

Cobb Research Lab News

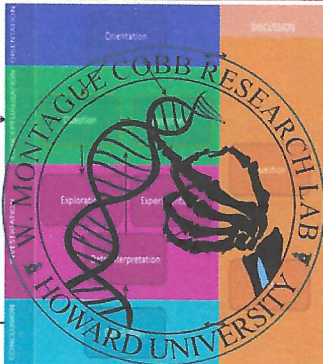
A quarterly newsletter of the W. Montague Cobb Research Laboratory, Howard University

Volume 4, Issue 1

EDITOR: Dr. Fatimah Jackson

WEBMASTER: Whitney Griffith

FALL 2016



ORIENTATION FOR STUDIES IN THE COBB RESEARCH LABORATORY

Thursday, September 1, 2016, noon
232 Douglass Hall (Cobb Research
Laboratory) and Blue and Red Labs
HOWARD UNIVERSITY

www.cobbresearchlab.com

IF YOU ARE INTERESTED IN INTERDISCIPLINARY RESEARCH, PLEASE JOIN US FOR A RESEARCH ORIENTATION SESSION AT NOON ON THURSDAY, SEPTEMBER 1, 2016. AT THIS TIME, THE REQUIREMENTS FOR CONDUCTING RESEARCH IN THE COBB RESEARCH LABORATORY WILL BE DISCUSSED AND THE NECESSARY FORMS DISTRIBUTED. COME, MEET COLLEAGUES, AND PLAN YOUR RESEARCH ACTIVITIES FOR THE YEAR AT THE COBB RESEARCH LABORATORY. THE CRL IS A FULL PARTICIPANT IN HOWARD UNIVERSITY'S RESEARCH WEEK.

HIGHLIGHTS OF THIS ISSUE....

- ◆ Call for articles for Fall issue of *The Backbone*
- ◆ EDITOR's Essay: The importance of clinical studies of the Cobb Collection
- ◆ Special Interview with Dr. LaSalle D. Leffall, Jr.
- ◆ Annual Activity Report for CRL now online
- ◆ Research Orientation Event, September 1, 2016
- ◆ Dr. Sharon Dowell, rheumatologist at Howard University Hospital provides clinical insights
- ◆ CRL is moving to the Interdisciplinary Research Building!
- ◆ NYABG grave soil studies underway
- ◆ Dr. Chris DeCorse joins CRL as new Research Associate

EDITOR'S ESSAY: Why clinical studies of the Cobb Collection are essential for understanding African American health disparities.

Fatimah Jackson, Director, Cobb Research Laboratory

Major causes of morbidity and mortality in the US continue to disproportionately adversely affect African Americans. Thousands of studies of these health disparities have still not yielded a clear understanding of their origins and persistence and, most importantly, their remediation. The Cobb Collection of nearly 700 human skeletal and dental remains of (mainly) African Americans who lived in the late 19th and early to mid 20th centuries can provide historical depth to our studies of health disparities in this population. For each individual of the collection, the cause of death is listed along with additional demographic and environmental data. This collection therefore allows us to study the historical presence of cardiovascular disease and its sequelae, arthritis, tuberculosis, a suite of cancers, syphilis, and many other important diseases. Leading these studies should be clinicians in collaboration with research scientists.

The Cobb Research Laboratory is committed to making a concerted effort to recruit clinicians to work alongside Ph.D. scientists to evaluate historical impacts of these diseases in the Cobb Collection. Very few clinically sophisticated studies on this population have been done yet the potential for major insights is tremendous. When clinical assessments are coupled with molecular genetics, epigenomics, and a comprehensive understanding of the

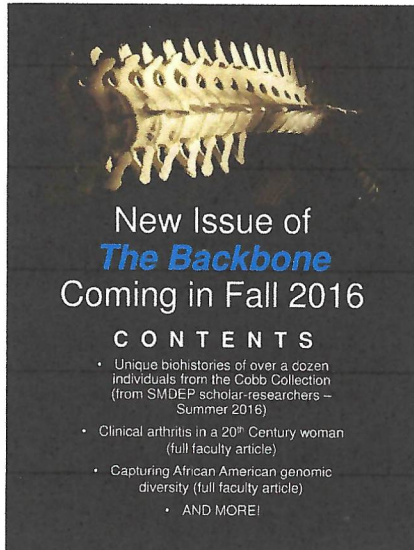
environments (social, abiotic, biotic) that these individuals lived in, we will have good prospects for not only understanding the historical presence of particular clinical presentations and molecular genetic variants, we will also be able to better assess contemporary expressions of these same diseases.

