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CLERK OF THE BOARD
OF COUNTY COMMISSIONERS
MIAMI-DADE COUNTY, FLORIDA

Memorandum

MIAMI-DADE COUNTY

Date: February 18, 2010

To: Honorable Chairman Dennis C. Moss
and Members, Board of County Commissioners

From: George M. Burgess
County Manager

Agenda Item No. 3(J)(1)(A)

Resolution No. R-178-10

Subject: Ratification of Grant Application to the National Endowment for the Humanities for Archeological Interpretive Enhancements at the Deering Estate at Cutler

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Recommendation

It is recommended that the Board adopt the attached resolution ratifying the submission of a grant application to the National Endowment for the Humanities (Attachment A) for $239,399 in funding to support archeological interpretive enhancements at the Deering Estate at Cutler (Deering Estate). It is further recommended that the Board authorize the County Mayor or County Mayor's designee to receive and expend funds and execute contracts and amendments as required.

Scope

The Deering Estate is located at 16701 SW 72 Avenue in Commission District 8. The property is open to all residents and visitors of Miami-Dade County. This project will have a County-wide impact.

Fiscal Impact/Funding Source

If awarded, the grant will contribute $239,399 toward the total project cost of $498,258. The grant match of $258,859 will be funded from allocations in the Deering Estate operating budget through Index Code PRECHD519200.

Track Record/Monitor

The grant will be administered by Jennifer Tisthammer, Exhibits Coordinator at the Deering Estate. The National Endowment for the Humanities has funded preservation at Vizcaya and musical art programming at the Historical Museum.

Background

The National Endowment for the Humanities promotes excellence in the humanities and conveys lessons of history. The Endowment accomplishes this mission by providing grants for high-quality humanities projects in four funding areas: preservation and access to cultural resources, education, research, and public programs.

The Deering Estate is an archeological, environmental and historical preserve. This project will expand access to archeologically significant sites, analyses, artifacts and other archival materials at the Deering Estate and develop learning materials.

Attachment

Alex Muñoz
Assistant County Manager

MEMORANDUM
(Revised)

TO: Honorable Chairman Dennis C. Moss and Members, Board of County Commissioners

DATE: February 18, 2010

FROM: R. A. Cuevas, Jr. County Attorney

SUBJECT: Agenda Item No. 3(J)(1)(A)

Please note any items checked.

_____ **"3-Day Rule" for committees applicable if raised**

_____ **6 weeks required between first reading and public hearing**

_____ **4 weeks notification to municipal officials required prior to public hearing**

_____ **Decreases revenues or increases expenditures without balancing budget**

_____ **Budget required**

_____ **Statement of fiscal impact required**

_____ **Ordinance creating a new board requires detailed County Manager's report for public hearing**

✓ **No committee review**

_____ **Applicable legislation requires more than a majority vote (i.e., 2/3's ____, 3/5's ____, unanimous _____) to approve**

_____ **Current information regarding funding source, index code and available balance, and available capacity (if debt is contemplated) required**

Approved _____ Mayor

Veto _____

Override _____

Agenda Item No. 3(J)(1)(A)

2-18-10

RESOLUTION NO. R-178-10

RESOLUTION RATIFYING THE SUBMISSION OF A GRANT APPLICATION TO THE NATIONAL ENDOWMENT FOR THE HUMANITIES FOR $239,399 IN FUNDING TO BE USED FOR ARCHEOLOGICAL INTERPRETIVE ENHANCEMENTS AT THE DEERING ESTATE AT CUTLER AND AUTHORIZING THE COUNTY MAYOR OR COUNTY MAYOR'S DESIGNEE TO RECEIVE AND EXPEND FUNDS, AND TO FILE AND EXECUTE CONTRACTS AND AMENDMENTS AS REQUIRED

WHEREAS, this Board desires to accomplish the purpose outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that this Board ratifies the submission of the grant application to the National Endowment for the Humanities for $239,399 in funding to be used for archaeological interpretive enhancements at the Deering Estate at Cutler; and further authorizes the County Mayor or County Mayor's designee to file and execute such contracts and amendments as are required for and on behalf of Miami-Dade County, Florida, following approval by the County Attorney's Office, and to receive and expend all monies for the purposes described in the funding request.

The foregoing resolution was offered by Commissioner **Jose "Pepe" Diaz**, who moved its adoption. The motion was seconded by Commissioner **Dennis C. Moss** and upon being put to vote, the vote was as follows:

Dennis C. Moss, Chairman **aye**
Jose "Pepe" Diaz, Vice-Chairman **aye**

Bruno A. Barreiro	**absent**	Audrey M. Edmonson	**aye**
Carlos A. Gimenez	**aye**	Sally A. Heyman	**aye**
Barbara J. Jordan	**absent**	Joe A. Martinez	**aye**
Dorrin D. Rolle	**aye**	Natacha Seijas	**aye**
Katy Sorenson	**aye**	Rebeca Sosa	**aye**
Sen. Javier D. Souto	**aye**		

The Chairperson thereupon declared the resolution duly passed and adopted this 18th day of February, 2010. This resolution shall become effective ten (10) days after the date of its adoption unless vetoed by the Mayor, and if vetoed, shall become effective only upon an override by this Board.

MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS

HARVEY RUVIN, CLERK

BY: **DIANE COLLINS**
Deputy Clerk

Approved by County Attorney as
to form and legal sufficiency.

Monica Rizo

Attachment A

GRANTS.GOV℠

Home > Apply for Grants > Confirmation

Confirmation

Thank you for submitting your grant application package via Grants.gov. Your application is currently being processed by the Grants.gov system. Once your submission has been processed, Grants.gov will send email messages to advise you of the progress of your application through the system. Over the next 24 to 48 hours, you should receive two emails. The first will confirm receipt of your application by the Grants.gov system, and the second will indicate that the application has either been successfully validated by the system prior to transmission to the grantor agency or has been rejected due to errors.

Please do not hit the back button on your browser.

If your application is successfully validated and subsequently retrieved by the grantor agency from the Grants.gov system, you will receive an additional email. This email may be delivered several days or weeks from the date of submission, depending on when the grantor agency retrieves it.

You may also monitor the processing status of your submission within the Grants.gov system by clicking on the "Track My Application" link listed at the end of this form.

Note: Once the grantor agency has retrieved your application from Grants.gov, you will need to contact them directly for any subsequent status updates. Grants.gov does not participate in making any award decisions.

IMPORTANT NOTICE: If you do not receive a receipt confirmation and either a validation confirmation or a rejection email message within 48 hours, please contact us. The Grants.gov Contact Center can be reached by email at support@grants.gov, or by telephone at 1-800-518-4726. Always include your Grants.gov tracking number in all correspondence. The tracking numbers issued by Grants.gov look like GRANTXXXXXXXXX.

Contact Center hours of operation are Monday-Friday from 7:00 A.M. to 9:00 P.M. Eastern Time.

The following application tracking information was generated by the system:

Grants.gov Tracking Number :	GRANT10504806
Applicant DUNS:	13-191-0254
Submitter's Name:	Wall Dan
CFDA Number:	45.164
CFDA Description:	Promotion of the Humanities_Public Programs
Funding Opportunity Number :	20100113-GI
Funding Opportunity Description :	America's Historical and Cultural Organizations Impleme
Agency Name :	National Endowment for the Humanities
Application Name of this Submission :	The Deering Estate at Cutler
Date/Time of Receipt :	2010.01.13 2:16 PM, EST

TRACK MY APPLICATION – To check the status of this application, please click the link below:

https://apply07.grants.gov/apply/checkSingleApplStatus.faces?tracking_num=GRANT10504806

It is suggested you Save and/or Print this response for your records.

GRANTS.GOV

Grant Application Package

Opportunity Title:	America's Historical and Cultural Organizations Impleme
Offering Agency:	National Endowment for the Humanities
CFDA Number:	45.164
CFDA Description:	Promotion of the Humanities_Public Programs
Opportunity Number:	20100113-GI
Competition ID:	
Opportunity Open Date:	10/08/2009
Opportunity Close Date:	01/13/2010
Agency Contact:	Division of Public Programs National Endowment for the Humanities Room 426 1100 Pennsylvania Avenue, N.W. Washington, D.C. 20506 202-606-8269 or publicpgms@neh.gov

This electronic grants application is intended to be used to apply for the specific Federal funding opportunity referenced here.

If the Federal funding opportunity listed is not the opportunity for which you want to apply, close this application package by clicking on the "Cancel" button at the top of this screen. You will then need to locate the correct Federal funding opportunity, download its application and then apply.

This opportunity is only open to organizations, applicants who are submitting grant applications on behalf of a company, state, local or tribal government, academia, or other type of organization.

*** Application Filing Name:** The Deering Estate at Cutler

Mandatory Documents

Move Form to Complete

Move Form to Delete

Mandatory Documents for Submission

Application for Federal Domestic Assistance-Sho
Supplementary Cover Sheet for NEH Grant Program
Project/Performance Site Location(s)
Attachments

Optional Documents

Move Form to Submission List

Move Form to Delete

Optional Documents for Submission

Instructions

1 Enter a name for the application in the Application Filing Name field.

- This application can be completed in its entirety offline; however, you will need to login to the Grants.gov website during the submission process.
- You can save your application at any time by clicking the "Save" button at the top of your screen.
- The "Save & Submit" button will not be functional until all required data fields in the application are completed and you clicked on the "Check Package for Errors" button and confirmed all data required data fields are completed.

2 Open and complete all of the documents listed in the "Mandatory Documents" box. Complete the SF-424 form first.

- It is recommended that the SF-424 form be the first form completed for the application package. Data entered on the SF-424 will populate data fields in other mandatory and optional forms and the user cannot enter data in these fields.

- The forms listed in the "Mandatory Documents" box and "Optional Documents" may be predefined forms, such as SF-424, forms where a document needs to be attached, such as the Project Narrative or a combination of both. "Mandatory Documents" are required for this application. "Optional Documents" can be used to provide additional support for this application or may be required for specific types of grant activity. Reference the application package instructions for more information regarding "Optional Documents".

- To open and complete a form, simply click on the form's name to select the item and then click on the => button. This will move the document to the appropriate "Documents for Submission" box and the form will be automatically added to your application package. To view the form, scroll down the screen or select the form name and click on the "Open Form" button to begin completing the required data fields. To remove a form/document from the "Documents for Submission" box, click the document name to select it, and then click the <= button. This will return the form/document to the "Mandatory Documents" or "Optional Documents" box.

- All documents listed in the "Mandatory Documents" box must be moved to the "Mandatory Documents for Submission" box. When you open a required form, the fields which must be completed are highlighted in yellow with a red border. Optional fields and completed fields are displayed in white. If you enter invalid or incomplete information in a field, you will receive an error message.

3 Click the "Save & Submit" button to submit your application to Grants.gov.

- Once you have properly completed all required documents and attached any required or optional documentation, save the completed application by clicking on the "Save" button.
- Click on the "Check Package for Errors" button to ensure that you have completed all required data fields. Correct any errors or if none are found, save the application package.
- The "Save & Submit" button will become active; click on the "Save & Submit" button to begin the application submission process.
- You will be taken to the applicant login page to enter your Grants.gov username and password. Follow all onscreen instructions for submission.

OMB Number: 4040-0003
Expiration Date: 07/31/2008

APPLICATION FOR FEDERAL DOMESTIC ASSISTANCE - Short Organizational Version 01

*** 1. NAME OF FEDERAL AGENCY:**
National Endowment for the Humanities

2. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER:
45.164

CFDA TITLE:
Promotion of the Humanities_Public Programs

*** 3. DATE RECEIVED:** Completed Upon Submission to Grants.gov **SYSTEM USE ONLY**

*** 4. FUNDING OPPORTUNITY NUMBER:**
20100113-GI

* TITLE:
America's Historical and Cultural Organizations Implementation Grants

5. APPLICANT INFORMATION

* a. Legal Name:
Miami-Dade County

b. Address:

* Street1: 111 NW 1st Street, 29th Floor	Street2:
* City: Miami	County: Miami-Dade County
* State: FL: Florida	Province:
* Country: USA: UNITED STATES	* Zip/Postal Code: 33128-1994

c. Web Address:
http:// www.deeringestate.com

* d. Type of Applicant: Select Applicant Type Code(s): B: County Government	* e. Employer/Taxpayer Identification Number (EIN/TIN): 596000573
Type of Applicant:	* f. Organizational DUNS: 131910254
Type of Applicant:	* g. Congressional District of Applicant: 18, 17
* Other (specify):	

6. PROJECT INFORMATION

* a. Project Title:
Stepping Through Time: Tracing the Footsteps of the Tequesta and Early Man's Connection to his Natural Environment

* b. Project Description:
The purpose of the proposed project is to deepen the public's (specifically youth, teachers and parents as educators) understanding of the unique character of the ancient Tequesta people who once occupied southeastern Florida, their interaction with their environment, their role in early history, and the potential contribution of archeological sites located on the Deering Estate at Cutler to understanding broader patterns of American Indian history, art, architecture, exchange, rituals, and religion.

c. Proposed Project: * Start Date: 09/01/2010 * End Date: 08/31/2012

OMB Number: 4040-0003
Expiration Date: 07/31/2008

APPLICATION FOR FEDERAL DOMESTIC ASSISTANCE - Short Organizational Version 01

7. PROJECT DIRECTOR

Social Security Number (SSN) - Optional:
000-00-3369

Disclosure of SSN is voluntary. Please see the application package instructions for the agency's authority and routine uses of the data.

Prefix:	* First Name: Jennifer
Middle Name:	
* Last Name: Tisthammer	Suffix:
* Title: Exhibits and Collections Coordinator	* Email: tistj@miamidade.gov
* Telephone Number: 305-235-1668 ext 232	Fax Number: 305-254-5866
* Street1: 16701 SW 72 Avenue	Street2:
* City: Miami	County: Miami-Dade County
* State: FL: Florida	Province:
* Country: USA: UNITED STATES	* Zip/Postal Code: 33157-2500

8. PRIMARY CONTACT/GRANTS ADMINISTRATOR

[X] Same as Project Director (skip to item 9):

Social Security Number (SSN) - Optional:
000-00-3369

Disclosure of SSN is voluntary. Please see the application package instructions for the agency's authority and routine uses of the data.

Prefix:	* First Name: Jennifer
Middle Name:	
* Last Name: Tisthammer	Suffix:
* Title: Exhibits and Collections Coordinator	* Email: tistj@miamidade.gov
* Telephone Number: 305-235-1668 ext 232	Fax Number: 305-254-5866
* Street1: 16701 SW 72 Avenue	Street2:
* City: Miami	County: Miami-Dade County
* State: FL: Florida	Province:
* Country: USA: UNITED STATES	* Zip/Postal Code: 33157-2500

OMB Number: 4040-0003
Expiration Date: 07/31/2008

APPLICATION FOR FEDERAL DOMESTIC ASSISTANCE - Short Organizational Version 01

9. * By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties (U.S. Code, Title 218, Section 1001)

** I Agree ☒

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

AUTHORIZED REPRESENTATIVE

Prefix:	* First Name: George	Middle Name: M.
* Last Name: Burgess		Suffix:
* Title: County Manager		* Email: gburgess@miamidade.gov
* Telephone Number: 305-375-5311		Fax Number: 305-375-1262
* Signature of Authorized Representative: Completed by Grants.gov upon submission.		* Date Signed: Completed by Grants.gov upon submission.

Authorized for Local Reproduction

Standard Form 424 Organization Short (04-2005)
Prescribed by OMB Circular A-102

OMB Number: 3136-0134
Expiration Date: 6/30/2012

Supplementary Cover Sheet for NEH Grant Programs

1. Project Director * Major Field of Study: F4:Public Administration

2. Institution Information * Type: 1339: State/Local/Federal Government

3. Project Funding

Programs other than Challenge Grants ($)

Outright Funds	0.00
Federal Match	239,399.00
Total from NEH	239,399.00
Cost Sharing	258,859.00
Total Project Costs	498,258.00

Challenge Grants Applicants Only ($)

Fiscal Year #1	
Fiscal Year #2	
Fiscal Year #3	
Fiscal Year #4	
Total from NEH	
Non-Federal Match	
Total	
Matching Ratio	to 1

4. Application Information

* Will this proposal be submitted to another NEH division, government agency, or private entity for funding?

☐ Yes
☒ No

If yes, please explain where and when:

* Type of Application

☒ New
☐ Supplement

If supplement, list current grant number(s).

* Project Field Code: U6:Archaeology

OMB Number: 4040-0010
Expiration Date: 08/31/2011

Project/Performance Site Location(s)

Project/Performance Site Primary Location

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: The Deering Estate at Cutler

DUNS Number: 1319102540000

* Street1: 16701 SW 72nd Avenue

Street2:

* City: Miami

County: Miami-Dade County

* State: FL: Florida

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 33157-2500

* Project/ Performance Site Congressional District: 17, 18

Project/Performance Site Location 1

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name:

DUNS Number:

* Street1:

Street2:

* City:

County:

* State:

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code:

* Project/ Performance Site Congressional District:

ATTACHMENTS FORM

Instructions: On this form, you will attach the various files that make up your grant application. Please consult with the appropriate Agency Guidelines for more information about each needed file. Please remember that any files you attach must be in the document format and named as specified in the Guidelines.

Important: Please attach your files in the proper sequence. See the appropriate Agency Guidelines for details.

1) Please attach Attachment 1	Table_of_Contents_MDC.pdf	Add Attachment	Delete Attachment	View Attachment
2) Please attach Attachment 2	Narrative_SteppingThroughTime	Add Attachment	Delete Attachment	View Attachment
3) Please attach Attachment 3	Appendix_A_Resumes_MDC.pdf	Add Attachment	Delete Attachment	View Attachment
4) Please attach Attachment 4	Appendix_B_Letters_MDC.pdf	Add Attachment	Delete Attachment	View Attachment
5) Please attach Attachment 5	Appendix_C_Bibliography_MDC.p	Add Attachment	Delete Attachment	View Attachment
6) Please attach Attachment 6	Appendix_D_List_of_Objects_MI	Add Attachment	Delete Attachment	View Attachment
7) Please attach Attachment 7	Appendix_E_Description_of_Co	Add Attachment	Delete Attachment	View Attachment
8) Please attach Attachment 8	Appendix_F_Budget_MDC.pdf	Add Attachment	Delete Attachment	View Attachment
9) Please attach Attachment 9	Appendix_G_DigSite_MDC.pdf	Add Attachment	Delete Attachment	View Attachment
10) Please attach Attachment 10	Appendix_H_Samples_MDC.pdf	Add Attachment	Delete Attachment	View Attachment
11) Please attach Attachment 11	Appendix_I_Learning_Programs_	Add Attachment	Delete Attachment	View Attachment
12) Please attach Attachment 12		Add Attachment	Delete Attachment	View Attachment
13) Please attach Attachment 13		Add Attachment	Delete Attachment	View Attachment
14) Please attach Attachment 14		Add Attachment	Delete Attachment	View Attachment
15) Please attach Attachment 15		Add Attachment	Delete Attachment	View Attachment

STEPPING THROUGH TIME:
TRACING THE FOOTSTEPS OF THE TEQUESTA AND EARLY MAN'S CONNECTION TO HIS NATURAL ENVIRONMENT

America's Historical and Cultural Organizations
Implementation Grants
National Endowment for the Humanities
CFDA No. 45.164

Submitted By

Miami-Dade County
Park and Recreation Department
Deering Estate at Cutler

MIAMI-DADE COUNTY

January 13, 2010

STEPPING THROUGH TIME: TRACING THE FOOTSTEPS OF THE TEQUESTA AND EARLY MAN'S CONNECTION TO HIS NATURAL ENVIRONMENT
Miami-Dade County Park and Recreation Department
Deering Estate at Cutler

TABLE OF CONTENTS

ATTACHMENT 1: TABLE OF CONTENTS

ATTACHMENT 2: NARRATIVE

The Nature of the Request ..... p. 1

Project Introduction ..... p. 1

Description ..... p. 2

Audience ..... p. 7

Organizational Profile ..... p. 8

Work Plan ..... p. 11

Fundraising Plans ..... p. 13

SPECIAL REQUIREMENTS

Information on Public Accessibility and Admission ..... p. 14

Walkthrough for Exhibitions or Historic Site Interpretation ..... p. 14

Audiovisual and/or Multimedia Formats ..... p. 16

Travel Schedule with Venues ..... p. 17

Publications ..... p. 17

Public Programs ..... p. 18

Oral Histories ..... p. 24

Conservation Treatment ..... p. 24

APPENDICES

ATTACHMENT 3: Resumes (Appendix A)

ATTACHMENT 4: Letters of Commitment (Appendix B)

ATTACHMENT 5: Bibliography of Sources (Appendix C)

ATTACHMENT 6: List of Objects (Appendix D)

ATTACHMENT 7: Description of Project-based Collections or Other Resources (Appendix E)

ATTACHMENT 8: Budget (Appendix F)

ATTACHMENT 9: Mock Archeological Dig Site Proposal (Appendix G)

ATTACHMENT 10: Samples of Digitized Archives and Brochures (Appendix H)

ATTACHMENT 11: Living Classroom Learning Programs (Appendix I)

NATURE OF REQUEST

The Deering Estate at Cutler (Estate) grounds are part of the Atlantic Coastal Ridge which has a rich history dating back 100,000 years. The 444-acre Estate, listed on the National Register of Historic Places, encompasses many cultures inhabiting the land over thousands of years. Paleo-Indians, Tequestas, Seminoles, Afro-Bahamians, and Anglo-Americans have at different times, lived here; each new group literally following in the footsteps of the preceding group. The evidence left here recounts the evolutions of human housing from a karst cave dwelling to a Mediterranean Revival Mansion, thus making the Estate an appropriate applicant to implement the proposed project, *"Stepping Through Time: Tracing the Footsteps of the Tequesta and Early Man's Connection to his Natural Environment."* The overall purpose of the proposed project is to deepen the public's (specifically youth, teachers and parents as educators) understanding of the unique character of the ancient Tequesta - a complex hunter gatherer society who once occupied southeastern Florida - their interaction with their environment, their role in early history, and the potential contribution of archeological sites located on the Estate to understanding broader patterns of American Indian history, art, architecture, exchange, rituals, and religion.

Requested NEH grant funds in the amount of $239,399 will be used for the implementation of a reinterpretation of three archeological sites and seven native and preserved Florida habitats present on the Estate as used by the Tequesta to demonstrate man's interaction with his natural environment and how we might apply this historical context to present day. In partnership with the Florida Public Archeology Network and the Archeology Society of Southern Florida, implementation of the proposed educational and interpretive project would include achieving the following objectives: 1) design and fabrication of an outdoor, interactive exhibit - a mock Tequesta archeological site (24 square meters); 2) design and fabrication of an indoor educational exhibit (550 square feet); 3) enhance daily naturalist and docent led tours to the Cutler Burial Mound; 4) widen the 121 linear foot boardwalk for ADA accessibility and add new interpretive signage; 5) provide professional training workshops for educators and other practitioners; 6) produce project related publications (i.e. learning guide and self-guided brochures); and 7) develop virtual exhibits for the general public. The interrelated components of the particular humanities exhibits, interpretive and educational programming proposed as part of this grant request are designed to create global citizens – citizens with a greater understanding of their own culture, the cultures of others, and man's relationship through history to his environment. Fulfillment of these objectives complements our existing on-site, outreach and virtual formats for information, interpretation, education, activities and published guides available for teachers, students and general public. The total project cost is $498,258, of which $258,859 (51.9%) comprises the applicant match.

PROJECT INTRODUCTION

Around 9,000 years ago northern ice sheets melted, increasing sea levels that helped raise local water tables. Higher sea levels and a warmer, wetter climate transformed the Southern Florida region into a sub-tropical environment with lakes, rivers, ponds and marshes by 5,000 B.C. The Everglades, Lake Okeechobee and the St. Johns River formed by 3,000 B.C., and hundreds of small tree islands peppered the Everglades and Atlantic Coastal Ridge, providing dry ground for Archaic Indians and food and habitation for small mammals. Increased food and plant resources and the introduction of new techniques in pottery and tool making[1] led to new methods of preparing food, dietary habits, trade and social structures.

[1] Unique to Archaic Indians of Southern Florida were production and exchange of axes, adzes and other tools manufactured from shell. Hand-made, local reproductions of these items will be included in the exhibit and educational programming.

Until recently anthropologists believed that hunting and gathering societies were very simple. They claimed that people in these societies did not have the ideas of property, trade, social status, and land ownership. All members of hunting and gathering groups were thought to possess the same skills, share land in common, own little or no private property, and have limited social contact with other groups. It seemed that hunting and gathering cultures lacked complex forms of social organization and relations. Anthropologists considered them "Stone Age" cultures. Scientists and educators know differently today. With an abundance of local food resources available in a sub-tropic environment, Archaic Indians became more numerous than their ancestors and, eventually, developed permanent villages. Archaeological evidence indicates 5,000 years of human settlement in the Everglades. Gradual improvements in technology, along with the rich and diverse resources provided by wetlands, hammocks, and coastal ridges, enabled prehistoric populations to expand in size and complexity as well as spread throughout southern Florida.

Utilizing best practices incorporated in the eight themes discussed in "The New National Park Service Thematic Framework for History and Prehistory" as a guide for this project, the proposed project specifically addresses NPS themes of "Peopling Places," "Expressing Cultural Values," and "Transforming the Environment." Through a study of a specific people – the Tequesta, time – 500 B.C. to A.D. 1763, and place – the Atlantic Coastal Ridge, the primary goal of *"Stepping Through Time: Tracing the Footsteps of the Tequesta and Early Man's Connection to his Natural Environment"* is to create a hands-on opportunity for the general public to acquire a greater understanding of how people and cultures are connected across time and across common lands.

The Tequesta (also Tekesta, Tegesta, Chequesta, Vizcaynos) Native American tribe, at the time of first European contact, occupied an area along the Atlantic coast of Florida in what are now Broward and Miami-Dade Counties. They also occupied the Florida Keys at times, and may have had a village on Cape Sable, at the southern end of the Florida peninsula, in the 16th Century. The Tequestas placed their towns and camps at the mouths of rivers and streams, on inlets from the Atlantic Ocean to inland waters, and on barrier islands and keys. The Tequesta came to share a sense of common heritage based on genetic and geographic origin, a common language, environment, and some shared culture - this sense of common heritage is shared by the Calusa, Timucua, Ais, and Jaega.

Tequesta and their ancestors are recognized as regionally and nationally significant for several reasons. First, they are a Native American society that did not transition from hunting and gathering to agriculture, yet still developed a complex society. Secondly, considerable attention has been focused on preservation of native habitats in the face of urban and suburban development… the association between the Tequesta and the Everglades, Biscayne Bay and the various native habitats that exist in Florida may provide greater public understanding of man's present day connectivity to our land – through subsistence, art, architecture, exchange, rituals, and religion. *Stepping Through Time* will offer youth, teachers and families, and the general public an opportunity to walk an ancient Tequesta trail, visit a Tequesta habitation site and burial mound, and participate in hands-on, on-site and outreach learning in the hopes of inspiring an interest and a respect for a way of life – connecting with our environment - that is needed now more than ever.

DESCRIPTION

The benefits of environmental education are numerous. It promotes critical thinking and discussion, learning interest and motivation, and leadership skills and is proven to improve K-12 student academic achievement.[2] In addition to producing environmental stewards, environmental-based learning has the

[2] National Environmental Education Foundation. Benefits to Environmental Education. www.neefusa.org

potential to produce: high-performance lifelong learners; effective future workers and problem solvers; thoughtful community leaders and participants; and people who care about the people, creatures, and places around them.[3] Isolating activities such as computers, video games, television, and emphasis on book work in the formal classroom offer few opportunities for youth to interact with their natural world, and as a result many of tomorrow's leaders and policy makers may grow up with little or no meaningful opportunities to connect with the present and much less the past. Early hands-on learning experiences help shape children's values, perspectives, and understanding as well as give them valuable interactions with others and our environment. The Estate is an environmental, archeological, and historical preserve once inhabited by the Tequesta and then subsequently early American settlers. Within its 444-acre expanse are seven distinct and thriving ecosystems, home to Florida's native flora and fauna, including one of the largest tracts of globally-imperiled pine rocklands that remains in the continental United States. Its proximity to ocean waters and location on the Atlantic Coastal Ridge dates its pre-history to more than 100,000 years ago. Amidst its treasures are three Tequesta archeological sites and artifacts that date the earliest known people of North America and now extinct mega-mammals and wildlife that once roamed this land. The three archeologically significant sites protected from commercial development through a natural area management plan and listing on the National Register of Historic Places include:

- *Cutler Fossil Site*: a cave-like solution hole that contained over 300,000 fossil bones and artifacts - recorded in 1979 by the Miami-Dade County Preservation Division; contained a first discovery of human bones in association with extinct animal bones and represented a removal and recording of a 100,000 year cultural horizon from within a solution hole
- *Cutler Burial Mound*: a small conical mound made of yellow quartz sand, 75 feet in diameter and 6.5 feet high –recorded in the late 40s and early 50s by John Goggin but has never been fully analyzed. A large oak tree grows upon the north end of the mound.
- *A black dirt midden*: a horizontally and vertically extensive midden deposit, as suggested by Archeologist Richard Haiduven's initial work – recorded in 2001 by Haiduven; may be particularly important in understanding the Tequesta people during the period of European occupation.

Historical architecture from the late 1800's and early 1900's built by the wealthy industrialist Charles Deering, at a time when travel by sea was preferred to that over land, has been meticulously restored for the exploration and enjoyment of all who visit. Interpretation and educational programming on-site conveys a comprehensive view of history...viewed and described through the multiple layers encapsulated within each of the historical, natural, archeological and cultural resources located on the Estate.

The proposed project, *Stepping Through Time: Tracing the Footsteps of the Tequesta and Early Man's Connection* to his Natural Environment, is a multi-disciplinary and multi-dimensional exhibit, educational, and interpretive program designed to deepen the public's (specifically youth, teachers and families) understanding of a) the unique character of the ancient Tequesta people who once occupied southeastern Florida; b) their interaction with their environment; c) their role in early history; and d) the potential contribution of archeological sites located on the Deering Estate at Cutler to understanding broader patterns of American Indian history, art, architecture, exchange, rituals, and religion.

In 1992, Janet Snyder Matthews conducted a thematic study of the Deering Estate at Cutler. The research clearly revealed the history of a site uniquely endowed with natural and cultural resources of a consistently significant character. The natural resources of the Estate support a series of prehistoric and historic events which ultimately evolved into a remarkably modern story of preservation. History at the

[3] The North American Association for Environmental Education (NAAEE) and The National Environmental Education and Training Foundation (NEETF). (2001). Using Environment-Based Education to Advance Learning Skills and Character Development. Washington, DC: NAAEE and NEETF.

Deering Estate at Cutler progressed from Native Americans to frontierspeople, developers, botanists and environmentalists. Additionally, Ms. Matthews' final report provided detailed information on four interpretive contexts and seven subcontexts that we use as the framework for developing new and enhancing existing interpretive exhibits and programs today.

The wealth of ecological, archaeological, and historic resources preserved at the Estate present a wonderful opportunity to communicate the human story of men and women in our great nation within the context of modern day concerns and needs. Our environment is where we live, the place that supports and sustains life. However, the American "environment" today is largely a human artifact, manufactured and manipulated by its inhabitants almost to the point of destruction...so thoroughly has human occupation affected all its features. People throughout history have been the primary agents of change and therefore constitute our focus as we try to recapture the past through our proposed humanities study. Native American people intrinsically understood the broad role and interaction of man with his environment. *"Stepping Through Time: Tracing the Footsteps of the Tequesta and Early Man's Connection to his Natural Environment"* will help us to examine the variable and changing relationships between people and their environment, which continuously interact...and open a dialogue amongst youth, teachers and their families on how we might carry our learning and examinations into our future.

The Tequesta and their ancestors represent a significant culture within the history of the United States. Study of the Tequesta, who persisted for almost 200 years after the incursion of the Spanish, is important in understanding culture, contact, adaptation, and acculturation. Available archeological research in the area, and specifically interpreted through the Estate's own archeological resources, provides a unique learning environment (with few parallels elsewhere in the world). *With the development of an interactive exhibit, chronicling important historical settlement eras and providing portraits of people as they lived on the land we now call the Deering Estate at Cutler, we can contribute far more to the understanding of our past than mere textbook study.* To walk through the gates of the Estate truly presents the opportunity for a visitor to be transported back in time, communicating our past to a present day audience. Requested funds will help the Estate facilitate substantial enhancements to its existing educational and interpretive programs as follows:

- A new ADA accessible outdoor exhibit to include a Mock Tequesta Archeological Site will be built under the guidance and supervision of renowned local archeologist Robert Carr;
- An interpretive boardwalk leading to and circumnavigating the Cutler Burial Mound - to provide enhanced public access and ADA accessibility to an archeologically and environmentally sensitive site - will be widened and interpretive signage will be incorporated into the redesign;
- Existing Department of Education and Florida Comprehensive Assessment Test compatible lesson plans will be enhanced and made public through our website to include new humanities themes and activities explored;
- Enhancements to a "GeoMobile" – mobile archeological exhibit and learning unit – will transport artifacts, activities and lesson plans related to *Stepping Through Time* to local schools as part of an outreach learning component;
- A "virtual excavation" of the Cutler Fossil Site will be made part of the on-site exhibits and classroom technology;
- Publication of an historical Learning Guide will be created through the SunSentinel's News In Education Program and distributed to 42,000 teachers, students and their families;
- On-site interpretive brochures will be produced for self-guided study of the Estate's on-site exhibit; and
- Publicity and promotion of "Archeology Day" held the fourth Saturday of March will support the grand opening of the on-site exhibits and outreach programs created by *Stepping Through Time*.

The Estate has a long history of award winning educational programming[4] replete with an on-site Eco-Academy for Youth and Parent Educators (a 30-week homeschool program), a School Yard Science Program (six 5-week afterschool science and history learning modules), Boy and Girl Scout Merit Badge Programs, and controlled public access to environmentally/archeologically sensitive areas through daily tours and naturalist-led programs (to name but a few). The Estate's rich "Living Classroom" serves as an environmental education center for all of Miami-Dade County's estimated 2.4 million residents, more than 12 million overnight visitors, and 350,000 school-age youths. Nearly 25% of our 54,000 annual visitors come from out of county/state.

The core of the Estate's quality educational programs revolve around its multidisciplinary K – 12 standards-aligned curriculum designed to foster cultural stewardship and learning. On-site and outreach learning programs related to the proposed *Stepping Through Time* project are outlined below with their approximate audiences:

- *Eco-Academy for Parent Educators and Students* (on-site): 30 week, 6 unit environmental studies program FCAT/ Florida DOE compatible for K-12 grades; approximately 400 students and families are served annually;
- *School Yard Science (SYS) Program* (outreach): Six, five week learning modules, a one-day "Classroom in a Box" program or 3 ½ week mobile program – *MarineMobile* or *GeoMobile*; 2,100 students and teachers are anticipated to be served annually;
- *Boy and Girl Scout Badge Programs* (on-site): Eagle Scout and various science, recreation, and humanities badge programs; approximately 400 youth are served annually;
- *Summer/Winter/Spring Break Specialty Camps* (on-site): Specialty recreation, science, art and humanities themes camp program; approximately 350 youth are served annually;
- *Field Study Trips* (on-site): Half day program includes on-site activity and naturalist lead tour - approximately 6,500 students and teachers are served annually (Archeology is most popular activity);
- *Book Nook by the Bay* (on-site): Monthly Saturday morning program taught for free to visitors of the Estate; science and humanities themes each month open up the Estate's Living Classroom materials to the general public; approximately 720 youth and families are served annually; and
- *Archeology Day* (on-site): tours, lectures, exhibits, workshops, demonstrations, community interaction offered once annually as a special event; 150 people of the general public are served.

GeoMobile and Ongoing Curriculum Enhancements – We recognize that not all schools are equipped with: financial and/or time resources to travel off-site for engaging, outdoor field study trips; or comprehensive science labs, specimens, and activities to supplement science based learning. In 2009, the Deering Estate Foundation received a $32,500 grant from the Ford Motor Company to purchase a *MarineMobile* (mobile touch tank and marine science unit), *GeoMobile* (mobile geology and archeology unit), and upgrades to fossils, equipment, and specimens used for the SYS Program and other outreach activities. These units bring the Estate's unique on-site programming directly to the schools. The mobile units are: student-friendly; easy to maintain; allow students to learn through a unique, hands-on experience; and provide the perfect opportunity for teachers to conduct in-depth marine science or archaeology activities in their own classroom, with the tools, artifacts, specimens, and lesson plans provided by the Estate. We also maintain a series of Classrooms in a Box – quite literally a series of boxes of classroom materials; each box provides an activity for students in the field of ecology, geology, marine biology, archaeology, history or art. Teachers are encouraged to visit our website to utilize the

[4] In 1999, staff embarked on a unique curriculum development program in partnership with the Elizabeth Ordway Dunn Foundation. As a result of this partnership, the Estate implemented a five-module, science and social studies themed curriculum. A NACo Achievement Award recognized this innovative curriculum as a County Model Program in 1999 and again in 2009. All lesson plans are linked to Florida Department of Education/FCAT standards.

pre- and post-activities and lesson plans to expand the learning experience. Each box accommodates up to 30 students.

On-site Exhibits and Educational Programs (*Stepping Through Time* permanent exhibit, Eco-Academy, School Yard Science Program, Camp, Scout and Recreational Programs for the general public) will take place on the whole of the Estate grounds, inside the historic buildings located on the Estate including the Deering Library, the Second Floor of the historic Stone House, the Second Floor of the Richmond Cottage, the Pump House - which serves as our modern day classroom, and the Visitor Center. While a portion of the project team's roles and responsibilities will be to evaluate which of the interior and exterior spaces will be most suitable for the specific exhibition, there is approximately 2,507 square feet of exhibit space in the Stone House, 1,066 square feet in the Richmond Cottage, 1,001 available exhibit space in the Pump House/Classroom, and an additional 1,041 square feet of exhibit space available in the Visitor Center. The project team, in their planning role, will finalize the exhibit concept including utilizing optimal exhibit space, producing specifications for exhibit design for desired multi-media components, and exhibit signage.

Mock Tequesta Archeological Site exhibit will be placed within a designated 2,000 square feet area of existing "Outdoor Classroom" space. Our current Mock Tequesta Archeological Site is by far our most popular science, math and social studies program offered as a field study trip on the Estate. Visiting students and teachers participate in a guided hike through native Florida habitats, traverse an ancient Native American trail, as well as visit archeologically significant Native America sites. Students are then taught the basic techniques of an archaeological dig. They experience analyzing artifacts and relics found in a simulated archaeological dig activity and construct a hypothetical cultural scenario of the Tequesta as they lived on the Estate grounds many years ago. Pre and post activities are made available to educators so that learning is continual and ties to relevant Florida Department of Education Standards.

A guided walk along the original *Old Cutler Trail* that bisects the hardwood hammock to the Cutler Burial Mound presents students of all ages the opportunity to look at comparisons between contemporary belief systems and daily living and historic ones. Henry Perrine Jr. describes the skeletons buried at the *Cutler Burial Mound* as being face down with their heads pointed toward the center of the mound. The belief systems of many Native American groups have humans originating inside the earth and emerging from below. There is an ancient oak tree atop the burial mound – its age approximates the demise of the Tequesta in the area - which may also be significant. The concentration of midden and mound in this area suggests development of a local or regional center on the Estate. Very rarely do we have the ability to interact present day with our past as we question what were the early American belief systems. The proposed footprint of the interpretive boardwalk over the Cutler Burial Mound site will use existing cantilevered posts and increase the 165 linear foot walkway to a width of 6 feet and open up to a 15' x 15' observation platform. Proposed enhancements would include the introduction of interpretive signage along the new ADA accessible boardwalk.

Learning Guide distributed to 42,000 students, teachers and families - In partnership with the SunSentinel News in Education (NIE) Program, Estate staff and educators from the Florida Public Archeology Network and Archeology Society of Southern Florida will produce a Learning Guide for use in the School Yard Science Program and distribute it to additional students, teachers, and families per the NIE program. The SunSentinel NIE Program is designed to promote literacy; the NIE materials produced are school board approved. Participants in any of the School Yard Science Programs would receive the Learning Guide produced as part of the NIE collaboration. In addition, the key merit of this partnership is the ability to extend the awareness and reach of the School Yard Science Program and outcomes beyond the direct participants (to approximately 42,000 students, teachers and families), in a very cost effective manner. Last year, SunSentinel distributed over 3 million newspapers and curricula to students, teachers and families as part of this program.

Teacher Education Workshops will be conducted by project staff at least six (6) times annually to support the usage of the School Yard Science and Eco-Academy curriculum for reverse tours to schools, on-site field study trips, homeschool curriculum, and general enrichment programs offered to community youth. These workshops are geared to M-DCPS teachers holding a Florida Educator's Certificate and other members of the education community including new teachers, paraprofessionals, substitute teachers, non-instructional personnel, and others. Half-day, on-site workshops highlight the Eco-Academy and School Yard Science Program curriculum and allow teachers to earn Master Plan Points. Enrollment is facilitated through the MDCPS Teacher Education Center.

The Cutler Fossil Site provides much public interest and is an archeologically significant site protected through our Natural Areas Management Plan. The terrain to access the site is quite harsh, almost intentionally mined with poison ivy and poison oak. As such, the creation of a *Virtual Excavation* using real data garnered from the actual excavation of the site conducted in the mid 80's will stimulate interest in discovery while teaching students of all ages the principles of archeology, how to analyze and interpret findings.

Other *Multimedia Exhibits* to increase participant learning will generally include:

- Lesson Plans, Pre- and Post- Activities for teachers and families will increase participant learning (a current sampling of lesson plans is included in the application and a broader selection of our lesson plans are available to the general public on our website www.deeringestate.org).
- Reproductions of historic documentation, photos, diagrams, research, lesson plans, and activities placed on our website at www.deeringestate.org will allow for greater public access to historically significant artifacts and research.

AUDIENCE

The project is anticipated to engage persons of all ages and abilities in environmental issues and regional and national history. Almost concurrently, integrated components of the project also provide professional development for teachers and career development for youth. The Estate provides informal science, history and art programs to audiences of all ages - residents and tourists from the entire geographic area of Miami-Dade, neighboring counties as well as tourists from out of state, out of country. The population of Miami-Dade County is 2,398,245. As well, the area welcomes more than 12 million overnight visitors and our public schools service approximately 350,000 school-aged youth. Miami-Dade County is comprised of 57% Hispanics, 19.3% Black/Non Hispanics, 20.7% White/Non Hispanics and 3% Other/Non Hispanics (according to 2002 statistics from the Miami-Dade County Department of Planning and Zoning). At present, the Estate welcomes approximately 54,000 visitors annually and 15,000 visitors to its website monthly. Approximately 25% of the Estate's annual visitors come from outside the county and as much as 10% of total visitors to the Estate are out-of-state residents. The proposed virtual component of the exhibit is expected to broaden the reach of the interpretive programs and increase website visitation geometrically. On-site, ADA compliance allows for quality experiences for persons with disabilities. Our educational programs serve the economically disadvantaged - 20% of student participants are from Title 1 schools[5] which are comprised of students with the highest concentrations of poverty.

Visitors to the Estate generally include local residents, organized school groups, and out-of-county/out-of-state/out-of-country visitors seeking to learn more about the archaeological, natural area, cultural, and historic resources of South Florida. The Estate was visited by 54,319 people during Fiscal Year 08-09.

[5] At least 40% of enrolled students at Title 1 schools are eligible to receive free or reduced price lunch on the 100th day of school.

This represents a 98% increase in overall attendance over previous years largely attributed to investments in interpretive programs as well as increased marketing efforts both in print and through a newly upgraded website. The Estate offers daily tours of protected natural areas and of the historic buildings throughout the year. Approximately 20,600 visitors attended these tours during FY 08-09. The Estate hosts community-wide events of all sizes, including lectures, art exhibitions, theatrical performances, festivals, and musical concerts. These events drew 18,400 visitors during FY 08-09. The Estate's Educational Programs reach over 290 different tour groups and more than 6,700 students, teachers, researchers, and participants annually. The core of the Estate's quality programs revolve around its multidisciplinary K-12 curriculum designed to foster environmental stewardship and learning.

ORGANIZATIONAL PROFILE

The **Deering Estate at Cutler** (Estate) was acquired jointly by the State of Florida and Miami-Dade County in 1986 through the State's Conservation and Recreation Lands Acquisition Program. It is a 444-acre public park owned by the State of Florida and managed by Miami Dade County's Park and Recreation Department under a management agreement. The Estate's mission is to *preserve and protect the natural, archaeological, architectural, and historic legacy of the Estate by using wise stewardship in the management and utilization of its sensitive resources, while educating and enhancing the public appreciation of the unique characteristics of the site through compatible uses.* Its FY '09 operating budget is $2,431,600; with revenues totaling $761,800, and $1,669,800 in County general fund support (a $236,600 reduction since FY 06-07 as a result of Countywide budget reductions in excess of $600 million).

