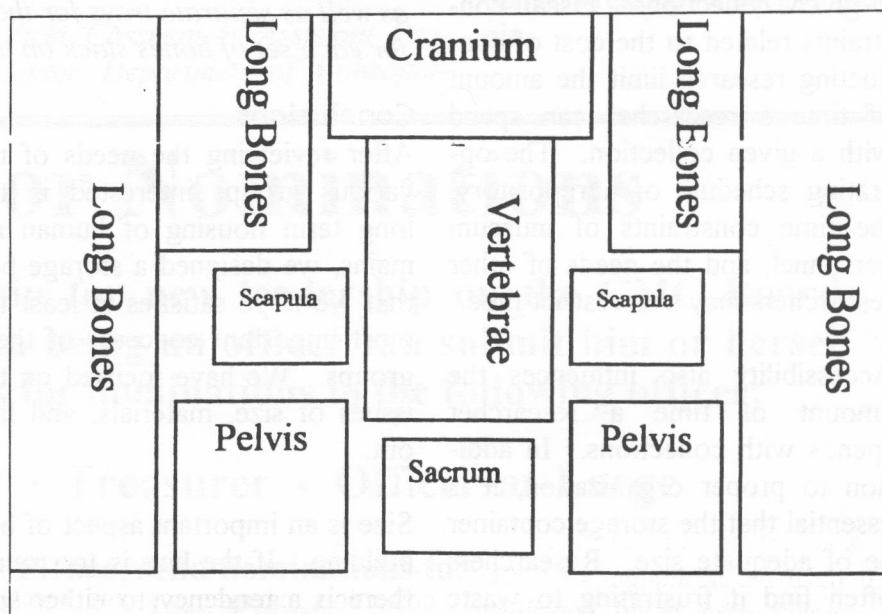
Limited space is also a major issue. Space constraints often require boxes to be placed or stacked on high shelves. With this in mind, it is important to realize that boxes may be tilted at sharp angles as they are removed from shelves. Proper storage must allow for tilting, while also preventing the contents of boxes from rolling around and becoming

damaged. Providing sturdy, wide, platform-ladders is recommended to facilitate access under such circumstances.

Keeping collections clean is yet another challenge to collections managers. It is essential to have storage containers that are made of materials that are easy to clean. Dust tends to collect in the best of environments, so it is good to have the boxes and shelves made of a material that can quickly and easily be cleaned.

Archival housing at the most basic level, starts with a storage box made from inert and acid free materials. The box must also be durable and able to support the weight of larger individuals, yet not be so heavy that it is difficult to maneuver.

Organizing collections in numerical order by catalog number



Box without trays. Bones are separated by foam wedges that also keep the bones from shifting while the box is being moved. Illustrations by Jennifer Riddle.

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greatly reduces the amount of time locating individuals. It is preferable to organize individuals numerically by catalog number rather than by age, sex, race or some other variable because catalog numbers represent a clear and understandable system that does not make presumptions about a researcher's interests or specific questions. Having a sortable electronic database containing a biological profile (i.e. age, sex, and "race" information) as well as a bone inventory is recommended to reduce initial handling.