Key questions could include: What were the most important risk alleles for disease A over time? Do we see evidence of selection occurring? How has the disease-causing pathogen transformed over time? How has the clinical presentation of the disease changed over time? How have the medications given during a particular historic period left their imprint on the bodies of disease-affected individuals? In the absence of treatment, what are the characteristic marks on the bodies of affected individuals? Historically, how have age and gender figured into disease expression?

The uniqueness of the Cobb Collection, the presence of motivated clinicians, access to experts in the basic sciences, and the urgency of relevant health disparity research creates a foundation for high priority collaborative and interdisciplinary research. Clinicians have a key role to play in this research. In fact, we cannot move forward without their input. ****

Call for Articles, Abstracts, and Reviews!
See your research published in
***The Backbone*, volume 3, numbers 1 and 2**

The Backbone is the official journal of the Cobb Research Laboratory. It is registered as a peer reviewed, online journal with the US Library of Congress. We began our inaugural issue in 2014 and are now set to publish and distribute our third issue of the journal.



Authors from all disciplines and all academic levels are invited to submit articles, abstracts, and reviews for peer evaluation and publication consideration in *The Backbone*. The journal has an international audience and has received favorable reviews among our peers.

The journal is published twice a year.

Submissions for the Fall 2016 publication are currently being processed. Submissions for Spring 2017 publication consideration should be submitted online (cobbresearchlab@gmail.com) by December 1, 2016. There is no charge to authors for publication in *The Backbone*. Advertisers are encouraged to submit pdfs of their announcements and advertisements for inclusion in *The Backbone*. ****.

backbone *noun*

The meaning of backbone relative to the CRL:

backbone noun (BODY PART)

[C] your spine

Among the skeletal remains for Cobb Collection number 001 is the backbone.

backbone noun (IMPORTANT PART)

[U] the part of something that provides strength and support:

The Cobb Research Laboratory seeks to be the backbone of interdisciplinary research at Howard University.

backbone noun (CHARACTER)

[U] strength of character or bravery:

The administrators of the Cobb Research Laboratory had enough backbone to prioritize Howard University researchers on the proposal.

First Annual Activity Report now available on our website

The first Annual Activity Report for the Cobb Research Laboratory is now available on our website (www.cobbresearchlab.com). This report details our activities over the 2015-2016 academic year and includes a forward and sections on **scientific aspects** (including an overview of our scientific achievements, lists of external publications 2015-2016, lists of internal Publications 2015-2016, a list of our grant submitted and their status, a listing of the students [undergraduate and graduate] and post-docs trained, information on our Spring 2016 Research Symposium, information on our Spring 2016 Ancient DNA Workshop, and our current and future scientific efforts).

The report also discusses **operational aspects** of the CRL (including our current advisory board members and their status, information on the current memorandum of understandings [MoUs] developed, the physical reorganization of the lab facilities in 2015-2016, any improvements made on our existing facilities in Douglass Hall, our application for space at the HU Interdisciplinary Research Building, statistics on our web presence, implications of the loss of administrative assistance to the CRL, and future operational issues).

The third section of the report details our **service activities** (including the Open House held in February 2016, a listing of visitors and guests to the CRL and the organizations they represented, our efforts to train SMDEP [Summer Medical and Dental Education Program] student scholars in research methods, tours given of the lab to community groups and our K-12 outreach efforts, the oral presentations and publications coming out of the CRL during 2015-2016, and our anticipated future service activities).

The final section of the report, **financial aspects**, provides a financial statement on the CRL, notes our fundraising efforts and their effects, and discusses our current and future financial plans.