We collaborate with our private partners, local educators and administrators, community groups, students, and parents when creating our hands-on curriculum and interpretive programs for youth and the general public. The synergy that results from joining organizational efforts is amazing and offers all involved a way to reach out to new audiences, bring awareness to our rich resources, and engage stakeholders in inventive, exciting, and collaborative ways. The Estate enjoys a seamless and productive partnership with the *Deering Estate Foundation* that has helped to establish environmental education programs; obtain grants and other funds to restore and enhance the historic buildings, grounds and native habitats; seeded successful arts programs; and presented signature social events enjoyed by thousands. The Foundation also served as fiscal agent for the eight-year, $7.2 million restoration following Hurricane Andrew.[6] The Foundation hosts the Deering Estate at Cutler's website, including the e-learning modules used for our education and interpretive programs. Partnerships have been forged between the Estate and the following entities to facilitate the proposed project: *Miami-Dade County Public Schools, Florida Public Archeology Network, Archeology Society of Southern Florida, Archaeological and Historical Conservancy, University of Miami – Richter Library Special Collections, Historical Museum of Southern Florida, various homeschool associations (Florida Parent Educators Association, PATH, LIGHT, Guardian Angels, etc.), South Florida National Parks Trust, National Park Service – Biscayne National Park and Everglades National Park, SunSentinel News In Education Program, South Florida Council-Boy Scouts of America*, among others.

[6] *Hurricane Andrew*: The Northern eye wall of Hurricane Andrew (a Category 5 hurricane deemed one of the most destructive hurricanes of record in the U.S.) struck the Estate on August 24, 1992 exposing it to the strongest weather the storm packed. Damage to the Estate was estimated at more than $7 million and caused the Estate to close for more than 8 years while hurricane damage renovations ensued. The Estate officially reopened to the public in 2000. These renovations reintroduced the Estate to the public in a new light, as a functioning interpretive facility. It is important to note this particular renovation gap in our history as it catalyzed our implementation of multidisciplinary, interpretive programming.

Since the Estate's reopening in 2000, Charles Deering's descendents have contributed artwork and antiques (some appraised by Christie's of New York) to the Estate. Beverly Bledsoe Danielson (wife of Deering's grandson, James Deering Danielson) and Jocelyn Tennille (Deering's great-granddaughter) donated important items that were original to the house or part of The Charles Deering Collection. These represent only a modest collection of Mr. Deering's original furnishings and fine art. The majority of his extensive book collection, personal documents, fine tapestries, furnishings and fine art reside with descendents of Mr. Deering, and at the Chicago Institute of Art and Northwestern University. A more complete description of our collection is included in a latter part of this proposal.

PROJECT TEAM

Our Education and Interpretive staff have great passion for their role as environmental stewards and storytellers of the many historical tales the Estate has to share with the public. The Education and Interpretive Staff we draw upon consists of two biologists, three marine/natural sciences educators, natural area managers, exhibits and collection coordinator, and a handful of part-time and full-time naturalists with backgrounds in anthropology, history, ethno-botany, marine sciences and elementary and secondary education.

Leadership Team

The Leadership Team will be comprised of the following individuals:

- *Project Director*: Jennifer Tisthammer, Deputy Director, Deering Estate at Cutler
- *Lead Consultant*: Robert Carr, Archeologist, Archaeological and Historical Conservancy, Inc.
- *Interpretive Program Partner*: Dr. Michelle Williams, Florida Public Archeology Network
- Members from the Deering Estate at Cutler Management Team

Jennifer Tisthammer (Project Director), Deputy Director, Deering Estate at Cutler has overseen the Exhibits and Collections Department as well as the Educational and Interpretive Staff at the Deering Estate at Cutler since early 2007. She has been instrumental in developing and leading implementation efforts of programs such as the Artist Village, Art on Loan Program, Living Classroom, Eco-Academy and School Yard Science programs. Jennifer has a long history of project management, program development, non-profit governance, financial services, and marketing experience. Jennifer designed the protocol and practices for United Way International's International Donor Advised Fund Program – one of only a handful of international donor advised funds worldwide. Jennifer researched/authored United Way of America's Guidebook on Women's Giving for three separate editions; a publication distributed to 30,000 individuals and organizations. Jennifer holds a B.S. Degree in Finance and Marketing from Florida International University. As Project Manager, Jennifer will recruit a broad-based representation of community partners, coordinate the functions of the project planning team, as well as utilize the functional expertise of the Estate staff to plan, execute, promote, and educate the public on, *"Stepping Through Time: Tracing the Footsteps of the Tequesta and Early Man's Connection to his Natural Environment."* Ms. Tisthammer has over 20 years of project management experience, and has researched and written texts for national organizations, such as the Women's Guidebook on Philanthropy for United Way of America.

Consultants

Robert Carr, Archeologist and Executive Director, Archaeological and Historical Conservancy

Robert Carr co-founded the Archaeological and Historical Conservancy in 1985. He has served as its full time Executive Director since 1999. He has worked as an archaeologist with the State of Florida's Division of Historic Resources and with the National Park Service. He was Miami-Dade County's first archaeologist and became the County's Historic Preservation Director in 1999. Robert has a Master's Degree in Anthropology from Florida State University. He is a former editor of the Florida Anthropologist and former president of the Florida Archaeological Council. He is a recipient of the

Bullen Award, and received Florida's Historic Preservation Award in 2003. Current Projects that Mr. Carr has consulted or acted as project manager on include: One Miami, Royal Palm Hotel, Okeechobee Battlefield, Ortona Canal, Miami Circle and Long Key Exhibits. Mr. Carr will serve as the archeological consultant. His nonprofit organization will serve as designer of the Mock Archeological Dig Site, as well with his vast experience with Tequesta sites in South Florida, Mr. Carr will provide connections to and recommendations on exhibit content, format and best visitor form.

Dr. Michelle Williams, Terrestrial Archeologist and Director, Florida Public Archeology Network
Michele Williams, Ph.D., RPA is the Director and Terrestrial Archaeologist for the Southeastern Region of the Florida Public Archaeology Network. Dr. Williams has participated in digs throughout the southeastern U.S. for the past 20 years. Her specialty in archeology is the use of plants by prehistoric Native Americans. Dr. Williams will help facilitate project efforts related to the development and conduct of visitor surveys from collaborating partners to determine needs, interests, and concerns.

Support Team

The Deering Estate at Cutler Management Team will serve as business managers and consultants to the project team for various functional areas of the project planning. As per NEH Implementation Grant directions regarding Appendices, resumes have been provided for key project staff and consultants. Additional resumes can be provided for all project staff upon request. They will work with staff and other resources from the County's Office of Historic Preservation and County Archeologist as needed. *Bill Irvine*, Director, Deering Estate at Cutler Estate, brings 30 years of operational experience to the team and will serve as grant administrator and business manager in determining budget, resources, vendors, etc. for the exhibit. Other support staff bring 15 years of collective experience in leading tours, developing exhibit content, and implementing educational programming on the Estate. They have vast knowledge of the Estate's history and serve as three of the seven lead interpretive and educational staff for the Estate in general.

Catherine Ferreira, Marketing Coordinator, Deering Estate at Cutler began her employment with Miami-Dade County in 2003 at the Department of Cultural Affairs where she served as the officer for the Community Grants Program and the Tourist Development Council Program. In early 2006, Cathy moved to the Department of Environmental Resources Management (DERM) and served as the Department's Public Information Officer. In late 2006, Cathy became the Marketing Coordinator for the Deering Estate at Cutler. Prior to Miami-Dade County, she was employed at WSVN Channel 7 as a Cyber-Journalist. Cathy graduated from Florida International University where she earned a Masters Degree in Public Administration and a Bachelor of Arts Degree in English Literature. Catherine will serve as our on-site web manager, design and branding manager for self-guided brochures and will serve as the media liaison to develop materials for greater dissemination.

Jessica Cabral (Project Coordinator), Interpretive Exhibit Coordinator, Deering Estate at Cutler has over eight years of experience as an educational program guide for Miami Dade County parks and Recreation Department and more than 10 years of experience in business and customer service. Over the past year, Jessica has served as one of lead interpretive staff, developing the design and content of the majority of our historical exhibits. Samples of her work are included in Appendix H. Jessica will serve as our on-site scribe and exhibits coordinator, i.e. developing interpretive brochures and panel designs.

Karlisa Callwood (Education Coordinator – for School Yard Science and Outreach Programs), Deering Estate at Cutler joined the Deering Estate at Cutler staff in May 2009. Prior to her arrival at DEC, Karlisa worked at the Miami Science Museum and Breakthrough Miami, primarily in the areas of informal science education and college prep. She started as a mentor for their summer program, IMPACT (Integrated Marine Program and College Training), then transitioned to the role of Youth Programs

Coordinator, where she managed the Upward Bound Math/Science Program, the BioTRAC (Biomedical Training Research and College prep) program, and the Museum Magnet Program, an innovative partnership between 7 cultural organizations and Miami-Dade County Public Schools. In 2007, she became the College Bound Program Director at Breakthrough Miami, a non-profit that serves to provide middle school students with academic enrichment, eventually propelling them into college prep high schools and/or programs, where she was responsible for designing, implementing, and sustaining all the programmatic activities related to the College Bound focus of the organization. Karlisa played a key role in the development of curriculum and hands-on activities to complement programs. Karlisa graduated from the University of Miami in 2003 with a B.S. in Marine Science and Biology.

Aimee Scott (Education Coordinator – for Recreation Programs), Deering Estate at Cutler has been working with Miami-Dade County Park & Recreation Department, EcoAdventures for the last 7 years as a Park Naturalist at Greynolds Park, Arch Creek Park, Pelican Harbor Marina, Crandon Park and currently at the Deering Estate at Cutler - where she conducts and develops environmental education programs for children as well as adults. She worked with the Sea Turtle Awareness program, surveying the beaches in the morning and collecting data as well as conducting the Sea Turtle Awareness Hatchling Release programs at night to educate the public on this endangered species. She interned with the National Park Service in Key West, FL at the newly opened visitor center - The Florida Keys Eco-Discovery Center and worked alongside organizations such as the National Park Service, NOAA, The National Marine Sanctuary, U.S. Fish and Wildlife Service, and the South Florida Water Management District.

Yoelly Burgos (Education Coordination – for Eco-Academy and On-site Programs), Deering Estate at Cutler will serve as Education Coordinator for the proposed project. Ms. Burgos has more than 8 years experience as a biologist and k-12 teacher. She was hired in 2007 to oversee new program development at the Deering Estate at Cutler. She led the team of naturalists in converting the NACo award winning curriculum into a 30 week homeschool program and reverse tour program. The homeschool program was met with great success in its first year. Nearly 200 students visit the Deering Estate with their parents to participate in their environmental studies program. While approved as a vendor through Miami-Dade County Public Schools, the Deering Estate's reverse field trip program's nominal and highly supplemented $5 per participant cost has been too high for many schools to afford.

Jorge Zamanillo (Interpretive Program Partner), Curator of Object Collections, Historical Museum of Southern Florida has more than 18 years of experience as a archaeologist, curator, researcher and writer with specialty in South Florida History and Anthropology. Mr. Zamanillo serves as the current curator of the Historical Museum of Southern Florida's object collection. Mr. Zamanillo is a graduate of Florida State University with a B.A. in Anthropology and a minor in History. He has memberships and has affiliations to the Florida Anthropological Society, Archaeology Society of Sothern Florida, and the American Anthropological Association. Mr. Zamanillo will provide consultation on artifact and document reproductions, exhibit design, and act in an editorial capacity with exhibit and curriculum content.

WORK PLAN

Interpretive Exhibits and Educational Programs

Activity/Goal	**Quarter:** / Months:	**1** / 1-3	**2** / 4-6	**3** / 7-9	**4** / 10-12	**5** / 13-15	**6** / 16-18	**7** / 19-21	**8** / 22-24
Project Team review of Interpretive Goals and Objectives									
Audience Evaluation									
Collective Inventory									
Interpretive Exhibit Strategy									

Exhibit Feasibility Assessment								
Interpretive Planning Recommendations								
Storyboard Exhibit and Select Feature Pieces								
Select Exhibit Materials and Display Cases								
Draft Content and References								
Review/Edit for Final								
Installation								
Curriculum Enhancements								
Monthly Leadership Team (Planning) Meetings								

Cutler Burial Mound Boardwalk Construction

Activity/Goal	**Quarter:** Months:	**1** 1-3	**2** 4-6	**3** 7-9	**4** 10-12	**5** 13-15	**6** 16-18	**7** 19-21	**8** 22-24
Survey									
Consultant Design									
Capital Program Bid & Award									
Capital Program Budget & Scheduling									
Permitting									
Construction									

Mock Tequesta Archeological Site

Activity/Goal:	**Quarter:** Months:	**1** 1-3	**2** 4-6	**3** 7-9	**4** 10-12	**5** 13-15	**6** 16-18	**7** 19-21	**8** 22-24
Survey									
Permitting									
Construction									

Year 1: Description of Activities

- Project Team Review of historical and archaeological assessments, as well as long range interpretive plans for collaborative partners to determine mutually beneficial interpretive goals of project (*Jennifer Tisthammer - lead*)
- Audience Evaluation: Develop audience survey and conduct intercept survey of visitors of collaborating partners to determine needs, interests, and concerns; assign intercept surveys. (*Dr. Michelle Williams, J. Tisthammer and Cathy Ferreira – leads*)
- Project Team Debrief on intercept surveys and review work plan as needed (*J. Tisthammer - lead*)
- Site Distinction: Determine expanded list of collection partners; assign research; interview/evaluate other historical and archaeological organizations for additional collaborative opportunities and expansions on themes that complement the interpretive program proposed (*Bob Carr – lead*).
- Project Team Debrief on additional collaborative opportunities and review work plan as needed (*J. Tisthammer – lead*)
- Collective Inventory: Assign inventory research; re-assess and develop a comprehensive inventory of the objects contained in the collections at partner museums and specific reproductions of pertinent documents for exhibit in permanent collection at the Estate (*B. Carr and J. Tisthammer – leads*)
- Project Team de-brief on additional interpretive opportunities and review work plan as needed (*J. Tisthammer – lead*)
- Interpretive Exhibit Strategy: Meet with partners to develop comprehensive plan featuring coordinated themes, formats, designs, and education/learning objectives for the public elements of the project (*J. Tisthammer, B. Carr, and Dr. M. Williams – leads*)

- Exhibit Feasibility Assessment: Using the Interpretive Exhibit Strategy, collectively determine collaborative exhibit location and education objectives for the public elements of the project *(J. Tisthammer, B. Carr, Dr. Williams – leads with input from Management/Business Planning Team*).
- Make Interpretive Planning Recommendations for: final location(s), design, and fabrication of exhibits and interpretive signage/collateral material; Development of web site content and self-guided city tours/collaborative partner tours; Completion of interactive components; Publication of interpretive materials for the general public; Publicity and promotion; Presentation and distribution of educational programs and related materials for public (*J. Tisthammer, B. Carr and Dr. M. Williams leads with input from Management/Business Planning Team*)

Year 2: Description of Activities

- Based on Interpretive Exhibit Strategy - storyboard the Exhibit Panels, location and flow of the Exhibit in the physical space; select specific artifacts, documents and photographs to be utilized as part of the story board (*J. Tisthammer, B. Carr, and Dr. M. Williams*)
- Select Exhibit Materials and Display Cases (*J. Tisthammer with Management/Business Planning Team input*)
- Draft context and cite references of materials (*J. Tisthammer, B. Carr, and Dr. M. Williams* – leads)
- Review draft and panel mock ups for final production (*J. Tisthammer, B. Carr, and Dr. M. Williams*).
- Install exhibit panels; place and curate pieces in display cases (*J. Tisthammer, B. Carr, and Dr. M. Williams*)
- Curriculum Development: Enhance existing curriculum and lesson plans to include additional on-site activities and programs for learners (*Yoelly Burgos – lead*)

FUNDRAISING PLANS

The implementation grant will be overseen by the Estate's Deputy Director. The staff labor required to complete the project, as well as needed travel, and meeting expenses would be included in the Estate's Annual Budget. In 2009, the Estate received a $32,500 grant from the Ford Motor Company to grow the *School Yard Science Program*. A portion of these grant funds will be used to support the development of the *GeoMobile* which will include a humanities study of the Tequesta. These funds will also be used to invest in technology – three traveling laptops, screens and projectors – to take to schools as part of the outreach program. The majority of the Estate's match funding for the *Stepping Through Time* project will be provided through the County's General Fund with approximately ¼ being provided through user/admission fees and charges to patrons visiting the facilities. The funds received by NEH from the implementation grant would be strictly used to fund activities specified in the Project Introduction section. It is anticipated that additional funds needed for the implementation of the project would be funded through the Estate's Annual Budget, as well as sought from public and private sources once the specifics of project are developed.

Special Requirements

INFORMATION ON PUBLIC ACCESSIBILITY AND ADMISSION

The Deering Estate at Cutler (Estate) is open to the public daily from 10:00 am to 5:00 pm every day except Christmas and Thanksgiving. General admission to the Deering Estate is $10 for adults and $5 for children (ages 4-14). All programs for school groups including our 30-week Eco-Academy for homeschool groups, School Yard Science Outreach Program, Scout programs and visiting camp and school field study trips receive a discounted admission and educational program fee of $5 per person inclusive; chaperones additionally receive free admission with their participation in the programs. With written request from program directors and educators, special needs youth and Title 1 schools groups receive additional fee considerations - the Director of the Estate has the flexibility to waive program and admission fees for specialty groups. The Estate offers several "free" admission days either for youth specifically or families – Youth Arts Day & Music Fest offers free admission to all youth, Master Classes are free monthly programs for youth, and the Estate hosts Family Fun Days (free admission for adults and children) during one Sunday a month in the summer months of June, July, and August....This year, the program was extended through October. Interpretive exhibits are open to all guests of the Estate.

WALKTHROUGH FOR EXHIBITIONS OR HISTORIC SITE INTERPRETATION

The archeological records found at the Estate represent a comprehensive record of human habitation in South Florida. The Estate grounds are part of a unique geological feature – the Atlantic Coastal Ridge - which extends along the eastern coast of the United States, but is only exposed in Florida as a low ridge of sand over limestone that ranges in altitude from about 10 to 50 ft above sea level.

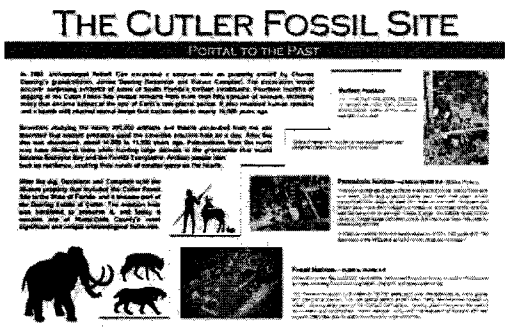
The seven distinct habitats found in the protected natural areas of the Estate provide for at least 431 native plant species and numerous animal species, including over 160 species of resident and migratory birds. These areas are habitat for 48 plant species and 35 animal species which are rare, threatened, endangered or of special concern. Within its boundaries, there are also unique topographic features such as fresh water springs, creeks, and several solution holes. The Estate also contains about a mile of undeveloped coastline with extensive mangrove forests and access to Biscayne Bay. These environmental features made it possible for the Tequesta to grow as a complex society based on subsistence. *Stepping Through Time* takes advantage of all that the Deering Estate at Cutler has to offer – onsite exhibits, archeological resources, historic buildings, access to artists, scientists, researchers, cultural programs, native habitats, flora and fauna and so much more – it is a classroom without walls that serves as an environmental education center for all ages and abilities. Visitors experiencing various elements of the proposed *Stepping Through Time* project may do so in a variety of ways: Self-Guided Interpretive Exhibit, Guided Tour, Guided Educator Lead Program or Virtual Exhibit.

The **Self-Guided Interpretive Exhibit** primarily located in the Richmond Cottage would follow Department of Interior standards for display of sensitive artifacts. There is a 25 linear foot hallway leading to two primary exhibit rooms. The hallway contains 208 square foot exhibit space on a primary wall best suited for primary exhibits. On this wall, introductory timeline of the Atlantic Coastal Ridge from prehistory to present day would be introduced with visual exhibits, oral histories, documentation, and natural sounds present on the rock ridge. The historical timeline, as proposed, will chronicle significant geological events, natural history, human habitation and cultural development. Enhancements will include a focus on ethnobotany and how and why early Native Americans used botanical resources in their local environments for food, clothing, architecture, medicine, spiritual and ritualistic purposes, and other cultural facets. On a recent visit to Walnut Canyon National Park, the exhibits and collections manager at the Estate was able to glean some best practices from their exhibit "The CANYON as a Place to Live" (A visual reference of the Walnut Canyon exhibit is included as an attachment to this request).

Special Requirements

Enhancements to the permanent Native American exhibit at the Deering Estate will be partly based upon this model.

The Tequesta were a successful, resourceful group of people who lived in South Florida for over two thousand years. Their diets were healthy and, barring trauma or disease, the Tequesta probably lived relatively long, healthy lives. Their culture was well adapted to the harsh conditions that sometimes occur here – hurricanes, hordes of biting insects, intense heat in the summer, and occasional cold winters. They had contact with and were influenced by other tribes, such as the Calusa, Ais, Jaega, Timicuan, and Apalachee, with whom they conducted commerce. Similar to exhibit panels at Walnut Canyon and based on ideas and suggestions from the planning committee, we will create our own version of "Patterns of Trade" included in the Walnut Canyon example. As referenced previously, a sampling of original fossils and artifacts and historical records that are held in Estate's collection forms the foundation of the permanent exhibit displayed in two rooms of an 1896 frame vernacular house that is on the National Register of Historic Places.

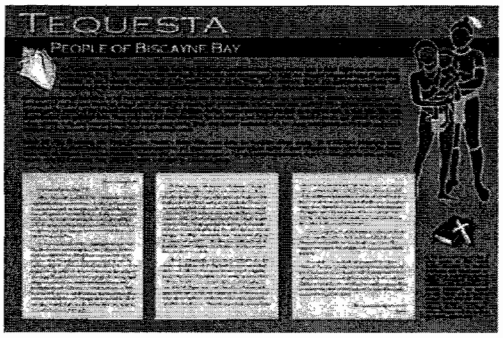


In the first room (10.5' by 9.5' with 121 square feet of wall space), there is currently a marker describing the archaeological significance of the Cutler Fossil Site as a site of Paleo-Indian habitation and a small collection of genuine animal fossils from a 1985 excavation. Planned enhancements include incorporating reproductions of fossils and artifacts that could be touched and held by patrons, and introducing two dimensional and three dimensional artistic renderings of the Cutler Fossil site by members our artist in residence program. The exhibit components will include a 360 degree photographic view from inside the Cutler Fossil site as it looks today. This panorama is being provided by an alumnus of our artist in residence program, Brian Call. Mr. Call is a nationally recognized wildlife photographer and conservationist who produced a series of images from within the Cutler Fossil site in modern times. These images coupled with excavation photographs and a stratigraphy of the oolitic limestone will give visitors a glimpse inside this ancient dwelling. Proposed is a virtual excavation based on archeolgical evidence gathered from the actual Cutler Fossil Site excavation in the mid '80s. This information would be formatted and loaded on to an exisiting computer terminal and would allow guests to explore this archeologically sensitive Paleo-Indian site. Similary, it would would be uploaded onto a website to allow for greater public access.

We know little about Tequesta clothing and jewelry, but a famous series of engravings by Theodore DeBry, may give us clues about their appearance. Based on drawings by sixteenth century French artist and explorer, Jacques le Moyne, these images depict Native Americans living near the St. John's River in Florida. The manner of dress and some cultural traditions match descriptions of the Tequesta, who occupied a more southerly part of the coast. They were heavily tattooed and wore ear adornments but very little else. The men wore nothing at all most of the time, though some are described as occasionally wearing a loincloth of woven palm fiber. Women wore short skirts made of Spanish moss. Some jewelry has been unearthed, including shark vertebrae that have been drilled through the middle as if to be strung for a necklace.

In the second room (10' by 16'with 221.5 square feet of wall space) is a collection of Tequesta shell tools and bone artifacts with interpretive materials describing their manufacture and usage. These items were either discovered onsite or are on permanent loan from the Miami-Dade County Archeologist. Examples of letters written in 1563 by a Jesuit missionary, Francisco de Villarreal, provide a first hand account of

Special Requirements



Tequesta spiritual beliefs and other cultural traditions, and additional information is provided on the impact of European influences on Tequesta culture.

Betsy Kreisberg, a local painter and an alumnus of the artist in residence program alumni, has been researching Jacques le Moyne's images, historical documentation by European explorers and missionaries, and artifacts found on the Estate to create her own interpretation of a Tequesta habitation site to be included as an enhancement to the permanent exhibit. Further enhancements would include interpretive content and examples of artifacts, textiles, jewelry and other cultural materials of the Seminole tribe, who occupied the grounds of the Deering Estate in the decades after the last Tequesta emigration and the end of the Third Seminole War (1763-1858). A cultural comparison of the three peoples—Paleo-Indian, Tequesta, and Seminole—will provide examples of how each was shaped by environmental conditions and how each was uniquely able to utilize available resources in their daily lives.

A walkthrough of the **Mock Archeological Site Exhibit, Cutler Burial Mound Interpretive Boardwalk** and **Virtual Excavation** are inlcuded in the Public Program and Multi-media Format narratives below.

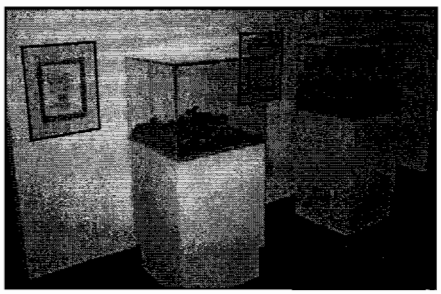
AUDIOVISUAL AND/OR MULTIMEDIA FORMATS

Oil Painting of Tequesta habitation Landscape - Alumni of the Artist in Residence Program, Betsy Kreisberg, has offered her time and materials to produce a two-dimensional interpretation of a Tequesta habitation landscape. Based on historical documentation, images from a series of engravings by a French artist and explorer, Jacques le Moyne, Betsy's initial sketches include dugout canoes along a mangrove laden coast as the men come back from a day at sea.

360 View of Karst Cave Dwelling – Cutler Fossil Site – Alumni of the Artist in Residence Program, Brian Call, has offered to produce a 360 panoramic view of the Cutler Fossil Site photographically. The exhibit components will include a 360 degree photographic view from inside the Cutler Fossil site as it looks today. This panorama is being provided by an alumnus of our artist in residence program, Brian Call. Mr. Call is a nationally recognized wildlife photographer and conservationist who produced a series of images from within the Cutler Fossil site in modern times. These images coupled with excavation photographs and a stratigraphy of the oolitic limestone will give visitors a glimpse inside this ancient dwelling.

Touch Box – include real and reproduction fossils found on the Estate for all ages and abilities to enjoy.

Visual Exhibit Diorama 1 "Another day at Work," developed by onsite naturalist Eduardo Salcedo and presently on loan at the Historical Museum of South Florida...this diorama depicts in 3-D various scenes that show how the Tequesta might have spent their days - while men fished, hunted, and warred, the women practiced small scale horticulture, cared for children,



cooked meals, hauled water and firewood, gathered wild edibles, smoked fish and meat, wove baskets, and made pottery.

Visual Exhibit Diorama 2 "In the Beginning," is a 3-D reproduction of the Cutler Fossil Site, replete with a pack of dire wolves, as it would have been thousands of years ago.

Virtual Excavation of the Cutler Fossil Site – either through a separate website (www.cutlerfossilsite.org linked to the www.deeringestate.org website) or as an e-learning module embedded within the www.deeringestate.org website, a simulated excavation web module will be developed in partnership with our web design and development firm – Oxidev, Inc. The proposed *Virtual Excavation* would be a graphically rich and interactive exercise primarily geared for students of archeology and interested practitioners. Utilizing research and digitized artifacts from the actual Cutler Fossil Site excavation, students would learn the basics of archeology applied in a virtual context. Similarly, they would be asked to make certain cultural inferences from the locations and types of artifacts found within the virtual site.

TRAVEL SCHEDULE WITH VENUES, WHEN APPLICABLE

Travel schedules are not applicable to the proposed project.

PUBLICATIONS

A portion of the requested funds are to produce a **Learning Guide** in partnership with the SunSentinel News in Education (NIE) Program, Estate staff and educators from the Florida Public Archeology Network and Archeology Society of Southern Florida. The SunSentinel NIE Program is designed to promote literacy; the NIE materials produced are school board approved. Participants in any of the Eco-Academy, Filed Study Trips, or School Yard Science Programs would receive the Learning Guide produced as part of the NIE collaboration. In addition, the key merit of this partnership is the ability to extend the awareness and reach of the Estate's on-site or outreach educational programs and outcomes beyond the direct participants (to approximately 42,000 students, teachers and families), in a very cost effective manner. Last year, SunSentinel distributed over 3 million newspapers and curricula to students, teachers and families as part of this program.

Several exhibit brochures will be produced by Deering Estate at Cutler staff with guidance from the project planning team for the "*Stepping Through Time: Tracing the Footsteps of the Tequesta and Early Man's Connection to his Natural Environment*," project. These include:

Self Guided and Guided Tour Programs (Sample Attached on Appendix H) – Estate staff researchers produce self-guided tour brochures to assist visitors to the Estate with their appreciation of the range of heritage information significant to four primary historical eras of the Estate, as well as our natural, archeological, and historical resources located here. In 2007, staff began to revise the look and content of these self-guided brochures. To date, the following titles have been produced: Deering Estate at Cutler – English Version, Spanish Version; Mangrove Boardwalk; Richmond Cottage and the Town of Cutler; Stone House: The Furnishings and Art of Charles Deering; and Marycel and Tamarit – English Version and Spanish Version. Each brochure contains a site map, historical photo references, diagrams and historical notes. These tour brochures can be downloaded in pdf format from the Estate's website at http://www.deeringestate.com/. Additional brochures will be produced that specifically address *Stepping Through Time* components, educational programs and exhibits with input from the project planning team.

Special Requirements

Lesson Plans for *Eco-Academy for Parent Educators and Youth* and *School Yard Science Program* – available on our website, educational overviews, lesson plans, activities pre- and post- public programs offered on the Estate and additional topical background to further explore activities. Over the years, staff has developed, implemented and enhanced a series of lesson plans; guidance on using places to teach; information encouraging educators, historians, preservationists, site interpreters, and others to work together effectively; and professional development publications and training courses. These were initially created through a grant awarded by the Elizabeth Ordway Dunn Foundation, received local and national awards, and are the cornerstone of all of our educational programs. These lesson plans will be enhanced and new lesson plans added to our virtual library with input from the project planning team.

PUBLIC PROGRAMS

The Estate offers naturalist **Guided Tours** through our protected natural areas to introduce all ages and abilities to the native flora and fauna, seven distinct habitats, site inhabited by the Tequesta many years ago...and a way of life where environmental factors greatly influenced the development of human culture. The description of this public program includes our exhibit walkthroughs for the **Cutler Burial Mound Interpretive Boardwalk.** For purposes of interpretation, significant stops incorporated into each of the tours described above, are outlined below:

Diet along the Old Cutler Trail: Each guided tour begins with a description of the land and the people who inhabited the land. The Tequesta were not an agricultural people and did not plant or harvest crops, although the hammock has numerous edible fruits, nuts, roots, and berries which were a part of the Tequesta diet. The walk along the main trail is an opportunity to discuss the importance of the hammock as a source of food and material. The hammock today just as it was during the time of the Tequesta is full of edible fruits, nuts, roots, and berries. These plants were useful to the Tequesta for dyes or glues (i.e. bloodberry and gumbo limbo), as deodorant (lancewood), to ward off mosquitoes (American Beauty Berry)... Jamaica dogwood - or fish fuddle - has a toxin that incapacitates fish, making them easy to harvest. En route, naturalists offer samples to guests to taste or rub in their hands. Naturalists are also able to describe the types of animals that are present on the Estate today, as well as those that were present historically. The Tequesta were opportunistic in their dietary habits and ate virtually every kind of animal that did not talk back to them including snakes, alligators, and crocodiles. Deer, similar to our present day White Tailed Deer would have been an extremely useful catch, not merely as a food source, but for the hide, antlers and sinew as well.

Culture at the Black Dirt Midden: The midden is where the primary Tequesta habitation was located. It encompasses about seven square acres, although only a portion adjacent to a naturally occurring fresh water spring is accessible. The Tequesta village or habitation site at the Estate was chosen for several reasons: it was on high, dry ground; it was very close to Biscayne Bay, their main source of food; and, it was near an abundance of fresh clean water. These visual aspects of our natural areas are noted and discussed. A portable display of artifacts like the whelk dipper, large conch columella, pottery shards, bone pins, etc., are shared with tour participants. A stop at the Tequesta midden and examination of some of the artifacts found there helps us to discover valuable clues about Tequesta lifestyles. An examination

Special Requirements

of the items we leave behind give an investigator a very accurate idea about intimate details of our daily lives: what we eat and drink, what we read, whether we have children or domesticated animals. This past year, an Eagle Scout troup in collaboration with our Natural Areas Management crew recovered slash pines from the pine rockland habitat during a "thinning" and built a reproduction Tequesta hut that is used as part of our guided tours.

We show our tour visitors fragments of pottery found in the Tequesta midden - for the most part, a type called Glades Plain. It is sand-tempered, gray or black in color, and usually undecorated. The pottery shards are gritty, thick, and durable. Sometimes pottery that is not typical of the Tequesta is discovered in the midden and it is surmised that these artifacts are trade goods. There was a widespread network of trade routes throughout the Southeast and items were traded over very long distances. Shells from the Gulf coast have been found as far away as Wisconsin. In the excavation of the Miami Circle archeological site, two basalt celts were discovered. They were found to have been quarried at a site near Macon, Georgia. This part of our public program also correlates to the "Patterns of Trade" messages included in the permanent Stepping Through Time exhibit located in the Richmond Cottage...and encourage visitors to additionally explore.

The Tequesta were an ocean-going, canoeing culture and our Tequesta midden reflects this. Most of what we find in our midden is shell: conch, oyster, whelk and a wide variety of other shells that were abundant throughout this area and undoubtedly were a primary source of food. Fish bones and teeth are also frequently found. The presence of the bones of small fish indicates that the Tequesta wove tightly meshed nets. Turtles were a staple of the Tequesta diet and fragments of turtle shell and bone are commonly found here. Shark teeth and shark vertebrae are frequently found - brought up by land crabs or seasonal rains. Other middens in the area have contained bones of sailfish, marlin, swordfish, whales, dolphins, and manatees. No fewer than four independent accounts of Tequesta whale hunts have been described in contemporary Spanish documents and they tell of a rather extreme form of fishing. When a whale was spotted in the relatively shallow waters of Biscayne Bay, the Tequesta would pursue it in dugout canoes and, when they were alongside of the whale one of them would leap upon its back, drive a stout stick into the blowhole, and ride the whale until it died, whereupon it would be towed back to shore.

Tools at Cutler Creek: During the times of the Tequesta, Cutler Creek provided a significant flow of fresh water, which drained out of the Everglades into Biscayne Bay. A stop on the trail allows our naturalists to discuss this locale as a source of drinking water and its easy accessibility to the 'Glades. During the summer, our rainy season, water levels in the Glades would have been quite high. Deer as well as other animals would have taken refuge on the numerous isolated tree islands, which stand out above the river of grass. Hunters would have poled their dugout canoes up this creek into the 'Glades in order to exploit the animals' limited ability to flee. In the winter time, our dry season, the 'Glades' would have dried out for the most part, except in deep holes dug by alligators. There alligators, fish, turtles, and birds would have been concentrated in large numbers; deer and other animals would come to drink. These alligator holes were a reliable source of food for the Tequesta, and artifacts, including tools and pottery, were found in hammocks deep in the Everglades, evidencing that hunting camps were used for extended stays.

Wooden implements would have decomposed long ago, so arrow shafts, bows, spears, tool handles, etc. have not been found but most certainly were used. Tools such as hammers, hoes, chisels, awls, and drills

Special Requirements

were fashioned from conch and whelk shells. Axe-like tools were made by removing the lip of a conch or whelk shell, shaping it, and attaching it to a haft. This type of tool is called a celt. Shark teeth were used to shape and cut wood and as projectile points. Bone and antler could be worked into tools and weapons; fish and sting ray spines could be made into awls and needles. Whelk shells were fashioned into dippers for drinking and cooking. Examples of these items have all been found on the Estate, and the more sensitive artifacts are included in the permanent *Stepping Through Time* exhibit in the Richmond Cottage.

Karst Dwelling at the solution hole: Here is an opportunity to discuss Paleo-Indians and draw a connection between the solution hole and the Cutler Fossil Site. The Cutler Fossil Site (a similar solution hole) was once a home for southern Florida's earliest inhabitants. Just above the layers of fossilized animal bones, archaeologists found a hearth, tools, and human remains. The site area was occupied over a period of many thousands of years: first by Paleo-Indians (10,000 - 7500 B.C.), who occasionally hunted large animals such as mastodon and mammoth, and later by Early Archaic Indians (7500 - 5000 B.C.), who relied on smaller animals and marine resources for food. A display of fossils and plaster casts of animal bones would be set up beside the trail prior to the tour and referred to during the brief stop there. This is also an opportunity to discuss the impact that geology had upon the Tequesta. One can easily see how shallow the topsoil layer is and how close to the surface the limestone lies. Farming is not possible in most parts of this area without steel tools and draft animals or mechanized equipment. The oolitic limestone is a weak, porous rock that can't be sharpened or shaped into tools or weapons and clay suitable for the manufacture of pottery isn't present in South Florida.

Religion and Rituals at the Cutler Burial Mound Interpretive Boarwalk: Henry Perrine Jr. describes the skeletons buried in the Tequesta mound as being placed face down, with their heads pointed toward the center of the mound. The spiritual systems of many Native American groups believe that humans originated inside the earth and emerged from below. We ponder if it is possible that the positioning of the bodies is an indication of a belief of that sort. The presence of the ancient oak tree atop the mound may additionally be significant. Trees have an important place in some tribal beliefs, including that of the present day Seminole and Miccosukee, who maintain that there is an association between trees and the spirits of those buried beneath them. Spanish documents – included in our special collections and those of our exhibit partners - describe special burial practices accorded to high-ranking individuals, and it is probable that the skeletons in the mound are those of important people.

Very rarely, do we have the ability to interact present day with our past, as we question what were the Early American belief systems, a walk along the ancient Old Cutler Trail that bisects the hardwood hammock to the Cutler Burial Mound, we can look at a comparison between contemporary belief systems and daily living and historic ones. Why do we post grave markers at the burial sites of our loved ones? Why do Native Americas incorporate natural features into their grave sites? What evidence supports these belief systems? How is evidence of a burial site interpreted? What environmental features lead to varying belief practices, i.e. the use of a mound vs. a dug out site?

Special Requirements

Spanish documents also reveal that the Tequesta had a rather loose-knit political organization ruled by a chief who resided in their principal village at the mouth of the Miami River. The chief controlled other Tequesta villages like the one here at Cutler, but apparently had little influence on other tribes. The brothers of a chief enjoyed high social status and at times represented the chief. Other important tribal members were described by the Spanish as "leading men" and were probably relatives of the chief, or were proven warriors, shamans, and elders. The natural area tour culminates at the Cutler Burial Mound followed by a trip back to the main grounds of the Estate. During this time, visitors interact with the Estate's naturalists. At the end of the walking tour, daily visitors to the Estate are encouraged to view the various historical exhibits located in the historic houses on the main grounds. School groups generally take a lunch break at this time, and then return to the natural areas with a guide for part two of their educational and interpretive program – a mock archeological dig to learn techniques used by anthropologists to uncover possible customs, information about the culture and daily lives of the Tequesta.

Proposed enhancements to the Cutler Burial Mound Interpretive Boardwalk would include the introduction of interpretive signage along the new ADA accessible pathway. With input from the project planning team, interpretive markers would flank the widened boardwalk to allow visitors to view some of the documentation that evidence culture and artists' renderings would depict the mound as it may have been viewed in the past or from the interior.

Our Learning Programs

Humanities content discussed above for *"Stepping Through Time: Tracing the Footsteps of the Tequesta and Early Man's Connection to his Natural Environment"* is already integrated into our core learning programs – both onsite and those offered as outreach or as part of an in-school curriculum enhancement program. It is our intent as part of the grant planning to enhance our current lesson plans and activities with feedback from our project planning team once exhibits are installed so that lesson plans better complement thematic messages. Current lesson plans are available to students, youth activities directors, teachers and parent educators on our website at www.deeringestate.org.

The Deering Estate at Cutler Education and Interpretive staff has adopted the Florida Department of Education's Standards (DOE) as the foundation of our recreational and environmental curriculum development. DOE Standards incorporate important skills such as critical thinking, problem-solving, creativity, innovation, collaboration and communication. Additionally, our Living Classroom integrates learning elements from the Florida Comprehensive Assessment Test (FCAT), correlating our modules with selected FCAT benchmarks in Mathematics, Reading, Science, and Writing from the DOE Standards.

Specific Learning Programs are described below.

Eco-Academy for Parent Educators and Youth - The Estate and Metrozoo have joined educational resources and staff to offer an exciting 30-week science, humanities and environmental stewardship program which draws on the rich resources of both sites. The program's main goal is to complement more formal educational programs (homeschool, public and private school curriculum) with the opportunity to apply Eco-Academy materials and lessons to real life situations. Educational & Interpretative staff from both facilities provide parent educators with fossils, artifacts and tools, preserved specimens,

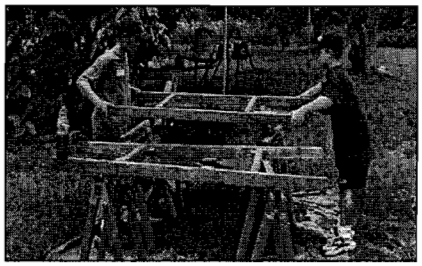
Special Requirements

photographs and simple laboratory experiments to help illustrate the key points of a specific topic. Students and parent educators are encouraged to analyze historical information – documentation, artifacts, photographs, and other clues – and search for possible cause and effect relationships. The program accommodates up to 30 people per class and is offered once a week for 30 weeks during the academic year for 2 hours each session. The program has a current enrollment of more than 300 parents and students for the thirty week program. Sample lesson plans are included as part of the grant request.

Field Study Trips to the Estate - Students, teachers, campers and researchers have the opportunity to explore typical ecosystems of South Florida Over the years, staff has developed, implemented and enhanced a series of lesson plans; guidance on using places to teach; information encouraging educators, historians, preservationists, site interpreters, and others to work together effectively; and professional development publications and training courses. These were initially created through a grant awarded by the Elizabeth Ordway Dunn Foundation, have received regional and national awards, and are the cornerstone of all of our educational programs.

K-2 Field Studies	3-5 Field Studies	6-8 Field Studies	9-12 Field Studies
Tequesta Quest 1*	Tequesta Quest 2*	Tequesta Quest 3*	Tequesta Quest 4*
Touch Tank	Fishy World	Build a Seagrass	Invasive Sampling
Camo Critters	Catching Critters	Community	Mangrove Life Cycles
Build a Bird	Who Dung It?	Predator Profiling	Orienteering
A Season for Change	Bird Adaptations	Mosses are Picky Devils	Water Quality
	Greenhouse Effect	Weather Metrics	Climate Change

Figure 1



*Programs that include our current **Mock Tequesta Archeological Site** are by far our most popular science, math and social studies program offered as a field study trip on the Estate. Each year, we welcome more than 6,700 students, campers, teachers and parent educators to our education and interpretive programs. Our Mock Site is at present one, 12 square meter site that is essentially a dug out surface hole in the ground, covered by a plastic tarp and is seeded *pre-activity by naturalist staff with a collection of real and mock* artifacts that students subsequently uncover. At present, the site can only accommodate up to 24 students per program. The "dig" is offered concurrently with pre-site visit activities for students and teachers, and onsite history lesson, and a hike along an historic Tequesta trail to the Cutler Burial Mound. However, its simplicity presents some teaching and learning challenges – a) it is difficult to integrate ADA requests, b) class size is significantly limited, and c) the archeological study is limited to a salted "midden" experience.

Figure 2

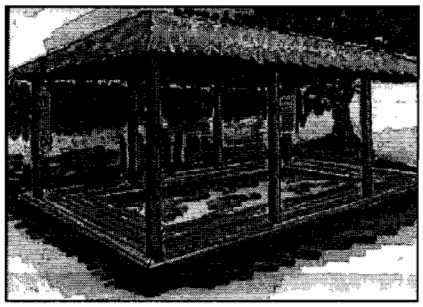


Figure 1 (above/previous) represents the site as it is. Figure 2 (at left) represents the site as proposed. Three years ago, Robert Carr built a similar site in Broward County. It won numerous national awards as developed. Unfortunately, because the site chosen was virtually unsecured, the site was vandalized, burned down in a fire, and no longer is in service to the community. It is our hope to build the Mock Tequesta Archeological Site as rendered above in our protected natural areas. The enhancement would expand

Special Requirements

the 12 square meter site to 24 square meters, contain artifacts and symbols used by these native inhabitants in the design, be true in architectural design to structures the Tequesta built on-site (it is modeled after a Tequesta Chickee), serve nearly double the students, serve a population of individuals with special needs, and would feature a mock midden site as well as a traditional fossil site – with either a full crocodile or sperm whale replica.

The Deering Estate at Cutler offers **Teacher Workshops** to Miami Dade County Public School (MDCPS) teachers holding a Florida Educator's Certificate and other members of the education community including new teachers, paraprofessionals, substitute teachers, non-instructional personnel and others. Full day, on-site workshops highlighting our Living Classroom core curriculum in ecology, marine biology, geology, archaeology, history and art also allow teachers to earn Master Plan Points. Enrollment is through the MDCPS Teacher Education Center.