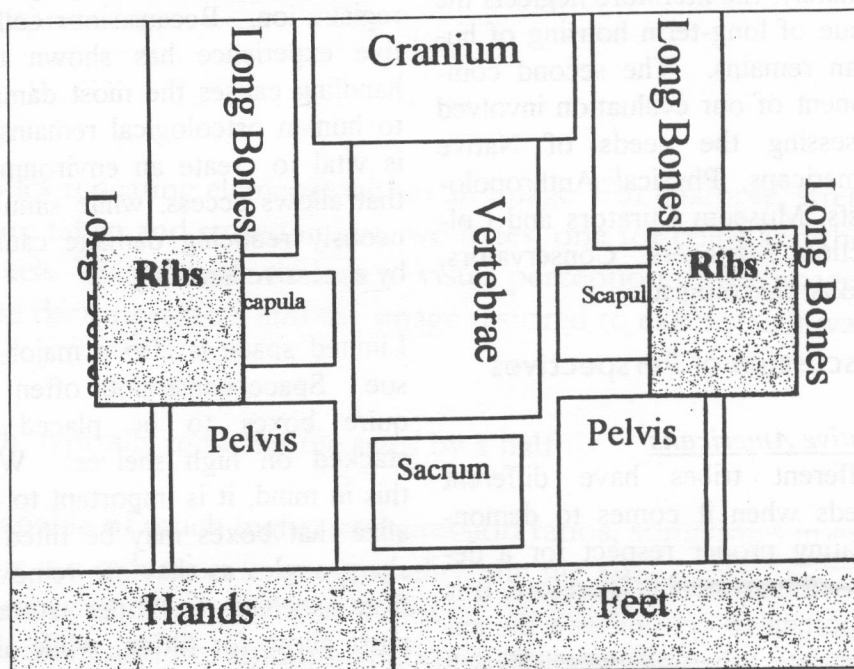
Physical Anthropologists -

Time constraints and accessibility are two prominent concerns of physical anthropologists. Researchers often have a limited amount of time in which to study a given collection. Fiscal constraints related to the cost of conducting research limit the amount of time a researcher can spend with a given collection. The operating schedule of a repository, the time constraints of museum personnel, and the needs of other researchers may also restrict time.

Accessibility also influences the amount of time a researcher spends with collections. In addition to proper organization, it is essential that the storage container be of adequate size. Researchers often find it frustrating to waste valuable time trying to fit an individual into a box that is clearly too small. It is also helpful to have bones grouped together within a box. For instance, keeping the hand bones together and sorted by right and left sides, keeping the ribs together, and

keeping the vertebrae together reduces the amount of time a researcher spends looking for and placing specific bones. Grouping also reduces the amount of handling a skeleton is subjected to and reduces damage to the bones.

Currently, we are experimenting with a box measuring 28" x 18" x 6" in size. The box size is based on maximum long bone lengths of a complete male as defined by Ubelaker's stature table (Ubelaker, 1989:146).



Box with trays. These are separate trays for the right and left hands as well as separate trays for the right and left feet bones. The trays for each set of bones stack on top of each other.

Conclusions

After reviewing the needs of the various groups interested in the long term housing of human remains, we designed a storage box that we hope satisfies at least the most important concerns of these groups. We have focused on the issues of size, materials, and layout.

Size is an important aspect of box building. If the box is too small, there is a tendency to either split up the individual or to force remains into a box in which they do not fit. If the box is too large, then there is movement of material within the box, which is damaging to the bone. Large boxes are also unwieldy and impractical for storage and handling purposes.

We suggest the use of inert materials, as recommended by conservators. A corrugated polyethylene sheet, such as Corex™, is an inert acid-free material that is reasonably priced, durable, flexible, lightweight, and easily cleaned. We also suggest adding a layer of open cell polyethylene foam, such as Ethafoam™, to the bottom (and possibly sides) of the box for cushioning. To accommodate the concerns of Native American groups, we recommend placing a layer of well-washed and rinsed unbleached and undyed cotton muslin fabric over the Ethafoam™ to ensure that bone is in contact with organic material.

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The layout of a box should accommodate both Native American concerns and the needs of physical anthropologists. We have compartmentalized and compressed the placement of bone elements, while prioritizing anatomical order. The cranium is placed at the top of the box and flanked by all long bones on either side. Below the cranium are the vertebrae and the pelvis. Scapula and clavicle are placed below long bones on the appropriate side. Sorted ribs, hand, and foot bones are organized according to right and left sides, and are placed in open trays above the long bones. This layout facilitates research by improving access and reducing the amount of time spent locating and placing bones, while also approximating the original anatomical position of the individual. Such a layout also minimizes handling and reduces the amount of damage to bones.

Summary

The housing of human remains, regardless of cultural affiliation, is a basic issue within anthropology that has not been standardized or actively discussed in current literature. Despite the indispensable function of a box, the issue of how to best create satisfactory housing has been sorely neglected. There is a tendency to see the box as an easily resolved non-issue. However, as we hope we have shown, there are many issues to consider when designing proper storage. The box we have designed is part of an ongoing project related to storage and housing issues. We plan to continue intercultural and interdisciplinary negotiations and further modify our design. We welcome feedback and would appreciate suggestions.

Send feedback to:

cassmanv@nevada.edu

Vicki Cassman is Assistant Professor, Department of Anthropol-

ogy and Ethnic Studies, at the University of Nevada, Las Vegas and Universidad de Tarapacá, Chile.

Kristen Martin, Jennifer Riddle, and Sali Underwood are graduate students in the Department of Anthropology and Ethnic Studies, at the University of Nevada, Las Vegas.

References

Bass, William
1995 Human Osteology: A Laboratory and Field Manual. Fourth Edition. Missouri Archaeological Society. Columbia, MO.