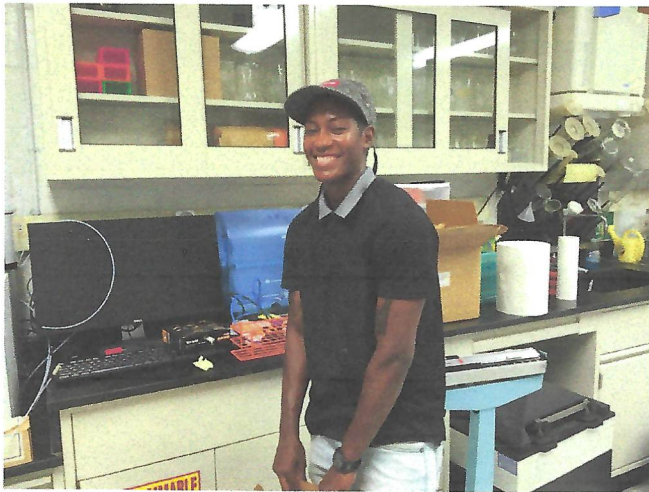
The report includes an appendix with data on the international reach and impact of our website.

Feedback received thus far on the report has been positive and we have been encouraged to continue along the current trajectory. ****

THANK YOU TO DR. JANELLE BURKE FOR RECOMMENDING FIVE CRL-AFFILIATED SCIENTISTS FOR ADDITIONAL TRAINING AT PENN STATE UNIVERSITY'S SUMMER BOOT CAMP ON BIOINFORMATICS. THEY BENEFITED GREATLY FROM THIS EXPERIENCE.

NYABG grave soils under study at Cobb Research Laboratory

Grave soils from the 17th and 18th Centuries New York African Burial Ground are currently being subjected to analyses in the Cobb Research Laboratory to determine their chemical composition, geospatial relationships, and residual DNA content. Researchers working on this project include Research Associate Dr. Candice Duncan, (pictured to the right), a soil chemist, and Research Associate Mr. C. Clinton, a doctoral student in biology (pictured below), and (not pictured) Mr. Hasan Jackson, doctoral student in geographical sciences and Mr. Tomilowo Ajibo, graduate student in molecular biology. ****



Clinical researcher uncovers evidence of disease-specific pathology in a Cobb Collection individual

Howard University rheumatologist Dr. Sharon Dowell (pictured below to the right) has uncovered pronounced clinical pathology in the remains of Cobb Collection individual who died over 85 years ago from rheumatoid arthritis. Dr. Dowell's hallmark revalidation of a case originally documented by Dr. W. Montague Cobb signals the important incorporation of modern clinical perspectives into health assessments of the 19th and 20th century individuals of the Cobb Collection. This is very significant since at the time of Dr. Cobb's initial clinical evaluations, many of the contemporary medical categories were not available. Now, using modern criteria and equipment, clinical diagnoses can provide even more information on the circumstances of illness and death in specific Cobb Collection individuals. We hope that such clinical studies will continue in the future. Dr. Dowell's findings will be published in the Fall issue of *The Backbone*. ****

Clinical research (continued)

Distorted spine and fused vertebrae (pictured below and to right) observed in an individual from the Cobb Collection. Dr. Dowell's clinical assessments were able to confirm and extend Dr. Cobb's initial clinical assessments made in the 1930s. ****

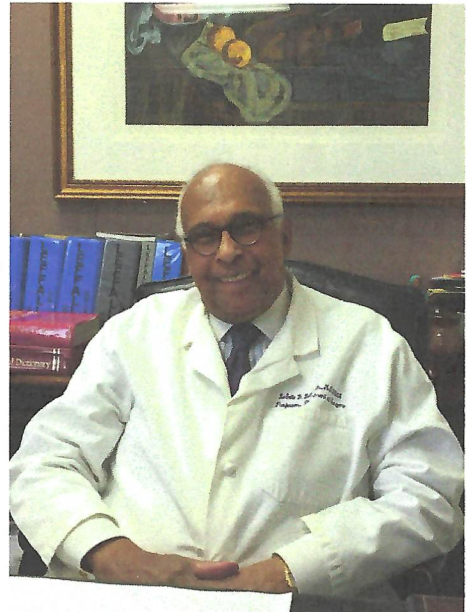


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COBB CORNER:

Special Interview with Dr. LaSalle D. Leffall, Jr. preeminent surgeon, scholar, oncologist, and former student of Dr. W. Montague Cobb

In this edition of Cobb Corner, we are very pleased to highlight the life and insights of Dr. LaSalle Leffall, senior Howard University faculty member, outstanding surgeon, and renowned scholar. Dr. Leffall came to Howard University in 1948 for medical school. His first class in gross anatomy was taught by Dr. W. Montague Cobb who was a Professor of Anatomy at Howard University's College of Medicine. The course was to become Dr. Leffall's favorite. Dr. Leffall participated in Dr. Cobb "bust-out sessions" which were challenges designed by Dr. Cobb as teaching tools for his anatomy students. Dr. Leffall excelled in such sessions and soon became a favorite student of Dr. Cobb. With his mentor, Dr. Cobb, and Dr. Ruth Smith Lloyd (the first African American woman to earn a Ph.D. in Anatomy) Dr. Leffall would take walks among the cadavers to develop a solid background in human anatomy and post-mortem diagnosis. After a residency at Sloan-Ketterling Cancer Institute, Dr. Leffall returned and in 1962 he joined the Howard University faculty.



Additionally, Dr. Leffall assisted Dr. Cobb in editing the Journal of the National Medical Association, where Dr. Cobb was editor-in-chief. Dr. Leffall recalls that Dr. Cobb was a most learned individual with broad based knowledge in many areas. In 1952 Dr. Cobb ask Dr. Leffall to become the co-editor of the journal along with Dr. Epps.

The Washington DC of the mid-20th century was still quite racially segregated. Dr. Leffall reported that in 1948 Gallager Munipiple Hospital, the city's main public hospital, was integrated to bring in African American medical doctors. Later Gallenger became DC General Hospital. Dr. Cobb had played a role in pushing for desegregation of the public hospitals and increasing opportunities for Black physicians to practice their craft.

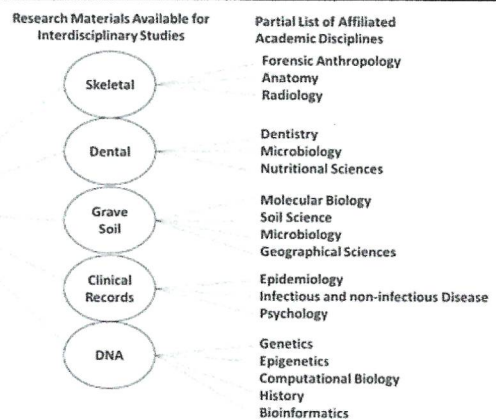
Dr. Leffall recalls that Dr. Cobb was not a provincial man; rather he was a person who was interested in the big picture. For Dr. Cobb, the Journal of the National Medical Association was a forum for integration and civil right efforts. Dr. Cobb addressed both national and international issues through its publications, speeches, and public leadership.

The primary purpose of the Cobb Collection developed by Dr. Cobb was to provide an anthropological perspective on human anatomy. Dr. Cobb wanted the collection of human skeletal and dental remains to provide evidence that there were no significant differences between Black and White peoples and that assessment of individuals should be based on their merits. In this way, this unique collection became a vehicle for promoting civil rights.