We recognize that not all schools are equipped with: financial and/or time resources to travel off-site for engaging, outdoor field study trips; or comprehensive science labs, specimens, and activities to supplement science based learning. The **School Yard Science (SYS) Outreach Program** is taught by the Deering Estate at Cutler's "Naturalist" staff and utilizes the natural features available in any school yard or community. Offered is a choice of six, five week learning modules, a one-day "Classroom in a Box" program or 3 ½ week mobile program – *MarineMobile (marine sciences program touch tank)* or *GeoMobile (mobile archeology program)*. Our SYS Program brings science, math, science, social studies, art and language arts to life using nature as a learning lab. The SYS Program fosters excitement, scientific understanding, decision making and ultimately stewardship of our native habitats, coastlines and bay resources. By means of a science based curriculum that includes lesson plans, activities, fossils, specimens and materials for studies in ecology, biology, marine biology, geology, archeology and environmental science, the primary goal of our educational programs has been to educate community members, particularly youth, about providing solutions to critical urban problems. The SYS Program educates our community about preserving our biodiversity through environmental stewardship, environmental sustainability, and overall resource management. Ultimately, we hope to teach people that we can conserve the life sustaining resources of our planet. A selection of our current lesson plans can be viewed on our website: http://www.deeringestate.com/pages/Lesson-Plans-I.aspx. The SYS Program includes two mobile units – GeoMobile and MarineMobile – which remain onsite at the host school for a period of 3 ½ weeks. Each of these mobile units provide the perfect opportunity for teachers to conduct in-depth marine science or archaeology activities in their own classes, with the tools, artifacts, specimens, and lesson plans provided by the Estate. And, because the mobile will be on site for an extended period of time, any teacher within the school will have access to it. Class instruction and field trips to the Estate are also designed to complement the SYS Program and in-class study.

Teachers may also choose from more than 18 environmental stewardship topics offered as part of the single day lesson – topics are listed below – or choose from any of six, 5-week extension course generally offered in an afterschool format or as part of a science/history club. Materials are designed to accommodate up to 30 students per unit per class, multiple classes can be taught at a single site simultaneously. The curriculum is offered for K-2, 3-5, 6-9, and 9-12 grades.

Bird Adaptations (All)
South Florida Forests (3-5, 6-8)
Flower Anatomy (K-2, 3-5)
Sharks (K-2, 3-5, 6-8)
Water Pollution (3-5, 6-8, 9-12)
Aquifers (3-5, 6-8, 9-12)
Power of Symbols (All)
Adventures in Ethnobotany (All)
Fossils (All)

Special Requirements

Reptiles and Amphibians (All)	Mangroves & Seagrass (All)	Design a Historic House (K-2, 3-5, 6-8)
Sea Turtles (K-2, 3-5)	Rocks and Minerals (All)	Soil Sampling (6-8, 9-12)3-D
Ocean Currents (6-8, 9-12)	Painting with Nature (K-2, 3-5, 6-8)	Topographic Models (6-8, 9-12)

The program's main goal is to complement formal education (in an afterschool or in-school) program setting, while providing students with a chance to apply classroom material to real life situations. All lessons are correlated to the Florida Department of Education Standards and are FCAT compatible. Classes are offered for 2-hours each session. Schools can choose one 5-week session or all 6 sessions for the full 30-week program - K-2 and 3-5 grades. Curriculum for middle school children includes a service learning component and is offered in partnership with Students Offering Support to foster peer mentoring and professional development.

Half-day, full-day or multiple day service learning projects or field study trips are available to both **Girl and Boy Scout** Troops. Hands-on activities and themes include ecology, geology, marine biology, archaeology, history and art. All activities and programs correlate to specific Scout Badge opportunities so that G/B Scouts can enjoy an adventure on the Estate while earning their badge of honor. Boy Scout Badge programs include: Archaeology, Nature, Bird Study, Reptile and Amphibian Study and Canoeing Merit Badge. Girl Scout Badge programs include: Eco-Explorer, Ecology, Earth Connections, Geology, Outdoor Adventurer and Wildlife Badge. The archeology and history badges for each of these educational programs include activities at our mock archeological site.

Book Nook by the Bay - Held on the first Saturday of each month, the Estate's Eco-Brigade, volunteer Junior Naturalists from Students Offering Support and volunteers/staff from our partner organizations open the rich resources of the Estate to the public for family story time, on-site eco-arts and crafts, science and history programs and more! Each month, the Estate offers to the public an environmentally themed topic, story-time and a host of activities.

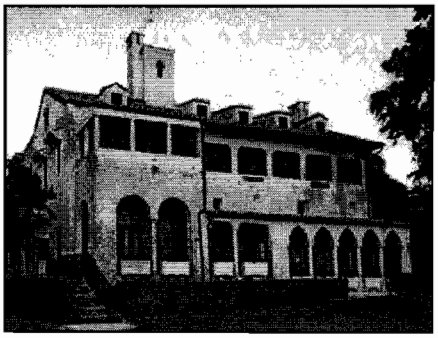
Held annually, guests to **Archeology Day** learn about Florida's history from the people who have spent years studying it. Our collaborators include the Florida Public Archeology Network, Archeological Society of Southern Florida and Miami-Dade County's own Office of Historic and Archaeological Resources. Archeologists, archeology and history enthusiasts, future archeologists and families are encouraged to come listen to one of our many expert lectures, walk our historic Tequesta trail to a midden and the Cutler Burial Mound, visit the grand opening of our Archeology exhibit in the Richmond Cottage or PLAY (Preservation Learning Adventure Year-round) alongside family members at our mock archeology dig site/children's activities.

ORAL HISTORIES

While the Estate maintains oral/visual histories of caretakers, descendents of Mr. Deering and incorporates them into on-site exhibits, there are at present no plans to incorporate oral histories in to the proposed interpretive and education program.

CONSERVATION TREATMENT

Conservation treatment activities are not applicable to the proposed project.



STEPPING THROUGH TIME:
TRACING THE FOOTSTEPS OF THE TEQUESTA AND EARLY MAN'S CONNECTION TO HIS NATURAL ENVIRONMENT

Appendix A
Resumes

Robert S. Carr
Archaeological and Historical Conservancy, Inc.
4800 SW 64th Avenue, Suite 107
Davie, FL 33314
(954) 792-9776

Education:

Florida State University. Tallahassee, Florida.
M.S. Degree in Anthropology
August 1976

Florida State University. Tallahassee, Florida.
B.A. Degree in Anthropology
August 1972

University of Miami. Coral Gables, Florida.
Course Work
September 1970-June 1971

Miami-Dade Junior College. Miami, Florida.
A.A. Degree
June 1968

Professional Experience:

1999 to Present	Executive Director (Full Time) Archaeological and Historical Conservancy, Inc.
1996 to 1999	Director Dade County Historic Preservation Division
April 1994 to October 1995	Acting Director Dade County Division of Historic Preservation
August 1978 to 1999	Dade County Archaeologist Dade County Division of Historic Preservation
1980 to 1981	Florida Archaeological Council, President
1980 to 1983	Editor, *The Florida Anthropologist*
March 1977	Archaeologist with U.S. Park Service, Southeast Archaeological Center, Tallahassee, Florida.
June 1973 to August 1976	Contract Archaeologist with Florida's Division of Archives History and Records Management, Tallahassee, Florida.

Major Investigations / Projects (Principal Investigator):

1999 to 2003	Archaeological assessment and data analysis of Miami Circle (8DA12)
2000 to 2001 1985 to 1986	Archaeological investigation of Okeechobee Battlefield. Boundary revisions for National Landmark designation.
1992 and 2006	Preachers Cave, Eleuthera, Bahamas
1991 to 2002	Ortona Canal and Earthworks, Glades County
2000 to 2001	Long Lakes (Broward County) archaeological investigations
1985 to 1991	Archaeological Survey of Broward County
1979 to 1981	Archaeological Survey of Miami-Dade County
1974	Archaeological Survey of Lake Okeechobee

Bahamian Archaeological and Historical Assessments:

1982 An Effigy Ceramic Bottle From Green Turtle Cay Abaco. *The Florida Anthropologist*. 35:200-202. (Co-author/Senior Author).

1991 An Archaeological Survey of Spanish Wells and North Eleuthera, Bahamas. *Bahamas AHC Technical Report #1.*

1993 Carr, Robert S., Jane Day, and Sandra Norman
Archaeological Investigations at Preacher's Cave North Eleuthera, Bahamas Phase II. *Bahamas AHC Technical Report #2*, May 1993.

2003 Lance, Mark and Robert Carr
Interim Report on Archaeological Investigations at New Plymouth Green Turtle Cay, Abaco, The Bahamas. *AHC Bahamas Technical Report #3.*

2006 Carr, Robert S., Jane Day, Jeff Ransom, William Schaffer, and John Beriault
An Archaeological and Historical Assessment of Preacher's Cave, Eleuthera, Bahamas. *AHC Bahamas Technical Report #4.*

Regional Archaeological Surveys:

1974 An Archaeological and Historical Survey of Lake Okeechobee. Division of Archives, History and Records Management, Bureau of Historic Sites and Properties. *Miscellaneous Project Report Series No. 22*, Tallahassee, Florida.

1975 An Archaeological and Historical Survey of the City of Apalachicola. Report on file with Division of Archives, History and Records Management, Tallahassee, Florida.

1978 An Archaeological Survey of the Big Cypress National Preserve, Preliminary Report. National Park Service, Southeastern Archaeological Center, Tallahassee Florida.(Co-author).

1981 *Dade County Historic Survey Final Report: The Archaeological Survey.* Historic Preservation Division. Metro-Dade Office of Community and Economic Development.

1990 Carr, Robert S. and Patricia Fay
An Archaeological Survey of the Lower Keys, Monroe County, Florida. *AHC Technical Report #19.*

1991 An Archaeological Survey of Broward County, Florida: Phase I. *AHC Technical Report #34.*

1995 Carr, Robert S., James Pepe, W.S. Steele and Linda Jester
Archaeological Survey of Martin County, Florida. *AHC Technical Report #124.*

2003 Carr, Robert S., Alison Elgart-Berry, Victor Longo, Jeff Ransom
An Archaeological Survey of Palm Beach County, Florida. *AHC Technical Report #419.*

1998 Carr, Robert S., David Allerton and Ivan Rodriguez
An Assessment of the Archaeological and Historic Resources of the Florida Keys, Monroe County. *AHC Technical Report #4.*

Historical Archaeology (Seminole):

1981 The Brickell Store and Seminole Indian Trade. *The Florida Anthropologist.* 34:180-199.

1995 Carr, Robert S., Linda Jester and James Pepe
Phase II Archaeological Excavations of the Riverbend #12 Site, 8PB7984, Palm Beach County, Florida. *AHC Technical Report #112.*

1995 Carr, Robert S. and W.S. Steele
An Archaeological Survey of Brighton Seminole Reservation, Glades County, Florida. *AHC Technical Report #116.*

1996 Archaeological and Historical Elements for the Management of Snake Warriors Island, Broward County, Florida. *AHC Technical Report #139.*

1996 Carr, Robert S., and W.S. Steele
Archaeological Reconnaissance Survey of Atsena Otie, Levy County, Florida. *AHC Technical Report #151.*

2002 Carr, Robert S., Lance, M., Steele, W.S.
An Archaeological Assessment and Boundary Determination of the Okeechobee Battlefield, Okeechobee County, Florida (Grant No. GA2255-00-001). *AHC Technical Report #346.*

Regional Synthesis / Methodology

1974 "Aerial Photos Aid Archaeologists." *Popular Archaeology*, Vol. 3, No. 6-7, p. 45.

1984 Prehistoric Man in Southern Florida. In *Environments of South Florida – Present and Past.* Edited by Patrick Gleason. Memoir 2 (revised). Miami Geological Society. (Co-author/Senior author).

2003 "The Archaeology of Everglades Tree Islands" In *Tree Islands of the Everglades.* Edited by Fred H. Sklar and A. Van Der Valk.

Professional Affiliations:

Society for American Archaeology
Society for Historic Archaeology
Florida Anthropological Society
South Florida Historical Association
Florida Archaeological Council

William N. Irvine
13477 SW 108 Street Circle, Miami, Florida 33186, (305) 386-0458/ (305) 755-7905

CAREER SUMMARY

Strong background in management of a large metropolitan park and recreation system in a culturally diverse community, including as Director of Park and Recreation of a municipal park and recreation system in a major resort community. Expertise in management of parks, recreation programs and facilities, golf courses, marinas, large scale special events, capital improvements and budget planning and implementation. Management experience in engineering, street and street lighting, water and sewer, warehousing, and construction management. Experience in managing a for profit organization. Proven leadership skills. computer proficient.

EXPERIENCE

MIAMI-DADE COUNTY, PARK AND RECREATION DEPARTMENT, Miami, Florida 1993- Present

Director, Deering Estate at Cutler

Responsible for overseeing the assessment, salvage, documentation, reconstruction and restoration of historical sites and structures, and the operation and restoration of the Charles Deering Estate. Responsibilities include directing the preservation and restoration of historical sites and structures, supervising all phases of construction management for restoration projects, issuing permits and certificates of appropriateness and digging, and administering all contracts with historic restoration and archeological survey consultants. Related duties include participating in all planning processes related to historic structures and developing policies which affect the acquisition, restoration and operations of historical properties.

Operations Coordinator/Region Manager

Function as Deputy Chief of Operations responsible for overall and designated line functions in the Operations Management Section of an accredited, award winning full service Park and Recreation Department. Responsible for oversight of 12,000 acres of park lands with annual Operations Management budget of $72 million. Overall responsibilities include oversight of all parks, pools, recreation centers, stadiums, auditoriums, arts and culture centers, natural preserve areas, campgrounds, tennis centers and recreation facilities. Supervision and administrative duties also include the development, implementation and coordination of the Department's recreation programs, development and monitoring of Operation Management's capital improvement and capital equipment needs, liaison between field operations and Department's Administrative Section on all contractual, programming partner and special event applications, negotiations and implementations. Line functions include direct supervision through subordinate managers the operation of the Department's six Golf Courses with annual revenues of $8.1 million, six Marinas with annual revenues of $7.1 million, Leisure Access Division and Park Security Unit.

Chief Contract Management

Developed, implemented and administered new and renewed private sector operated recreational and support services and facilities within the Miami-Dade park system. Reviewed, monitored and directed the contracting process using section staff and operational personnel to insure a high quality of service delivery to the County's residents and visitors, and positive revenue stream in excess of $3.5 million per year.

Hurricane Recovery Coordinator

Directed, monitored, coordinated and reviewed approximately $90 million in hurricane related capital improvement projects. Served as the Department's primary liaison to FEMA and state agencies for hurricane related projects. Responsibilities included coordinating assignments, reviewing and approving, prior to submission to FEMA, and implementation of recovery projects once approved, of all Disaster Survey Reports (DSR), Supplemental DSRs, Requests for Improved Projects, Alternate Projects, or Hazard Mitigation requests. Coordinated, prepared and negotiated the Department's insurance claims/settlements in connection with Hurricane Andrew.

SOUTHERN AUDIO VISUAL, Miami, Florida 1992-1993

Director of Operations and Special Events

Directed the efforts of mid-sized company involved in providing the corporate and convention market with audio/visual and staging services throughout the state of Florida. Responsibilities included supervision of in house services and staff at 11 hotel properties, three warehouse operations and a special services (special events) division. Developed, implemented and maintained policies, procedures and training programs in the areas of personnel, inventory control and maintenance, customer service, and field financial accounting and control.

CITY OF MIAMI BEACH, Miami Beach, Florida

Director of Park and Recreation Department
Total responsibility for full service Park, Recreation, and Facilities Management Department comprised of 303 employees with annual operating budget of $10 million. Worked closely with seven Commission appointed Boards and Committees to develop Department policy, program needs, and service levels. Coordinated through outside agencies, contract instructors, and department personnel, recreation resources to provide and maintain a calendar of programs and events within this major resort community. Large scale special events included Miami Beach Festival of the Arts, Bite of the Beach, (annual food festival), and Friday Night Live (16-week summer concert series). Maintained in excess of 500 acres of park, parkway, and ornamental medians. Directed facility maintenance of over 200 buildings and structures throughout the city. Oversaw the operation of 3 golf courses by an outside contractor. Developed and implemented comprehensive skills and management training program including team building, customer service training, job development, supervision and management development.

- Planned, implemented and completed 25 capital improvement/renovation projects in a two year period.
- Reorganized Parks and Recreation Divisions providing greater efficiency in delivery of service and cost savings to City's general fund.
- Provided 224 programs and activities through combined resources (outside agencies, contract instructors, and department personnel), to the City's visitors and economically diverse residents annually
- Initiated **Graffiti Busters** program resulting in over 300 graffiti abatement work orders during first year
- Initiated **Supportive Employment Program** to hire mentally challenged adults to work in Department Nursery
- Developed and implemented first computerized budgeting process in the City
- Implemented first subsurface irrigation system for medians and center parkways in Florida
- Developed and implemented **Art on Loan Program** which provided local artists the opportunity to exhibit in public buildings throughout the City
- Developed and implemented neighborhood specific Park and Recreation Needs Assessment with 90% confidence level

Assistant Public Services Director
Responsible for supervision of multi-function organization encompassing Park, Recreation, Facilities Management, Engineering, Street and Street Lighting, Water, Sewer, and Warehouse Divisions with 397 employees with annual operating budget of $30 million. Functioned in the capacity of Chief of Operations for full service Park, Recreation, Golf, and Facilities Management Department employing 301 personnel with annual operating budget of $11 million. Duties included budget preparation and monitoring, staff review and development. Developed, coordinated and implemented program improvements defined in annual budget.

MIAMI DADE COUNTY, PARK AND RECREATION DEPARTMENT, Miami, Florida 1975-1980

Comptroller
Functional responsibility for Finance, Purchasing, Personnel, Warehousing and Security for county operated construction management organization employing 300 personnel with capital improvement budget of $45 million. Directed and coordinated all personnel, purchasing, and financial matters for the Zoo and Metro Parks Design and Construction Team. Formulated division and section annual general fund and capital improvement budgets.

- Performed bid review including investigation and formulation of bid specifications for all division capital purchases
- Hired and processed over 125 professional, technical, construction personnel in six month period
- Implemented and monitored $1.5 million Federal CETA grant
- Established and implemented all policies, procedures, controls and purchasing required to bring full scale construction warehouse on line in a six month period

Assistant to the Division Superintendent, Metropolitan Parks and Special Areas
Worked as the Superintendent's key administrative officer responsible for all division Financial, Purchasing and Personnel matters in addition to directing the work of the Division Trade Section. The Division employed 350 personnel and had an annual operating budget of $7 million.

Assistant Park Manager, Haulover Park
Supervised 30 parks personal in the daily maintenance and operation of a 258 acre municipal park which included a nine-hole golf course, beaches, marina, boat ramps, picnic areas, and concession operations.

EDUCATION
BS Education Recreation Major University of Miami 1975

JENNIFER LEE TISTHAMMER

9322 Southwest 182 Street – Palmetto Bay, Florida 33157 – Mobile: (305)710-4182
jleeassociates@bellsouth.net

Highly creative, performance oriented executive with a proven track record of success in nonprofit governance and leadership, fund development, financial management, strategic planning, board development, staff development, environmental advocacy, community relations and public speaking. Highly organized and practical, with the ability to develop and implement multiple strategic goals and time sensitive, complex projects. A collaborator, working effectively to build consensus and align differing interests of multiple and varied parties. A team player with a tireless commitment to excellence as a public steward.

SEEKING: An executive director or equivalent position for a nonprofit organization in need of an intriguing alchemy of inspirational business leadership, creative and strategic thinking, integrity, financial acumen, combined with an accelerant of hard work, and an entrepreneurial ethic consistently producing value added results.

PROFESSIONAL EXPERIENCE

Deering Estate at Cutler, Miami-Dade County Park and Recreation Department, Miami, Florida
February 2007 - Present
Acting Deputy Director, Exhibits and Collections Coordinator
Lead the team to increase visitor attendance by 70% in the last two years and overall revenues by 20%, while maintaining only a .05% increase in expenses. Manage educational and interpretive activities of a 444 acre natural preserve, archeological site, educational and recreational facility, cultural center and historic grounds – the Deering Estate at Cutler. Founded Artist Village to include collaborative visual, literary and performance artist in residency programs, historic and cultural rotating art on loan programs, visiting artist outreach program, and creative art camps. Created Living Classroom modeled after the National Park Service hands-on, interdisciplinary educational program to include Deering Discovery Camps, Eagle Scout projects and various Scout Badge programs, 30-week curriculum for homeschool educators/students, and a Junior Naturalist Program (Youth Volunteer Corps). Oversee day to day restoration and security of 5 historic houses listed on the National Register of Historic Places as well as a small collection of artifacts, documents, photographs, artwork and furnishings from the Estate's founder, Charles Deering. Co-manage human resources and staff development for 24 full-time and 24 part-time employees.

J. Lee and Associates, Inc., Miami, Florida
July 2003 - Present
Founder/Consultant
Provide fee based business consulting, interim executive management, and/or philanthropic consulting to individual and corporate clients. Representative clients include private foundations, nonprofit organizations, businesses, and individuals serving the philanthropic and financial services markets. Descriptions of recent/major projects include (not a complete list):

Parks Foundation of Miami-Dade, Inc. - ACTIVE
Miami, Florida
Develop and implement board recruitment strategy, strategic planning, marketing, foundation governance model, interim management, and fundraising infrastructure to support advocacy, recreational, environmental, educational, cultural and historic preservation objectives of Miami Dade County's Park and Recreation Department – the nation's third largest park system.

The Deering Estate Foundation, Inc.
Palmetto Bay, Florida
Revise and implement strategic business plan, provide interim executive management, create resource development infrastructure and write public and private grants to support advocacy, environmental, educational, cultural and historic preservation objectives of the Deering Estate at Cutler. Work with local art centers and community leaders to open an Artist Village on the Estate consisting of a series of Artist in Residence studios and a rotating Art on Loan program.

United Way International, International Donor Advised Fund (IDAF) Program
Alexandria, Virginia
Develop the administrative protocol for staff and UWI member countries participating in the IDAF Program to enhance/streamline the current level of service and identify opportunities for cost efficiency. Design international grant making anti-terrorist and anti-money laundering compliance standards. Create an international marketing plan and staff/board/donor training plan.

J. Lee and Associates, Inc., Miami, Florida (continued)

United Way of America, National Women's Initiative in Tocqueville and Leadership Giving
Alexandria, Virginia
Secure three year funding from corporate grantor to seed the National Women's Initiative in Tocqueville and Leadership Giving - a 10 year, $1 billion philanthropic growth initiative designed to encourage giving by women through the United Way affiliate system. Develop, plan, and assist with programming the National Summit on Women and Philanthropy. Research and author annually a guidebook on women's executive leadership and philanthropic giving for distribution nationally to over 1500 United Way of America affiliates.

United Way of America, National Planned Giving and Endowment Program
Alexandria, Virginia
Lead a team of professionals in the development of the national gift acceptance and recognition standards. Create the service and staff training program for the Tocqueville Legacy Initiative offered to 1500 local United Way of America affiliates. Provide additional philanthropic consulting, including technical advice on charitable estate planning, planned gift solicitation techniques, and local community program design and marketing.

Development Exchange Incorporated (DEI) - ACTIVE
Minneapolis, Minnesota
Create the overall design, policies, implementation plan and ongoing training platform for a national marketing effort – DEI's Legacy Gift Growth Initiative – offered to member and non member public broadcasting stations to grow endowment and planned gifts in their local, broadcasting communities. DEI is national public radio's marketing service organization serving over 245 member stations and approximately 300 non member stations.

Merrill Lynch Private Banking & Investment Group, Boca Raton, Florida
Merrill Lynch Trust Company, Center for Philanthropy and Non Profit Management
June 1999 - April 2003
Vice President, Senior Philanthropic Consultant, Southeast US
- Manage regional sales efforts in seven states (Florida, Georgia, Alabama, Mississippi, Tennessee, North Carolina, and South Carolina) and within 150+ wealth management centers, growing assets under management by 30% to $4.7 billion.
- Philanthropic business consultant to high net worth, private foundation, and non profit endowment clients of the firm, designing and implementing over 200 investment policies/wealth management plans, board governance programs, fiduciary reviews, planned and major gift marketing strategies, and private foundation business plans.
- Develop, plan, and assist with programming for an Annual Non Profit Financial Services Conference.
- Regional consultant on national Women's Advisory Network.

United Way of Miami-Dade, Miami, Florida
May 1995 - June 1999
Director, Endowment and Planned Gifts
Develop and implement start-up, integrated planned giving and endowment program, generating $4.5 million in current planned gifts and $42 million in future gifts to the endowment in four years.
- Manage senior development staff and annual campaign divisions for legal, professional and finance industry sectors, raising approximately $12 million in leadership/major gift funds annually.
- Create and train staff on an overall goal setting and fundraising program, leading to an increase in overall annual campaign revenues from $24 million to $40 million in a 3 year period.

Senior Development Officer
- Develop and implement annual campaign for attorneys and law firms, including group presentations, individual gift plan development, special events, niche giving programs, and corporate advised funds.
- Create international giving and donor advised fund program.

Bank of America, Ft. Lauderdale, Florida
October 1994 - May 1995
Business Banking Officer III
- Service and grow commercial loan portfolio and develop new business in middle markets.
- Specialization in fund accounting and Latin American banking sectors.
- MAPS Advisor. Small Business Development Office Instructor.

SunTrust Bank, N.A., Miami, Florida
June 1992 - October 1994
Commercial Loan Representative
- Service and grow commercial loan portfolio and develop new business in middle markets.
- Management Associate
- Complete commercial loan and management training program.

EDUCATION

Florida International University, Miami, Florida
September 1988 - December 1992
Bachelors of Science, Double Major: Finance and Marketing
Honors: Faculty Scholar

Series 7 (Inactive a/o 2005) - The Series 7 Exam is the NASD (FINRA) license for general securities representative. The Series 7 Exam covers topics including: Equity Securities, Debt Securities, Options and Derivatives, Securities Markets and Regulations, Retirement Plans, Investment Companies and Taxation.

Series 63 (Inactive a/o 2005) – The Series 63 Exam is the NASD(FINRA) license for Uniform Securities Agents. The Series 63 Exam covers topics including: State Registration Laws and Procedure, Penalties and Suspension, Lawful Practices and Discretionary Rules.

Series 65 (Inactive a/o 2005) - The Series 65 exam is the license for individuals that act as Investment Advisors. The Series 65 Exam covers topics including: Retirement Planning, Conduct and Business Ethics and Securities Rules and Regulations.

COMMUNITY INVOLVEMENT AND BOARD AFFILIATIONS

Current: Perrine Elementary School ESAC (Elementary School Advisory Committee), Planned Giving Council of Miami-Dade, and Biscayne Bay Yacht Racing Association

Previous: United Way's Children's Impact Council, Biltmore School and Playhouse, Greater Miami Chamber of Commerce, Camillus House, Fairchild Tropical Gardens, United Way of America's National Women's Initiative in Tocqueville and Leadership Giving, South Florida Donor's Forum, Leave a Legacy, The Deering Estate Foundation, South Florida Annenberg Challenge, Florida Philharmonic, Big Brothers/Big Sisters of Miami, American Cancer Society Miami Chapter, South Florida International Wine Festival, Young Leaders Society, Women's Yacht Racing Association

SUMMARY OF QUALIFICATIONS

- Over 18 years of experience in non profit governance, financial management, fundraising and business/community leadership.
- Expertise in wealth planning, donor advised funds (domestic and international), legacy gift and major gift solicitation – raised more than $50 million in leadership/legacy gifts.
- Seeded, helped create and implement $1 billion national women's leadership initiative for United Way of America.
- Investment management and regional sales expertise - grew philanthropic assets under management from $3.1 billion to $4.9 billion
- Responsible for re-defining, re-organizing, developing policy, recruiting, training and managing staff for archeological, environmental, educational and interpretive site listed on the National Register of Historic Places.

LANGUAGES: ***Conversational Spanish***

Karlisa Callwood

callwoodk@gmail.com

2300 SW 3rd Ave #17
Miami, Fl. 33129

Phone: 786-223-6694

Education

University of Miami, Coral Gables, Fl.

Bachelor of Science, May 2003
Double Major: Marine Science and Biology; Minor: Chemistry

Masters of Science, Expected December 2010
Major: Marine Affairs and Policy

Work Experience

Recreational Specialist 2

Deering Estate at Cutler, Miami-Dade Parks and Recreation, Miami, Fl

- Responsible for the coordination and development of off-site educational programs and outreach activities
- Conducts on-site interpretive programs
- Organizes, teaches, and leads youth and student participants in field studies
- Serves as liaison between school and program contacts and the Estate
- Assists with grant writing

Associate Coordinator, United Way Programs; Site Supervisor – January 2009 to May 2009

Cool Kids Learn, Inc., Miami, Fl

- Responsible for the coordination of on-site activities of the Decision-CKL program at Skyway Elementary
- Created hands-on curriculum for the Decision-CKL program focused on Decision Making, Character Building, and Problem Based Learning
- Developed and implemented effective and creative discipline strategies for 4th and 5th grade students involved with the program
- Developed anti-bullying curriculum to complement the Decision program, incorporating topics such as self-esteem, etiquette and chivalry
- Maintained accurate student records
- Organized, prepared and assisted in the execution of indoor and outdoor activities, including academics, games, sports, and crafts
- Served as liaison between the Cool Kids' office and the administration of Skyway Elementary
- Supervised and led weekly meetings with Decision-CKL program instructors
- Developed Problem Based Learning Curriculum to be incorporated into the Cool Kids summer programming

College Bound Program Director – April 2007 to December 2008

Breakthrough Miami @ Ransom Everglades School, Coconut Grove, Florida

- Oversaw the effective operation of the Breakthrough College Bound Program, involving Breakthrough alumni in grades 8-12, by designing, implementing and sustaining a special school-year program created to provide assistance with graduating high school and attending college
- Provided current Breakthrough College Bound students with on-going educational counseling and academic outreach, advancement and intervention
- Monitored the academic performance of all College Bound students
- Responsible for management of the program budget, as well as ordering and maintaining supplies
- Coordinated and conducted parent conferences, especially in the area of high school options for 8th graders
- Implemented and oversaw science curriculum that addressed the college preparatory mission of the program for "Super Saturdays" program and classes
- Planned, coordinated and oversaw parent/family education on college application process, financial aid counseling, scholarship information, and retention in college
- Developed relationships and worked collaboratively with partners from schools, scholarship sources, community agencies, educational institutions and other non-profit youth organizations that benefit Breakthrough families and students, serving as the primary liaison between these entities and Breakthrough Miami
- Planned and implemented college workshops, visits, and week long tours for 11th and 12th grade participants
- Responsible for recruiting, hiring, and training staff and volunteers
- Planned and implemented College Bound Summer Academy for 9th and 10th grade students, supervising 60 participants, 10 staff, and 10 volunteers
- Managed and maintained College Bound student database of over 300 participants

Work Experience (cont'd)

Youth Program Coordinator – March 2004 to April 2007
Miami Museum of Science & Planetarium, Miami, Florida

- Coordinator of the BioTRAC (Biomedical Training, Research and College Prep) Youth Program, the Upward Bound Math/Science Youth Programs, and the Museum Magnet School Program
- Served as academic and personal mentor to Youth Program participants, ages 13-19
- Worked collaboratively with lead magnet teacher at partner schools to design curriculum and activities to supplement their school curriculum, utilizing the Museum's resources, such as the exhibits and permanent collections
- Arranged all magnet school activities, ensuring that facilities, materials, staffing, etc. are appropriate and available for the event
- Designed/taught science curriculum and developed research projects for Saturday Electives and IMPACT (Integrated Marine Program and College Training), the marine science summer component of the Museum's Upward Bound Math/Science program
- Planned, implemented, and supervised school-year programs and 6-week summer program, including developing classes, hiring instructors, and managing the over-all day-to-day activities
- Planned and organized field trips and overnight research excursions for Youth Program Participants
- Assisted Youth Program students with financial aid forms, college applications and essays, and other forms of college readiness training
- Supported SAT prep activities, including teaching a 4-hour SAT prep class for Youth Program Juniors and tutoring Youth Program Seniors in their weak areas
- Planned and executed college tours, dorm residential experiences, and career fairs for participants may gain more knowledge about the types of college majors and/or jobs that are available for persons interested in science and technology fields
- Provided interview and job skills training for participants hoping to gain jobs within the Museum, or internship placements through our BioTRAC Program.
- Disseminated techniques and strategies for creating and running a youth program to other museums and science centers from around the country interested in starting their own science-based programs
- Gained experience in writing grants and proposals, including winning a $5600 grant from the Padi Foundation
- Responsible for supervising/training Youth Program mentors (usually college students or first- and second-year teachers); 4 during the academic year, 8 during the summer

Ecological Consulting Intern – May 2005 to May 2006
PBS&J, Miami, Florida

Research Assistant – September 2002 to December 2004
Rosenstiel School of Marine and Atmospheric Science (RSMAS), Virginia Key, Florida

BioTrac Mentor – October 2003 to March 2004
Miami Museum of Science & Planetarium, Miami, Florida

IMPACT Mentor – June 2003 to August 2003
Miami Museum of Science & Planetarium, Miami, Florida

Ballast Water Treatment Facility Laboratory Assistant – December 1999 to July 2002
University of Miami, Department of Undergraduate Marine and Atmospheric Science, Coral Gables, Florida

Skills

- Proficient use of Microsoft Office applications (including Excel, PowerPoint, and Access) and Photoshop
- Working knowledge of Adobe Premier, InDesign, I-Movie, Point Count99, Coral Point Count with Excel Extensions, Verdana, Sigma Scan Pro, ArcGIS
- Some HTML skills
- PADI Open-Water Diver Certification
- CPR and First Aid Certified (National Safety Council and Red Cross)
- Experience in curriculum and lesson plan design
- Strong written and verbal communication skills
- Excellent researching abilities
- Experience with Public Speaking
- Great work ethic and excellent multi-tasking abilities
- Works well with others or independently

CATHERINE J. FERREIRA
18830 BELMONT DRIVE, MIAMI, FL 33157
305-235-1668 EXT. 244 (W) / 786-512-3792 (C)
CFERRE01@HOTMAIL.COM

EDUCATION:

Master of Public Administration, December 2005
Florida International University, Miami, FL 33157
Bachelor of Arts in English Literature, April 2002
Florida International University, Miami, FL 33157
Film Studies Certificate Program, April 2002
Florida International University, Miami, FL 33157
Czech Literature and Political Science (9 credit hours), June 2000 to August 2000
Charles University, Prague, Czech Republic
High School Diploma, June 1998
Miami Southridge Senior High School, Miami, FL 33157

EXPERIENCE:

Marketing Coordinator, Deering Estate at Cutler, September 2006 to present
Miami-Dade County Park & Recreation Department Miami, FL

- Develops overall marketing strategy for the Deering Estate by creating a cost-effective marketing plan and budget.
- Monitors and tracks marketing campaign success and cost-effectiveness by conducting visitor satisfaction surveys through the use of *Snap Survey Software*.
- Plans and executes marketing initiatives for all programs, exhibits, and special events.
- Evaluates existing programs and the development of new programs to assess marketability and determine best methods and opportunities for marketing and promotion.
- Promotes the Deering Estate to the general public and target groups through advertising, direct-mail, press releases, web-site and personal contacts.
- Creates content and develops layout for the monthly calendar of events (on-line and in print).
- Produces and distributes print and broadcast promotional materials; including magazine and newspaper advertising, radio and television announcements, calendar of events, media interviews, etc.
- Collects background information and conducts research on upcoming exhibits, special events, and programming held at the Estate in order to effectively promote such activities.
- Manages the current Deering Estate web-site to maximize its use as a marketing, public relations and communications tool.
- Oversees the maintenance of complete media files, media logs and digital photo library for marketing purposes.
- Serves as the Deering Estate spokesperson, as appropriate and/or in the absence of the Director.
- Serves as the on-site weekend manager on a rotational basis; responsible for the financial operations of the Estate.
- Serves as a liaison to community institutions to promote and maintain good public relations through open and consistent communications and building relationships.
- Develops and maintains all media lists and distribution systems.

- Writes and edits scripts and records information for the department's automated phone system.

Public Information Officer, March 2006 to September 2006
Miami-Dade County Department of Environmental Resources Mgt. Miami, FL
- Provided support in the development of printed material used for general education on environmental issues and concerns.
- Developed and edited extensive content and layout for the Department's web-site www.miamidade.gov/derm.
- Assisted with the production of the T.V. series *Down to Earth* and Public Service Announcements; served as the co-host of *Down to Earth*.
- Responsible for bringing funding and support for the annual event "*Baynanza*."
- Served as the Department's liaison for the 311 County service; updated relevant information into the 311 database.
- Wrote and edited scripts and recorded information for the department's automated phone system.
- Presented educational material to students at local schools, teaching and promoting environmental awareness.

Cultural Affairs Administrative Officer 2, October 2004 to March 2006
Cultural Affairs Projects Officer, January 2003 to October 2004
Miami-Dade County Department of Cultural Affairs Miami, FL
- Principal assistant for two quarterly grants programs 1) Community Grants and 2) Tourist Development Council; these programs address a wide array of funding requests including cultural programs, museum exhibits, tourism activities, film/TV projects and cultural neighborhood activities & projects.
- Reviewed all aspects of the application, evaluation, contracting and monitoring process for more than 200 grants annually.
- Co-managed the Department's ongoing customer service program, which focuses on all of the Department's grants programs, by developing and distributing electronic surveys and analyzing feedback to refine and improve the programs.
- Supervised funding support for film/media constituents; worked in collaboration with the Miami-Dade Mayor's Office of Film & Entertainment.
- Managed grants financial activities, including approving direct and reimbursement payments for more than $1.5 million annually in funded projects.

Cyber-Journalist/Writer, October 2001 to January 2003
WSVN Channel 7, Sunbeam Television Corporation Miami, FL
- Researched, wrote and edited news articles for www.wsvn.com.
- Utilized the *Associated Press* and other news wire services for breaking stories.
- Interacted directly with on-air talent and producers about content decisions.

Miami International Film Festival Internship, September 2000 to December 2000
Florida International University Miami, FL
- Coordinated film screenings before their initial release.
- Conducted research and developed short briefs on various films and directors.
- Produced a database of Film Festival donors and sponsors for mass mailings.

QUALIFICATIONS:

- Customer Service & Ethics Training
- MS Office Word, MS Office Excel, MS Office Publisher, Powerpoint, Macromedia Dreamweaver, Snap 9 Professional (Snap Survey), Adobe Acrobat, HP Precision Scan Pro
- Strong proofreading and editorial skills, including knowledge of AP style.
- Strong knowledge in Internet Sites and Web researching skills.
- Ability to communicate openly, effectively, and persuasively in both oral and written form.

ACTIVITIES & COMMUNITY INVOLVEMENT:

- **American Society for Public Administration (ASPA),** *Member, Present*
- **Florida Attractions Association (FAA),** *Member, Present*
- **Miami-Dade County Dept. of Cultural Affairs,** *Summer Arts & Science Camps for Kids (SAS-C) Grant Panelist*, January 2008
- **Florida Grand Opera,** *Supernumerary in Rigoletto*, March - May 2006
- **ArtsAlive Miami,** *Board Member & Programming Committee Co-Chair*, 2003
- **Americans for the Arts,** *Emerging Leader*, 2003 - 2006
- **State of Florida Division of Cultural Affairs,** *Media Arts Grant Panelist*, May 2005
- **University of Miami 'Canes Film Festival,** *Judging Panelist*, May 2004
- **Florida International University, Campus Recreation,** *Intramural Sports Supervisor*, 1998-2002
- **Community involvement:** *Habitat for Humanity, Miami-Dade County Goodwill Ambassador, FEMA Post-Hurricane Relief, Miami-Dade County Elections*
- **Certified *NAUI* Scuba Diver**

BURGOS-MUNOZ, YOELLY Applicant/Person ID: **134960**

21000 SW 87TH AVE
APT # 302
CUTLER BAY,FL 33189
(787) 948-4561
yoypr@yahoo.com

Drivers License Type: **Class E license**

Veterans' Preference Information -- None Indicated

Education

Major	Degree	School	Graduated	Graduate Date
Natural Science	Bachelor of Science	University of Puerto Rico	Y	06/06/2001

Work Experience

03/03/2008 Present Recreation Specialist 1 Park & Recreation

As a Recreation Specialist part of my responsabilities are coordination and instructiion on specific naturalist recreation programs such as nature walk, historic house tours, archaeological dig, fish dissection among others. Responsible for planning, directing and instructing a variety of naturalist recreational activities. In charge of the development of community outreach, relationship and partnership with both private and public organizations such as homeschool, public schools, private schools and environmetal organizations.

02/22/2007 02/28/2008 Marine Educator The Pier Aquarium

As a Marine Educator the responsibilities for this position include, Develop and implement classroom programs for local groups including schools and other non-profit education facilities. Create and implement special programs such as workshops and summer camps. Train other staff members on developed programs. Assist in the daily operations of the education department including aquarium classes, outreaches, public presentations, special events, as well as animal care duties. Other duties as assigned by the Education Manager/Director of Education. Participate in guest relations/interactions and perform public presentation. Assists Director of Education with program development, evaluation and marketing. Maintains supplies and equipment for public programs. Designs experiences and writes lesson plans for various on-site weekend public programs. Supervise and train all occasional instructors on animals and schedule appropriate staffing for Educational Programs, Summer Camp, Birthday Parties, Fish Schooling Programs, Ocean in Motion Program, and Boy and Girl Scout Workshops requests. Maintains resources and orders supplies, equipment and materials needed to deliver all onsite weekend public programs. Assist Director of Education in the development and distribution of marketing and promotional materials to potential new clients on/offsite. Research, develop and implement new ideas of program topics to be offered to the general public in the aquarium. Build and maintain positive communication with Aquarium Occasional Instructors. Assist Director of Education in the evaluation of weekend public programs. Work with other education and scientific staff to ensure successful and sustainable growth of department and of the aquarium. Monitor and improve customer service skills of staff. Responsible for constantly monitoring and evaluating ways of exceeding the Director sales goals in each of these areas. Report to Director of Education ways to improve and streamline the reservation process, staff communication and overall guest experience. Implement changes to supervisor to enhance efficiency and safety as well as to improve the quality of programming we provide to our guests.

The reason for leaving is because my husband found a job at the Miami International Airport and we are moving to Miami as soon as possible.

01/13/2006 02/21/2007 VPK teacher Maryad Preschool

As a VPK teacher I have a group of 10 to 14 students with ages between 4 and 5 years old. I prepare all the lesson plans for the classes, including activities to develop fine motor skills, gross motor skills, poetry and fingers plays, Math and Science projects and literacy development projects. The school is an academic preschool that means that all the teachers need to prepare all the students with the necessary skills to be capable to succeed in the school system. My duties was to ensure that all children are intellectually, emotionally, physically and socially ready to enter school and ready to

learn. Pre-K prepares children to be ready for school. Children who participate in high-quality early childhood education programs develop better language skills, score higher in school-readiness tests and have better social skills and fewer behavioral problems once they enter school. They are also better prepared for Kindergarten, especially in the areas of pre-reading, pre-math and social skills.

The School closed.

03/22/2004 12/31/2005 Scientific Staff The Pier Aquarium

I was in charge of maintain the highest level of quality of the aquariums public and exhibit image; that included daily husbandry and maintenance of exhibits providing appropriate and enriching habitats for the animals, working with life support in maintaining quality for all exhibits, works with staff and curator to ensure the highest standards for all animal health. Delivers extraordinary customer service to all aquarium guests and internal customers. Delivers day, evening and weekend public programs, including youth, family, adult and night programs such as weddings, receptions and others.

The reason of leavind was to work as a VPK teacher in a Preschool in Largo.

08/03/2001 01/31/2004 Science Teacher Santisima Trinidad College

I taught General Sciences to Eighth Grade students, Earth Sciences to Ninth Grade students, Biology to Tenth Grade students, Chemistry and Ichthyology to Eleventh Grade students and Physics to Twelfth Grade students. I prepared the schedule for the Courses including tests and laboratories. I was in charge of the graduation of ninth grade and twelfth Grade students; coordinating all the activities for Graduation and led fund raising efforts to finances the graduation ceremonies. I was also in charge of the Scientific Fair in the school.

The reason for living is because my husband and I moved to United States.

08/20/1996 12/31/1996 Sea Turtle Monitor volunteer Sea Grant Program

I was a volunteer for the Sea Grant Program searching for nests of marine turtles. I have to draw a map of the area indicating the exact location of the nest and which specie of marine turtles occupied the nest. I was responsible for monitoring the nests until the turtles were born and of writing a report explaining all the data including the conditions of the marine turtles.

It was a volunteer program for one semester.