Ubelaker, Douglas
1989 Human Skeletal Remains. Manuals on Archaeology. Second edition. Taraxacum Press. Washington, D.C.

White, T.D.

2000 Human Osteology. Academic Press. San Diego, California.

Call For Nominations

It is time once again for new leadership on the CMC Board. Anyone interested in being an officer can submit him or herself or make suggestions for nominations to the following offices:

President • Treasurer • Officer-at-Large

Please, send nominations to:

Lisa Rebori

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DIGITAL WORKSHOP NOTES

File Compression

Compression is one way of reducing file size. It is achieved by transferring the image-file into a format, which uses specially created algorithms (mathematical formula), to reduce image file sizes logically. There are two types of compression:

- lossless
- lossy

Lossless compression typically encodes repeating elements within an image. For example, stretches of pixels that share the same color are taken and stored in just two bytes; one for color and the other for the number of adjacent pixels. This ensures no loss to visual perception of the image. A compressed file of this type can be decompressed, and the image restored to exactly as it was prior to compression, hence 'lossless'.

Compression ratios are not very high, typically reducing file sizes by a half.

Lossy compression techniques are capable of much higher compression ratios, sometimes in excess of 100:1. The price to be paid for this is a reduction in image quality; the file after compression is not the same as that before compression, as data have been removed. The degree of image degradation depends on the image content and the amount of compression applied.

Space-space changes and compression

Reducing color space is a form of 'lossy' compression, e.g. reducing a 24bit (16.7 million) color image to 8bit (256) color means the lost color information cannot be restored. The file size reduction in this case would be 3:1, without further compression techniques.

Lossy compressed image file formats should not be used as a 'master' or 'archival' format, but they are ideal for surrogate images intended for electronic delivery.

WORKSHOPS COMING SOON

TUESDAY, JANUARY 29, 2002

Houston Museum of Natural Science
One Hermann Circle, Houston, TX
9:15 am to 4:00 pm

TEXTILES:
Handling, Storage, Care, Exhibition,
Monitoring

TAM will be April 9-12, 2002, in Lubbock

**TAM ANNUAL PRECONFERENCE
WORKSHOP**

Registration Basics

Watch for details coming in the next
CMC Newsletter,
or contact Milly Walker or Lisa Rebori

COLLECTION MANAGERS COMMITTEE WORKSHOP

TEXTILES: HANDLING, STORAGE, CARE, EXHIBITION, MONITORING

TUESDAY, JANUARY 29, 2002
9:15 AM – 4:00 PM
HOUSTON MUSEUM OF NATURAL SCIENCE
HOUSTON, TEXAS

Our workshop begins with registration at the Houston Museum of Natural Science. This will be followed by a brisk walk to the Law Building of the Museum of Fine Arts Houston, where Tina Illorente, Assist. Curator of Textiles, will give us a "curator's viewpoint" tour of their exhibits on quilts and flags. (YOUR TAM or AAM CARD IS YOUR FREE ADMISSION. IF YOU LEAVE IT AT HOME YOU MUST PAY THE ADMISSION: Adults \$5.00/ Seniors \$2.50.) Lunch is on your own. There are three nice restaurants in the area. Following lunch, Conservator Beatrice Dodge, in private practice in Elgin, Texas, will conduct a hands-on workshop, addressing the concerns of handling, storage, care, exhibition and monitoring of textiles. The workshop will conclude at 4:00 PM. ☺

REGISTRATION FORM DUE BY JANUARY 15, 2002

Name and title: _____

Institution: _____

Address: _____

City, State & Zip: _____

Phone & Fax: _____

E-Mail Address: _____

CMC Members \$25.00 _____ Non-Members: \$35.00 _____ Membership: \$15.00 _____

Make checks payable to Collection Managers Committee. Send check & registration forms (copies accepted) to:

Collection Managers Committee
Milly Walker, Dublin Dr Pepper Bottling Company Museum
P.O. Box 307, Dublin, TX 76446
(Questions? Call (254) 445-4210)

MEMBERSHIP FORM

Please Print Clearly

Name: _____ Institution: _____

Address: _____

City: _____ St: _____ Zip Code + 4 _____

Telephone: _____ Fax: _____ Email: _____

Annual Membership Dues are \$15.00

Please make checks payable to the Collection Managers Committee.
Send check and form to Sally Baulch-Rhoden, Texas Memorial Museum,
2400 Trinity, Austin, TX 78705-5730

DUES--DECEMBER IS ANNUAL DUES MONTH--DUES

CMC Newsletter

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