Dr. Cobb was certainly among this nation's finest intellectuals. He had followed in the tradition set by Dr. Numa PG Adams which was to send Howard's best students to places where they could learn more and then bring that knowledge back to Howard. Dr. Cobb and Dr. Leffall have followed this legacy and we have collectively benefitted. ****

Materials Available in Cobb Research Laboratory Allow for Numerous Interdisciplinary Studies

The diagram to the right depicts the range of research materials currently available at the CRL and the partial list of affiliated academic disciplines that could benefit from access to these materials. The CRL has an "open door" policy, particularly for in-house researchers to conduct high impact studies on the collections. If prospective researchers do not yet have funding, we will work with them to try to secure support for the most laudable research proposals. ****



Report to National Park Service submitted, 10 Recommendations proposed to increase the ethnic minority participation in the Grand Canyon National Park

Dr. Fatimah Jackson, writing on behalf of the Cobb Research Laboratory, has just completed a major revision of a report to the National Park Service. The report is over 100 pages in length and entitled *The Grand Canyon: Discovery of Lost and Undertold Stories of Non-Native American Ethnic Minorities from the 15th to 21st Centuries and the Conscious Exploration of Mindfulness and Spirituality*. Co-authors on the report are Dr. Jules P. Harrell, Dr. David S.B. Mitchell, and Mr. Christopher Cross. The report contains an introduction and four chapters. Chapter 1 details a set of chronologically presented case studies of the African American, Latino American, and Asian American historical presence in the Grand Canyon region. Chapter 2 reflects on the spiritual and mindfulness aspects of the magnificent geological formations at the Grand Canyon and develops a strategy for best accessing the spiritual strengths of specific sites at the Park. Mindfulness and spirituality have been shown to reduce stress and may be key to ameliorating some of the mental health disparities that exist for US ethnic minorities. Chapter 3 provides the results of a survey that captures the impressions of a set of Howard University students to the Grand Canyon and Chapter 4 provides unique technological innovations and original musical score developed by Howard University graduates to encourage ethnic minority participation in the National Parks. Chapter 4 also contained a set of ten recommendations for consideration by the National Park Service.

As a result of this research, a set of ten recommendations have been generated to help the National Park Service better meet its goals of increasing diversity in both the staffing of the Park and among the visitors to the Park. The Howard University team came up with the following recommendations:

Recommendation 1: Change the site names to reflect US history and heritage.

Recommendation 2: Develop more family friendly activities at the Grand Canyon.

Recommendation 3: Invest more educational and social media outreach to US citizens, especially ethnic minorities.

Recommendation 4: Form affiliations with ethnic-based professional organizations.

Recommendation 5: Develop an on-going research program to identify strategies to broaden participation in the National Parks.

Recommendation 6: Plan special events at the Grand Canyon National Park to acknowledge its multi-cultural heritage.

Recommendation 7: Make Grand Canyon signage in many languages.

Recommendation 8: Initiate research to quantify the health benefits of the Grand Canyon and link this with qualitative experiences of the Park.

CRL to relocate to HU Interdisciplinary Research Building

The Cobb Research Laboratory has received permission from upper administration to relocate the skeletal and dental collections of the New York African Burial Ground and the Cobb Collection to the new Interdisciplinary Research Building (pictured below). This move will put the CRL closer to becoming a core research facility of the university. Our intention at the new site is to continue our interdisciplinary focus and invite many of our co-resident scientists to use the CRL even more intensely. As such, we hope to develop the CRL as a state-of-the-art shared research facility available for next generation interdisciplinary science studies by all HU investigators interested in basic, translational, and clinical research. We hope to offer training and support services to help investigators make optimal use of the unique research materials available to them. Highly-trained staff will offer assistance at all stages of a project, from writing grant applications and developing research proposals to analyzing, processing, and interpreting the huge amounts of data that we expect to be generated by use of this core research



facility. We plan to offer institutional booking to a billing system to support the operation of the Cobb Research Laboratory at the HU-IRB and offer training classes in interdisciplinary research collaboration. As a Core Research Facility, the Cobb Research Laboratory will increase Howard University's capability in analysis, data interpretation, new product development, research testing, validation, and other areas associated with studies of the human skeletal, dental, and bioarchaeological collections housed at the Cobb Research Laboratory. ****

Report (continued)