Training -- None Indicated

Licenses & Certificates

Date Issued	Title	Issued By	Expiration Date
04/19/1996	Open Water Certification	NAUI International	
06/29/2000	Other License or Certification	NASBLA (Boating/Navigator)	

Additional Language Proficiency

Title	Speaking Prof.	Reading Prof.	Writing Prof.
Spanish	High	High	High
English	High	High	High

Memberships

Membership	Issue Date	Mandate	Mandate Position
Other Membership	03/20/2007	NMSEA	MEMBER

Honors & Awards -- None Indicated

Competencies -- None Indicated

Test Results -- None Indicated

JESSICA CABRAL

8627 Franjo Road, Cutler Bay, FL 33189-2510
Tel. (305) 235-1528 • Cell (305) 342-7032 • jcabral1@att.net

SUMMARY

Team leader and mentor with strong organizational, computer and design skills and more than ten years experience in positions requiring excellent customer service. Knowledgable in South Florida human and natural histories.

WORK EXPERIENCE

2004 - Present — Miami-Dade County Park and Recreation Department — Miami, FL

Education and Interpretive Staff / Exhibits Coordinator

- Museum technician responsible for cataloging and maintainging collections and for designing, implementing, and interpreting the permanent collection-based exhibits at the Deering Estate at Cutler. Coordinate educational and public outreach programs, tours, workshops, lectures, and classes.
- Awarded Employee of the Quarter in 2007 for developing and implementing a computerized database of visiting organizations to increase the efficiency of taking reservations, tracking performance measures, and soliciting partners and participants for new programs.

2000 - 2004 — Delta Airlines — Miami, FL

Reservations Sales and Services Representative

- Handled incoming passenger calls with the purpose of booking reservations for airline travel and selling the airline's and its collaborative partners' products and services.
- Selected to mentor new employees in the final stages of their training.
- Facilitated the training more than 800 Domestic and Internationl Special Services Represtentatives in the use of a new computerized booking and information system in 2003-2004.

1997-1999 — South Florida Educational Federal Credit Union — Miami, FL

Teller

- Customer service position. Completed cash, check, and electronic transfers of funds, opened and closed accounts, and set up direct payroll disbursements. Performed clerical duties and data entry in the Account Services and Fraud Investigation Departments.

EDUCATION

1997 — Miami-Dade College — Miami, FL

- A.A., Pre-Bachelor of Arts
- Major: Anthropology
- Graduated cum laude with Honors and Distinction
- Outstanding Academic Achievement Award; Dean's List

SKILLS AND CERTIFICATIONS

- First Aid; Adult, Infant, and Child CPR; AED; and Basic Water Rescue
- Proficient in digital editing software, Adobe Acrobat, and Microsoft Office Programs: Access, Excel, Outlook, PowerPoint, Publisher, and Word

JORGE ZAMANILLO
16201 SW 87 Court
Miami, Fl. 33157

home (786) 573-0455
office (305) 375-1613

Board Member of the City of Miami Historical and Environmental Preservation Board from May 2000-October 2003.

-Experience includes reviewing applications for major use special permits for archaeological projects within the City of Miami including the One Miami development.

Professional Experience

Historical Museum of Southern Florida **November 2000-present**
Curator of Object Collections: Responsible for the acquisition, care and handling of all 3-dimensional objects, along with exhibition responsibilities with other curators. Involved in design, research, and construction of exhibits. Responsible for archaeological collections.

Archaeological and Historical Conservancy, Inc. **February 1988-October 2000**
Archaeologist: Field director in charge of archaeological excavations, surveys, mapping, photography, and supervision of field crew.

Projects included: Excavations and research at the Miami Circle site in downtown Miami and over 30 archaeological surveys within the City of Miami

Researcher/Writer: Responsible for researching and documenting information concerning archaeological sites and Florida history, and writing and editing reports, grants, and proposals.

Project Manager: In charge of directing projects from inception to completion. Tasks included directing staff, coordinating and attending relevant project meetings and review of all projects for sufficiency and compliance.

Education

Florida State University, Tallahassee, Fl.
B.A. Anthropology/minor in **History**, 1991

Miami-Dade Community College, Miami, Fl.
A.A. General Studies/Music, 1989

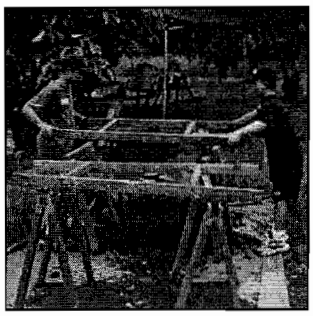
Miami Senior High School, Miami, Fl.
High School Diploma, 1987

Foreign languages: Fluent in Spanish

Affiliations: Florida Anthropological Society, Archaeological Society of Southern Florida, American Anthropological Association

STEPPING THROUGH TIME:
TRACING THE FOOTSTEPS OF THE TEQUESTA AND EARLY MAN'S CONNECTION TO HIS NATURAL ENVIRONMENT

Appendix B
Letters of Commitment



Archaeological and Historical Conservancy, Inc.
4800 S.W 64th Ave, Suite 107 Davie, FL 33314
Phone: 954-792-9776 Fax: 954-792-9954
Email: archlgcl@bellsouth.net Web: www.flarchaeology.com

January 8, 2010

Implementation Grants: America's Historical and Cultural Organizations
Division of Public Programs, National Endowment for the Humanities
Room 426
1100 Pennsylvania Avenue, N.W.
Washington, D.C. 20506

Re: NEH Grant Application from The Deering Estate at Cutler, Miami-Dade County Park and Recreation Department

Dear NEH Grant Review Panel:

We strongly support the grant proposal submitted by Miami-Dade County, Deering Estate Park at Cutler. Widely enjoyed by residents throughout the County and tourists from out of state and abroad, the Deering Estate at Cutler (Estate) embodies the best of cultural, historical, and nature-based tourism and community education. If awarded, funds from the National Endowment for the Humanities will help the Park facilitate substantial enhancements to its existing archaeological resources, interpretive programs, and curriculum.

The purpose of the proposed project is to deepen the public's understanding of Florida's and our nation's archaeological and historical past. Enhancements involve broadening responsible public access to the Estate's three archaeologically sensitive sites, creating onsite interpretive exhibits in which previous dig findings will be introduced, and improving the overall educational programming offered by the Estate in the field of archaeology.

As a partner, the Archaeological and Historical Conservancy will serve as designer and lead consultant for the mock archaeological dig site. The interpretive program will include two thatch roofed dig pits, 2m x 6m; graphic panels using zoomorphic motifs and decorative patterns associated with Tequesta culture and aesthetic; thatched message board kiosk; log benches with carved bases for outdoor classroom to accommodate 36 students; and a carved pole supported canvas top shelter for seating.

AHC staff will additionally provide expertise on an interpretive exhibit to complement overall *Stepping Through Time: Tracing the Archaeological Footsteps of the Tequesta* program. The AHC has a long history of discovery and documentation of Deering Estate's archaeological sites. Beginning in 1985 with the discovery of the Cutler Fossil site to subsequent surveys across the Estate, we have partnered with the County to insure site protection balanced with public access. This grant will complete our public commitment by interpreting the Estate's rich archaeological heritage and creating educational experiences.

This project will offer a tremendous and lasting benefit to the South Florida community. It will significantly raise awareness to our community's history and archaeological resources, while

broadening community participation in unique, meaningful, and learning experiences not otherwise available.

I eagerly endorse the project and urge your support.

Sincerely,

Robert S. Carr
Executive Director

FLORIDA PUBLIC ARCHAEOLOGY NETWORK

WWW.FLPUBLICARCHAEOLOGY.ORG

Southeast Region
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Southwest Region
Steve Archer
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January 11, 2010

Implementation Grants: America's Historical and Cultural Organizations
Division of Public Programs, National Endowment for the Humanities
Room 426
1100 Pennsylvania Avenue, N.W.
Washington, D.C. 20506

Re: NEH Grant Application – Stepping Through Time, Miami-Dade County Park and Recreation Department, Deering Estate at Cutler

Dear NEH Grant Review Panel:

We strongly support the grant proposal submitted by Miami-Dade County, Deering Estate at Cutler. The Deering Estate at Cutler embodies the best of cultural, historical, and nature-based community education and recreation as it is enjoyed by local and visiting people. If awarded, funds from the National Endowment for the Humanities will help the public park facilitate substantial enhancements to its existing archaeological resources, interpretive programs, and humanities curriculum.

The purpose of the proposed project is to deepen the public's understanding of Florida's and our nation's archaeological and historical past. Enhancements involve broadening responsible public access to the Estate's three archaeologically sensitive sites, creating onsite interpretive exhibits in which previous excavation findings will be interpreted, and improving the overall educational programming offered by the Estate.

As a partner, the Florida Public Archeology Network (FPAN) will serve as a resource to for curriculum development, educational programming and professional development workshops for educators and archeology enthusiasts. These activities will help the Estate increase public understanding of Florida's archaeological heritage. FPAN staff will additionally provide expertise on the *Stepping Through Time* interpretive exhibit. FPAN has a long history of educational programming with the Estate with previous activities ranging from tours to teacher trainings.

This project will offer a tremendous and lasting benefit to the South Florida community. With the development of an interactive exhibit, chronicling important historical settlement eras and providing portraits of people as they lived on the land we now call the Deering Estate at Cutler, we can contribute far more to the understanding of our past than mere textbook study.

We eagerly endorse the project and urge your support.

Sincerely,

Michele Williams, Ph.D., RPA
Director
Southeast Region—Florida Public Archaeology Network

Department of Planning and Zoning
Stephen P. Clark Center
111 NW 1st Street • Suite 1210
Miami, Florida 33128-1902
T 305 375-2808

miamidade.gov

January 8, 2010

Implementation Grants: America's Historical and Cultural Organizations
Division of Public Programs
National Endowment for the Humanities, Room 426
1100 Pennsylvania Avenue, N.W.
Washington, D.C. 20506

Re: NEH Grant Application for "Stepping Through Time" at the Deering Estate at Cutler

Dear NEH Grant Review Panel:

Our office strongly supports the grant proposal before you that was submitted by The Deering Estate at Cutler, a Miami-Dade County Park and Historical Site. The wealth of ecological, archaeological, and historic resources that are actively preserved at the Estate offers a wonderful opportunity to communicate the ongoing relationships between man and his environment since pre-historic times.

The overall purpose of the proposed project is to deepen the public's understanding of the unique character of the ancient Tequesta - a complex hunter gatherer society who once occupied southeastern Florida - their interaction with their environment, their role in early history, and the potential contribution of archeological sites located on the Estate to understanding broader patterns of American Indian history, art, architecture, exchange, rituals, and religion.

If awarded, funds from the National Endowment for the Humanities will help the public park facilitate substantial enhancements to its existing archaeological resources, interpretive programs, and humanities curriculum. Enhancements involve broadening responsible public access to the Estate's three archaeologically sensitive sites, creating onsite interpretive exhibits in which previous dig findings will be introduced, and improving the overall educational programming offered by the Estate.

This project will offer a tremendous and lasting benefit to the South Florida community, and we eagerly endorse the project and urge your support.

Sincerely,

Kathleen Kauffman

Kathleen Slesnick Kauffman
Preservation Chief

January 12, 2010

Re: NEH Grant Application – Stepping Through Time, Miami-Dade County Park and Recreation Department, Deering Estate at Cutler

Dear NEH Grant Review Panel:

The Archaeological Society of Southern Florida strongly supports the grant proposal submitted by the Miami-Dade County, Deering Estate at Cutler. The wealth of archaeological, and historic resources preserved at the Estate present a wonderful opportunity to communicate the human story to that of the history and pre-history of Southern Florida. This grant will help this public park facilitate substantial enhancements to its existing archaeological resources, interpretive programs, and humanities curriculum.

The Archaeological Society of Southern Florida believes that this proposed project will deepen the public's understanding of Florida's and our nation's archaeological and historical past. Enhancements we support include: better public access to the Deering Estate's three archaeologically sensitive sites; creating onsite interpretive exhibits in which previous dig findings will be introduced; and improving the overall educational programming offered by the Deering Estate.

The Archaeological Society of Southern Florida is the oldest advocational / educational Anthropological Society in Florida (our 63rd year in 2010) We serve an advocacy and educational role in our community. Our Society has a long history of collaboration with the Deering Estate. We co-host an annual Archaeology Day to increase public awareness of the rich archaeological and historic resources South Florida has to offer. Additionally, we collaborate with the Deering Estate on a free public lecture program held monthly at the Deering Estate at Cutler auditorium.

This grant will complement our public commitment to advocate, educate, and preserve our local and national history. This project will offer a tremendous and lasting benefit to the South Florida community. We eagerly endorse this project and urge your support.

Sincerely,

Brian Conesa
Treasurer /ASSF

Chair
Dr. Edmund I. Parnes

Vice Chair
Dr. Michael N. Rosenberg

Secretary
Carolina Rendeiro

Treasurer
Faith Mesnekoff

At Large Representative
Robert L. Parks

Past Chair
Dennis M. Campbell

Pedro A. Fernandez
William T. Gallagher
Joel S. Gordon
Kenneth M. Gordon
Sara M. Gutiérrez-Hernandez
Phillip Hudson III
Douglas D. Jolly
Jorge Luis Lopez
Leslie J. Lott
Donald Lutton
Laura Pincus
Maria M. Ruiz
Francis X. Sexton
Hon. Scott J. Silverman
Hon. Donald D. Slesnick II
Libby J. Smith
Ricardo Taño Feijoó
Mark A. Trowbridge
Ellen J. Uguccioni
Raul G. Valdés-Faúli, Jr.

President/CEO
Robert H. McCammon

Founded in 1940

Accredited by the
American Association of
Museums

January 23, 2009

Implementation Grants: America's Historical and Cultural Organizations
Division of Public Programs
National Endowment for the Humanities
Room 426
1100 Pennsylvania Avenue, N.W.
Washington, D.C. 20506
202-606-8269

Re: NEH Grant Application from the Deering Estate at Cutler, Miami-Dade County Park and Recreation Department

Dear NEH Grant Review Panel:

Please accept this letter of support for the grant proposal submitted by Miami-Dade County, Deering Estate at Cutler. The Deering Estate at Cutler (Estate) embodies the best of cultural, historical, and nature-based tourism and community education. If awarded, funds from the National Endowment for the Humanities will help the Estate facilitate substantial enhancements to its existing archeological resources, interpretive programs, and curriculum

The purpose of the proposed project is to deepen the public's understanding of Florida's and our nation's archaeological and historical past. Enhancements involve broadening responsible public access to the Estate's three archeologically sensitive sites, creating onsite interpretive exhibits in which previous dig findings will be introduced, and improving the overall educational programming offered by the Estate in the field of archeology.

The Historical Museum of Southern Florida supports the proposed enhancements and is available as a resource for research and input during the planning and implementation stages of the project. Interpretation of the cultural resources on the Estate grounds will greatly enhance the existing visitor experience. This project will also offer a lasting benefit to the South Florida community. It will significantly raise awareness to our region's history and archeological resources, while broadening community participation in unique, and meaningful, learning experiences.

Sincerely,

Jorge Zamanillo
Curator of Object Collections

January 8, 2010

Implementation Grants: America's Historical and Cultural Organizations
Division of Public Programs, National Endowment for the Humanities
Room 426
1100 Pennsylvania Avenue, N.W.
Washington, D.C. 20506

Re: NEH Grant Application – Stepping Through Time, Miami-Dade County Park and Recreation Department, Deering Estate at Cutler

Dear NEH Grant Review Panel:

I am writing to share with you what an incredible impact the Eco-Academy at Deering Estate at Cutler had on our family this past year. The 444-acre Estate preserves a wonderful variety of natural, archeological, historical and cultural resources for all ages and abilities to enjoy. This program broadened our perspective and increased our knowledge of what Native Natural South Florida has to offer... who would have known that such a treasure lay so close!?! I would recommend this program to anyone who wants to go above and beyond what most educational programs are offering today!

So, of course, we strongly support the grant proposal submitted by Miami-Dade County, Deering Estate at Cutler. If awarded, funds from the National Endowment for the Humanities will help the public park facilitate substantial enhancements to its existing archaeological resources, interpretive programs, and humanities curriculum available for youth and families.

The purpose of the proposed project is to deepen the public's understanding of both Florida and our nation's archaeological and historical past. Enhancements involve broadening responsible public access to the Estate's three archaeologically sensitive sites, creating onsite interpretive exhibits in which previous dig findings will be introduced, and improving the overall educational programming offered by the Estate as part of onsite or outreach programs.

As a homeschool parent, our collaboration with the Estate is extremely important and we have thoroughly enjoyed the educational programs the Estate has offered so far. My parents, my children and I will continue to be advocates and participants in these programs as they are developed. This project will offer a tremendous and lasting benefit to the South Florida community. We eagerly endorse the project and thank you in advance for your support.

Sincerely, Susan M. Fraga

Susan M. Fraga, Eco-Academy Participant
Sara Platz, future Eco-Academy Participant
Robert Platz, future Eco-Academy Participant
Briana Fraga, Eco-Academy Participant
Manuela Joy Fraga, Eco-Academy Participant
susanfraga@hotmail.com
305-882-9008

STEPPING THROUGH TIME:
TRACING THE FOOTSTEPS OF THE TEQUESTA AND EARLY MAN'S CONNECTION TO HIS NATURAL ENVIRONMENT

Appendix C
Bibliography of Sources

Appendix C: Bibliography of Sources

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STEPPING THROUGH TIME:
TRACING THE FOOTSTEPS OF THE TEQUESTA AND EARLY MAN'S CONNECTION TO HIS NATURAL ENVIRONMENT

Appendix D
List of Objects

Appendix D: List of Objects

The objects, images, and documents presently held on site that will be included in the proposed exhibit and education/programs include:

- Pleuroploca gigantea – Horse Conch – Hammer
- Pleuroploca gigantea – Horse Conch – Columella Hammer
- Pleuroploca gigantea – Horse Conch – Columella Cutting Tool
- Pleuroploca gigantea – Horse Conch – Columella Cutting Edge Tool/Gauge
- Pleuroploca gigantea – Horse Conch – Chisel
- Busycon sinistrum - Lightening whelk - Blank
- Busycon sinistrum - Lightening whelk - Dipper
- Strombus gigas – Queen Conch - Blank
- Strombas gigas - Queen Conch - Celts
- Strombas gigas - Queen Conch - Hand Tools
- Busycon sinistrum - Pear Welk - Columellae Drills - Leather Working Tools
- Odocoileus virginianus - Metapodial (toe) Bone Points – Leather Working Tools
- Faunal Bone - Assorted
- Pottery pieces belonging to different horizons

Proposed reproductions of artifacts originally held on the Estate but subsequently de-accessioned on March 24, 2004 to the Historical Museum of South Florida are as follows:

- Request Photo Image of Human Skull Fragment / Paleo-Indian / From the Cutler Fossil Site (Oldest Known Human Remains in South Florida)
- Request Photo Image of Human Skull Fragment / Paleo-Indian / From the Cutler Fossil Site (Oldest Known Human Remains in South Florida)
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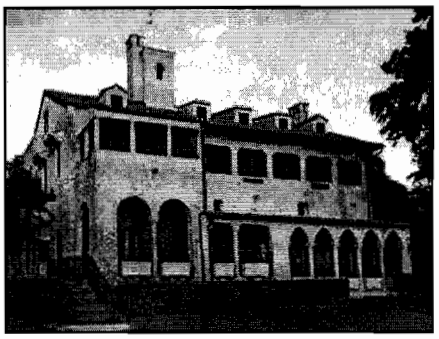
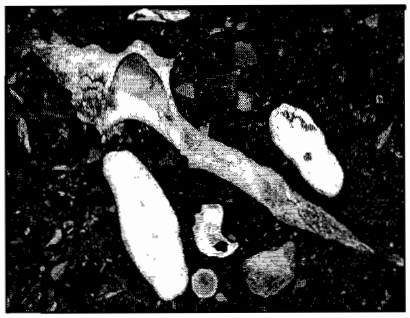
- Request Photo Image of Human Skull Fragment / Paleo-Indian / From the Cutler Fossil Site (Oldest Known Human Remains in South Florida)
- Request Artifact Reproduction of Dire Wolf Tooth / Cutler Fossil Site
- Request Artifact Reproduction of Boar Tooth / Cutler Fossil Site
- Request Artifact Reproduction of Plesistocene Horse Bone from The Cutler Fossil Site
- Request Artifact Reproduction of Tequesta Indian Shell Celt
- Request Artifact Reproduction of Tequesta Indian Shell Celt Used For Making Wooden Canoes
- Request Artifact Reproduction of Tequesta Busycon Adze



STEPPING THROUGH TIME:
TRACING THE FOOTSTEPS OF THE TEQUESTA AND EARLY MAN'S CONNECTION TO HIS NATURAL ENVIRONMENT

Appendix E

Description of Project-based Collections or Other Resources



Appendix E: Description of Project-based Collections or Other Resources

The Deering Estate at Cutler Archeological Collection

In 1979, the Cutler Fossil site was recorded by the Miami-Dade County Preservation Division and at that time, no systematic archaeological survey had been conducted on any part of the Deering Estate at Cutler. The Cutler Fossil site, located on the Estate, contained the fossilized remains from now extinct animals including peccaries, mammoths, sloths, dire wolves, and saber tooth tigers dating back 100,000 years. This site also contained fossilized remains of early inhabitants who occupied the lands of the Deering Estate. Most of these sensitive artifacts were carefully excavated in 1986 and are part of archive collections at the Historical Museum of Southern Florida and the Florida Museum of Natural History in Gainesville.

The Deering Estate at Cutler only maintains a small collection of original artifacts on site. Very soon after renovations were completed to open the Estate to the public in 1992, the Estate was severely damaged by Hurricane Andrew. All sensitive art, furnishings, documents, photographs, and artifacts had been moved to appropriate museum storage facilities elsewhere in the County. Once the Estate re-opened to the public in 1999, only a small collection of these items were returned. Over time, original pieces have made their way back to the Estate by permanent transfer or our interagency loan programs. The list below represents those items specific to the Deering Estate at Cutler that we propose be included in the interpretive and educational exhibits at this time.

The objects, images, and documents presently held on site that will be included in the exhibit and education/programs include:

- *Pleuroploca gigantea* – Horse Conch – Hammer
- *Pleuroploca gigantea* – Horse Conch – Columella Hammer
- *Pleuroploca gigantea* – Horse Conch – Columella Cutting Tool
- *Pleuroploca gigantea* – Horse Conch – Columella Cutting Edge Tool/Gauge
- *Pleuroploca gigantea* – Horse Conch – Chisel
- *Busycon sinistrum* - Lightening whelk - Blank
- *Busycon sinistrum* - Lightening whelk - Dipper
- *Strombus gigas* – Queen Conch - Blank
- *Strombas gigas* - Queen Conch - Celts
- *Strombas gigas* - Queen Conch - Hand Tools
- *Busycon sinistrum* - Pear Welk - Columellae Drills - Leather Working Tools
- *Odocoileus virginianus* - Metapodial (toe) Bone Points – Leather Working Tools
- *Faunal Bone* - Assorted
- Pottery pieces belonging to different horizons

Reproductions of artifacts originally held on the Estate but subsequently de-accessioned on March 24, 2004 to the Historical Museum of South Florida.

- Request Photo Image of Human Skull Fragment / Paleo-Indian / From the Cutler Fossil Site (Oldest Known Human Remains in South Florida)
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- Request Artifact Reproduction of Tequesta Indian Shell Celt Used For Making Wooden Canoes Request Artifact Reproduction of Tequesta Busycon Adze

Included reference list of historical documents:

Document reproduction. January 23, 1568. Letter of Brother Francisco de Vallarreal to Father Juan Rogel sited in Ugaarte, Ruben Vargas. "First Jesuit Mission in Florida." Hisotrical Records and Studies 25 (1935): 75-79 Translation edited by Eugene Lyon.

Photo reproduction. 1986. Series of 45 photos taken from the Cutler Fossil Site excavation. These photos chronical the process and the artifacts found.

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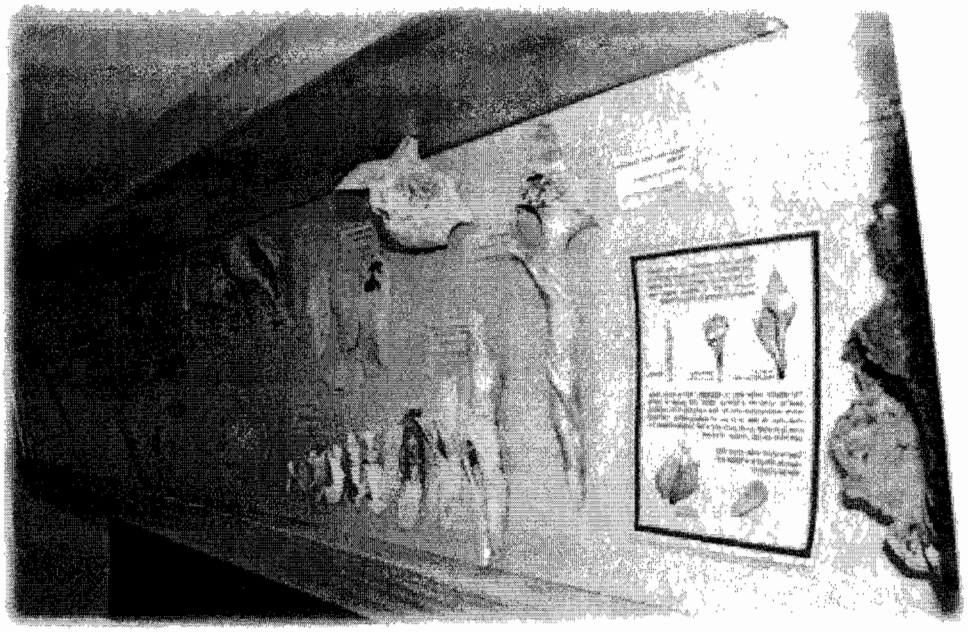
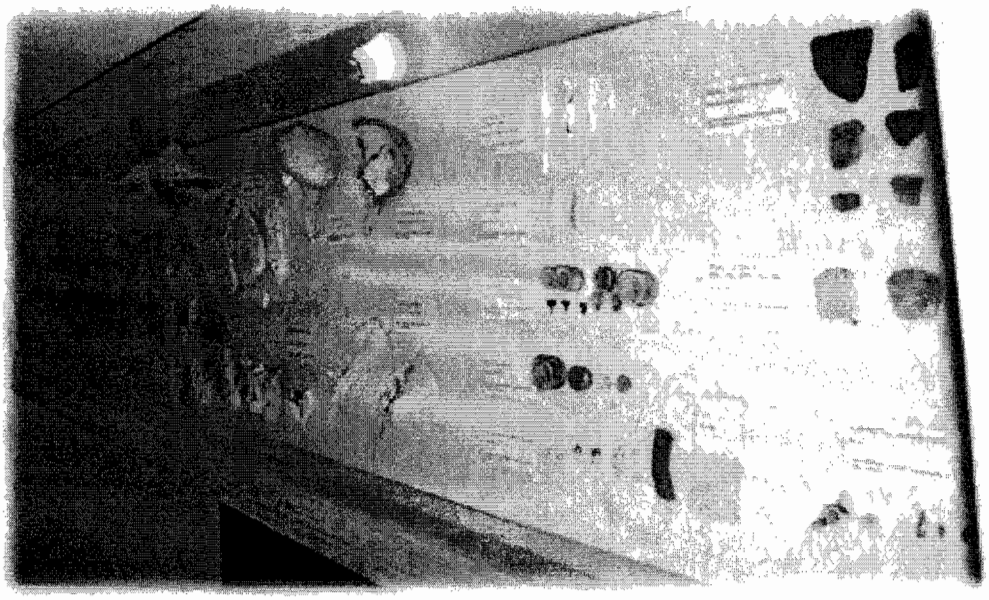
CUTLER BURIAL MOUND & MIDDEN





LIVING OFF THE LAND *The interpretive text on this exhibit marker tells what archaeologists know about the Tequesta based upon artifacts and historic documents. It features an excerpt from a letter written by a 16th century Jesuit missionary who lived in the main village. This letter gives first-hand account of Tequesta beliefs about illness and death and provides glimpses of their hunter, fisher, and gatherer life.*

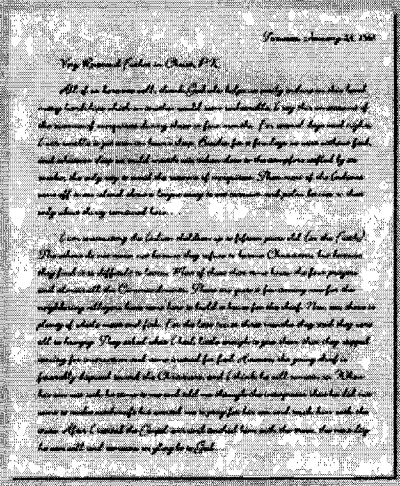
TEQUESTA

PEOPLE OF BISCAYNE BAY

The Tequesta were a Native American tribe that lived on Florida's southeast coast from Jupiter Inlet to Cape Sable and perhaps part of the Florida Keys. They were one of the first people Ponce de Leon encountered in 1513. The Spanish attempted twice to establish missions at the Tequesta main village at the mouth of the Miami River. Both attempts failed, but European explorers and missionaries wrote about their experiences with the Native people, providing modern scholars with glimpses of a lost way of life.

Europeans described Tequestas as tall and brown-skinned with long hair and sharpened fingernails and toenails. The Indians wore little clothing: a breechcloth of woven palm fibers for men, a skirt of moss for women, and adornments of bone, shell and feathers. They did not farm but relied, instead, on the bounty of the sea and the land for food. Fish, shellfish, turtles, marine mammals, and deer made up the bulk of their diet. This they supplemented with gathered fruits. They eschewed the local limestone for tool-making but carved canoes, wooden masks and animal effigies with adzes, chisels, drills, and hammers made from heavy conch shells. They were closely associated with the Jeaga tribe directly to the north and were a chiefdom of the dominant Calusa tribe of Florida's southwest coast.

Within 250 years of meeting Juan Ponce de Leon, Florida's Native tribes were gone; the Tequesta village, empty. All of Florida's indigenous tribes succumbed to Old World diseases, slavery, intertribal conflicts, and displacement. The last official record of their existence dates to the end of the Seven Years' War: As Spanish settlers left Florida for Cuba in 1763, a remnant population of Florida's original inhabitants went with them. Shortly after arriving in Havana, most fell ill and died. They were never heard from again as a cohesive group.

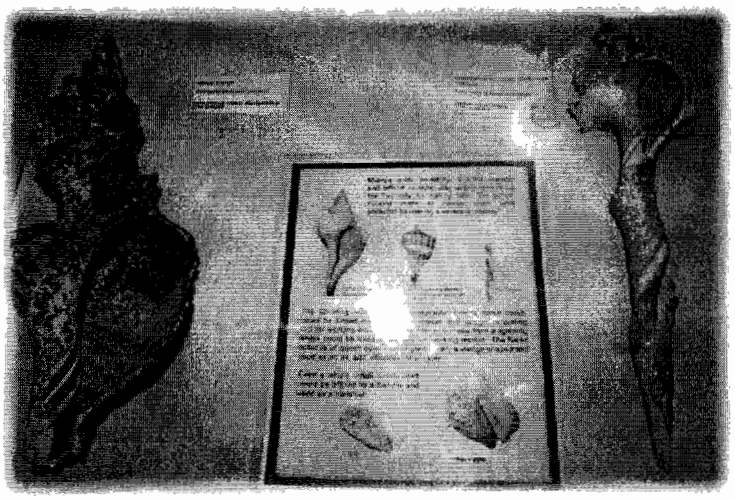


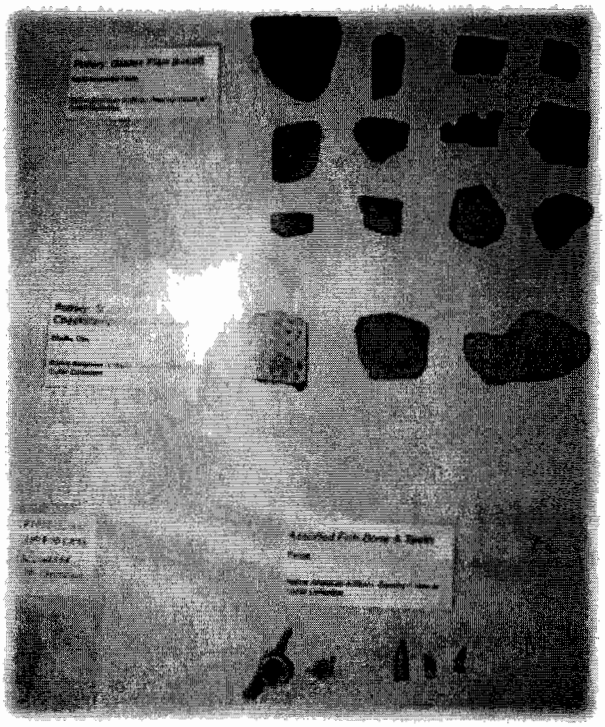
Tocoma, January 26, 1760

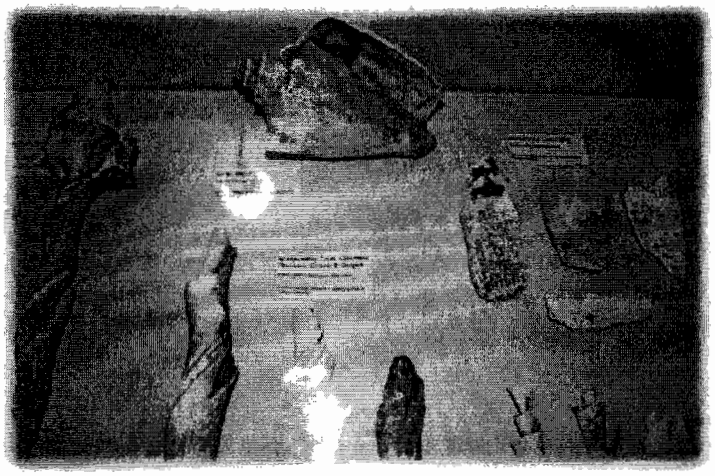
Very Reverend Father in Christ, P.X.

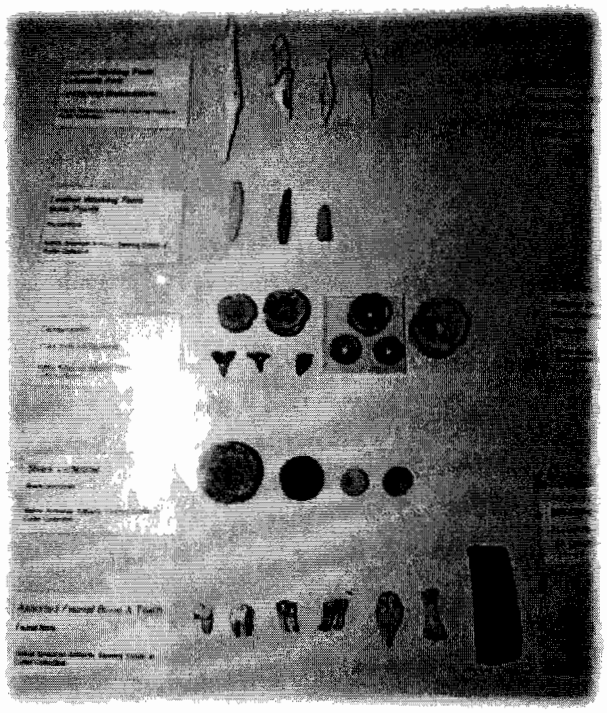
All of us have now left, thank God the helpless only children who have been [illegible] [illegible] [illegible]

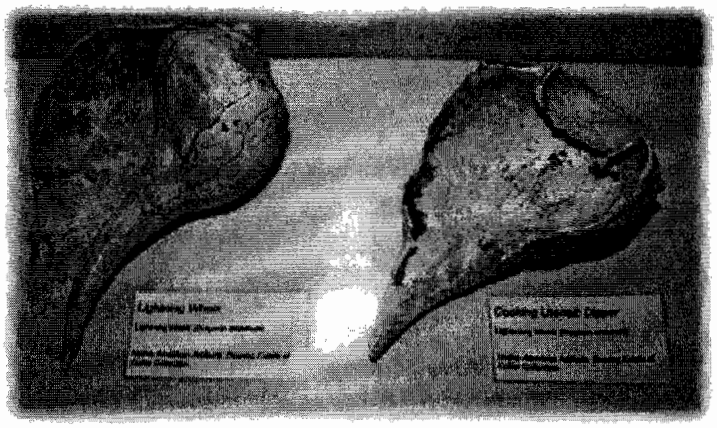
SHELL, BONES AND POTTERY











Inside the display case are artifacts made by the Tequesta that support what scientists know about their culture. As a coastal society without access to metals, the Tequesta eschewed the brittle local rock for tool-making, preferring instead the dense shells of marine snails and faunal bone for most of their artifacts. Pottery was a common household item and local pottery is easily distinguished from trade goods by the sand tempering that gives Tequesta pottery its distinctive gritty texture.

TEQUESTA CUTLURAL SITES

THE CUTLER BURIAL MOUND & MIDDEN

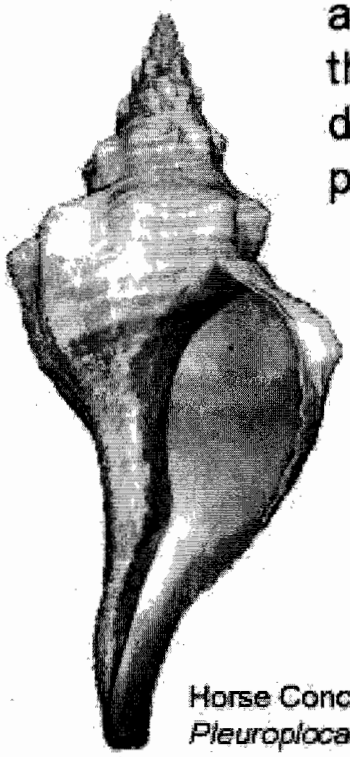
ARCHEOLOGISTS can learn a lot about life in the past by studying the things that people threw away. Where they lived, what they ate, how they made their tools: These are the kinds questions that can be answered by examining middens--places where ancient people discarded the things they no longer needed. One such place lies near a freshwater spring at the Deering Estate. The Cutler Midden marks a habitation site used by Tequesta Indians centuries ago. Its black earth contains chipped and broken conch shells from tool-making (below left), oyster shells and sea turtle bones from past meals (below right), and broken pieces of pottery from food storage and preparation. These and the many other artifacts contained within the midden support what archeologists know about Tequesta culture.

THE CUTLER BURIAL MOUND contains fragmented bones from as many as 15 to 18 individuals and lies along a road that once joined two Tequesta settlement sites: The main village at the mouth of the Miami River and a secondary site by a freshwater spring at the Deering Estate at Cutler. Its age has not been officially determined, but scientists believe that it probably dates to between 600 and 1,100 years ago. The mound has not been excavated by an archaeologist; however, pioneer entrepreneur Henry E. Perrine investigated it in 1876-77, documenting the exploit in his memoir, A True Story of Some Eventful Years in Grandpa's Life.

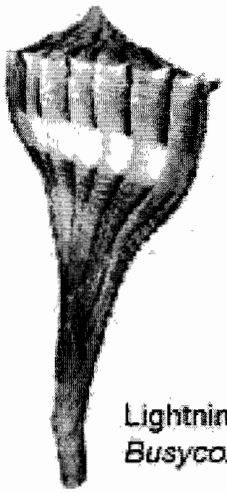
"Using a pick and spade we soon came to skulls and bones of both adults and children, the skulls in nearly every instance showed that they had been buried with face downwards, and with the tops toward the centre of the mound. It seemed as though the heads only had been placed in position, for they were near the outer rim of the mound and none of the larger bones of the limbs beyond.... I was disappointed in not finding any utensils or other relics. Noting the position of the heads we thought we might find something of value in the centre of the mound, but discovered nothing."

Today, the burial mound at the Estate (shown above) is one of only two or three left in existence within Miami-Dade County and is a protected archeological site.

Miami's oolitic limestone, a brittle material and difficult to work, was largely ignored by the Tequesta for making tools. The dense, durable shells of marine snails were preferred for making a variety of objects.



Horse Conch
Pleuroploca gigantean

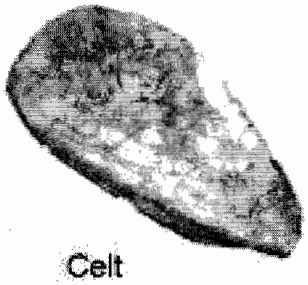


Lightning Whelk
Busycon sinistrum

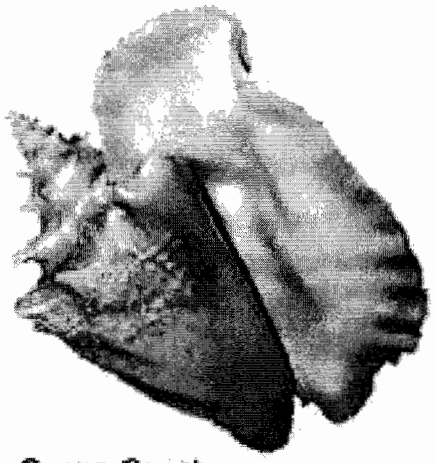
Collumella

The spiraling center axis, or *collumella*, from a horse conch could be turned into a hammer, chisel, drill, gouge, or cutting tool for working wood, while the finer collumella from a lightning whelk could be used as an awl for working leather. The flared outer lip of queen conch could yield a celt, a wedge-shaped tool used as an ax, adz, chopper, or scraper.

Even a whole small conch shell could be affixed to a handle and used as a hammer.

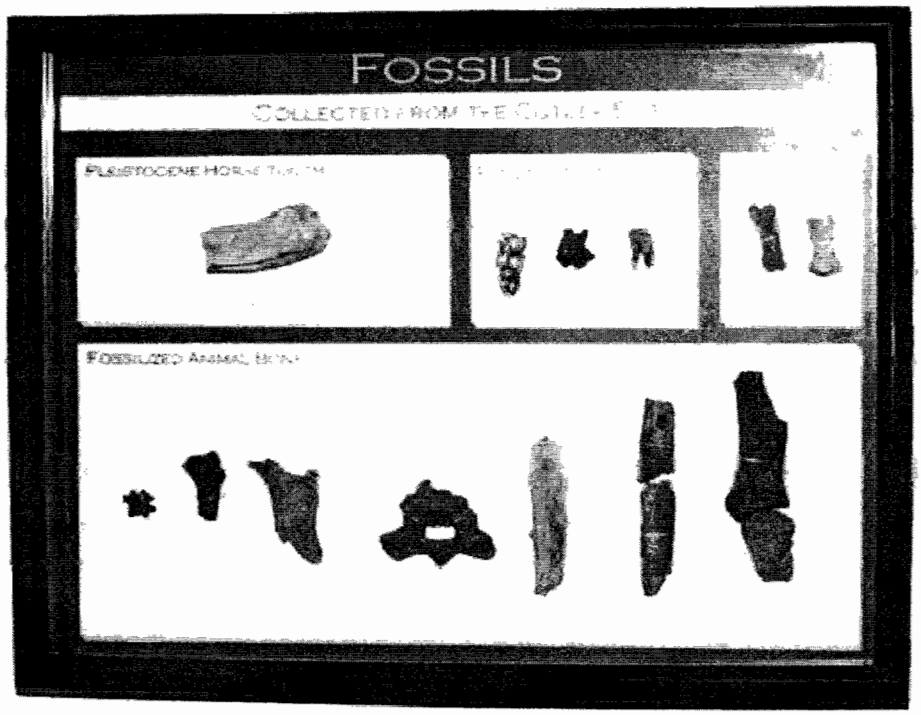


Celt

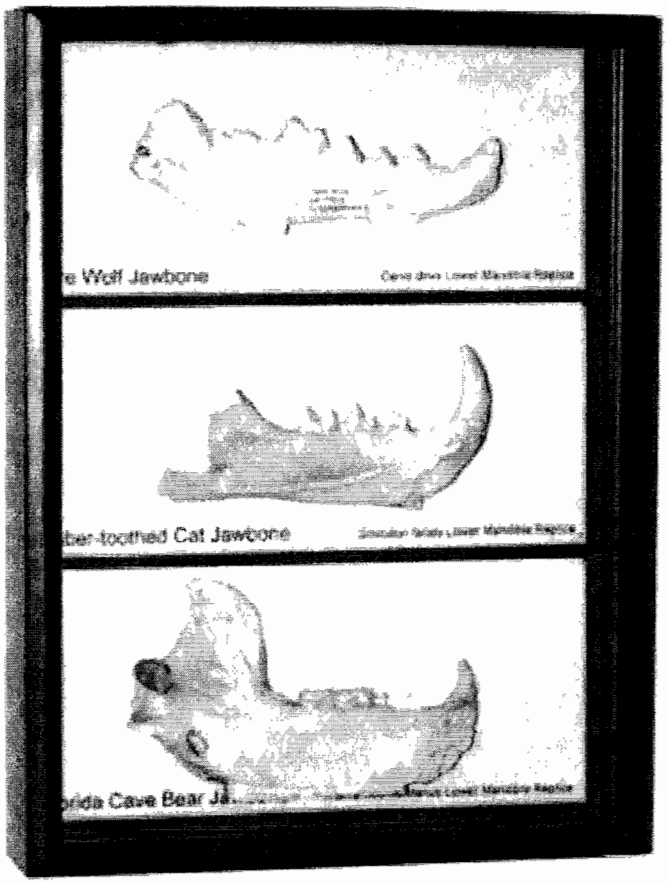


Queen Conch
Strombus gigas

PALEO INDIAN AND PLACE IN A CHANGING ENVIRONMENT



This exhibit places the arrival of humans at the cusp of changing climactic conditions that would alter the way culture would develop in this area. The extinction of predators and mega fauna allowed smaller animal to predominate and paved the way for human settlement. However, the Deering Estate was located further inland during Paleo-Indian occupation, and instead of a culture based on marine resources, we encounter small-game hunters using fire-tempered stone tools.



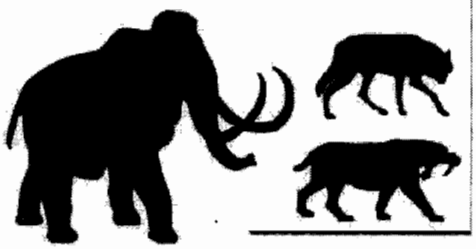
THE CUTLER FOSSIL SITE

PORTAL TO THE PAST

In 1985, archaeologist Robert Carr excavated a solution hole on property owned by Charles Deering's grandchildren, James Deering Danielson and Marion Campbell. The excavation would uncover surprising evidence of some of South Florida's earliest inhabitants. Fourteen months of digging at the Cutler Fossil Site yielded remains from more than fifty species of animals, including many that became extinct at the end of Earth's last glacial period. It also revealed human remains and a hearth with charred animal bones that carbon dated to nearly 10,000 years ago.

Scientists studying the nearly 300,000 artifacts and fossils excavated from the site theorized that ancient predators used the cave-like solution hole as a den. After the den was abandoned, about 10,000 to 11,000 years ago, Paleoindians from the north may have sheltered there while hunting large animals in the grasslands that would become Biscayne Bay and the Florida Everglades. Archaic people later took up residence, cooking their meals of smaller game on the hearth.

After the dig, Danielson and Campbell sold the 38-acre property that included the Cutler Fossil Site to the State of Florida, and it became part of the Deering Estate at Cutler. The solution hole was backfilled to preserve it, and today it remains one of Miami-Dade County's most significant and unique archaeological treasures.



Modern Horizon

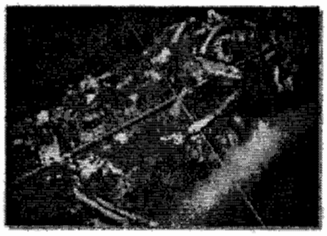
The upper layer was greatly disturbed by vandals who took many fossilized animal bones. Some of this material was later recovered.

Strata of sandy soil, reddish-brown sediment and clay protected deeper horizons from collectors

Prehistoric Horizon—9,500 to 10,000 B.P. (Before Present)

This layer contained stone artifacts and charred bones, mainly from deer and rabbit. Drills and projectile points were made from chert, a rock transported from areas at least 200 miles to the north. Scrapers and knives were made from indigenous limestone, a normally brittle rock that was fire-tempered for strength. Under a ledge, excavators found human remains. These bones indicated burials that may have been disturbed by scavenging animals.

A charcoal sample from the hearth dated to 9760 ± 120 years B.P., the beginning of the Holocene epoch (10,000 years ago to today).



Fossil Horizon—10,000 to 20,000 B.P.

Cemented within the sediment, excavators discovered fossilized bones of extinct Pleistocene animals, including Columbian mammoth, dire wolf, and saber-toothed cat.

The Pleistocene epoch (1.8 million to 10,000 years ago) was characterized by many glacial and interglacial periods. The last glacial period ended when rising temperatures melted ice sheets covering large parts of the northern hemisphere, causing great changes to the earth's ecosystems and landmasses. These changes, along with the migration of humans into new regions, may have lead to mass extinctions of large mammals.

ANIMALS

EXCAVATED FROM THE CUTLER FOSSIL SITE

EXTINCT: Scientists identified four large carnivores and several prey species from the Cutler Fossil Site that no longer exist in today's world. When these animals lived more than 10,000 years ago, South Florida was cooler and dryer, closely resembling the present-day African Plains.

Canis dirus – Dire wolf
Dasypus bellus – Beautiful armadillo
Equus sp. – Pleistocene Horse
Glossotherium harlani – Harlan's ground sloth
Hemiauchenia macrocephala – Large-headed llama
Holmesina septentrionalis – Giant armadillo
Mammut americanum – American mastodon
Mammuthus columbi – Columbian mammoth
Mylohyus fossilis – Pleistocene peccary
Panthera leo atrox – American lion
Platygonus compressus – Flat-headed peccary
Pteronotus pristinus – Pristine mustached bat
Smilodon fatalis – Saber-toothed cat
Tremarctos floridanus – Florida cave bear

EXTANT: The Site also contained fossils from animals that are still found in Florida today. Most of these were from small to medium-sized rodents, insectivores and scavengers suited to the region's wetter, warmer present-day conditions.

Brachylagus sp. – Rabbit
Buteo sp. – Hawk
Canis latrans – Coyote
Canis sp. – Coyote, dog, or wolf
Cryptotis parva – Least shrew
Didelphis virginiana – Virginia opossum
Eptesicus fuscus – Big brown bat
Felis concolor – Panther
Geomys pinetis – Southeastern pocket gopher
Glaucomys volans – Southern flying squirrel
Lutra canadensis – River otter
Lynx rufus – Bobcat
Mehphitis mephitis – Striped skunk
Microtus pinetorum – Woodland vole
Mormoops megalophylla – Ghost-faced bat
Myotis austroriparius – Southeastern myotis bat
Neofiber alleni – Round-tailed muskrat
Neotoma floridana – Eastern woodrat
Nycticeius humeralis – Evening bat
Odocoileus virginianus – White-tailed deer
Oryzomys palustris – Rice rat
Peromyscus gossypinus – Cotton mouse
Peromyscus polionotus – Oldfield mouse
Podomys floridanus – Florida mouse
Procyon lotor – Raccoon
Scalopus aquaticus – Eastern mole
Sciurus carolinensis – Eastern gray squirrel
Sciurus niger – Eastern fox squirrel
Sigmodon hispidus – Hispid cotton rat
Spilogale putorius – Eastern spotted skunk
Sylvilagus floridanus – Eastern cottontail
Urocycon cinereoargenteus – Gray fox

EXTIRPATED: A few species no longer occur in Florida but still exist elsewhere.

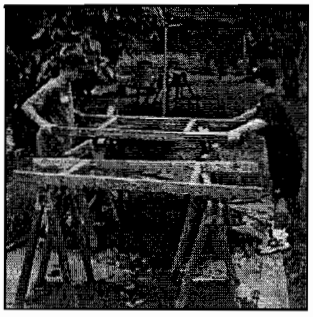
Bison bison – American bison
Gymnogyps californianus – California condor
Panthera onca – Jaguar

Fossil Mastodon Tooth

Fossilization *can occur when sediment covers an animal's remains soon after it dies. Under the right conditions, minerals from the sediment slowly replace the body parts that take longest to decay, like bones and teeth. The resulting fossils look like the original tissues but have many rock-like characteristics.*

STEPPING THROUGH TIME:
TRACING THE FOOTSTEPS OF THE TEQUESTA AND EARLY MAN'S CONNECTION TO HIS NATURAL ENVIRONMENT

Appendix F
Budget



OMB No. 3136-0134
Expires 6/30/09

NATIONAL ENDOWMENT FOR THE HUMANITIES

THREE-YEAR BUDGET FORM

Project Director: Jennifer Tisthammer

Applicant Organization: Miami-Dade County Park and Recreation Dept. - The Deering Estate at Cutler

Requested Grant Period From (mo/yr): September 2010 Thru (mo/yr): August 2012

If this is a revised budget, indicate the NEH application/grant number: _____

The three-column budget has been developed for the convenience of those applicants who wish to identify the project costs that will be charged to NEH funds and those that will be cost shared. **FOR NEH PURPOSES, THE ONLY COLUMN THAT NEEDS TO BE COMPLETED IS COLUMN C.** *The method of cost computation should clearly indicate how the total charge for each budget item was determined. If more space is needed for any budget category, please follow the budget format on a separate sheet of paper.* ***Click HERE to see the detailed instructions.***

SECTION A – Year #1

Budget detail for the period FROM (mo/yr): September/2010 THRU (mo/yr): August/2011

When the proposed grant period is eighteen months or longer, project expenses for each twelve-month period are to be listed separately and totaled in the last column of the budget. For projects that will run less than eighteen months, only the last column of the budget should be completed.

1. Salaries and Wages

Provide the names and titles of the principal project personnel. For support staff, include the title of each position and indicate in brackets the number of persons who will be employed in that capacity. For persons employed on an academic year basis, list separately any salary charge for work done outside the academic year.

Name/Title of Position	No.	Method of Cost Computation (see sample)	NEH Funds (a)	Cost Sharing (b)	Total (c)
Jennifer Tisthammer/Project Manager	[1]	12 mos x 20% @ $80,808	$ 0	$ 16,162	$ 16,162
Jessica Cabral/Project Coordinator	[1]	12 mos x 30% @ $26,936	$ 0	$ 8,081	$ 8,081
Karlissa Callwood/Outreach/School Coordinator	[2]	12 mos x 45% @ $35,126	$ 0	$ 15,807	$ 15,807
Ernest Lent/Naturalist	[1]	12 mos x 10% @ $35,126	$ 0	$ 3,513	$ 3,513
Aimee Scott/Naturalist	[1]	12 mos x 10% @ $26,936	$ 0	$ 2,694	$ 2,694
Yoelly Burgos/Education Coordinator	[1]	12 mos x 30% @ $26,345	$ 0	$ 7,903	$ 7,903
Andres de la Silviera/Naturalist	[1]	12 mos x 10% @ $22,516	$ 0	$ 2,252	$ 2,252
		SUBTOTAL	$ 0	$ 56,410	$ 56,410

2. Fringe Benefits

If more than one rate is used, list each rate and salary base.

Rate		Salary Base	(a)	(b)	(c)
45.86	% of $	56,410	$ 0	$ 25,872	$ 25,872
	% of $		$	$	$
	% of $		$	$	$
		SUBTOTAL	$ 0	$ 25,872	$ 25,872

3. Consultant Fees

Include payments for professional and technical consultants and honoraria.

Name or type of consultant	No. of days on project	Daily rate of compensation	NEH Funds (a)	Cost Sharing (b)	Total (c)
Boardwalk: Architect, Consult., Const. Mgr.			$ 33,177	$ 0	$ 33,177
			$	$	$
			$	$	$
			$	$	$
		SUBTOTAL	$ 33,177	$ 0	$ 33,177

4. Travel

For each trip, indicate the number of persons traveling, the total days they will be in travel status, and the total subsistence and transportation costs for that trip. When a project will involve the travel of a number of people to a conference, institute, etc., these costs may be summarized on one line by indicating the point of origin as "various." All foreign travel must be listed separately.

From/To	#	*	Subsistence Costs +	Transportation Costs =	(a)	(b)	(c)
	[ ]	[ ]	$	$	$	$	$
	[ ]	[ ]	$	$	$	$	$
	[ ]	[ ]	$	$	$	$	$
	[ ]	[ ]	$	$	$	$	$
	[ ]	[ ]	$	$	$	$	$
	[ ]	[ ]	$	$	$	$	$
				SUBTOTAL	$ 0	$ 0	$ 0

- Number of persons * - Total travel days

5. Supplies and Materials

Include consumable supplies, materials to be used in the project and items of expendable equipment (i.e., equipment items costing less than $5,000 and with an estimated useful life of less than a year).

Item	Basis/Method of Cost Computation	(a)	(b)	(c)
Living Classroom Materials (Non Consumable)	comparative market pricing analyses	$ 0	$ 2,500	$ 2,500
Archeological Tools/Equipment (Non Consumable)	comparative market pricing analyses	$ 0	$ 2,500	$ 2,500
Display Cases	comparative market pricing analyses	$ 5,500	$ 0	$ 5,500
GeoMobile - Mobile Archeology Unit	comparative market pricing analyses	$ 0	$ 22,500	$ 22,500
Artifact Reproductions	quotation provided on attached proposal	$ 0	$ 2,500	$ 2,500
Exhibit Panel Design and Construction	comparative market pricing analyses	$ 2,500	$ 0	$ 2,500
		$	$	$
	SUBTOTAL	$ 8,000	$ 30,000	$ 38,000

6. Services

Include the cost of duplication and printing, long distance telephone calls, equipment rental, postage, and other services related to project objectives that are not included under other budget categories or in the indirect cost pool. For subcontracts, provide an itemization of subcontract costs as an attachment.

Item	Basis/Method of Cost Computation	NEH Funds (a)	Cost Sharing (b)	Total (c)
Research/Media E-Learning - Virtual Excavation	Proposal by Oxidev	$ 7,500	$ 0	$ 7,500
Learning Guide		$ 9,000	$ 0	$ 9,000
Exhibit Brochure (Self-Guided)		$ 0	$ 4,500	$ 4,500
		$	$	$
		$	$	$
		$	$	$
		$	$	$
	SUBTOTAL	$ 16,500	$ 4,500	$ 21,000

7. Other Costs

Include participant stipends and room and board, equipment purchases, and other items not previously listed. Please note that "miscellaneous" and "contingency" are not acceptable budget categories. Refer to the budget instructions for the restriction on the purchase of permanent equipment.

Item	Basis/Method of Cost Computation	NEH Funds (a)	Cost Sharing (b)	Total (c)
Facilities Rental, Security and Maintenace	based square footage, market analysis, fixed costs	$ 0	$ 25,500	$ 25,500
		$	$	$
		$	$	$
		$	$	$
		$	$	$
		$	$	$
		$	$	$
	SUBTOTAL	$ 0	$ 25,500	$ 25,500

8. Total Direct Costs (add subtotals of items 1 to 7) $ 57,677 $ 142,282 $ 199,959

9. Indirect Costs

This budget item applies only to institutional applicants. If indirect costs are to be charged to this project, **CHECK THE APPROPRIATE BOX BELOW** and provide the information requested. Refer to the budget instructions for explanations of these options.

☐ Current indirect cost rate(s) has/have been negotiated with federal agency. (Complete items A and B.)

☐ Indirect cost proposal has been submitted to a federal agency, but not yet negotiated. (Indicate the name of the agency in Item A and show proposed rate(s) and base(s) and the amount(s) of indirect costs in item B.)

☐ Indirect cost proposal will be sent to NEH if application is funded. (Provide in Item B an estimate of the rate that will be used and indicate the base against which it will be charged and the amount of indirect costs.)

☐ Applicant chooses to use a rate not to exceed 10% of direct costs, less distorting items, up to a maximum charge of $5,000 per year. (Under Item B, enter the proposed rate, the base against which the rate will be charged, and the computation of indirect costs or $5,000 per year, whichever value is less.)

☐ For Public Program projects only: Applicant is a sponsorship (umbrella) organization and chooses to charge an administrative fee of 5% of total direct costs. (Complete Item B.)

Item A. Name of federal agency: _____

Date of agreement: _____

Item B.

Rate(s)	Base(s)	NEH Funds (a)	Cost Sharing (b)	Total (c)
_____% of	$ _____	$ _____	$ _____	$ _____
_____% of	$ _____	$ _____	$ _____	$ _____
_____% of	$ _____	$ _____	$ _____	$ _____
	TOTAL INDIRECT COSTS	$ 0	$ 0	$ 0

10. Total Project Costs

(Direct and Indirect) for budget period.

$ 57,677 $ 142,282 $ 199,959

NATIONAL ENDOWMENT FOR THE HUMANITIES

THREE-YEAR BUDGET FORM

Project Director: Jennifer Tisthammer

Applicant Organization: Miami-Dade County Park and Recreation Dept. - The Deering Estate at Cutler

Requested Grant Period From (mo/yr): September 2010 Thru (mo/yr): August 2012

If this is a revised budget, indicate the NEH application/grant number: _____

The three-column budget has been developed for the convenience of those applicants who wish to identify the project costs that will be charged to NEH funds and those that will be cost shared. **FOR NEH PURPOSES, THE ONLY COLUMN THAT NEEDS TO BE COMPLETED IS COLUMN C.** *The method of cost computation should clearly indicate how the total charge for each budget item was determined. If more space is needed for any budget category, please follow the budget format on a separate sheet of paper.*

SECTION A – Year #2 (if needed)

Budget detail for the period FROM (mo/yr): September 2011 THRU (mo/yr): August 2012

When the proposed grant period is eighteen months or longer, project expenses for each twelve-month period are to be listed separately and totaled in the last column of the summary budget. For projects that will run less than eighteen months, only the last column of the summary budget should be completed.

1. Salaries and Wages

Provide the names and titles of the principal project personnel. For support staff, include the title of each position and indicate in brackets the number of persons who will be employed in that capacity. For persons employed on an academic year basis, list separately any salary charge for work done outside the academic year.

Name/Title of Position	No.	Method of Cost Computation (see sample)	NEH Funds (a)	Cost Sharing (b)	Total (c)
Jennifer Tisthammer/Project Manager	[1]	12 mos x 20% @ $80,808	$ 0	$ 16,162	$ 16,162
Jessical Cabral/Project Coordinator	[1]	12 mos x 30% @ $26,936	$ 0	$ 8,081	$ 8,081
Karlisa Callwood/Outreach/School Coord.	[1]	12 mos x 45% @ $35,126	$ 0	$ 15,807	$ 15,807
Ernest Lent/Naturalist	[1]	12 mos x 10% @ $35,126	$ 0	$ 3,513	$ 3,513
Aimee Scott /Naturalists	[2]	12 mos. x 5% @ $26,936	$ 0	$ 2,694	$ 2,694
Yoelly Burgos/Education Coordinator	[1]	12 mos. x 30% @ $26,345	$ 0	$ 7,903	$ 7,903
Andres de la Silviera/Naturalist	[1]	12 mos. x 10% @ $22,516	$ 0	$ 2,252	$ 2,252
		SUBTOTAL	$ 0	$ 56,410	$ 56,410

2. Fringe Benefits

If more than one rate is used, list each rate and salary base.

Rate		Salary Base	(a)	(b)	(c)
48.16	% of	$ 27,166	$ 0	$ 27,166	$ 27,166
	% of	$	$	$	$
	% of	$	$	$	$
		SUBTOTAL	$ 0	$ 27,166	$ 27,166

3. Consultant Fees

Include payments for professional and technical consultants and honoraria.

Name or type of consultant	No. of days on project	Daily rate of compensation	NEH Funds (a)	Cost Sharing (b)	Total (c)
			$	$	$
Boardwalk: Architect, Consult., Const. Mgr.			$ 21,000	$ 0	$ 21,000
			$	$	$
			$	$	$
		SUBTOTAL	$ 21,000	$ 0	$ 21,000

4. Travel

For each trip, indicate the number of persons traveling, the total days they will be in travel status, and the total subsistence and transportation costs for that trip. When a project will involve the travel of a number of people to a conference, institute, etc., these costs may be summarized on one line by indicating the point of origin as "various." All foreign travel must be listed separately.

From/To	#	*	Subsistence Costs +	Transportation Costs =	(a)	(b)	(c)
	[ ]	[ ]	$	$	$	$	$
	[ ]	[ ]	$	$	$	$	$
	[ ]	[ ]	$	$	$	$	$
	[ ]	[ ]	$	$	$	$	$
	[ ]	[ ]	$	$	$	$	$
	[ ]	[ ]	$	$	$	$	$
				SUBTOTAL	$ 0	$ 0	$ 0

- Number of persons * - Total travel days

5. Supplies and Materials

Include consumable supplies, materials to be used in the project and items of expendable equipment (i.e., equipment items costing less than $5,000 and with an estimated useful life of less than a year).

Item	Basis/Method of Cost Computation	(a)	(b)	(c)
Living Classroom Materials - Non Consumable	comparative market pricing analyses	$ 0	$ 2,500	$ 2,500
Archeological Tools/Equipment - Non Consumable	comparative market pricing analyses	$ 0	$ 2,500	$ 2,500
Boardwalk: Reconstruction Materials	internal procurement cost estimate	$ 92,422	$ 0	$ 92,422
Mock Arch. Dig Site/Reconstruction Materials	quotation provided on attached proposal	$ 53,400	$ 0	$ 53,400
Artifact Reproductions	quotation provided on attached proposal	$ 0	$ 2,500	$ 2,500
Exhibit Panel Design and Construction	comparative market pricing analyses	$ 7,400	$ 0	$ 7,400
		$	$	$
	SUBTOTAL	$ 153,222	$ 7,500	$ 160,722

6. Services

Include the cost of duplication and printing, long distance telephone calls, equipment rental, postage, and other services related to project objectives that are not included under other budget categories or in the indirect cost pool. For subcontracts, provide an itemization of subcontract costs as an attachment.

Item	Basis/Method of Cost Computation	NEH Funds (a)	Cost Sharing (b)	Total (c)
Research/Media E-Learning	Proposal by Oxidev	$ 7,500	$ 0	$ 7,500
		$	$	$
		$	$	$
		$	$	$
		$	$	$
		$	$	$
		$	$	$
	SUBTOTAL	$ 7,500	$ 0	$ 7,500

7. Other Costs

Include participant stipends and room and board, equipment purchases, and other items not previously listed. Please note that "miscellaneous" and "contingency" are not acceptable budget categories. Refer to the budget instructions for the restriction on the purchase of permanent equipment.

Item	Basis/Method of Cost Computation	NEH Funds (a)	Cost Sharing (b)	Total (c)
Facilities Rental, Security, Maintenance	based square footage, market analysis, fixed costs	$ 0	$ 25,500	$ 25,500
		$	$	$
		$	$	$
		$	$	$
		$	$	$
		$	$	$
		$	$	$
	SUBTOTAL	$ 0	$ 25,500	$ 25,500

8. Total Direct Costs (add subtotals of items 1 to 7) $ 181,722 $ 116,576 $ 298,298

9. Indirect Costs

This budget item applies only to institutional applicants. If indirect costs are to be charged to this project, **CHECK THE APPROPRIATE BOX BELOW** and provide the information requested. Refer to the budget instructions for explanations of these options.

☐ Current indirect cost rate(s) has/have been negotiated with federal agency. (Complete items A and B.)

☐ Indirect cost proposal has been submitted to a federal agency, but not yet negotiated. (Indicate the name of the agency in Item A and show proposed rate(s) and base(s) and the amount(s) of indirect costs in item B.)

☐ Indirect cost proposal will be sent to NEH if application is funded. (Provide in Item B an estimate of the rate that will be used and indicate the base against which it will be charged and the amount of indirect costs.)

☐ Applicant chooses to use a rate not to exceed 10% of direct costs, less distorting items, up to a maximum charge of $5,000 per year. (Under Item B, enter the proposed rate, the base against which the rate will be charged, and the computation of indirect costs or $5,000 per year, whichever value is less.)

☐ For Public Program projects only: Applicant is a sponsorship (umbrella) organization and chooses to charge an administrative fee of 5% of total direct costs. (Complete Item B.)

Item A. Name of federal agency: _____

Date of agreement: _____

Item B.

Rate(s)	Base(s)	NEH Funds (a)	Cost Sharing (b)	Total (c)
_____% of	$ _____	$ _____	$ _____	$ _____
_____% of	$ _____	$ _____	$ _____	$ _____
_____% of	$ _____	$ _____	$ _____	$ _____
	TOTAL INDIRECT COSTS	$ 0	$ 0	$ 0

10. Total Project Costs

(Direct and Indirect) for budget period.

$ 181,722 $ 116,576 $ 298,298

NATIONAL ENDOWMENT FOR THE HUMANITIES

THREE-YEAR BUDGET FORM

Project Director: Jennifer Tisthammer

Applicant Organization: Miami-Dade County Park and Recreation Dept. - The Deering Estate at Cutler

Requested Grant Period From (mo/yr): September 2010 Thru (mo/yr): August 2012

If this is a revised budget, indicate the NEH application/grant number: _____

The three-column budget has been developed for the convenience of those applicants who wish to identify the project costs that will be charged to NEH funds and those that will be cost shared. **FOR NEH PURPOSES, THE ONLY COLUMN THAT NEEDS TO BE COMPLETED IS COLUMN C.** *The method of cost computation should clearly indicate how the total charge for each budget item was determined. If more space is needed for any budget category, please follow the budget format on a separate sheet of paper.*

SECTION A – Year #3 (if needed)

Budget detail for the period FROM (mo/yr): _____ THRU (mo/yr): _____

When the proposed grant period is eighteen months or longer, project expenses for each twelve-month period are to be listed separately and totaled in the last column of the summary budget. For projects that will run less than eighteen months, only the last column of the summary budget should be completed.

1. Salaries and Wages

Provide the names and titles of the principal project personnel. For support staff, include the title of each position and indicate in brackets the number of persons who will be employed in that capacity. For persons employed on an academic year basis, list separately any salary charge for work done outside the academic year.

Name/Title of Position	No.	Method of Cost Computation (see sample)	NEH Funds (a)	Cost Sharing (b)	Total (c)
	[ ]		$	$	$
	[ ]		$	$	$
	[ ]		$	$	$
	[ ]		$	$	$
	[ ]		$	$	$
	[ ]		$	$	$
	[ ]		$	$	$
		SUBTOTAL	$ 0	$ 0	$ 0

2. Fringe Benefits

If more than one rate is used, list each rate and salary base.

Rate	Salary Base	(a)	(b)	(c)
% of	$	$	$	$
% of	$	$	$	$
% of	$	$	$	$
	SUBTOTAL	$ 0	$ 0	$ 0

3. Consultant Fees

Include payments for professional and technical consultants and honoraria.

Name or type of consultant	No. of days on project	Daily rate of compensation	NEH Funds (a)	Cost Sharing (b)	Total (c)
			$	$	$
			$	$	$
			$	$	$
			$	$	$
		SUBTOTAL	$ 0	$ 0	$ 0

4. Travel

For each trip, indicate the number of persons traveling, the total days they will be in travel status, and the total subsistence and transportation costs for that trip. When a project will involve the travel of a number of people to a conference, institute, etc., these costs may be summarized on one line by indicating the point of origin as "various." All foreign travel must be listed separately.

From/To	#	*	Subsistence Costs +	Transportation Costs =	(a)	(b)	(c)
	[ ]	[ ]	$	$	$	$	$
	[ ]	[ ]	$	$	$	$	$
	[ ]	[ ]	$	$	$	$	$
	[ ]	[ ]	$	$	$	$	$
	[ ]	[ ]	$	$	$	$	$
	[ ]	[ ]	$	$	$	$	$
				SUBTOTAL	$ 0	$ 0	$ 0

- Number of persons * - Total travel days

5. Supplies and Materials

Include consumable supplies, materials to be used in the project and items of expendable equipment (i.e., equipment items costing less than $5,000 and with an estimated useful life of less than a year).

Item	Basis/Method of Cost Computation	(a)	(b)	(c)
		$	$	$
		$	$	$
		$	$	$
		$	$	$
		$	$	$
		$	$	$
		$	$	$
	SUBTOTAL	$ 0	$ 0	$ 0

6. Services

Include the cost of duplication and printing, long distance telephone calls, equipment rental, postage, and other services related to project objectives that are not included under other budget categories or in the indirect cost pool. For subcontracts, provide an itemization of subcontract costs as an attachment.

Item	Basis/Method of Cost Computation	NEH Funds (a)	Cost Sharing (b)	Total (c)
		$	$	$
		$	$	$
		$	$	$
		$	$	$
		$	$	$
		$	$	$
		$	$	$
	SUBTOTAL	$ 0	$ 0	$ 0

7. Other Costs

Include participant stipends and room and board, equipment purchases, and other items not previously listed. Please note that "miscellaneous" and "contingency" are not acceptable budget categories. Refer to the budget instructions for the restriction on the purchase of permanent equipment.

Item	Basis/Method of Cost Computation	NEH Funds (a)	Cost Sharing (b)	Total (c)
		$	$	$
		$	$	$
		$	$	$
		$	$	$
		$	$	$
		$	$	$
		$	$	$
	SUBTOTAL	$ 0	$ 0	$ 0

8. Total Direct Costs (add subtotals of items 1 to 7) $ 0 $ 0 $ 0

9. Indirect Costs

This budget item applies only to institutional applicants. If indirect costs are to be charged to this project, **CHECK THE APPROPRIATE BOX BELOW** and provide the information requested. Refer to the budget instructions for explanations of these options.

☐ Current indirect cost rate(s) has/have been negotiated with federal agency. (Complete items A and B.)

☐ Indirect cost proposal has been submitted to a federal agency, but not yet negotiated. (Indicate the name of the agency in Item A and show proposed rate(s) and base(s) and the amount(s) of indirect costs in item B.)

☐ Indirect cost proposal will be sent to NEH if application is funded. (Provide in Item B an estimate of the rate that will be used and indicate the base against which it will be charged and the amount of indirect costs.)

☐ Applicant chooses to use a rate not to exceed 10% of direct costs, less distorting items, up to a maximum charge of $5,000 per year. (Under Item B, enter the proposed rate, the base against which the rate will be charged, and the computation of indirect costs or $5,000 per year, whichever value is less.)

☐ For Public Program projects only: Applicant is a sponsorship (umbrella) organization and chooses to charge an administrative fee of 5% of total direct costs. (Complete Item B.)

Item A. Name of federal agency: _____

Date of agreement: _____

Item B.

Rate(s)	Base(s)	NEH Funds (a)	Cost Sharing (b)	Total (c)
_____% of	$ _____	$ _____	$ _____	$ _____
_____% of	$ _____	$ _____	$ _____	$ _____
_____% of	$ _____	$ _____	$ _____	$ _____
	TOTAL INDIRECT COSTS	$ 0	$ 0	$ 0

10. Total Project Costs

(Direct and Indirect) for budget period. $ 0 $ 0 $ 0

SECTION B

SUMMARY BUDGET

Transfer from Section A the total costs (column C) for each category of project expense. When the proposed grant period is eighteen months or longer, project expenses for each twelve-month period are to be listed separately and totaled in the last column of the summary budget. For projects that will run less than eighteen months, only the last column of the summary budget should be completed.

Budget categories	First year from: September/2010 thru: August/2011	Second year from: September 2011 thru: August 2012	Third year from: thru:		TOTAL COSTS FOR ENTIRE GRANT PERIOD
1. Salaries and wages	$ 56,410	$ 56,410	$ 0	=	$ 112,821
2. Fringe benefits	$ 25,872	$ 27,166	$ 0	=	$ 53,038
3. Consultant fees	$ 33,177	$ 21,000	$ 0	=	$ 54,177
4. Travel	$ 0	$ 0	$ 0	=	$ 0
5. Supplies and materials	$ 38,000	$ 160,722	$ 0	=	$ 198,722
6. Services	$ 21,000	$ 7,500	$ 0	=	$ 28,500
7. Other costs	$ 25,500	$ 25,500	$ 0	=	$ 51,000
8 Total direct costs (Items 1-7)	$ 199,959	$ 298,298	$ 0	=	$ 498,258
9. Indirect costs	$ 0	$ 0	$ 0	=	$ 0
10. Total project costs (direct and indirect)	$ 199,959	$ 298,298	$ 0	=	$ 498,258

PROJECT FUNDING FOR ENTIRE GRANT PERIOD

1. Indicate the amount of outright and/or federal matching funds that is requested from NEH.

2. Indicate the amount of cash contributions that will be made by the applicant and cash and in-kind contributions made by third parties to support project expenses that appear in the budget. Cash gifts that will be raised to release federal matching funds should be included under "Third-party contributions." (Consult the program guidelines for information on cost sharing requirements.) When a project will generate income that will be used during the grant period to support expenses listed in the budget, indicate the amount of income that will be expended on budgeted project activities. Indicate funding received from other federal agencies.

3. Total Project Funding should equal Total Project Costs.

1. REQUESTED FROM NEH		**2. COST SHARING**	
Outright	$ 0	Applicant's contributions	$ 258,859
Federal Matching	$ 239,399	Third-party contributions	$ 0
		Project income	$ 0
		Other federal agencies	$ 0
TOTAL NEH FUNDING	$ 239,399	TOTAL COST SHARING	$ 258,859

3. TOTAL PROJECT FUNDING (Total NEH Funding + Total Cost Sharing) : **$ 498,258**

Submission of a Revised Budget

When submitting a revised budget, the Institutional Grant Administrator or Individual Applicant should provide the information requested below. The signature of this person indicates approval of the budget submission and the agreement of the organization/individual to cost share project expenses at the level under "Project Funding."

Name and Title: _____

Telephone: _____ E-mail: _____

Signature: _____ Date: _____

YEAR ONE

APPLICANT: Miami-Dade County Park and Recreation - The Deering Estate at Cutler

GRANT TITLE: Stepping Through Time: Tracing the Archeological Footsteps of the Tequesta

PERFORMANCE PERIOD: Sept. 1, 2010 thru August 31, 2011

Object Class Categories	FEDERAL SHARE	MATCH	TOTAL PROJECT
Personnel			
Jessica Cabral - Interpretive Exhibit Coordinator @ .30 FTE	0	8,080.80	8,081
Yoelly Burgos - Education Coordinator @ .30 FTE	0	7,903.35	7,903
Karlisa Callwood - Outreach/School Coordinator @ .45 FTE	0	15,806.70	15,807
Ernest Lent - Naturalist @ .10 FTE	0	3,512.60	3,513
Aimee Scott - Naturalist @ .10 FTE	0	2,693.60	2,694
Andres de la Silviera - Naturalist @ .10 FTE	0	2,251.60	2,252
Jennifer Tisthammer - Project Manager @ .20 FTE	0	16,161.60	16,162
TOTAL PERSONNEL	**$0**	**$56,410.25**	**$56,410**
Fringe Benefits			
FICA (.062 x FTE Salary)	$0	$3,497	$3,497
MICA (.0145 x FTE Salary)	$0	$818	$818
Retirement (.10710 x FTE Salary)	$0	$6,042	$6,042
Group Life (.003024 x FTE Salary)	$0	$171	$171
Flex Dollars ($1,100/person x FTE)	$0	$1,705	$1,705
Health Plan ($8,800/person x FTE)	$0	$13,640	$13,640
TOTAL FRINGE BENEFITS	**$0**	**$25,872**	**$25,872**
Non-Personnel			
Equipment:			
GeoMobile - Mobile Archeology Unit	$0	$22,500	$22,500
Living Classroom Materials - Non Consumable	$0	$2,500	$2,500
Archeological Tools and Equipment - Non Consumable	$0	$2,500	$2,500
Boardwalk: Reconstruction Materials	$0	$0	$0
Mock Archelogical Dig Site: Reconstruction Materials	$0	$0	$0
Artifact Reproductions	$0	$2,500	$2,500
Exhibit Panel Design and Construction	$2,500	$0	$2,500
Display Cases	$5,500	$0	$5,500
Consultant Fees:			
Boardwalk: Architect, Consultant, Construction Manager	$33,177	$0	$33,177
Services:			
Learning Guide	$9,000	$0	$9,000
Exhibit Brochure - Self Guided	$0	$4,500	$4,500
Research/Media E-Learning - Virtual Excavation	$7,500	$0	$7,500
Other:			
Facilities Rental, Security and Maintenance	$0	$25,500	$25,500
TOTAL NON PERSONNEL	**$57,677**	**$60,000**	**$117,677**
Total Direct Charges	$57,677	$142,282	$199,959
Indirect Charges	$0	$0	$0
TOTAL PROJECT COSTS	**$57,677**	**$142,282.26**	**$199,959**
	28.8%	71.16%	100%

YEAR TWO

APPLICANT: Miami-Dade County Park and Recreation - The Deering Estate at Cutler

GRANT TITLE: Stepping Through Time: Tracing the Archeological Footsteps of the Tequesta

PERFORMANCE PERIOD: Sept. 1, 2011 thru August 31, 2012

Object Class Categories	FEDERAL SHARE	MATCH	TOTAL PROJECT
Personnel			
Jessica Cabral - Interpretive Exhibit Coordinator @ .30 FTE	0	8,080.80	8,081
Yoelly Burgos - Education Coordinator @ .30 FTE	0	7,903.35	7,903
Karlisa Callwood - Outreach/School Coordinator @ .45 FTE	0	15,806.70	15,807
Ernest Lent - Naturalist @ .10 FTE	0	3,512.60	3,513
Aimee Scott - Naturalist @ .10 FTE	0	2,693.60	2,694
Andres de la Silviera - Naturalist @ .10 FTE	0	2,251.60	2,252
Jennifer Tisthammer - Project Manager @ .20 FTE	0	16,161.60	16,162
TOTAL PERSONNEL	**$0**	**$56,410**	**$56,410**
Fringe Benefits			
FICA (.062 x FTE Salary)	$0	$3,497	$3,497
MICA (.0145 x FTE Salary)	$0	$818	$818
Retirement (.10710 x FTE Salary)	$0	$6,042	$6,042
Group Life (.003024 x FTE Salary)	$0	$171	$171
Flex Dollars ($1,100/person x FTE)	$0	$1,705	$1,705
Health Plan ($8,800/person x FTE)	$0	$13,640	$13,640
5% Projected Annual Increase	$0	$1,294	$1,294
TOTAL FRINGE BENEFITS	**$0**	**$27,166**	**$27,166**
Non-Personnel			
Equipment:			
GeoMobile - Mobile Archeology Unit	$0	$0	$0
Living Classroom Materials - Non Consumable	$0	$2,500	$2,500
Archeological Tools and Equipment - Non Consumable	$0	$2,500	$2,500
Boardwalk: Reconstruction Materials	$92,422	$0	$92,422
Mock Archelogical Dig Site: Reconstruction Materials	$53,400	$0	$53,400
Artifact Reproductions	$0	$2,500	$2,500
Exhibit Panel Design and Construction	$7,400	$0	$7,400
Display Cases	$0	$0	$0
Consultant Fees:			
Boardwalk: Architect, Consultant, Construction Manager	$21,000	$0	$21,000
Services:			
Learning Guide	$0	$0	$0
Exhibit Brochure - Self Guided	$0	$0	
Research/Media E-Learning	$7,500	$0	$7,500
Other:			
Facilities Rental, Security and Maintenance	$0	$25,500	$25,500
TOTAL NON PERSONNEL	**$181,722**	**$33,000**	**$214,722**
Total Direct Charges	$181,722.22	$116,576.18	$298,298.40
Indirect Charges	$0	$0	$0
TOTAL PROJECT COSTS	**$181,722**	**$116,576**	**$298,298**
	60.9%	39.08%	100%

ALL YEARS

APPLICANT: Miami-Dade County Park and Recreation - The Deering Estate at Cutler

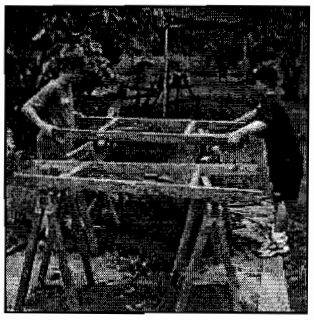
GRANT TITLE: Stepping Through Time: Tracing the Archeological Footsteps of the Tequesta

PERFORMANCE PERIOD: Sept. 1, 2010 thru August 31, 2012

Object Class Categories	FEDERAL SHARE	MATCH	TOTAL PROJECT
Personnel			
Jessica Cabral - Interpretive Exhibit Coordinator @ .30 FTE	$0	$16,162	$16,162
Yoelly Burgos - Education Coordinator @ .30 FTE	$0	$15,807	$15,807
Karlisa Callwood - Outreach/School Coordinator @ .45 FTE	$0	$31,613	$31,613
Ernest Lent - Naturalist @ .10 FTE	$0	$7,025	$7,025
Aimee Scott - Naturalist @ .10 FTE	$0	$5,387	$5,387
Andres de la Silviera - Naturalist @ .10 FTE	$0	$4,503	$4,503
Jennifer Tisthammer - Project Manager @ .20 FTE	$0	$32,323	$32,323
TOTAL PERSONNEL	**$0**	**$112,821**	**$112,821**
Fringe Benefits			
FICA (.062 x FTE Salary)	$0	$6,995	$6,995
MICA (.0145 x FTE Salary)	$0	$1,636	$1,636
Retirement (.10710 x FTE Salary)	$0	$12,083	$12,083
Group Life (.003024 x FTE Salary)	$0	$341	$341
Flex Dollars ($1,100/person x FTE)	$0	$3,410	$3,410
Health Plan ($8,800/person x FTE)	$0	$27,280	$27,280
5% Projected Annual Increase	$0	$1,294	$1,294
TOTAL FRINGE BENEFITS	**$0**	**$53,038**	**$53,038**
Non-Personnel			
Equipment:			
GeoMobile - Mobile Archeology Unit	$0	$22,500	$22,500
Living Classroom Materials - Non Consumable	$0	$5,000	$5,000
Archeological Tools and Equipment - Non Consumable	$0	$5,000	$5,000
Boardwalk: Reconstruction Materials	$92,422	$0	$92,422
Mock Archelogical Dig Site: Reconstruction Materials	$53,400	$0	$53,400
Artifact Reproductions	$0	$5,000	$5,000
Exhibit Panel Design and Construction	$9,900	$0	$9,900
Display Cases	$5,500	$0	$5,500
Consultant Fees:			
Boardwalk: Architect, Consultant, Construction Manager	$54,177	$0	$54,177
Services:			
Learning Guide	$9,000	$0	$9,000
Exhibit Brochure - Self Guided	$0	$4,500	
Research/Media E-Learning	$15,000	$0	$15,000
Other:		$0	$0
Facilities Rental, Security and Maintenance	$0	$51,000	$51,000
TOTAL NON PERSONNEL	**$239,399**	**$93,000**	**$327,899**
Total Direct Charges	$239,399	$258,859	$498,258
Indirect Charges	$0	$0	$0
TOTAL PROJECT COSTS	**$239,399**	**$258,859**	**$498,258**
	48.0%	51.95%	100%

STEPPING THROUGH TIME:
TRACING THE FOOTSTEPS OF THE TEQUESTA AND EARLY MAN'S CONNECTION TO HIS NATURAL ENVIRONMENT

Appendix G
Mock Archeological Dig Site Proposal



Archaeological and Historical Conservancy
4800 SW 64th Ave, Suite 107 Davie FL 33314
954-792-9776 Fax. 954-792-9954

December 15, 2009

Jennifer Tisthammer
Exhibits and Collections
Deering Estate at Cutler
16701 SW 72 Avenue
Palmetto Bay, FL 33157

Dear Jennifer,

Attached are three renderings of the components we propose for the mock archaeological dig site. Not shown in the drawings are the carved surfaces. These will be designed using zoomorphic motifs and decorative patterns associated with Tequesta culture and aesthetics.