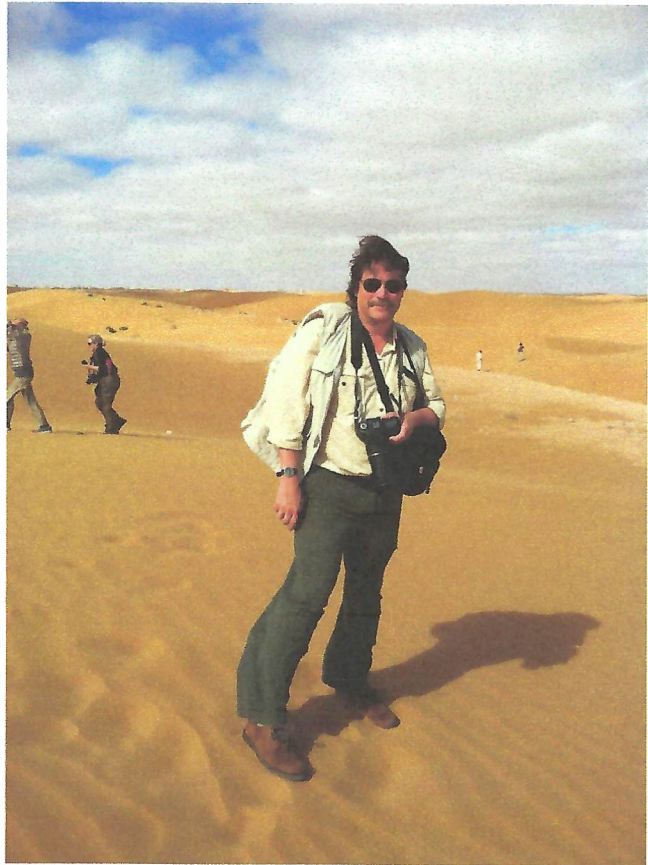
Recommendation 9: Establish a Board of External Community Advisors.

Recommendation 10: Generate an Online Citation/Reference for Chapter 1.****

Syracuse University bioarchaeologist Dr. Christopher DeCorse joins the Cobb Research Laboratory as a Research Associate

Christopher R. DeCorse (pictured at right) is Professor and Chair of Anthropology in the Maxwell School of Citizenship and Public Affairs, Syracuse University. He is an anthropologically trained archaeologist with an area focus on West Africa. His research interests include African archaeology and history, culture contact, general anthropology, and popular culture in archaeology. He is currently directing ongoing research projects in coastal Ghana (particularly the African settlement at Elmina, the site of the first and largest European trade post established in sub-Saharan Africa) and at Bunce Island, Sierra Leone, a major English trade access point on the West African coast.

DeCorse's books on African archaeology include: *An Archaeology of Elmina: Africans and Europeans on the Gold Coast, 1400-1900* (Smithsonian Press, 2001, now available from Eliot Werner Publications) and *West Africa during the Atlantic Slave Trade* (an edited volume published by Leicester University Press, 2001). DeCorse's 2008 book, co-edited with John Walton and James Brooks, brings together the work of twelve scholars from diverse disciplines to explore theoretical vantage and method in the interpretation of the past through the lens of microhistory. DeCorse's textbooks include the four-field book *Anthropology: A Global Perspective* (Pearson, 2012, coauthored with Raymond Scupin); *In the Beginning: An Introduction to Archaeology*, 12th Edition (Prentice Hall, 2005, with Brian Fagan) and; *The Record of the Past: An Introduction to Archaeology and Physical Anthropology* (Prentice Hall, 2000). DeCorse has also authored or co-authored more than 40 book chapters, journals articles, and reviews.



Welcome Back
to a New and
Successful
Academic Year!

PLEASE DONATE TO THE COBB RESEARCH LABORATORY.
Your donations support :

- Undergraduate and graduate student research in the STEM disciplines
- Community outreach, especially to K-12
- Summer mini-course development in the sciences
- Historical assessments of the biology of the Cobb Collection individuals
- Maintenance of the unique skeletal and dental collections at the Cobb Research Laboratory



Account Number for Cobb Research Laboratory: **R201500**

Tax ID Number : **530204707**

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DONATIONS TO THE COBB RESEARCH LABORATORY ARE TAX-DEDUCTIBLE.