The projected costs—including design, fabrication, and installation—are as follows:

1. 2 thatch-roofed dig pits, 2m x 6m workspace, with graphics panels:	$59,600
2. Thatched message board kiosk, whiteboard one side:	$ 5,300
3. Log benches with carved bases to accommodate 36 students:	$ 4,400
4. Carved pole-supported canvas-top shelter for seating:	$12,100
Total:	$81,400

Optional or contingent expenses:

5. Optional graphic panel on the reverse side of the kiosk:	add $2,400
6. If the purchase fossil replicas is required:	add $2,200-$5,000

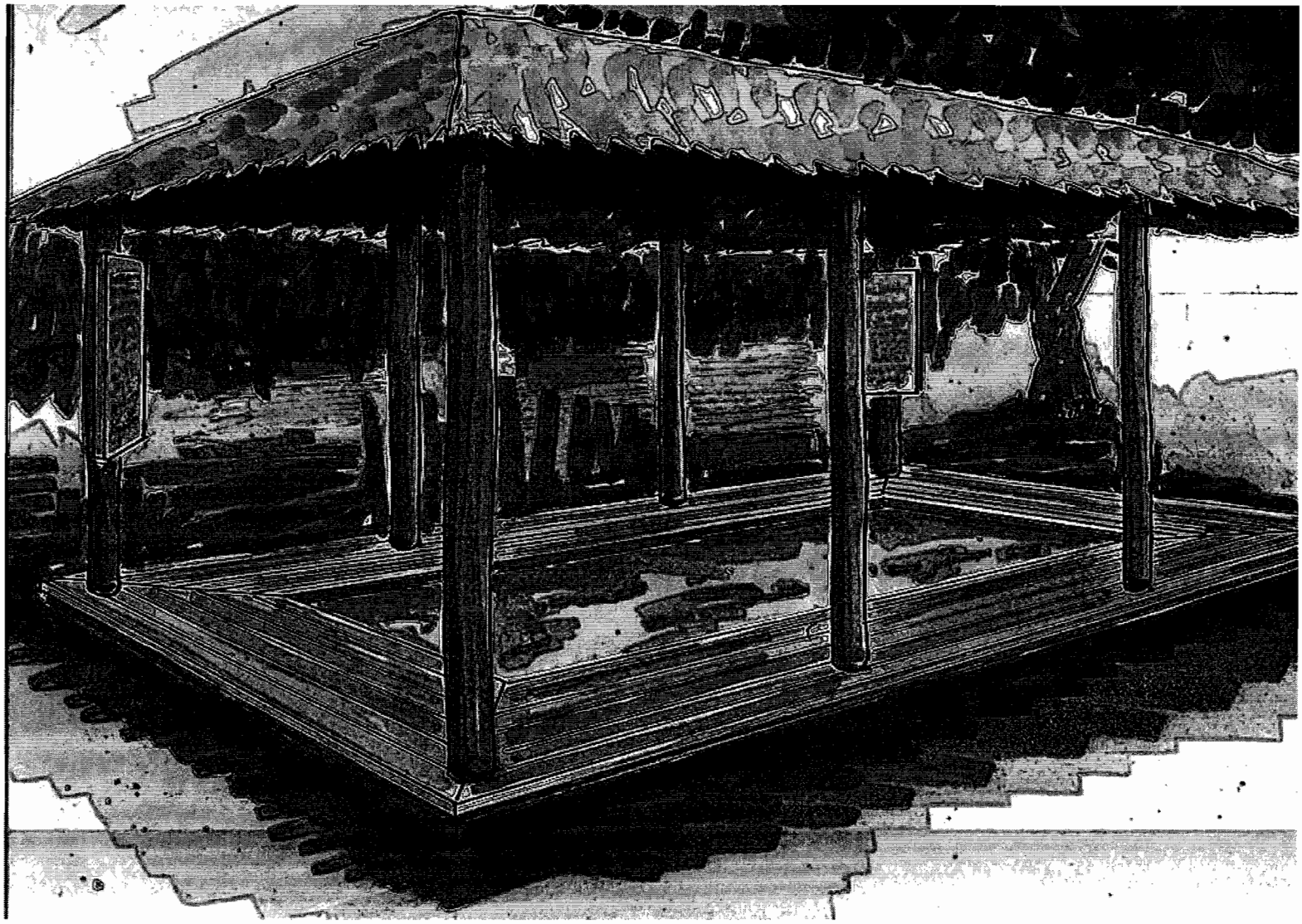
Please let us know if you have any questions,

Sincerely,

Robert S. Carr
Executive Director

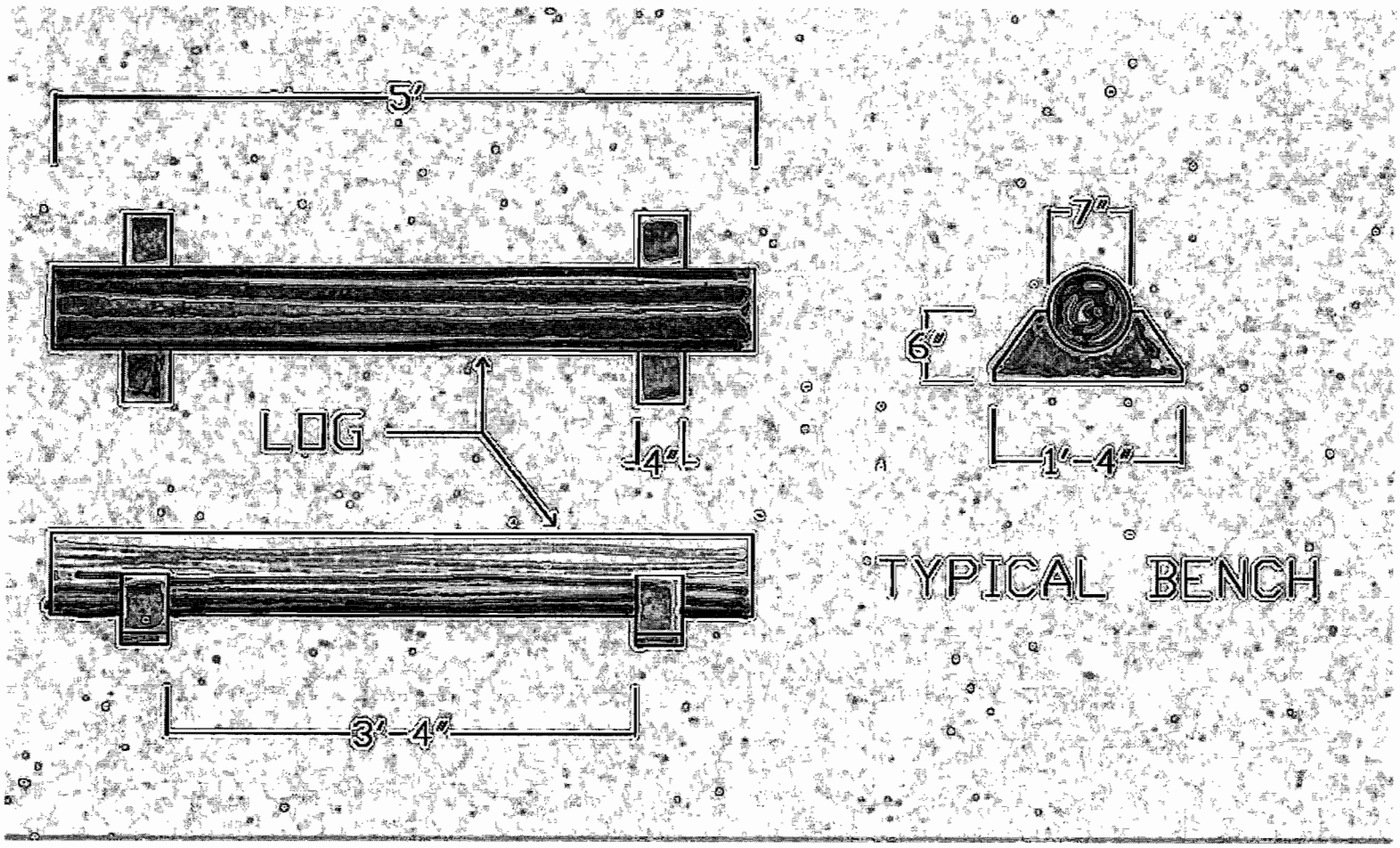
Attachment 1: Sheltered dig pit
Attachment 2: Sheltered seating and message board kiosk
Attachment 3: Bench construction detail

Attachment 1: Sheltered dig pit



Attachment 2: Sheltered seating and message board kiosk

Attachment 3: Bench construction detail



STEPPING THROUGH TIME: TRACING THE FOOTSTEPS OF THE TEQUESTA AND EARLY MAN'S CONNECTION TO HIS NATURAL ENVIRONMENT

Appendix H

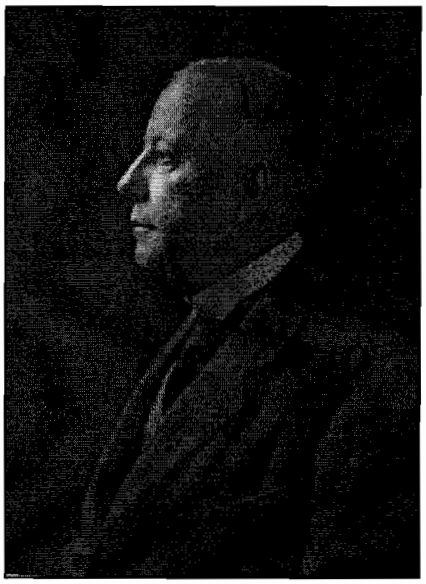
Samples of Digitized Archives and Brochures

Appendix H: Sample of Digitized Archives and Brochures

Samples of photo and document archives, exhibit panels and interpretive brochures for on-site exhibits: Charles Deering, Ramon Casas, Maricel & Tamarit, and Historic Houses are described in this attachment.

PHOTO/DOCUMENT ARCHIVES: ANCESTRAL PORTRAITS OF THE DEERING ESTATE AT CUTLER

Left to Right: Two photo portraits of Charles Deering in the United States Navy; Photo Profile of Charles Deering



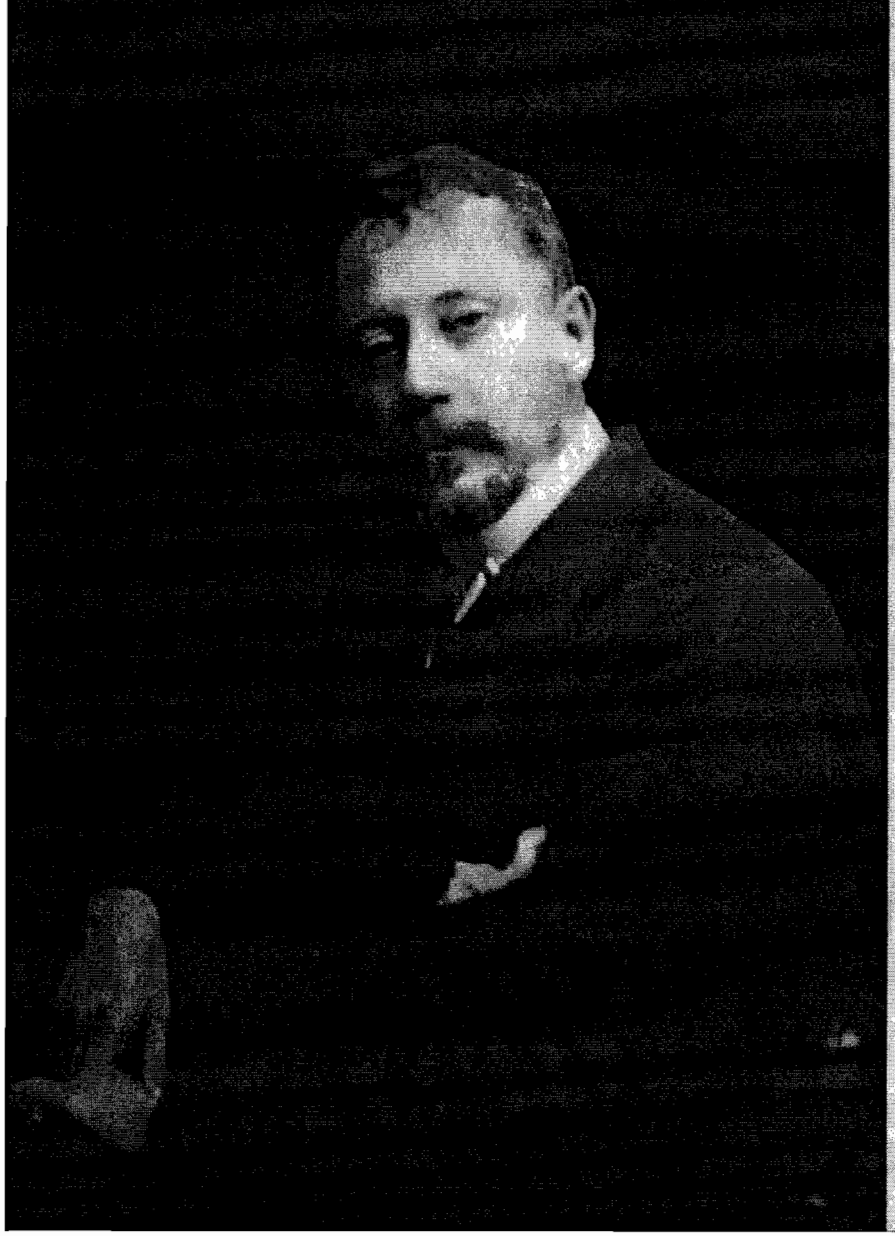
Left to Right: Possible Sergeant Sketch of Charles Deering; General Whipple by Charles Deering; Portrait by Charles Deering

CHARLES DEERING

(1852-1927)

Charles Deering was a Chicago industrialist and half-brother to James Deering, the builder of Vizcaya in Miami. He graduated from the U.S. Naval Academy and served as an officer in the Navy for eight years before following his father and brother into the world of Chicago commerce. He served as Secretary of Deering Harvester Company and later became the first Chairman of the Board of International Harvester Company, one of the world's largest farming equipment manufacturers for much of the twentieth century.

Deering was an important benefactor of the Art Institute of Chicago, Wesley Memorial Hospital (now Northwestern Memorial Hospital), and Northwestern University (where a library on the Evanston campus bears his name). A passionate art collector, he established residences on two continents to house one of the finest private art collections in North America. And he was an ardent supporter of environmental preservation in Florida, funding botanical research and setting aside land for conservation.



1852, July 31. Born in South Paris, Maine to William Deering and Abby Reid Barbour Deering.

1856, January 10. Mother dies of measles.

1857, December 15. Father marries first wife's cousin, Clara Cummings Hamilton.

1859, November 12. Half-brother, James Deering, born.

1867, October 3. Half-sister, Abby Marion Deering, born.

1869. Enters U.S. Naval Academy.

1873. Graduates second in his class from the Academy. Enters U.S. Navy.

1875, November 3. Marries Anna Rogers Case.

1876. Meets artist John Singer Sargent.
October 18. Son, Charles William Case Deering, born.
October 31. Anna dies.

1878. Escorts Ulysses S. Grant on tour of Asia.

1881, May 1. Resigns Naval commission to become Secretary of Deering Harvester Company.

1883, January 2. Marries Marion Denison Whipple.

1884, October 26. Son, Roger Deering, born.

1886, June 5. Daughter, Marion Deering, born.

1888, December 16. Daughter, Barbara Deering, born.

1893. Meets Anders Zorn, Ramon Casas and other artists at World's Columbian Exhibition in Chicago. Takes sabbatical to paint in Zorn's art studio in Paris.

1902. Elected Chairman of the Board of International Harvester Company.

1906, November 17. Sister dies.

1908. Purchases medieval hospital and adjacent houses in Sitges, near Barcelona.

1910. Retires from International Harvester. With Miguel Utrillo, combines buildings in Sitges to create a palatial home, *Marycel*.

1913. Buys properties at Buena Vista and Cutler in Miami. Meets David Fairchild. Deeds Buena Vista to USDA. Seeks preservation plan for Cutler.
December 9. Father dies in Coconut Grove.

1915. Purchases Richmond Cottage. Begins association with botanist John Kunkel Small.

1916. Begins wintering at Cutler. Purchases *Tamarit*, a ruined Spanish castle he hopes to restore with Ramon Casas.

1921. Empties *Marycel* and leaves Spain forever after argument with Utrillo. Loans part of art collection to the Art Institute of Chicago.

1922. Builds and moves into Stone House.

1924. Deeds art collection to daughters.
March 3. Oldest son dies after airplane crash.

1925, September 21. Brother dies at sea while returning from Paris. Charles "depressed" and in poor health.

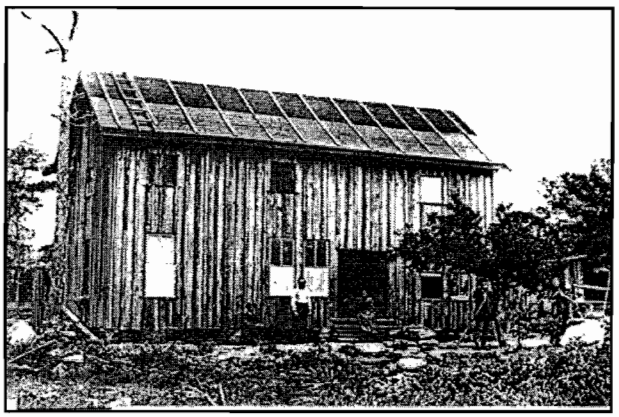
1926. Sues State of Florida to prevent dredging and filling of submerged lands off Cape Florida.
September 18. Deaf and suffering from fatal illness, sleeps through Great Miami Hurricane.

1927, February 5. Dies in his bedroom at Cutler. Laid to rest in Chicago. Daughters inherit estate.

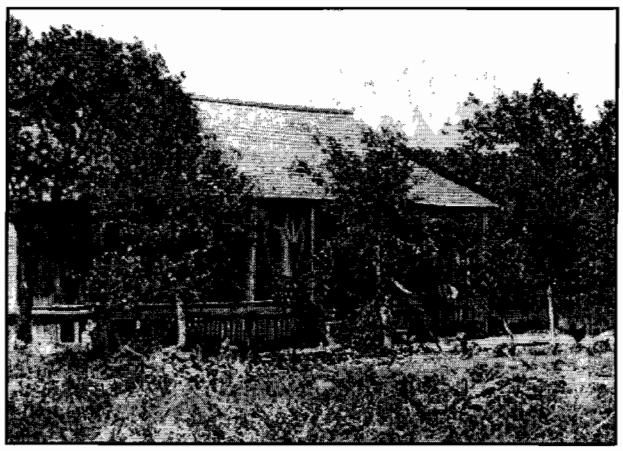
PHOTO/DOCUMENT ARCHIVES: THE RICHMOND COTTAGE

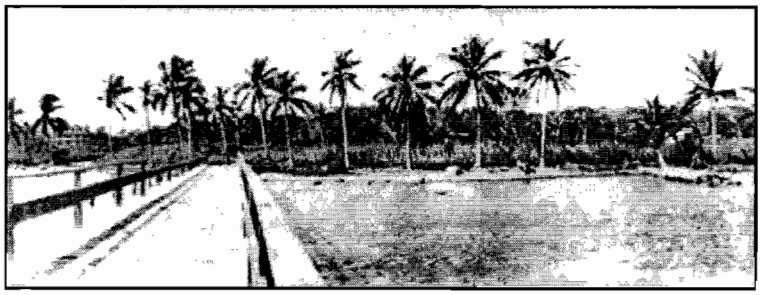
Left to Right: Addison and Seminoles; Seminoles ca 1890

Left to Right: Brown & Moody General Store ca 1990; Richmond House 1896



Left to Right: Cutler Post Office; Addison Home at Cutler ca 1900





Left: Cutler ca 1900

RICHMOND COTTAGE

Cutler, Dade County, Fla.

FIFTEEN MILES BELOW MIAMI ON

BISCAYNE BAY.

Richmond Cottage at Cutler, Fla., Fifteen Miles South of Miami.

Connected by Telephone with Miami.

Open to the Broad Atlantic Ocean.

Fine Fishing and Boating.

Write for Special Rates by Week or Month.

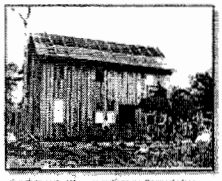
MRS. S. H. RICHMOND,

Proprietress.

THE RICHMOND COTTAGE

A CENTURY IN MIAMI

Built in the year that Miami became a city, the Richmond Cottage stands in its original location on Biscayne Bay. Rebuilt after Hurricane Andrew, it survives as one of the best examples of early Florida frame vernacular architecture in Miami and is listed on the National Register of Historic Places.



Credit: [illegible]

1896 – Dr. Samuel Richmond and his wife, Edith, build their Cracker-style home at Cutler, a coastal settlement 16 miles south of Miami.

Credit: The Deering Estate at Cutler Collection

1900 – The Richmonds add a three-story addition to the house and open "The Richmond Cottage." It is the **first hotel** between Coconut Grove and Key West.

Credit: John S. Ernest Florida Photographic Collection/Series [illegible]

1916 – Charles Deering buys the house to use as a winter residence. He enriches the front façade and adds fireplaces, indoor plumbing, electricity, and gas hook-ups.

Credit: Deering Estate at Cutler Collection

1985 – The Deering Estate at Cutler opens to the public after nearly a century of private ownership. The Deering's have made no structural changes to the Richmond Cottage, which looks much as it did in the nineteen-teens.

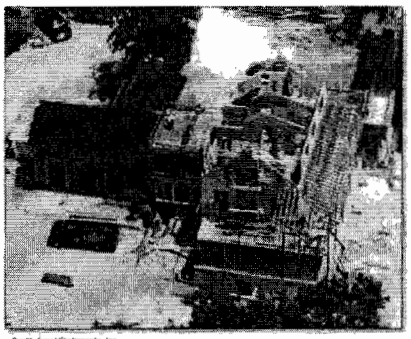
The Richmond Cottage Today

Credit: Deering Estate at Cutler Collection

The Richmond Cottage reopens in 1999. Beautifully restored to its former splendor and 1920s color scheme, the house retains all of its original charm and character while exceeding modern Florida building codes

Credit: Deering Estate at Cutler Collection, Denisette C.J. Stanfield

1992 – Hurricane Andrew's 16.6-foot storm surge and high winds severely damage 70% of the house. The front end collapses, and the rear, while intact, is open to the elements.



Credit: Aerial Photography, Inc

1997 – Reconstruction at the Estate takes seven years and over seven and half million dollars. Workers use salvaged and new materials to completely rebuild the eastward side of the Richmond Cottage and to restore its westward side.

Can you imagine living in Florida without air conditioning?

Early settlers had to use the materials on hand to build cool, dry homes in Florida's hot, muggy climate. In Miami, they used the dense wood of Dade County Pines and designed buildings to capture breezes and provide shade. These homes had no formal architectural style but came to reflect the needs and values the community. Today, this type of construction is called Florida frame vernacular.

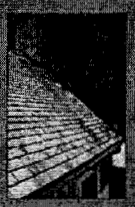
Wood-frame construction is light and sturdy.

An elevated first floor permits air flow underfoot.

Large porches provide shade.

Weatherboard keeps out moisture.

Double-hung sash windows admit cool breezes.



A steep, vented roof allows hot air to escape.

DEERING ESTATE AT CUTLER

VERNACULAR ARCHITECTURE

Vernacular architecture pays little attention to formal design. It utilizes local building materials and construction techniques and, depending upon the skill of the builder, is often rather crude in craftsmanship.

The wood-frame, 1896 Richmond House and 1900 addition were built of dense Dade County Pine. This durable material was salvaged and used during the structure's post-Hurricane Andrew reconstruction.

The elevated building features long hallways, large window and door openings, an extensive overhanging verandah, and a gabled roof—all to allow maximum air circulation for humidity control and natural cooling.

An elevator to the second floor, air conditioning, new plumbing and electrical fixtures, and a fire suppression system are some the Richmond Cottage's modern upgrades.

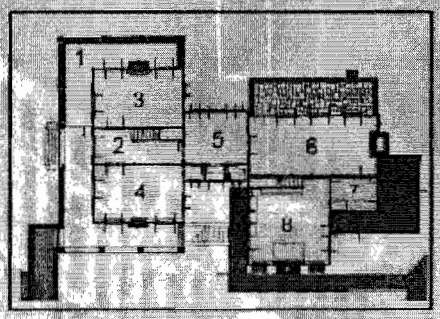
Richmond Cottage 1916

THE ARTWORK

In 1922, Charles Deering brought part of his extensive art collection from Cataloniá to the Cutler Estate. Works by Degas, Whistler and John Singer Sargent once hung from the walls of the Richmond Cottage and the Stone House.

Today, the park and the Deering Estate Foundation carry on the tradition of displaying art in the Richmond Cottage. In limited engagement exhibits throughout the year, antique maps and works by local artists grace the walls of this historic home.

RICHMOND COTTAGE



FIRST FLOOR

(1) First Floor Verandah - The lights on this porch and its supporting columns were used to navigate Deering's channel at night.

(2) Entrance Hallway - The first-floor staircase and part of one fireplace were the only structures left standing in this part of the building after Hurricane Andrew.

(3) Sitting Room - The fireplace in this room was one of three that Charles Deering added to the house during a 1916 renovation.

(4) Check-in Room/Study - Hotel guests, such as Henry Flagler and James Ingram signed the guest registry here. Deering later turned the room into a study.

(5) Breakfast Room - The wall-lattice in this room is original. The thick, wavy window glass and hardware are reproduction.

(6) Dining Room - Part of the 1896 structure, the original framework of the house still stands here.

(7) Butler's Pantry - This room features restored cabinetry and an ice box. Deering's ice was manufactured locally and delivered twice a week.

(8) Kitchen - The low cabinet on the east wall is a second ice box with doors for ice delivery outside of the house.

SECOND FLOOR

(9) Second Floor Verandah - The veranda offers a breathtaking view of Biscayne Bay and the Keystone Boat Turning Basin. The Basin was installed in 1918 to accommodate Deering's 40-foot cruiser, "Tamiami," and "Barbee" a smaller launch.

(10) Mr. Deering's Bedroom - This bedroom suite once included a dressing area and bathroom. Deering's dressing area is now a modern bath, and his original bathroom adjoins the Botanist's Study.

(11) Mrs. Deering's Bedroom - An elevator shaft takes up part of this room. The elevator was installed after Hurricane Andrew.

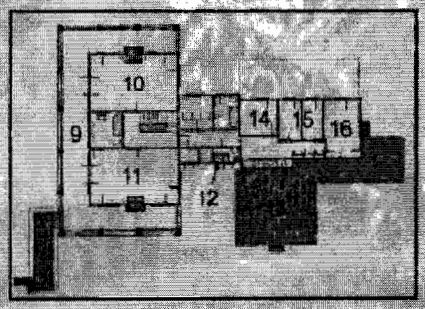
(12) Servants' Bathroom - Originally, the house had no indoor plumbing. Deering added four and a half baths, and the park added several more. Deering's valet, Eusebio Hernandez, once kept a pet alligator, named "Chocolata," in one of the bathtubs.

(13) Servants' Stairway - This narrow stairway leads to the kitchen.

(14) Botanist's Study - Deering was an amateur naturalist and funded native plant studies in Florida. He formed lasting friendships with noted botanists John Kunkel Small and David Fairchild.

(15) Servants'/Storage Rooms - Mrs. Deering bribed Eusebio to marry her maid Katherine Rim. They wed after her death in 1943 and continued to serve the family for many years.

(16) Servant's Room



* **Third Floor - Guest Rooms (Closed)** - Three bedrooms and a bath accommodated Deerings' visitors, and were also used to store some of his many books and art treasures.

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MIAMI-DADE COUNTY

DEERING ESTATE AT CUTLER

RICHMOND COTTAGE 1896-1900

DEERING ESTATE AT CUTLER

SELF-GUIDED TOUR

THE CUTLER ERA

Originally built in 1896, the Richmond Cottage is the last surviving structure of the historic town of Cutler.

At the end of the nineteenth century, Cutler (established at the site of the Seminole Hunting Grounds) was one of the best settlements in Dade County. Its beachfront location and three fishing wharves made it a hub for transporting freight and passengers south of Miami, and in its heyday, a post office, school, saw mill, and two general stores serviced a growing pioneer community.

"Cutler is located in a most beautiful spot, overlooking Biscayne Bay. The water is pure and sweet and the climate everything that could be desired."
Directory of the City of Miami and Nearby Towns, 1904

In 1900, Dr. Samuel Richmond and his wife, Edith, added a three-story addition to their modest family home at Cutler and opened the Richmond Cottage, the first hotel between Coconut Grove and Key West.

When the Florida East Coast Railway bypassed the town in 1904, businesses and residents moved to the nearby railroad labor camp that would become the city of Perrine. Soon, few families remained in Cutler.

The closing of the Richmond Cottage in 1915 officially brought an end to the Cutler Era.

CHARLES DEERING

International Harvester CEO, Charles Deering purchased the Richmond Cottage and, in 1916, transformed it into his winter residence. The former hotel was renovated, with rooms made larger and airier, and a neo-classical facelift (complete with a Chinese Chippendale balustrade) was given to the front façade. Even after the construction of the Stone House in 1922, the Richmond Cottage maintained its importance as the center of food preparation and dining for the Deerings and their guests.

After Charles's death in 1927, the Deering family continued to winter at the Cutler Estate until its sale to the State of Florida in 1985.

HURRICANE ANDREW

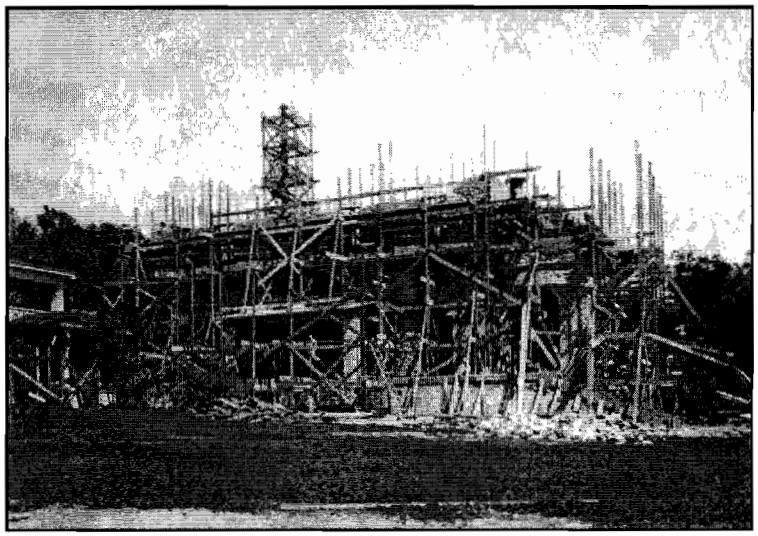
In 1992, Hurricane Andrew's high winds and 16.6-foot storm surge collapsed part of the building.

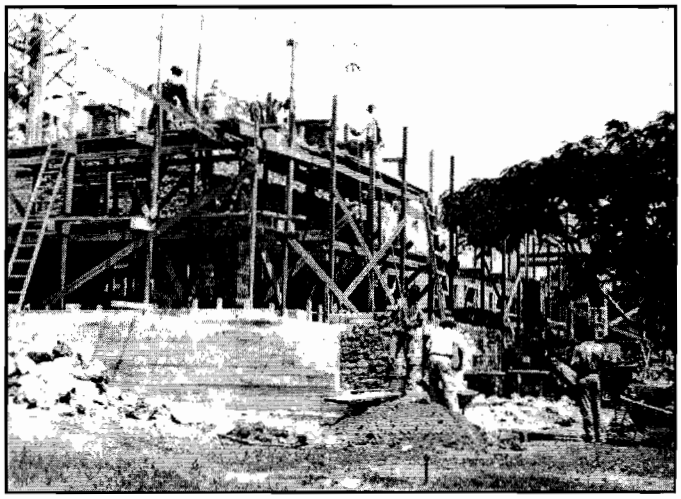
The Richmond Cottage was rebuilt using as much original material as possible and looks, now, much as it did when Charles Deering lived there.

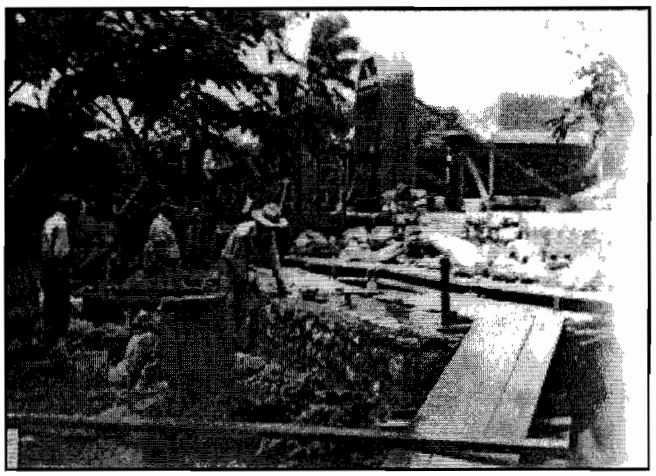
Today, the Richmond Cottage remains one of Miami's best examples of early Florida Frame Vernacular architecture and is on the National Register of Historic Places.

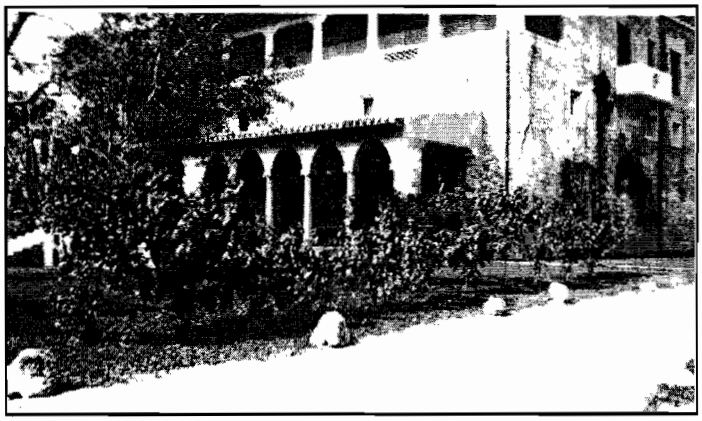
PHOTO/DOCUMENT ARCHIVES: THE STONE HOUSE

Clockwise: Photographs of the 1922 Construction









Left: The Stone House in 1930

THE STONE HOUSE

INSTANT ANTIQUITY

In the first decades of the twentieth century, real estate developers promoted Florida as a "fantasy land" for wealthy vacationers and potential investors. Inspired by Spanish mission-style buildings designed for the 1893 World Colombian Exposition and for the 1915 San Diego Exposition, builders blended architectural elements original to Italy, Spain and North Africa to create modern American homes with instant Old World elegance. Mediterranean Revival buildings also proved suitable for Miami's climate: thick walls insulated interiors from heat; casement windows admitted cool breezes; and covered balconies, loggias and walkways provided shade from intense sunshine.

In 1922, Charles Deering chose a Mediterranean Revival design for his 13,900 square foot Stone House to remind him of his properties near Barcelona and to provide him with a fire-resistant repository for his collection of fine art and antiques. With its massive stone façade, boxy shape, and decorative arches and columns, the house was intended to look like a centuries-old Spanish fortress. In reality, its construction took just eleven months.

KEY FEATURES OF THE MEDITERRANEAN REVIVAL HOME

DEERING'S STONE HOUSE

PHINEAS PAIST

Besides designing Charles Deering's Stone House, architect Phineas E. Paist contributed to the building of Villa Vizcaya, winter residence of Charles's half-brother, James Deering. He later served as a supervising architect for Coral Gables, developing its color pallet and establishing the city's Board of Architectural Review Panel. Paist's other Miami designs included the Coral Gables Douglas Road Entrance, City Hall, Colonnade Building, Venetian Pool and Miami Federal Courthouse.

MEDITERRANEAN REVIVAL

Mediterranean Revival architecture most often features a symmetrical, rectilinear floor plan with a massive exterior façade, stuccoed walls, and a low-sloping red-tiled roof. Balconies, loggias, and window grilles are common, as are accents of wrought iron, wood, terra cotta, and limestone.

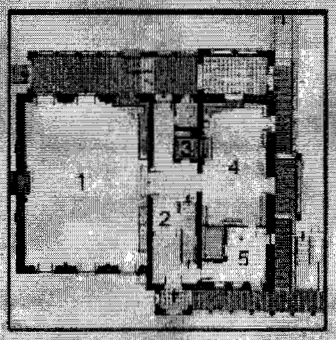
Introduced in the late nineteenth century, this eclectic combination of European architectural styles reached the height of its popularity in Florida in the 1920s and 30s. Its use reinforced the idea of Florida as a fantasy land for the wealthy and gave new communities an air of antiquity and Old World elegance.

BASEMENT/WINE CELLAR

In the 1920s, the 18th amendment to the Constitution prohibited the manufacture, transport, and sale of alcoholic beverages in the United States. After the Stone House was built, Charles Deering locked his collection of fine liquors in a basement vault and disguised the door with dry-good shelving.

During a 1945 hurricane, the cellar flooded and the vault door rusted closed. It remained sealed for forty years. Upon reopening the vault in 1985, state officials discovered that thousands of bottles of champagne, wine, and spirits stored inside had been ruined by salt water, breakage, and insects.

Today, new shelving and wine tasting tables display some of the original bottles.



FIRST FLOOR

(1) Ball Room - The Ball Room features walls seventeen feet high and a coffered concrete ceiling. The fifteenth century Italian mantle over the fireplace was a gift to Charles from James Deering. The mantle is flanked on the left by a Ramon Casas painting of hooded Spanish penitents, entitled "Ash Wednesday Procession in Barcelona," and on the right by a 700 to 800-year-old embroidered silk tapestry.

(2) Foyer - Sculptures by Augustus Saint-Gaudens (designer of the American "Double Eagle" twenty-dollar gold piece) once filled this room.

(3) Elevator - This working Otis elevator cab is original to the house and was refurbished after Hurricane Andrew.

(4) Library - Deering enjoyed researching genealogy, including his own Puritan ancestry, and had many books on the subject. His library also included works of classical fiction, books in foreign languages, and beautifully illustrated field guides.

(5) Pantry - This area held a sink but no stove. Today, it serves as the electrical room. A mezzanine was added by the park to keep elevator machinery safe from flooding.

WHERE IS THE KITCHEN?

In order to protect his art collection, Deering had the Stone House built without a kitchen or dining areas. The Richmond Cottage served as the Deerings' center for cooking and dining as long as the family owned the property.

SECOND FLOOR

(6) Guestroom/Sitting Room - The photographs and painting in this room depict Deering's Spanish palaces, Marycel and Tamarit.

(7) Guestroom - Mrs. Deering used this area as a dressing room.

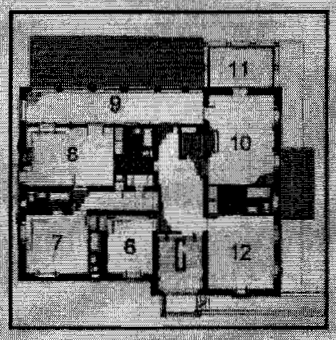
(8) Mrs. Deering's Bedroom & Bath - The blue and yellow hand-painted tiles over the fireplace were imported from Spain.

(9) Terrace - This screened area may have been used by Mrs. Deering as a sleeping porch during hot Florida summers.

(10) Mr. Deering's Bedroom & Bath - Mr. Deering passed away in his bed on February 5th, 1927 after an extended illness.

(11) Mr. Deering's Sleeping Porch - Deering sat and listened to his beloved birds from this balcony. He could identify many local bird species from their calls.

(12) Mr. Deering's Study - In this room, Deering wrote many letters to his family and close friends.



* **Third Floor - Servants'/Storage Rooms (closed)** - These rooms serve as the Estate's administrative offices.

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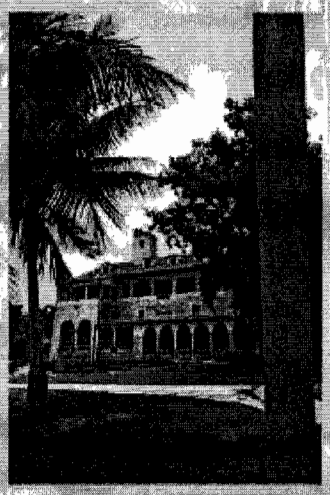
STONE HOUSE 1922



DEERING ESTATE AT CUTLER

SELF-GUIDED TOUR

CHARLES DEERING

In 1916, industrialist Charles Deering began purchasing the town of Cutler and turned its hotel, the Richmond Cottage, into his winter home. At the time, Mr. Deering had recently transformed an old hospital and group of fishermen's houses along the Mediterranean coast, near Barcelona, into a palatial mansion called Maricel and was working to restore his medieval Spanish castle, Tamarit.

By 1921, Deering was ready to make a permanent move to South Florida and wished to bring a little of Spain with him. He requisitioned a Mediterranean Revival Stone House to be built within the original lot lines of the Richmond property.

"The Deering home...was a warm and inviting place, beautiful, obviously a place of unpretentious wealth and fine taste."
Mary Warren Hudson, neighbor.

The Stone House would feature 18-inch thick, reinforced concrete walls, covered in a limestone veneer to imitate the rugged, exposed stone of Tamarit. It would also have a roof of handmade clay tiles, antique wrought iron window grilles, bronze and copper-clad doors and arcades of hand-carved columns.

Deering lived in the Stone House for five years before passing away in his second-floor bedroom at the age of seventy-five.

THE DEERING COLLECTION

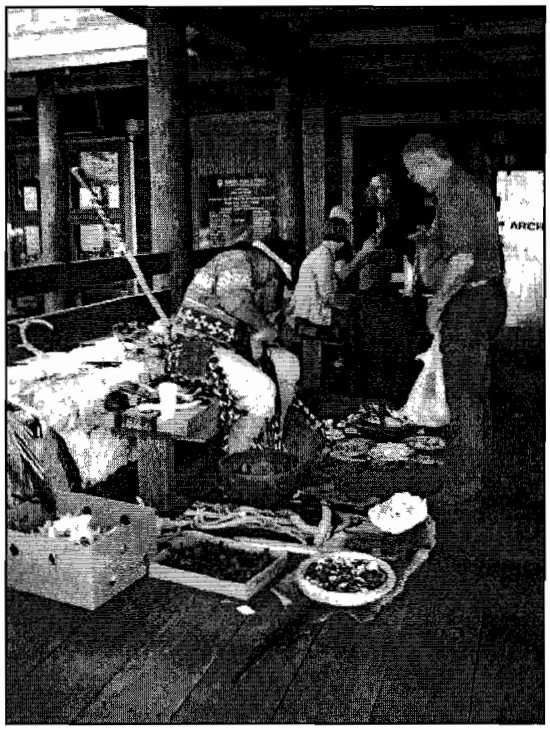
Charles Deering was considered a good amateur artist and was an astute collector of fine art and antiques. He filled his palaces with paintings by Goya, El Greco and Velazquez, in addition to works by his contemporaries: modernista Ramón Casas and Santiago Rusiñol, Swedish impressionist Anders Zorn and American portraitist John Singer Sargent.

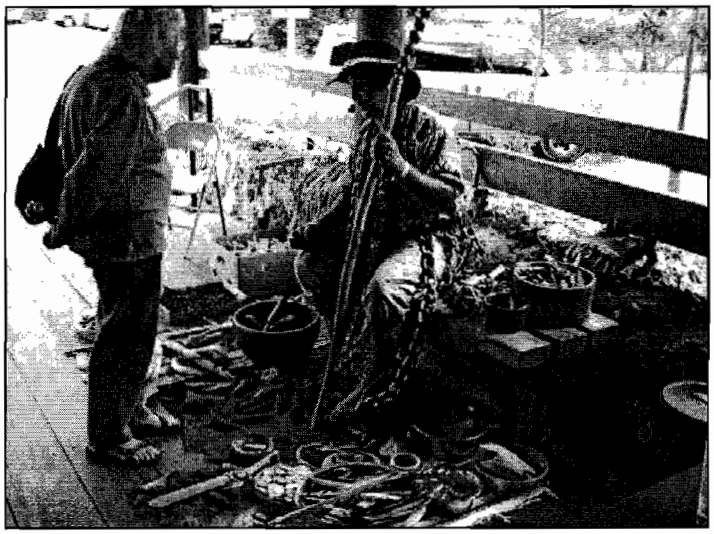
When Deering lived in the Stone House and Richmond Cottage, inventories show that the rooms were filled with antique Chinoiserie and Chippendale furniture and with artwork by Edgar Degas, Justus Sustermans and James McNeill Whistler among others.

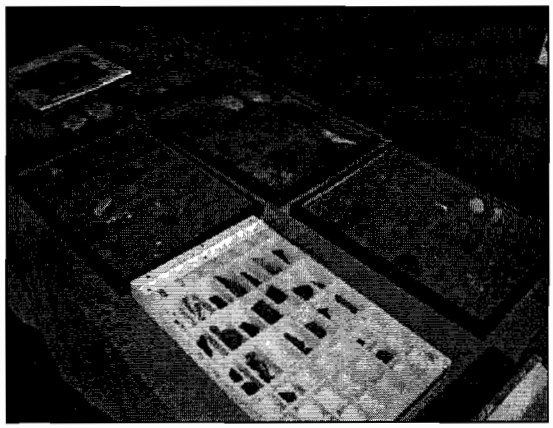
Deering loaned the major portion of his collection to the Art Institute of Chicago in 1922, and his daughters donated it to the Institute after his death in 1927.

By the time the Deering Estate at Cutler was purchased by the State of Florida, Charles Deering's heirs had donated, sold, or removed the contents of the houses. The buildings were relatively empty when Hurricane Andrew devastated the Estate on August 24th, 1992. Family members, Beverly Bledsoe Danielson and Jocelyn Tenille, donated artwork and other items from the Deering Collection to the Estate in celebration of the park's reopening in 1999, seven years after the storm.

EVENT PHOTO DOCUMENTATION AND BROCHURES: ARCHEOLOGY DAY



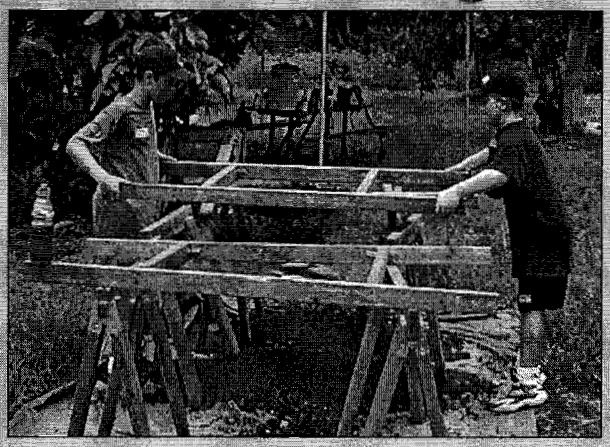




DEERING ESTATE AT CUTLER

ARCHEOLOGY DAY

Saturday, March 21, 2009



***All programs are FREE** with general Estate admission. All ages welcome.*

10:00 am to 4:00 pm

Join us for expert lectures, walk our historic Tequesta Trail to a black dirt midden and the Cutler Burial Mound, visit the grand opening of our NEW exhibit "Ancestral Portraits" or bring the kids out to uncover fossils at our mock archeology dig site.

The first lecture and Tequesta Trail Tour begins at 10 am and runs for approx. 2 hours. There will be two more tours at 12 pm & 2 pm.

16701 SW 72 Avenue, Palmetto Bay

For more information, please visit

www.deeringestate.org

A special thanks to Florida Public Archeology Network, Archeology Society of Southern Florida, and Miami-Dade County's Office of Historic and Archeological Resources.

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MIAMI-DADE COUNTY

DEERING ESTATE AT CUTLER

Visitor's Site Map

LEGEND

1 - Visitor Center
2 - Main Gate (Kayak/Canoe Rental)
3 - South Entrance (Closed)
4 - Boat Turning Basin
4a - Pontoon Boat Departure
4b - Kayak/Canoe Departure
5 - Stone House
6 - Richmond Cottage (Meet for All Tours)
7 - Royal Palm Grove (Picnic Area)
8 - Artist Village:
Carriage House, Power House, Pump House (Classroom)
9 - People's Dock
10 - Mangrove Boardwalk
P - Parking
T - Self Guided Nature Trails
▲ - Restrooms

MIAMI-DADE COUNTY

DEERING ESTATE AT CUTLER

Archeology Day 2009
The Deering Estate at Cutler
March 21, 2009, 10:00 am to 4:00 pm

Step back in time at the Deering Estate at Cutler, Archeology Day 2009. Learn about Florida's history from the people who have spent years studying it. Special thanks to our collaborators the Florida Public Archeology Network, Archaeologiocal Society of Southern Florida and Miami-Dade County's own Office of Historic and Archaeological Resources. Archeologists, archeology and history enthusiasts, future archeologists and families are encouraged to come listen to one of our many expert lectures, walk our historic Tequesta trail to a midden and the Cutler Burial Mound, visit the grand opening of our Archeology exhibit in the Richmond Cottage or PLAY (Preservation Learning Adventure Year-round) alongside family members at our mock archeology dig site/ children's activities. Our first lecture and Tequesta Trail tour* will begin at 10 am and run approximately 2 hours. If you miss the first one, don't worry, you can join us again at noon and 2 pm. Children's activities will take place all day. Bring a small picnic and enjoy the all-day event. All activities are free with regular Estate admission. Free with general Estate admission - $10.00 Adults, $5.00 Children 14 and under.

LECTURERS/TOURS: 10 am or Noon or 2 pm

Meet and Depart from the Visitor Center

Robert S. Carr, Archaeological & Historical Conservancy, Inc.
Curtis R. McKinney, Archeological Society of Southern Florida
Michelle Williams, Florida Public Archeology Network

JUNIOR ARCHEOLOGISTS:

Program ongoing, *Meet at the Classroom (Pump House)*
Various anthropological activities for the young and young at heart
Naturalist led Field Study Trips to Mock Archeological Dig Site

ANCESTRAL PORTRAITS EXHIBIT:

Second Floor Richmond Cottage, *Meet at Front Porch*

ADMISSION: Free with regular Estate admission
$10.00 adults, $5.00 children 14 and under

*Tours to different archeologically significant areas of the Deering Estate will be offered throughout the day...10 am, noon and 2 pm. Guests will be able to visit the Cutler Burial Mound and the Black Dirt Midden. Youth and Families are welcome to participate in our Junior Archeologist program – meet over at the classroom (Pump House). From the classroom, junior archeologists will be led to the Deering Estate Mock Archeology Dig Site throughout the day for special programs...get your hands dirty and learn about our past.

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STEPPING THROUGH TIME:
TRACING THE FOOTSTEPS OF THE TEQUESTA AND EARLY MAN'S CONNECTION TO HIS NATURAL ENVIRONMENT

Appendix I

Deering Estate at Cutler's Living Classroom Learning Programs

Appendix I: Living Classroom Learning Programs

"Stepping Through Time: Tracing the Footsteps of the Tequesta and Early Man's Connection to his Natural Environment" will be integrated into our core learning programs – both onsite and those offered as outreach or as part of an in-school curriculum enhancement program. It is our intent as part of the grant planning to enhance these current lesson plans and activities with feedback from our project planning team. Education and Interpretive Staff have adopted the Florida Department of Education's Sunshine State Standards (SSS) as the foundation of our recreational and environmental curriculum development. SSS incorporates important skills such as critical thinking, problem-solving, creativity, innovation, collaboration and communication. Our Living Classroom integrates learning elements from the Florida Comprehensive Assessment Test (FCAT), correlating our modules with selected FCAT benchmarks in Mathematics, Reading, Science, and Writing from the Sunshine State Standards. Lesson plans and photo documentation of our existing leaning programs is provided in this Appendix.

National Association of Counties

2009 Achievement Award Winner

This Award is Presented to

Miami-Dade County, FL

for
its program

The Deering Estate at Cutler-Living Classroom

in recognition of an effective and innovative program which contributes to and enhances county government in the United States.

Don Stapley, President

Larry Naake, Executive Director

NACo National Association of Counties
The Voice of America's Counties

Archaeology: Dig it up!

Subject: Archaeology
Duration: 45-50 minutes
Location: Model Tequesta Midden in Natural Areas at Deering Estate at Cutler

Sunshine State Standard

LA.A.1.1 LA.C.1.1 LA.C.2.1 LA.C.3.1 SC.F.1.1 SC.G.1.1 SC.H.3.1 SS.A.1.1 SS.B.1.1 SS.B.2.1 SS.D.1.1 LA.A.1.2 LA.A.2.2 LA.C.1.2 LA.C.3.2 SC.A.1.2 SC.H 3.2 SS.A 1.3 SS.A 2.3 SS.A 6.3 SS.B 2.3 LA.A.1.3 LA.A.2.3 LA.C.1.3 LA.C.2.3 LA.C.3.3 LA.E.2.3 SC.D.1.3 SC.D.2.3 SC.G.1.3 SC.G.2.3 SC.H.1.3 SC.H.3.3 SS.A.1.3 SS.B.1.3 SS.B.2.3 LA.A.1.4 LA.A.2.4 LA.B.2.4 LA.C.1.4 LA.C.2.4 LA.C.3.4 LA.E.2.4 SC.D.1.4 SC.F.1.4 SC.G.1.4 SC.G.2.4 SC.H.1.4 SC.H.3.4 SS.A.1.4 SS.B.1.4 SS.B.2.4

Objectives

The purpose of this activity is to introduce students to the early history of South Florida and the Tequesta people through the discipline of archaeology. At the end of this exercise, students will know

- The definitions of key words relating to archaeology
- The basic process of collecting artifacts for scientific research
- That scientific research is a collaborative effort
- Details about the Tequestas way of life

Materials

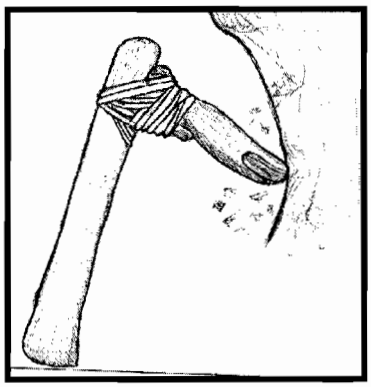
- Model midden – divided into plots 1m2
- Artifacts of shell, bone, and pottery
- 12 Buckets
- 12 1"or 2" paint brushes
- 36 Trowels
- 4 – 6 Sawhorses
- 2 – 3 Sifters
- Shovels (to return soil to midden)
- 12 Datasheets
- 12 clipboards
- 12 pencils

Vocabulary:

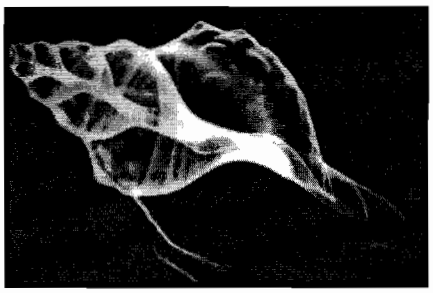
- Ancient history- is the study of the written past from the beginning of recorded human history until the Early Middle Ages in Europe, the Qin Dynasty in China, the Chola Empire in India, and some less defined point in the rest of the world.

- Archeology- Archaeology is the excavation and study of artifacts in an effort to interpret and reconstruct past human behavior. In the study of ancient history, archaeologists excavate the ruins of ancient cities looking for clues as to how the people of the time period lived.

- Artifact- is any object made or modified by a human culture, and often one later recovered by some archaeological endeavor. Examples include stone tools such as projectile points, pottery vessels, metal objects such as buttons or guns, and items of personal adornment such as jewelry and clothing. Other examples include bone that show signs of human modification, fire cracked rocks from a hearth or plant material used for food.



- Celt- wedge or chisel-shaped tool.

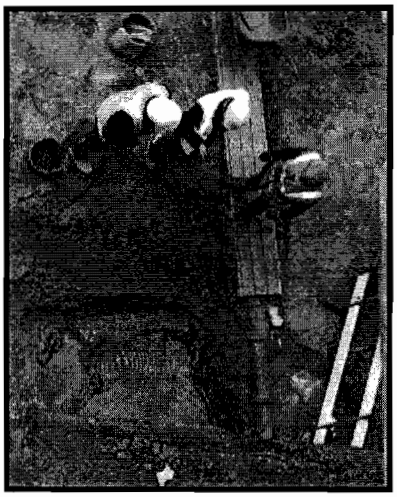


- Columella- is an anatomical feature of a coiled snail shell or gastropod shell. It is often only clearly visible as a structure when the shell is broken, or sliced in half vertically, or in an X-ray.

- Culture- the sum total of ways of living built up by a group of human beings and transmitted from one generation to another. The behaviors and beliefs characteristic of a particular social, ethnic, or age group: *the youth culture; the drug culture.*

- Examine- to observe, test, or investigate.

- Excavate- is the exposure, processing and recording of archaeological remains. The term is also used for an example of the application of the technique to the study of a given site. In this sense, an excavation may



sometimes be referred to as a "dig" by those who participate, this being a concise, if over-simplified description of the process. Such a site excavation concerns itself with a specific archaeological site or a connected series of sites, and may be conducted over a number of years.

- People- as a countable noun, a group of humans, either with unspecified traits, or specific characteristics.

- Science- is the effort to discover and increase human understanding of how physical reality works. Using controlled methods, scientists collect data in the form of observations, records of observable physical evidence of natural phenomena, and analyze this information to construct theoretical explanations of how things work. Knowledge in science is gained through research.

- Tequesta/Tekesta- Native American tribe, at the time of first European contact, occupied an area along the southeastern Atlantic coast of Florida. They had only infrequent contact with Europeans, and had largely disappeared by the middle of the 18th century.

Background (K-5th grade)

Have you ever wanted to travel through time to see what life was like in the distant past? There is a way to time-travel, and it doesn't involve magic or fancy machines. It involves the science of archaeology: the study of past human life through the examination of artifacts left behind by ancient people. Sometimes tools, pottery, and even bones are discovered. By examining these artifacts, scientists learn about the lives of people who lived long ago.

Being an archaeologist is sometimes very hard, hot, and dirty work. First, archaeologists use tools like shovels, trowels, and brushes to excavate the artifacts. Then, they use screens to sift through the soil, looking for any tiny artifacts that may have been missed. Next, they carefully examine all the artifacts in a laboratory and write down everything that they learn. Finally, they publish their findings so that other people can learn about ancient cultures, too.

Hundreds of years ago, Miami was the home of a group of Native Americans called the Tequesta. Archaeologists have studied the places where the Tequesta lived and have discovered artifacts that reveal something of their way of life.

The Tequesta lived on the shores of Biscayne Bay and got much of their food from its waters. They paddled out into the Bay in dugout canoes to hunt large animals like sharks, sea turtles, and even whales. They were also very good at spearing fish in shallow water, and they made traps to catch smaller fish.

The Tequesta ate sea snails, like conchs and whelks, and used the strong shells to make tools. A tool called a celt was made from the outside edge of a heavy shell. The shell was chipped and ground on a flat rock until it was sharp. It could then be tied to a wooden handle and used as an ax or a hoe. The long, spiraling center part of the shell, or columella, could be used as a drill or a needle.

In addition to food from the sea, the Tequesta also ate what they hunted or gathered on shore. In South Florida's thick pine and hardwood forests, animals like deer, birds, and squirrels were plentiful, and forest plants like Strangler Fig, Mulberry, and Saw Palmetto bore tasty, edible fruits

The science of archeology has allowed us to learn more about past cultures like the Tequesta's and to appreciate aspects of their lives that we could never otherwise know.

What is an artifact? Is a 2000-year-old arrowhead an artifact? How about the leftovers from your dinner last night?

When we think of artifacts we usually think of ancient burial goods made of gold and precious gems, like those discovered in King Tutankhamen's tomb. But artifacts don't have to be fancy or even old. They can be tools, clothes, ornaments, religious objects, food, or anything else that people use. Both the arrowhead and your leftovers are artifacts.

Archaeology is the study the human past through careful examination of artifacts found at sites where people lived, worked, worshipped, etc. The job of an archaeologist is somewhat like that of a detective: he or she works to find clues about past cultures and then puts those clues together in order to discover how people lived.

If you were handed a single puzzle piece and was told, "Based on this, describe the whole picture," you would probably have difficulty. You might describe the physical properties of the piece – its color, size, material – but you wouldn't be able to say much about the whole picture from just one part.

Artifacts are like puzzle pieces. The more pieces that are put into place, the more complete the final picture. Individual artifacts may or may not be beautiful and valuable on their own, but archaeologists are more interested in the "big picture." A scientist studying an artifact that has been removed from where it was found can learn a little about that specific item and the culture that produced it. But, no single object – no matter how fantastic – can tell a culture's whole story. That is why "worthless" objects like broken pottery, animal bones, and shells are just as valuable to archaeologists as objects made of gold or silver. Just like a puzzle, it is the relationships between the pieces that make artifacts meaningful.

The relationships between artifacts – where they are found, what other items are nearby, and how they are arranged – give artifacts scientific value and are called context.

DEERING ESTATE AT CUTLER

TEKESTA QUEST 1: Archaeology Dig
Lesson Plan

Subject: Social Studies, Science
Duration: 1 hour
Location: Pavilion, Classroom

Sunshine State Standards
SC.K.N.1.1, SC.K.N.1.2, SS.K.A.1.1, SS.K.A.2.1, SS.K.A.1.2, SC.1.N.1.1, SC.1.N.1.2, SC.1.N.1.3, SS.1.A.1.1, SS.1.A.2.5, SC.2.N.1.1, SC.2.N.1.2, SC.2.N.1.3, SS.2.A.2.1, SS.2.A.2.2

Objectives - Students will be able to:
- Define key words related to archaeology;
- Create a stratified archaeological site;
- Discover details about the Tekestan way of life;
- Describe the process of collecting artifacts for scientific research;
- Compare and contrast the artifacts left behind by different cultures; and
- Categorize artifacts based on physical properties and possible uses;

Materials
- 1 transparent shoe box (per group)
- sand
- soil
- 2 small buckets or containers (per group)
- 3 Tekestan artifacts (per group)
- 3 Pioneer artifacts (per group)
- Dig in a Box Worksheets and Pencil (per participant)

Vocabulary
- Archaeology – the scientific study of past people through the examination of objects that were left behind
- Ancient – very old
- Artifact – an object made/modified and used by people
- Midden – a dirt mound where the Tekesta discarded their trash or used/broken tools
- Excavate – to uncover or dig up
- Tekesta – Native Americans that occupied the Miami area before the European Explorers arrived
- Pioneers –
- Conch – a sea snail (or gastropod) that was used by the Tekesta for food and as a tool

Lesson Plan Outline
Introduction (15 minutes)
Introduce the term, "archaeology" to the students.

Guiding Questions:
- What is "archaeology"?
- Can you describe some everyday items that can be considered artifacts?

Key Facts
- Archaeology – the scientific study of past humans through the examination of objects left behind.
- Archaeologists use items like tools, pottery, shells, and bones to get an idea about how people lived. These items, known as artifacts, can give them lots of information. Artifacts can come from items that were thrown away or left behind.
- Archaeologists uncover, or excavate, artifacts, sometimes through digging. Then, the artifacts are examined to learn everything possible about the people who left them behind.

Inform students that Miami and South Florida have a rich history of past inhabitants. Ask if they can name some of them.

Guiding Questions:

- Who are some of South Florida's past inhabitants?
- What happened to the Tekesta? Are they still here today?
- If the Tekesta died or moved away, how do we know that they were here?

Key Facts

- South Florida has been home to Paleo-Indians, Native Americans, and Pioneers.
- Miami was once the home of Native Americans called the Tekesta.
- The Tekesta lived on the shores of Biscayne Bay and collected most of their food from its waters, including fish, sharks, turtles, sea snails (like conch) and even whales.
- Many of their tools were made from the left over shells.
- They also hunted animals like deer, birds, and squirrels and ate some of the forest plants.
- When early settlers and pioneers came to Miami, the Tekesta either died off or moved away from Florida
- The Tekesta left behind trash mounds know as middens, which contain many potential artifacts that can tell us about them.
- Archaeologists have found many Tekesta sites around Miami, including here at the Deering Estate!

But the Pioneers were also important to this area.

Guiding Questions:

- Who were the Pioneers?
- Why did they come to this area?
- What happened to the Pioneers? Are they still here today?
- If the Pioneers died or moved away, how do we know that they were here?

Key Facts

- The Pioneers were the people who moved to this area after the Tekesta and the Seminoles. They came to this area seeking new opportunities. The area was quite secluded, and still a wilderness, making it tough to live on.
- After the railroad (now US1) was built a few miles west of here, many of the pioneers decided to move because it was easier to live near the railroad. Additionally, because of the railroad, people did not need to travel to Cutler anymore.
- When the pioneers moved, they left their houses behind. When Charles Deering moved here, he removed all the houses and building that were a part of the town of Cutler (except for the Richmond Cottage).

Explain to students that they will create a mini mock archaeological site. Each group will be responsible for creating one site

Give students the following rules:

1. All members on the team must share and take turns adding items to the site.
2. Sand, soil, or objects must not be thrown.
3. Students will follow all the instructions given by the teacher
4. Any student who breaks these rules will sit out of the activity.

<u>Activity</u> (30 minutes)

Divide students into groups of 4-5. Give each group 6 artifacts (3 left by the Tekesta and 3 left by the Pioneers).

- Instruct students to lay the artifacts out on the table so that everyone in the group can see them.
- Ask students to identify the materials that artifacts are made out. Students should then sort the artifacts by their type material.

Guiding Questions:

- What types of materials are the artifacts made of?
- Which of these artifacts could have been used by the Tekesta? The Pioneers? How do you know?

Key Facts

- The artifacts can be made of bone, shell, clay, metal, glass, plastic, etc.
- The Tekestan artifacts came from items found in nature. They ate conch and other gastropods, deer, raccoon, and other organisms, and then used their shells, bones, antlers, etc. as tools. The pioneers probably brought in things such as glass and metal.

- After students have identified which artifacts belong to which group, they should sort them accordingly.

Give each group a shoebox, a bucket of sand, and a bucket of soil.

- Explain to students that archaeologists can tell which culture appeared first by observing the location of that culture's artifacts during a dig.

Guiding Questions:

- Would an old or a new culture appear near the top of the dig? What about at the bottom of the dig?
- Which culture came first, the Tekesta or the Pioneers?
- If we are creating a site in our shoebox, which artifacts should be buried first?

Key Facts

- When examining a site, each layer builds upon the last layer. The culture that was there first (and is the oldest) will have artifacts at the bottom. As new cultures come into the area, they will build layers on top of the previous one. The layer at the top will represent the newest (youngest)
- The Tekesta lived in Miami long before the Pioneers arrived. Therefore, the Tekestan artifacts should be found deeper.

- Instruct each group to pour half their bucket of sand into the shoebox. Next, place the "older" artifacts into the sand (these should be the artifacts identified by the groups as "Tekestan"). Once the artifacts are placed, pour the remaining sand on top to cover.
- Have students repeat this procedure with the soil and the "newer" Pioneer artifacts.

Direct the students to look at the sides of their shoebox. What do they see?

Guiding Questions:

- What do you notice when you look at the side of the box?
- Which layer is the oldest layer? Which is the youngest layer?
- What would happen if an archaeologist dug deeply and excavated the dirt and the sand together, instead of first removing the dirt separately and then the sand? (Demonstrate what you are talking about.)
- What would be a better way to excavate?

Key Facts

- The sand and soil create two layers in the box. Each layer contains artifacts from each of the cultures that we discussed. The layer on the bottom was placed first, so it is the oldest layer. The opposite is true for the first layer. It is the youngest one.
- When excavating, it is important that the archaeologist digs carefully and doesn't go too deep. This is to make sure that artifacts from the two different layers aren't mixed. If that happens, the artifacts may be attributed to the wrong culture.
- Each layer should be dug and examined carefully and separately from the other layers. This way, all the artifacts from one layer, and one culture, are kept together.

<u>Activity Wrap-Up</u> (15 minutes)

Review with the students how to determine which layers/artifacts are older

- Layers at the bottom are old and were placed there first; layers at the top are the youngest and the artifacts were placed there last
- Artifacts found in a bottom layer are older than artifacts found in layers above it. Artifacts found in a top layer are younger than the artifacts found in the layers below it.

Give each student the Dig In A Box worksheet.

- Read through the directions to make sure that the students understand
- When students complete the worksheet, allow them to share their answers.
- If time remains, students can color their worksheets.

TEKESTA QUEST 1: Archaeology Dig
Pre- and Post- Activities

Overview
Participants are introduced to the history of the Deering Estate, including the Tekesta and early South Florida pioneers who once lived in the area. Participants will become familiar with the process of stratification and how that helps archaeologists to differentiate between artifacts left behind different cultures.

Maximum Number of Participants: 36

Subject: Social Studies, Science
Duration: 1 hour
Location: Pavilion, Classroom

Sunshine State Standards
SC.K.N.1.1, SC.K.N.1.2, SS.K.A.1.1, SS.K.A.2.1, SS.K.A.1.2, SC.1.N.1.1, SC.1.N.1.2, SC.1.N.1.3, SS.1.A.1.1, SS.1.A.2.5, SC.2.N.1.1, SC.2.N.1.2, SC.2.N.1.3, SS.2.A.2.1, SS.2.A.2.2

Objectives - Students will be able to:
- Define key words related to archaeology;
- Create a stratified archaeological site;
- Discover details about the Tekestan way of life;
- Describe the process of collecting artifacts for scientific research;
- Compare and contrast the artifacts left behind by different cultures; and
- Categorize artifacts based on physical properties and possible uses;

Vocabulary
- Archaeology – the scientific study of past people through the examination of objects that were left behind
- Ancient – very old
- Artifact – an object made/modified and used by people
- Midden – a dirt mound where the Tekesta discarded their trash or used/broken tools
- Excavate – to uncover or dig up
- Tekesta – Native Americans that occupied the Miami area before the European Explorers arrived
- Pioneers –
- Conch – a sea snail (or gastropod) that was used by the Tekesta for food and as a tool

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Pre-Activity

Bag O' Artifacts

Artifacts, objects that are made and used by people, can represent individuals as well as cultures. Groups of artifacts found together can help to piece together a history and story of a culture. Archaeologists use artifacts for this very purpose, allowing them to imagine and learn what ancient cultures were like.

Through examining personalized artifact collections, members of a group will try to guess who of the group the artifacts represent.

Materials:

- Brown paper lunch bags
- Personal objects brought in by you and the students (3-4 per student)

Procedure:

1. Number each paper bag on the bottom. Prepare one bag that can represent you; it can contain items that show that you are a teacher or that you use everyday.
2. Give each student one paper bag. Secretly note which student received which number.
3. Explain to the students what artifacts are and that an artifact can represent an individual, as well as to help describe that person or a culture.
4. Show students the items in the bag you prepared. Ask students what they think these items say about the owner. After they have brainstormed a few ideas, ask students to guess who the items belong to and why. Let them know that the items in the bag represent you.
5. Have students fill their small paper bag with objects that represent them.
6. Mix the bags up and hand them back out, making sure that everyone gets someone else's artifacts.
7. Have each person look through the artifacts and try to guess whom the bag belongs to. How could they tell?
8. Discuss the answers. Explain that archaeologists use this technique to help determine information, stories, and answers about ancient civilizations and cultures.

Color the Native American Artifacts

Pottery	Bone fish hooks	Clay dipper	Shell pendant
Corn	Bone awl	Pottery	Cane matting
Acorns	Pottery	Pottery	Stone projectile points
Copper Covered wooden ear spools	Mussel shells	Stone hoe	Clay pipe
Clay game disc	Hickory nut	Deer bone	Persimmon seed
Grinding stone	Beans	Pottery	Pottery

Post-Activity

Week in Your Life

If an archaeologist were to examine the things that you did during this week of your life, what would they find in the stratified layers? Archaeologists rely on artifacts that have been left behind to tell them a story about the individuals or culture they are examining. In this activity, students will have the Students will have the opportunity to tell a story about themselves by creating their own stratified site.

Materials:

- One shoebox per student
- Large construction paper cut into long 1-2 inch strips (1 sheet of 7 different colors per student)
- Crayons or colored pencils
- Glue or tape

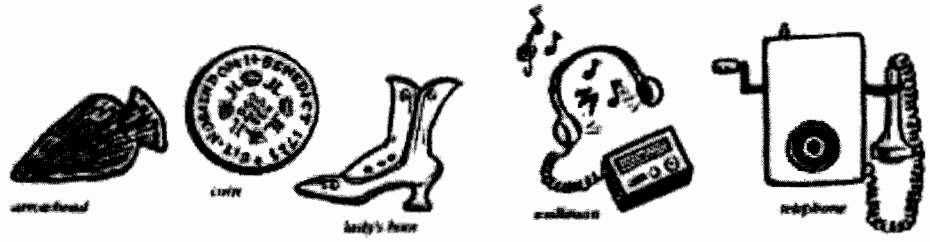
Procedure:

1. Ask students if they remember the different layers they observed during the Dig in the Box activity. Why were their 2 layers? What did the two layers represent? Remind students that the different layers indicated different cultures and different places in time. (The things that happened first, or are older, occur in the bottom layer, and newer, younger things appear in the upper layers.
2. Explain to students that they will create their own layered archaeological site for one week. They are going to leave behind information ("artifacts") that describes them. Many years from now, if an archaeologist were to look at their site, the archaeologist would be able to tell a story about them.
3. Explain to students that they should "include artifacts" in their layers that will tell a story about them. Each day the students should answer the following questions:
    a. What did I play with today?
    b. What did I eat today?
    c. What did I learn today?

    Students can answer these questions by writing, drawing, cutting and pasting, or using stickers. This information will be put on the different colored construction paper, each representing a "soil layer of the day". For example, on Monday, all students will be given a red piece of construction paper to write their answers on; Tuesday, they will all be given blue construction paper to repeat the task.
4. Give each student a shoe box and 4 strips of one color of construction paper (all students should receive the same color). Instruct students to turn the box upside down (the opening is facing down on the table) and to tape or glue the strips along the bottom edge.
5. Once their layer has been created, students should answer the questions in the ways recommended above.
6. The following day, give students another color of construction paper. Instruct them to tape or glue these strips just above the strip from the day before. Students should again answer the questions describing what they did that day.
7. Repeat until the students have 5-7 different construction paper layers on their box (either Monday to Friday or Monday to Sunday), each layer describing what the students did for that day. For the last layer, in addition to the strips, give each student a larger piece of construction paper to cover the exposed top of the box with the same layer. This will represent the top soil. Instruct students to decorate this "top soil" with items that represent them, such as pictures or drawings of family members, pets, friends, hobbies, or favorite objects.

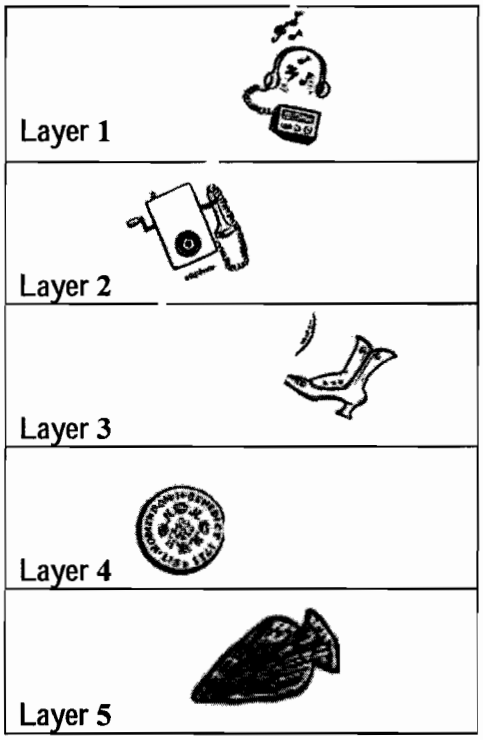
Match the Artifacts

Draw a line between the artifact and the person who would have used it.



Which Artifact is Older?

Using the diagram, can you identify which artifact is older?



The oldest artifact is in layer _____.

The shoe is younger than the:
a. Radio b. Telephone c. Coin

Circle the artifact that is older:

Which layer has the youngest artifact?
a. Layer 5 b. Layer 3 c. Layer 1

Pictures taken from Nova Scotia Archaeology Society

TEKESTA QUEST 2: Archaeology Dig
Lesson Plan

Subject: Social Studies, Science
Duration: 1 hour
Location: Mock Archaeology Site and Natural Areas Trail

Sunshine State Standards
SC.3.N.1.1, SC.3.N.1.2, SC.3.N.1.3, SS.3.A.1.1, SS.3.A.1.3, SS.3.G.4.4, SC.4.N.1.1, SC.4.N.1.2, SC.4.N.1.4, SS.4.A.1.1, SS.4.A.2.1, SC.5.N.1.1, SC.5.N.1.3, SS.5.A.1.1, SS.5.A.2.1, SS.5.A.2.3, SS.5.A.6.6

Objectives - Students will be able to:
- Define key words related to archaeology;
- Investigate an archaeological site;
- Discover details about the Tekestan way of life;
- Describe and model the process of collecting artifacts for scientific research;
- Recognize that collaboration is an important part of scientific research;
- Categorize artifacts based on physical properties; and
- Present information gathered from the activity and their discussions;

Materials
- 1 bucket (per group)
- 3 trowels (per group)
- 3 brushes (per group)
- Model archaeology plots with shell, bone, and pottery artifacts buried
- Archaeology Dig Data Sheet
- 1 clipboard (per group)
- 1 pencil (per group)

Vocabulary
- Archaeology – the scientific study of past people through the examination of objects that were left behind
- Ancient – very old
- Artifact – an object made or modified by people
- Midden – a dirt mound where the Tekesta discarded their trash or used/broken tools
- Excavate – to uncover or dig up
- Tekesta – Native Americans that occupied the Miami area before the European Explorers arrived
- Conch – a sea snail (or gastropod) that was used by the Tekesta for food and as a tool
- Trowel – a small hand tool used for digging or scooping
- Plot – an area within an archaeological site that has been sectioned off and assigned a ID number

Lesson Plan Outline

Introduction (15 minutes)

Introduce the term, "archaeology" to the students.

Guiding Questions:

- What is "archaeology"?
- Can you describe some everyday items that can be considered artifacts?

Key Facts

- Archaeology – the scientific study of past humans through the examination of objects that were left behind. (*Archae* = old, ancient, *-ology* = the study of)
- Archaeologists use items like tools, pottery, shells, and bones to get an idea about how people lived. These items, known as artifacts, can give archaeologists lots of information.
- Artifacts can come from items that were thrown away of left behind.
- In 1000 years, the things that students use in their everyday life will become artifacts too; things like their sneakers, I-Pods, candy wrappers, etc.
- Archaeologists use tools such as shovels, trowels, brushes, and sifters to uncover, or excavate, artifacts. Then, the artifacts are examined and everything that is learned about the object and the people who used that object is written down.

Inform students that Miami and South Florida have a rich history of past inhabitants. Ask if they can name some of them.

Guiding Questions:

- Who are some of South Florida's past inhabitants?
- What happened to the Tekesta? Are they still here today?
- If the Tekesta died or moved away, how do we know that they were here?

Key Facts

- South Florida has been home to Paleo-Indians, Native Americans, Pioneers.
- Miami was once the home of Native Americans called the Tekesta.
- The Tekesta lived on the shores of Biscayne Bay and collected most of their food from its waters, including fish, sharks, turtles, sea snails (like conch) and even whales.
- Many of their tools were made from the left over shells.
- They also hunted animals like deer, birds, and squirrels and ate some of the forest plants.
- When early settlers and pioneers came to Miami, the Tekesta either died off or moved away from Florida
- The Tekesta left behind trash mounds know as middens, which contain many potential artifacts that can tell us about them.
- Archaeologists have found many Tekesta sites around Miami, including here at the Deering Estate!

Explain to students that will be taking part in an excavation. Point out the site to the students.

Guiding Questions:

- Why does the site look the way it does with the areas marked off by string?

Key Facts

- Archaeologists like to create grids and plots to help them with the excavation process.
- Each plot is assigned a number so that when an artifact is found, it can be associated with that plot location within the site
- By marking off the plots, archaeologists can work one area at a time, or share the work with others.

Each group will be responsible for excavating one plot.

- They will use their tools (trowel, brush, and bucket) to dig through their plot to see if they can locate any artifacts.

- They will also use their Data Sheet to record their observations, draw the items they find, brainstorm what they think that item is and what it was used for.
- Inform the students that the items are made from different materials, most likely bone, shells, metal, or clay (pottery). They can use these materials to categorize their items.

Give students the following rules:

1. All members on the team must share the excavation and recording duties.
2. The tools are only to be used to scoop or brush dirt and artifacts, not humans.
3. Dirt or objects that are excavated must not be thrown.
4. Students will follow all the instructions given by the teacher
5. When tools are not being used, they are to be placed gently in the buckets.
6. Any student who breaks these rules will sit out of the activity.

Activity (30 minutes)
Divide students into groups of three and assign them to a plot.

- Give each group a clipboard with the Data Sheet and a pencil.
- Be sure that they circle the plot number they are assigned.

Instruct students that they are to dig and uncover the artifacts buried in their plot.

- When an artifact is uncovered they must:
    - Use the brush to fully uncover the object, but not remove it
    - Note where it is found in their plot and draw the item on their Data Sheet in the corresponding location. Students need to write a number next to the drawing indicating the order in which it was found.
    - Remove the object and list details about it (what it is – if they can tell, color, size and shape, number found, material it is made out). Details should be listed next to the corresponding number.
- Students continue to dig and excavate for 20 minutes, or until they can no longer find objects.

After 20 minutes, ask students to sit down with their groups and review the items they discovered.

- As a group, the students should discuss each item and decide:
    - What is the item?
    - What was it used for?
    - How did your group come to this conclusion?

Activity Wrap-Up (15 minutes)
Each group has the opportunity to present their findings.

- Groups can present together or choose a representative
- Groups must identify their plot number and discuss the items they found using the questions they discussed as a guide.
- Encourage the other groups to ask questions.

After all groups have presented, ask students to return the artifacts to their plots.

- Have students return any dirt they removed from the plot
- Ask students to stack all the buckets and organize the supplies.

DEERING ESTATE AT CUTLER

TEKESTA QUEST 2: Archaeology Dig
Pre- and Post- Activities

Overview
Participants are introduced to the history of the Deering Estate, including the Tekesta and early South Florida pioneers who once lived in the area. Participants will become familiar with basic archaeological techniques as they unearth artifacts at our model Tekesta midden.

Maximum Number of Participants: 36

Subject: Social Studies, Science
Duration: 1 hour
Location: Mock Archaeology Site and Natural Areas Trail

Sunshine State Standards
SC.3.N.1.1, SC.3.N.1.2, SC.3.N.1.3, SS.3.A.1.1, SS.3.A.1.3, SS.3.G.4.4, SC.4.N.1.1, SC.4.N.1.2, SC.4.N.1.4, SS.4.A.1.1, SS.4.A.2.1, SC.5.N.1.1, SC.5.N.1.3, SS.5.A.1.1, SS.5.A.2.1, SS.5.A.2.3, SS.5.A.6.6

Objectives - Students will be able to:
- Define key words related to archaeology;
- Investigate an archaeological site;
- Discover details about the Tekestan way of life;
- Describe and model the process of collecting artifacts for scientific research;
- Recognize that collaboration is an important part of scientific research;
- Categorize artifacts based on physical properties; and
- Present information gathered from the activity and their discussions;

Vocabulary
- Archaeology – the scientific study of past people through the examination of objects that were left behind
- Ancient – very old
- Artifact – an object made or modified by people
- Midden – a dirt mound where the Tekesta discarded their trash or used/broken tools
- Excavate – to uncover or dig up
- Tekesta – Native Americans that occupied the Miami area before the European Explorers arrived
- Conch – a sea snail (or gastropod) that was used by the Tekesta for food and as a tool
- Trowel – a small hand tool used for digging or scooping
- Plot – an area within an archaeological site that has been sectioned off and assigned a ID number

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Pre-Activity

Have you ever wanted to travel through time to see what life was like in the distant past? There is a way to time-travel, and it doesn't involve magic or fancy machines. It involves the science of archaeology: the study of past human life through the examination of artifacts left behind by ancient people. Sometimes tools, pottery, and even bones are discovered. By examining these artifacts, scientists learn about the lives of people who lived long ago.

Being an archaeologist is sometimes very hard, hot, and dirty work. First, archaeologists use tools like shovels, trowels, and brushes to excavate (carefully dig up) artifacts from the ground. Then, they use screens to sift the dirt, looking for any tiny artifacts that may have been missed. Next, they carefully examine all the artifacts in a laboratory and write down everything that they learn. Finally, they publish their findings so that other people can learn about ancient cultures, too.

Hundreds of years ago, Miami was the home of a group of Native Americans called the Tekesta (or Tequesta). Archaeologists have studied the places where the Tekesta lived and have discovered artifacts that reveal something of their way of life.

The Tekesta lived on the shores of Biscayne Bay and got much of their food from its waters. They paddled out into the Bay in dugout canoes to hunt large animals like sharks, sea turtles, and even whales. They were also very good at spearing fish in shallow water, and they made traps to catch smaller fish.

The Tekesta ate sea snails, like conchs and whelks, and used the strong shells to make tools. A tool called a celt was made from the outside edge of a shell. The shell was chipped and ground on a flat rock until it was sharp. It could then be tied to a wooden handle and used as an ax or a hoe. A columella was made from the twisted, center part of the shell and was used as a drill or a needle.

In addition to food from the sea, the Tekesta also ate what they hunted or gathered on shore. In South Florida's thick pine and hardwood forests, animals like deer, birds, and squirrels were plentiful, and forest plants like Strangler Fig, Mulberry, and Saw Palmetto bore tasty, edible fruits.

The science of archaeology has allowed us to learn more about extinct cultures like the Tekesta's and to appreciate aspects of their lives that we could never otherwise know.

ARCHEOLOGY AND THE TEKESTA - Review

Answer questions 1 through 5. Base your answers on the article "Archeology and the Tekesta."

1. Read the following sentence from the article.
   First, archaeologists use tools like shovels, trowels, and brushes to excavate the artifacts.
   Which of the following words means about the SAME as excavate?
   a. unearth
   b. hide
   c. study
   d. clean

2. If an archaeologist excavated a Tekesta site, which artifact would he or she MOST LIKELY find?
   a. wicker basket
   b. iron horseshoe
   c. shell scraper
   d. stone arrowhead

3. What is the main purpose of the article?
   a. to persuade people to become archaeologists
   b. to tell the story of the Tekesta people
   c. to compare modern and ancient tools
   d. to describe how archaeologists find out about ancient cultures

4. Based on information from the article, which words best describe the Tekesta people?
   a. a tribe of hunter gatherers
   b. a tribe of farmers
   c. a tribe of explorers
   d. a tribe of vegetarians

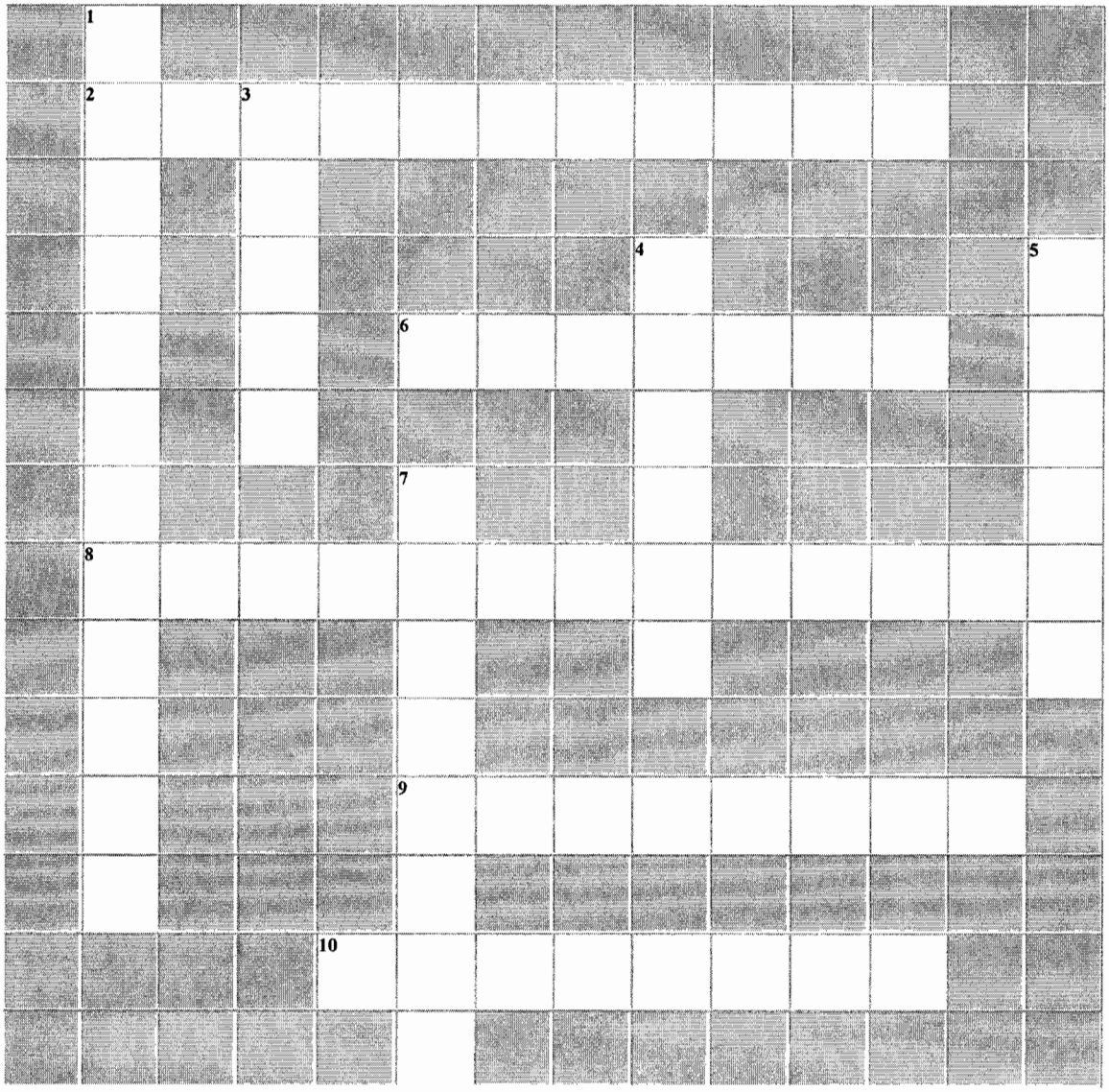
5. How has the science of archaeology helped us learn more about the Tekesta people? Use details and information from the article to support your answer.

Post-Activity

Archaeologists study the ways that people lived long ago. Consider the information that archaeologists have learned about the Tekesta and other cultures. Think of at least three reasons to explain why learning about past cultures is important. Use specific details to support each of your reasons. Use vivid verbs and adjectives to make your paper interesting to read.

Dig It Up! Crossword

Test your knowledge of archaeology by solving the crossword puzzle.



Down:

1. The Native Americans that occupied this area more than 10,000 years ago
3. a sea snail that was used by the Tekesta for food or as a tool
4. a dirt mound where the Tekesta discarded their trash
5. a small hand tool used for digging or scooping
7. The people who settled the Culter Bay area after the Tekesta

Across

2. The scientific study of past people through the examination of objects that were left behind
6. very old
8. the place where your archaeological adventure took place (2 words)
9. to dig for artifacts
10. an object made, modified, and used by people

Word Bank: conch, archaeology, midden, artifact, paleoindians, pioneers, excavate, ancient, Deering Estate, trowel

TEKESTA QUEST 3: Archaeology Dig
Lesson Plan

Subject: Social Studies, Science
Duration: 1 hour
Location: Mock Archaeology Site and Natural Areas Trail

Sunshine State Standards
SC.6.N.1.3, SC.6.N.1.4, SS.6.W.1.2, SS.6.W.1.3, SS.6.W.1.6, SC.7.N.1.5, SC.7.N.2.1, SS.7.G.4.1, SC.8.N.1.1, SC.8.N.1.5, SS.8.A.1.7, SS.8.A.2.7

Objectives - Students will be able to:
- Define key words related to archaeology;
- Investigate an archaeological site;
- Discover details about the Tekestan way of life;
- Describe and model the process of collecting artifacts for scientific research;
- Recognize that collaboration is an important part of scientific research;
- Categorize artifacts based on physical properties; and
- Present information gathered from the activity and their discussions;

Materials
- 1 bucket (per group)
- 3 trowels (per group)
- 3 brushes (per group)
- 1 meterstick (per group)
- Model archaeology plots with Tekestan and Pioneer artifacts buried
- Tekesta Quest 3 Data Sheet
- 1 clipboard (per group)
- 1 pencil (per group)

Vocabulary
- Archaeology – the scientific study of past people through the examination of objects that were left behind
- Ancient – very old
- Artifact – an object made or modified by people
- Midden – a dirt mound where the Tekesta discarded their trash or used/broken tools
- Excavate – to uncover or dig up
- Tekesta – Native Americans that occupied the Miami area before the European Explorers arrived
- Pioneer – one of the first colonists or settlers in a new territory
- Conch – a sea snail (or gastropod) that was used by the Tekesta for food and as a tool
- Trowel – a small hand tool used for digging or scooping
- Plot – an area within an archaeological site that has been sectioned off and assigned a ID number

Lesson Plan Outline

Introduction (15 minutes)

Introduce the term, "archaeology" to the students.

Guiding Questions:

- What is "archaeology"?
- Can you describe some everyday items that can be considered artifacts?

Key Facts

- Archaeology – the scientific study of past humans through the examination of objects that were left behind. (*Archae* = old, ancient, *-ology* = the study of)
- Archaeologists use items like tools, pottery, shells, and bones to get an idea about how people lived. These items, known as artifacts, can give archaeologists lots of information.
- Artifacts can come from items that were thrown away of left behind.
- In 1000 years, the things that students use in their everyday life will become artifacts too; things like their sneakers, I-Pods, candy wrappers, etc.
- Archaeologists use tools such as shovels, trowels, brushes, and sifters to uncover, or excavate, artifacts. Then, the artifacts are examined and everything that is learned about the object and the people who used that object is written down.

Inform students that Miami and South Florida have a rich history of past inhabitants. Ask if they can name some of them.

Guiding Questions:

- Who are some of South Florida's past inhabitants?
- What happened to the Tekesta? Are they still here today?
- If the Tekesta died or moved away, how do we know that they were here?

Key Facts

- South Florida has been home to Paleo-Indians, Native Americans, Pioneers.
- Miami was once the home of Native Americans called the Tekesta.
- The Tekesta lived on the shores of Biscayne Bay and collected most of their food from its waters, including fish, sharks, turtles, sea snails (like conch) and even whales.
- Many of their tools were made from the left over shells.
- They also hunted animals like deer, birds, and squirrels and ate some of the forest plants.
- When early settlers and pioneers came to Miami, the Tekesta either died off or moved away from Florida
- The Tekesta left behind trash mounds know as middens, which contain many potential artifacts that can tell us about them.
- Archaeologists have found many Tekesta sites around Miami, including here at the Deering Estate!

But the Pioneers were also important to this area.

Guiding Questions:

- Who were the Pioneers?
- Why did they come to this area?
- What happened to the Pioneers? Are they still here today?
- If the Pioneers died or moved away, how do we know that they were here?

Key Facts

- The Pioneers were the people who moved to this area after the Tekesta and the Seminoles. They came to this area seeking new opportunities. The area was quite secluded, and still a wilderness, making it tough to live on.
- After the railroad (now US1) was built a few miles west of here, many of the pioneers decided to move because it was easier to live near the railroad. Additionally, because of the railroad, people did not need to travel to Cutler anymore.
- When the pioneers moved, they left their houses behind. When Charles Deering moved here, he removed all the houses and building that were a part of the town of Cutler (except for the Richmond Cottage).

Explain to students that will be taking part in an excavation. Point out the site to the students.

Guiding Questions:
- Why does the site look the way it does with the areas marked off by string?

Key Facts
- Archaeologists like to create grids and plots to help them with the excavation process.
- Each plot is assigned a number so that when an artifact is found, it can be associated with that plot location within the site
- By marking off the plots, archaeologists can work one area at a time, or share the work with others.

As the plots are excavated, students will find artifacts from the two different cultures that we discuss.

Guiding Questions:
- What types of materials might the artifacts be made of?
- Which of these could have been used by the Tekesta? The Pioneers? How do you know? (Allow students to brainstorm.)

Key Facts
- The artifacts can be made of bone, shell, clay, metal, glass, plastic, etc.
- The Tekestan artifacts came from items found in nature. They ate conch and other gastropods, deer, raccoon, and other organisms, and then used their shells, bones, antlers, etc. as tools. The pioneers probably brought in things such as glass and metal.

Explain to students that archaeologists can tell which culture appeared first by observing the location of that culture's artifacts during a dig.

Guiding Questions:
- Would an old or a new culture appear near the top of the dig? What about at the bottom of the dig?
- Which culture came first, the Tekesta or the Pioneers? If we are excavating a site, which artifacts should we expect to find first?

Key Facts
- When examining a site, each layer builds upon the last layer. The culture that was there first (and is the oldest) will have artifacts at the bottom. As new cultures come into the area, they will build layers on top of the previous one. The layer at the top will represent the newest (youngest)
- The Tekesta lived in Miami long before the Pioneers arrived. Therefore, the Tekestan artifacts should be found deeper.

- Students will excavate the plots by digging only a few inches at a time
- By performing the excavation in this way, we can ensure that the layers representing the different cultures aren't mixed and the artifacts can be properly documented and categorized

Each group will be responsible for excavating one plot.
- They will use their tools (trowel, brush, meter stick, and bucket) to dig through their plot to see if they can locate any artifacts.
- They will also use their Data Sheet to record their observations, draw the items they find, brainstorm what they think that item is, who left it behind and what it was used for.

Give students the following rules:
1. All members on the team must share the excavation and recording duties.
2. The tools are only to be used to scoop or brush dirt and artifacts, not humans.
3. Dirt or objects that are excavated must not be thrown.
4. Students will follow all the instructions given by the teacher
5. When tools are not being used, they are to be placed gently in the buckets.
6. Any student who breaks these rules will sit out of the activity.

Activity (30 minutes)
Divide students into groups of three and assign them to a plot.

- Give each group a clipboard with the Data Sheet and a pencil.
- Be sure that they circle the plot number they are assigned.

Instruct students that they are to dig and uncover the artifacts buried in their plot.

- Using the meter sticks, students will only dig about 4 inches down at a time
    - They cannot continue down the next 4 inches until they have excavated that first four inches horizontally as well.
    - Once that layer is done, and the artifacts are recorded (using the procedure below), they can dig down 4 more inches.
- When an artifact is uncovered they must:
    - Use the brush to fully uncover the object, but not remove it
    - Note where it is found in their plot and draw the item on their Data Sheet in the corresponding location. Students need to write a number next to the drawing indicating the order in which it was found.
    - Remove the object and list details about it (what it is – if they can tell, color, size and shape, number found, material it is made out). Details should be listed next to the corresponding number.
- Students should also note at what depth the site layers change, as well as how deep each layer is
- Students continue to dig and excavate for 20 minutes, or until they can no longer find objects.

After 20 minutes, ask students to sit down with their groups and review the items they discovered.

- As a group, the students should discuss:
    - How many layers were observed?
    - What items were found in each layer?
        - What is the item?
        - What was it used for?
        - How did your group come to this conclusion?
    - Can the items found be used to associate the layers with a particular culture?

Activity Wrap-Up (15 minutes)
Each group has the opportunity to present their findings.

- Groups can present together or choose a representative
- Groups must identify their plot number and discuss the layers (including the depths) and items they found using the questions they discussed as a guide.
- Encourage the other groups to ask questions.

After all groups have presented, ask students to return the artifacts to their plots.

- Have students return any dirt they removed from the plot
- Ask students to stack all the buckets and organize the supplies.

DEERING ESTATE AT CUTLER

TEKESTA QUEST 3: Archaeology Dig
Pre- and Post- Activities

Overview
Participants are introduced to the history of the Deering Estate, including the Tekesta and early South Florida pioneers who once lived in the area. Participants will become familiar with basic archaeological techniques as they unearth artifacts at our model Tekesta midden.

Maximum Number of Participants: 36

Subject: Social Studies, Science
Duration: 1 hour
Location: Mock Archaeology Site and Natural Areas Trail

Sunshine State Standards
SC.6.N.1.3, SC.6.N.1.4, SS.6.W.1.2, SS.6.W.1.3, SS.6.W.1.6, SC.7.N.1.5, SC.7.N.2.1, SS.7.G.4.1, SC.8.N.1.1, SC.8.N.1.5, SS.8.A.1.7, SS.8.A.2.7

Objectives - Students will be able to:

- Define key words related to archaeology;
- Investigate an archaeological site;
- Discover details about the Tekestan way of life;
- Describe and model the process of collecting artifacts for scientific research;
- Recognize that collaboration is an important part of scientific research;
- Categorize artifacts based on physical properties; and
- Present information gathered from the activity and their discussions;

Vocabulary

- Archaeology – the scientific study of past people through the examination of objects that were left behind
- Ancient – very old
- Artifact – an object made or modified by people
- Midden – a dirt mound where the Tekesta discarded their trash or used/broken tools
- Excavate – to uncover or dig up
- Tekesta – Native Americans that occupied the Miami area before the European Explorers arrived
- Pioneer – one of the first colonists or settlers in a new territory
- Conch – a sea snail (or gastropod) that was used by the Tekesta for food and as a tool
- Trowel – a small hand tool used for digging or scooping
- Plot – an area within an archaeological site that has been sectioned off and assigned a ID number

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Pre-Activity

Digging in the Layers

The earth beneath your feet consists of many layers. These layers are formed and changed by many natural and man-made processes. Each layer or level is distinct in its color and texture, so each indicates an event or a different time period. The artifacts from these layers, once they have been analyzed and dated, allow archaeologists to date the layers.

Materials:

- Pencils
- Digging in the Layers worksheet

Procedure:

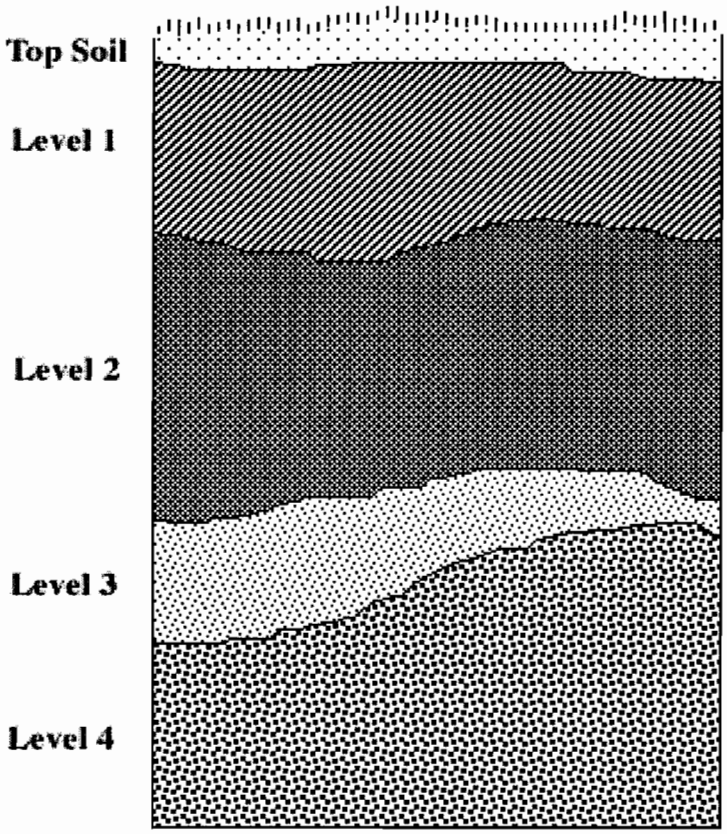
1. Give each student a Digging in the Layers worksheet and a pencil.
2. Ask students to look at the drawing of the Site Section and the artifact catalogue. Students use this information to answer the questions.

Activity modified from http://oha.alexandriava.gov/archaeology.

Digging in the Layers of the Earth

Look at this drawing of the site section, and at the artifact catalogue list below, then answer the questions that follow.

SITE PROFILE



Artifact Catalogue:

Artifact:	Date:
Civil War Button	ca. 1860s
Coin	1750
Pearlware Ceramic sherd	1790
Metal Can	1930

Questions:

1. Which artifact would expect to find in Level 3?
2. Are the artifacts from Level 2 older than those found in Level 3?
3. The archaeologists found no artifacts or evidence of human activity in Level 4. What is this level called?
4. Can you think of any reasons why soil layers are created?
5. If both the coin and the ceramic sherd were found in level 3, approximately how long did it take for the layer to be deposited?

Post-Activity

Archaeologists of the Future

Students pretend to be archaeologists in the year 3000 AD. They identify artifacts from late twentieth century and the early 21st century and build a museum with various theme rooms to display their findings.

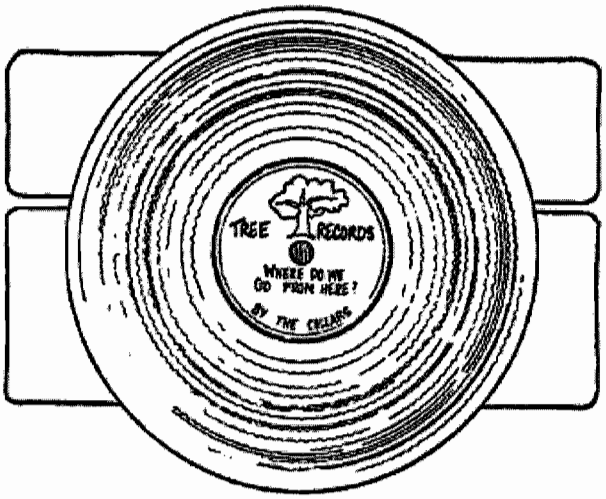
Materials:

- Old magazines, newspapers or catalogues
- Scissors
- Tape or glue
- Student Assignment Sheet
- Poster Board
- Crayons, Colored Pencils, or Markers

Procedure:

1. Ask students to recall what the term archaeology means and how archaeologists learn information about the cultures they study.
2. Have the students brainstorm around the question "What will people 1,000 years from now be able to tell about us from the things we use every day?" Lead a discussion on what these people might think about ipods, types of clothing, CDs and DVDs, a basketball, etc.
3. Explain to students that they are all archaeologists from the year 3000 AD and they have all discovered a great find. This find is so large that they will be able to create a museum filled all the 20th and 21st century artifacts they have recovered.
4. Place students into 7-8 groups. Give each student the Student Assignment Sheet. Explain that each group will be assigned a "room" in the museum where they can display their "exhibit". Groups can volunteer for their rooms, or draw randomly.
5. Each group must create a poster that shows several artifacts related to their exhibit room theme. They can do so by cutting and pasting from the catalogues, magazines, and newspapers, or by drawing. Each group should have several posters (about 3 or 4).
6. In addition to the poster, students should follow the steps listed on the Student Assignment Sheet to complete their poster displays.

ARTIFACT FROM THE LATE 20TH CENTURY



THIS DISC WAS CALLED A "RECORD ALBUM". IT CONTAINED MUSIC BUT NO VIDEO AND REQUIRED A MECHANICAL "NEEDLE" TO PICK UP THE SOUND FROM GROOVES.

Activity and pictures modified from http://www.teachervision.fen.com/discovery/printable/5430.html

Archaeologists of the Future

Student Assignment Sheet

Archaeology is the study of ancient history and the remains of former societies and cultures. For this project you will pretend to be an archaeologist in the year 3000 A.D. You have made a major discovery of artifacts that were buried in the twentieth and twenty-first century, and you are now on assignment from the government to set up a museum display of the things you found.

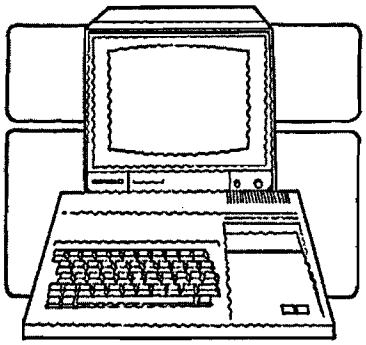
Carefully follow the assignment outline below to complete this project:

I. The museum will be divided into several rooms, each with its own area of emphasis. A drawing will be conducted to determine which room your display will go into, Here is a list of the rooms:
   - A. Electronics
   - B. Tools
   - C. Recreation/Entertainment
   - D. Fashions
   - E. Cooking and Eating
   - F. Home appliances and furniture
   - G. Luxury Items/Fads/Gadgets
   - H. Other_____

II. Each group of archaeologists must create several posters that depict artifacts and how they were used. The posters must relate to the group's museum room's are of emphasis.

III. Follow these steps to complete a poster display.
   - A. Create a title sign for your exhibit, including a list of the all the students in your group.
   - B. Decide which related artifacts you will include in your exhibit room and what will be the best way to group those artifacts for the poster displays. Remember that your group must produce 3-4 posters for your exhibit room.
   - C. Each poster should include the following information about the artifacts:
     1. The names of the artifacts
     2. A picture
     3. At least one drawing of how the artifact was probably used.
     4. A written description of how the artifact was used. This should be placed beneath the drawing from step 3.
     5. Approximate cost of the artifact: how much it cost when it was new.
     6. A brief history of how and where the artifact was discovered by you. This should be written as a brief imaginary story.

Example:



Name: Primitive Computer (circa 1990)

Drawing that shows its probable use:

Description of use:

It appears that there were many types of early computers. People apparently sat in front of them and pushed buttons or "keys" to talk to the computers. These crude machines were not intelligent and had to be continuously told what to do.

Approximate cost when new:

Like present-day matter transformers, early computers came in various price ranges. The one pictured above cost $850, but we have discovered remnant price lists that indicate a range of $200 to $5,000.

Brief history of how and where the artifact was discovered:

This primitive computer was accidentally stumbled upon by archaeologist Nextus Gilbert as he dug for the remains of a gigantic late twentieth century shopping mall on the outskirts of the ancient industrial city of Detroit.

TEKESTA QUEST 4: Archaeology Dig
Lesson Plan

Subject: Social Studies, Science
Duration: 1 hour
Location: Mock Archaeology Site and Natural Areas Trail

Sunshine State Standards
SC.912.N.1.1, SC.912.N.2.4, SS.912.A.1.1, SS.912.A.1.2, SS912.A.1.3, SS.912.A.1.4, SS.912.W.1.4, SS.912.A.2.7, SS.912.G.3.1

Objectives - Students will be able to:
- Define key words related to archaeology;
- Investigate an archaeological site;
- Discover details about the Tekestan way of life;
- Outline the steps of the Archaeological Process
- Describe and model the process of collecting artifacts for scientific research;
- Recognize that collaboration is an important part of scientific research;
- Categorize artifacts based on physical properties; and
- Present information gathered from the activity and their discussions;

Materials
- 1 bucket (per group)
- 3 trowels (per group)
- 3 brushes (per group)
- 1 meterstick (per group)
- Model archaeology plots with Tekestan and Pioneer artifacts buried
- Tekesta Quest 4 Data Sheet
- 1 clipboard (per group)
- 1 pencil (per group)
- 30 plastic baggies (numbered)
- 30 artifact labels (numbered)

Vocabulary
- Archaeology – the scientific study of past people through the examination of objects that were left behind
- Ancient – very old
- Artifact – an object made or modified by people
- Midden – a dirt mound where the Tekesta discarded their trash or used/broken tools
- Excavate – to uncover or dig up
- Tekesta – Native Americans that occupied the Miami area before the European Explorers arrived
- Pioneer – one of the first colonists or settlers in a new territory
- Conch – a sea snail (or gastropod) that was used by the Tekesta for food and as a tool
- Trowel – a small hand tool used for digging or scooping
- Plot – an area within an archaeological site that has been sectioned off and assigned a ID number

Lesson Plan Outline

Introduction (15 minutes)

Introduce the term, "archaeology" to the students.

Guiding Questions:

- What is "archaeology"?
- Can you describe some everyday items that can be considered artifacts?

Key Facts

- Archaeology – the scientific study of past humans through the examination of objects that were left behind. (*Archae* = old, ancient, *-ology* = the study of)
- Archaeologists use items like tools, pottery, shells, and bones to get an idea about how people lived. These items, known as artifacts, can give archaeologists lots of information.
- Artifacts can come from items that were thrown away of left behind.
- In 1000 years, the things that students use in their everyday life will become artifacts too; things like their sneakers, I-Pods, candy wrappers, etc.
- Archaeologists use tools such as shovels, trowels, brushes, and sifters to uncover, or excavate, artifacts. Then, the artifacts are examined and everything that is learned about the object and the people who used that object is written down.

Inform students that Miami and South Florida have a rich history of past inhabitants. Ask if they can name some of them.

Guiding Questions:

- Who are some of South Florida's past inhabitants?
- What happened to the Tekesta? Are they still here today?
- If the Tekesta died or moved away, how do we know that they were here?

Key Facts

- South Florida has been home to Paleo-Indians, Native Americans, Pioneers.
- Miami was once the home of Native Americans called the Tekesta.
- The Tekesta lived on the shores of Biscayne Bay and collected most of their food from its waters, including fish, sharks, turtles, sea snails (like conch) and even whales.
- Many of their tools were made from the left over shells.
- They also hunted animals like deer, birds, and squirrels and ate some of the forest plants.
- When early settlers and pioneers came to Miami, the Tekesta either died off or moved away from Florida
- The Tekesta left behind trash mounds know as middens, which contain many potential artifacts that can tell us about them.
- Archaeologists have found many Tekesta sites around Miami, including here at the Deering Estate!

But the Pioneers were also important to this area.

Guiding Questions:

- Who were the Pioneers?
- Why did they come to this area?
- What happened to the Pioneers? Are they still here today?
- If the Pioneers died or moved away, how do we know that they were here?

Key Facts

- The Pioneers were the people who moved to this area after the Tekesta and the Seminoles. They came to this area seeking new opportunities. The area was quite secluded, and still a wilderness, making it tough to live on.
- After the railroad (now US1) was built a few miles west of here, many of the pioneers decided to move because it was easier to live near the railroad. Additionally, because of the railroad, people did not need to travel to Cutler anymore.
- When the pioneers moved, they left their houses behind. When Charles Deering moved here, he removed all the houses and buildings that were a part of the town of Cutler (except for the Richmond Cottage).

Explain to students that will be taking part in an excavation. Point out the site to the students.

Guiding Questions:

- Why does the site look the way it does with the areas marked off by string?

Key Facts

- Archaeologists like to create grids and plots to help them with the excavation process.
- Each plot is assigned a number so that when an artifact is found, it can be associated with that plot location within the site
- By marking off the plots, archaeologists can work one area at a time, or share the work with others.

As the plots are excavated, students will find artifacts from the two different cultures that we discuss.

Guiding Questions:

- What types of materials might the artifacts be made of?
- Which of these could have been used by the Tekesta? The Pioneers? How do you know?

Key Facts

- The artifacts can be made of bone, shell, clay, metal, glass, plastic, etc.
- The Tekestan artifacts came from items found in nature. They ate conch and other gastropods, deer, raccoon, and other organisms, and then used their shells, bones, antlers, etc. as tools. The pioneers probably brought in things such as glass and metal.

Explain to students that archaeologists can tell which culture appeared first by observing the location of that culture's artifacts during a dig.

Guiding Questions:

- Would an old or a new culture appear near the top of the dig? What about at the bottom of the dig?
- Which culture came first, the Tekesta or the Pioneers?
- If we are excavating a site, which artifacts should we expect to find first, those from the Tekestas or the Pioneers.

Key Facts

- When examining a site, each layer builds upon the last layer. The culture that was there first (and is the oldest) will have artifacts at the bottom. As new cultures come into the area, they will build layers on top of the previous one. The layer at the top will represent the newest (youngest)
- The sequence of layers found is known as stratigraphy. Through the Law of Superposition, we know that the oldest layer will be at the bottom, with the remaining layers stacked in relative chronological order from the oldest to the newest deposit.
- Archaeological excavation is based on the principles of stratification. By systematically removing successive layers, archaeologists can determine which artifacts are related (temporally), as well as their relative age based on the layers they are found in.
- The Tekesta lived in Miami long before the Pioneers arrived. Therefore, the Tekestan artifacts should be found deeper

- Students will excavate the plots by digging only a few inches at a time
- By performing the excavation in this way, we can ensure that the layers representing the different cultures aren't mixed.

However, the process of archaeology doesn't stop at the dig. Once the artifacts are found, they must be properly documented, sorted, and analyzed.

Guiding Questions:

- What is done with an artifact once it is excavated?
- What is involved in processing an artifact?
- Why is it important to record all this information?

Key Facts

- All artifacts are placed into plastic bags once they are excavated. The bags are labeled with information such as the site name, plot number, level/layer, date, and the excavator's initials. Each bag is also assigned a number, sequentially, starting with the first artifact that is collected for the entire site.
- Once excavations are complete, the artifacts are taken to the laboratory for processing. This includes washing, sorting, indentifying, labeling, and data entry.
- Besides the collected artifacts, evidence and data must be collected at the site in the form of verbal descriptions, drawings, or photographs. This is important documentation as when a site is excavated, it is simultaneously destroyed. Therefore, the interpretations of the past will only be as good as the information that we collect and record during the excavation.

Each group will be responsible for excavating one plot.

- Groups will use their tools (trowel, brush, meter stick, and bucket) to dig through their plot to see if they can locate any artifacts.
- As items are discovered, students use their Data Sheet to record their observations, draw the items they find, brainstorm what they think that item is, who left it behind and what it was used for. Then, the items are bagged and labeled with the appropriate information

Give students the following rules:

1. All members on the team must share the excavation and recording duties.
2. The tools are only to be used to scoop or brush dirt and artifacts, not humans.
3. Dirt or objects that are excavated must not be thrown.
4. Students will follow all the instructions given by the teacher
5. When tools are not being used, they are to be placed gently in the buckets.
6. Any student who breaks these rules will sit out of the activity.

Activity (30 minutes)

Divide students into groups of three and assign them to a plot.

- Give each group a clipboard with the Data Sheet and a pencil.
- Be sure that they circle the plot number they are assigned.

Instruct students that they are to dig and uncover the artifacts buried in their plot.

- Using the meter sticks, students will only dig about 4 inches down at a time
  - They cannot continue down the next 4 inches until they have excavated that first four inches horizontally as well.
  - Once that layer is done, and the artifacts are recorded (using the procedure below), they can dig down 4 more inches.
- When an artifact is uncovered they must:
  - Use the brush to fully uncover the object, but not remove it
  - Note where it is found in their plot and draw the item on their Data Sheet in the corresponding location. Students need to write a number next to the drawing indicating the order in which it was found.
  - Students should also note at what depth the site layers change, as well as how deep each layer is
  - Remove the object and list details about it (what it is – if they can tell, color, size and shape, number found, and material it is made out). Details should be listed next to the corresponding number.

- After noting the details, place the artifact in a numbered baggie. Remember that the artifacts should be bagged in the order they are found for the entire site. Also be sure to accurately complete the artifact label.

- Students continue to dig, excavate, document and bag for 20 minutes

After 20 minutes, ask students to sit down with their groups and review the items they discovered.

- As a group, the students should discuss:
  - How many layers were observed?
  - What items were found in each layer?
    - What is the item?
    - What was it used for?
    - How did your group come to this conclusion?
  - Can the items found be used to associate the layers with a particular culture?

<u>Activity Wrap-Up</u> (15 minutes)

Each group has the opportunity to present their findings.

- Groups can present together or choose a representative
- Groups must identify their plot number and discuss the layers (including the depths) and items they found using the questions they discussed as a guide.
- Encourage the other groups to ask questions.

After all groups have presented, ask students to return the artifacts to their plots.

- Have students return any dirt they removed from the plot
- Ask students to stack all the buckets and organize the supplies.

DEERING ESTATE AT CUTLER

TEKESTA QUEST 4: Archaeology Dig
Pre- and Post-Activities

Overview
Participants are introduced to the history of the Deering Estate, including the Tekesta and early South Florida pioneers who once lived in the area. Participants will become familiar with basic archaeological techniques as they unearth artifacts at our model Tekesta midden.

Maximum Number of Participants: 36

Subject: Social Studies, Science
Duration: 1 hour
Location: Mock Archaeology Site and Natural Areas Trail

Sunshine State Standards
SS.A.1.2, SS.A.2.2, SS.A.6.2, SS.B.2.2, SC.H.1.2, SC.H.3.3, SS.A.1.3, SS.A.2.3, SS.A.5.3, SS.A.6.3, SS.B.2.3

Objectives - Students will be able to:

- Define key words related to archaeology;
- Investigate an archaeological site;
- Discover details about the Tekestan way of life;
- Describe and model the process of collecting artifacts for scientific research;
- Recognize that collaboration is an important part of scientific research;
- Categorize artifacts based on physical properties; and
- Present information gathered from the activity and their discussions;

Vocabulary

- Archaeology – the scientific study of past people through the examination of objects that were left behind
- Ancient – very old
- Artifact – an object made or modified by people
- Midden – a dirt mound where the Tekesta discarded their trash or used/broken tools
- Excavate – to uncover or dig up
- Tekesta – Native Americans that occupied the Miami area before the European Explorers arrived
- Pioneer – one of the first colonists or settlers in a new territory
- Conch – a sea snail (or gastropod) that was used by the Tekesta for food and as a tool
- Trowel – a small hand tool used for digging or scooping
- Plot – an area within an archaeological site that has been sectioned off and assigned a ID number

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Pre-Activity

Step-by-Step

Archaeology is more than digging for objects. When conduction archaeological investigations, it is necessary to follow basic, standard procedures in order to properly excavate and document a site. All archaeologists follow a process that allows them to properly examine a site, as well as the artifacts that they obtain from that site.

Materials:

- Pencils
- Step-by-Step Worksheet
- Scotch Tape

Procedure:

1. Before class print the Step-by-Step worksheet and cut out each box. It may be best to print it out on cardstock or construction paper.
2. Create 6 groups with 3-6 students each.
3. Give each group a box from the worksheet.
4. Tell students that each box represents one of the 6 steps within the archaeological process. They must decide which step their box represents. Then they must describe what is involved in the step, what tools are necessary, and how the step should be done, using the bullet points as guidelines.
5. As the groups work, write the numbers 1 thought 6 on the board and place a piece of tape next to each number (sticky side out).
6. Once groups have completed their box, ask for one volunteer from each group to place their box next to the step they believe it to be.
7. After all steps have been placed on the board, ask students to review and make any necessary changes.
8. Allow each group to present their step, including the descriptions of how to complete the step

STEP-BY-STEP

Print and cut out the boxes below. Give one box to each student group.

Site Selection (Step # ____)

Description:

Involves:

a. Research Design:

b. Permits:

c. Research:

Site Survey (Step # ____)

Description:

Involves:

a. Measurements:

b. Excavation Unit Setup:

Excavation (Step # ____)

Description:

Involves:

a. Heavy Machinary

b. Small Tools

c. Screening

d. Bagging

Laboratory Processing (Step # ____)

Description:

Involves:

a. Washing:

b. Sorting:

Analysis (Step # ____)

Description:

Involves:

a. Cataloging:

b. Artifact Analysis

Reports and Publications (Step # ____)

Description:

Involves:

a. Reports:

b. Exhibits:

c. Presentations:

STEP-BY-STEP Answer Key

Step 1: Site Selection

- Research Design- This is the initial action step of any excavation. This is the proposal of the
- work to be accomplished and the action plan of how to do it.
- Permits- Planning and construction applications and permits must be reviewed before building
- projects can disturb the ground and possibly endanger archeological resources.
- Research- Historians and archeologists complete archival research to learn as much about a site that is to be excavated as possible before the actual dig.

Step 2: Site Survey

- Measurements- A tool called a transit is used to find the precise location and helps set up the grid on the site.
- Excavation units set up- the site is marked off in grid squares marked with string so that the provenience, or location on the site in relation to other features, of an artifact or feature can be recorded.

Step 3: Excavation

- Heavy machinery- If needed, big dirt movers remove the top layers of soil that have already been disturbed.
- Small tools – Once the top layers of soil are gone archeologist excavate the rest of the site by hand using shovels and trowels.
- Screening – Soil that is recovered by archeologists is deposited into buckets then carried to large screens and sifted to make sure that all the small artifacts have been recovered.
- Bagging – All artifacts collected are placed in bags and labeled according to their provenience (location on the site in relation to other features) so that analysis may be done later.

Step 4: Laboratory Processing

- Washing- Artifacts are carefully washed to remove dirt.
- Sorting- Artifacts are sorted by context or provenience (location on the site in relation to other features) and they are further sorted by what kind of material they are made out of, like glass, wood, bone, or shell

Step 5: Analysis

- Cataloging- Information about each artifact is entered into a computer so that studies can be conducted and information about what was found can be attained easily and quickly.
- Artifact analysis- Each artifact must be studied to determine its date and place of manufacture, how it was used and by who. The dates of artifacts can help date the site or a specific feature.

Step 6: Reports and Publications

- Reports- Archeologists write up reports on their findings so that other archeologists and historians can learn from their research.
- Presentations- Archeologists give lectures and presentations to other archeologists, historians, and the general public so that all can learn from their research and know the importance of preservation.
- Exhibits- Exhibits on archeological sites are created so the public can learn about the past and the importance of preservation.

Post-Activity

Putting Things Into Context

The things that people own and use can tell us something about them. These objects can indicate the person's age, gender, and/or interests. However, many times these artifacts can only tell a complete story of the person if they are found together with other objects, where the owner left them.

Archaeologists rely on artifacts left behind, and where they were left (the context), to learn the story of past people. Think of a pottery bowl. When the pottery is found in a grave, it has a different meaning than when it is found with food remnants in an ancient storage room. The meaning can change further if someone uses the bowl to decorate their home.

Archaeologists preserve the context of artifacts they recover by recording the location of everything they find. The artifact, as well as its context, provide more information to an archaeologist than the artifact alone. When context is lost, important information is also lost.

Procedure:

1. Review with students the terms artifacts and context.
2. Ask the students to recall the artifacts they excavated during the archaeological dig at the Deering Estate.
3. Have students choose one of the artifacts and allow them to brainstorm about the artifact's context. How do all the artifacts combined contribute to what we learned about the Tekesta?
4. Explain to students that artifacts in context are the basis for all understanding about prehistoric people.
5. Ask students to write an essay using the following prompt:

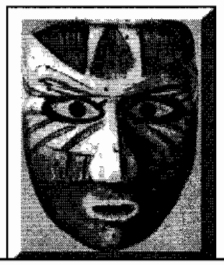
Putting Things Into Context Essay Prompt

Imagine that an archaeologist discovers artifacts from your bedroom a thousand years from now. Choose five objects in your bedroom that are special to you. Describe how these artifacts in the context of your room will enable the archaeologists to learn about you. What would they archaeologists say about you based on these objects? What if these objects were not found together in your bedroom, but in different areas of the city? How does this change what the archaeologists could learn about you?

The Power of Symbols

"Spoken words are the symbols of mental experience, and written Words are the symbols of spoken words"

Aristotle



Calusa Ceremonial Mask

Subject: Social Science and Language Arts.
Duration: 2 Hours
Location: Classroom and Stone House

Sunshine State Standard

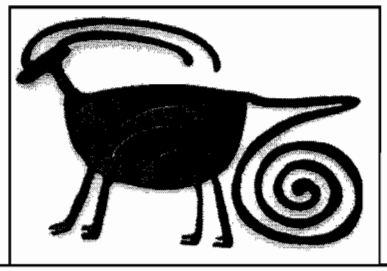
LA.A.1.1 LA.C.1.1 LA.C.2.1 LA.C.3.1 LA.D.2.1 SC.H.3.1 SS.A.1.1 SS.B.1.1 SS.B.2.1SS.D.1.1 VA.A.1.1 VA.E.1.1 VA.B.1.1 VA.C.1.1 VA.E.1.1 LA.A.1.2 LA.A.2.2 LA.C.1.2 LA.C.3.2 SS.A.1.2 SS.A.6.2 SS.B.1.2 SS.B.2.2 SS.D.1.2 VA.A.1.2 VA.B.1.2 VA.C.1.2 VA.D.1.2 VA.E.1.2 LA.A.1.3 LA.A.2.3 LA.C.1.3 LA.C.2.3 LA.C.3.3 LA.E.2.3 SC.G.1.3 SC.H.3.3 SS.A.1.3 SS.A.6.3 SS.B.1.3 SS.B.2.3 SS.D.1.3 VA.A.1.3 VA.B.1.3 VA.C.1.3 VA.E.1.3 LA.A.1.4 LA.A.2.4 LA.B.2.4 LA.C.1.4 LA.C.2.4 LA.C.3.4 LA.E.2.4 SC.G.1.4 SC.H.3.4 SS.A.5.4 SS.B.1.4 SS.B.2.4 SS.D.1.4 VA.A.1.4 VA.B.1.4 VA.C.1.4 VA.E.1.4

Objectives

- Students will be able to define symbol, and language
- Students will be able to define communication and hieroglyphics.
- Students will identify the importance and roles of symbols in human cultures.
- Students will understand the concept of the power of symbols.
- Students will identify symbols used in Stone House and interpret them.
- Students will be able to create or tell a story using a series of written symbols.

Materials

- Pencils
- Paper
- Scissors
- Glue
- Symbol dictionary
- Notebook
- Construction paper (black)



Sable Antilope, Africa

Vocabulary

Symbol – Anything that conveys information or stands for an object or idea.
They can come in the form of illustrations, letter symbols, gestures, or spoke words.

Hieroglyph- A pictorial symbol that represents individual sound(s) as a kind of word puzzle which uses pictures to represent words or parts of words.

Symbolate –Is an object that serves as a symbol.

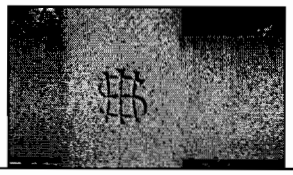
Queen Elizabeth II

Symbology – Is the study or interpretation of symbols

Interpretation– The act of interpreting; explanation of what is obscure; translation; version; construction; as, the interpretation of a foreign language, of a dream, or of an enigma.

Language – A dynamic set of visual, auditory, or tactile symbols of communication and the elements used to manipulate them.

Communication –The process of conveying information from a sender to a receiver with the use of a medium in which the communicated information is understood the same way by both sender and receiver.



Grave Marking, Oregon

Background

What is a Symbol?

A symbol is something --- such as an object, picture, written word, a sound, a piece of music, or particular mark -- that represents (or stands for) something else by association, resemblance, or convention, especially a material object used to represent something invisible. Symbols indicate (or serve as a sign for) and represent ideas, concepts, or other abstractions. For example, in the United States, Canada, Australia and Great Britain, a red octagon is the symbol that conveys the particular idea of (or means) "STOP".

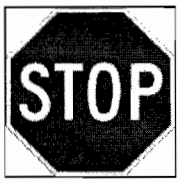
Symbols play an important part of our understanding and learning about human history. Just as we need symbols today to communicate, ancient people living relied on symbols to communicate. Egyptians and Mayans and other ancient societies used letter symbols from their own alphabet to communicate.

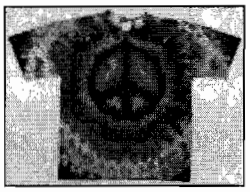
Individuals, nations, and organizations use symbols to represent data, ideas, and beliefs. Symbols are used often in religion, science, mathematics, written languages, and as national emblems.

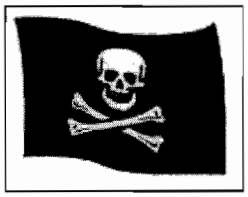
Each nation of the world has a flag as a symbol of their country. In the United States, the stars on the flag are a symbol representing the fifty states. A symbol only exists as long as the people give it meaning. Symbols can be very powerful, but can also loose meaning if the people dishonor or ignore them; such as running a stop sign for example.

Common examples of symbols are the symbols used on maps to denote places of interest, such as crossed sabers to indicate a battlefield, and the numerals used to represent numbers.

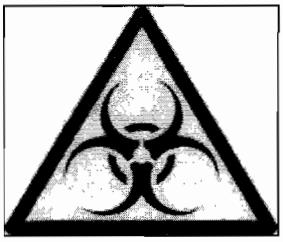
Several Examples of Symbols (Images obtained from the www)

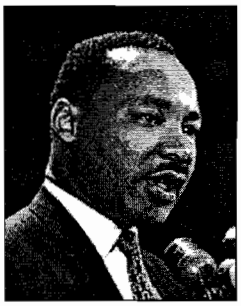


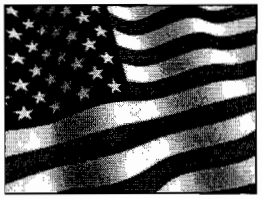


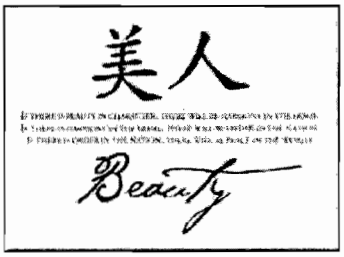


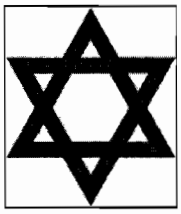
$$AgNO_3 + NaCl \longrightarrow AgCl + NaNO_3$$

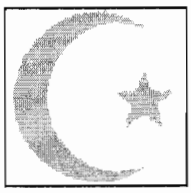


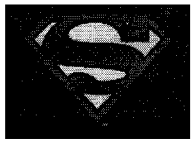


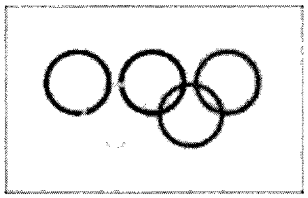












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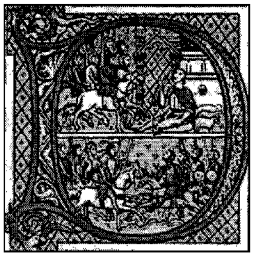

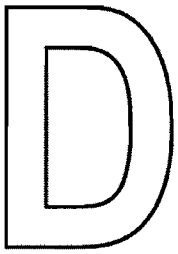
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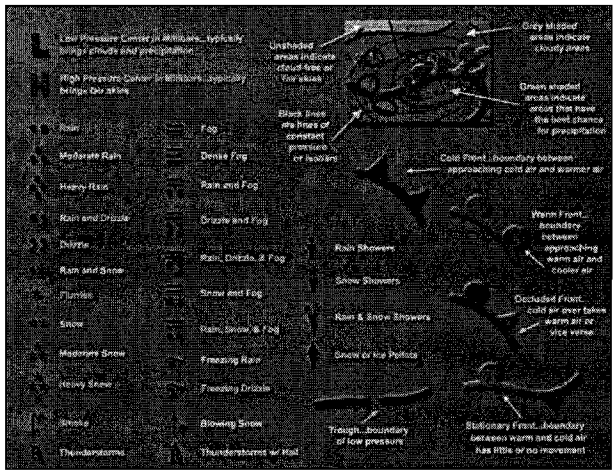
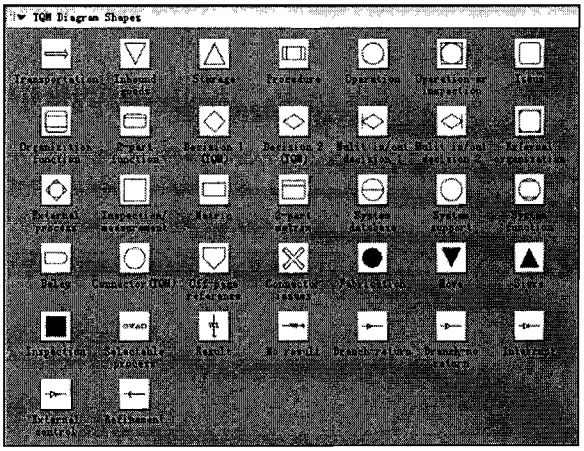
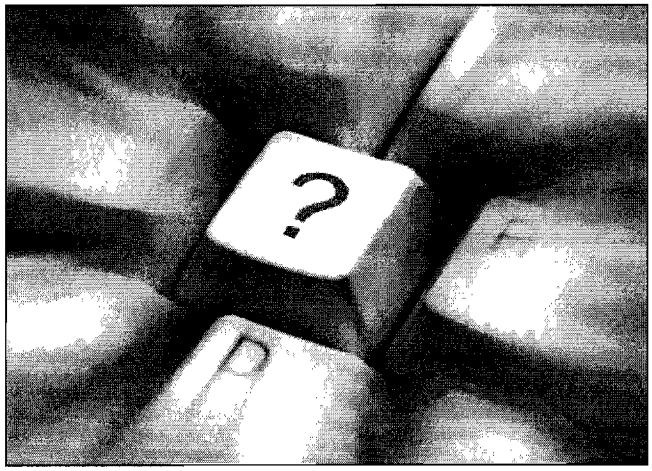
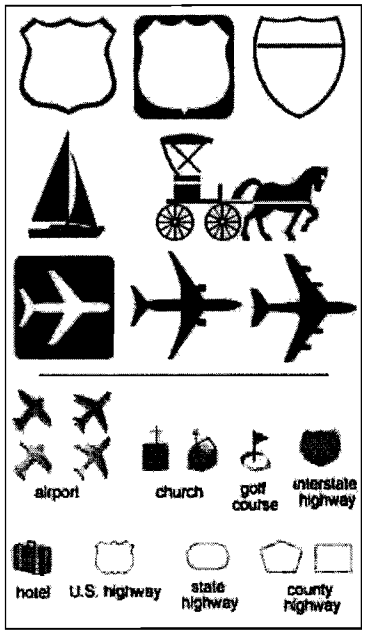
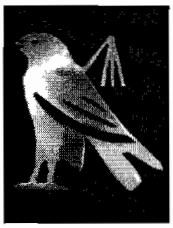

Unshaded areas indicate cloud free or few skies
Gray blotted areas indicate cloudy areas
Green shaded areas indicate areas that have the best chance for precipitation
Black lines are lines of constant pressure or isobars
Cold Front...boundary between approaching cold air and warmer air
Warm Front...boundary between approaching warm air and cooler air
Occluded Front...cold air over taken warm air or vice versa
Trough...boundary of low pressure
Stationary Front...boundary between warm and cold air has little or no movement
Fog
Dense Fog
Rain and Fog
Drizzle and Fog
Rain, Drizzle, & Fog
Snow and Fog
Rain, Snow, & Fog
Freezing Rain
Freezing Drizzle
Blowing Snow
Thunderstorms or Hail
Rain Showers
Snow Showers
Rain & Snow Showers
Snow or Ice Pellets

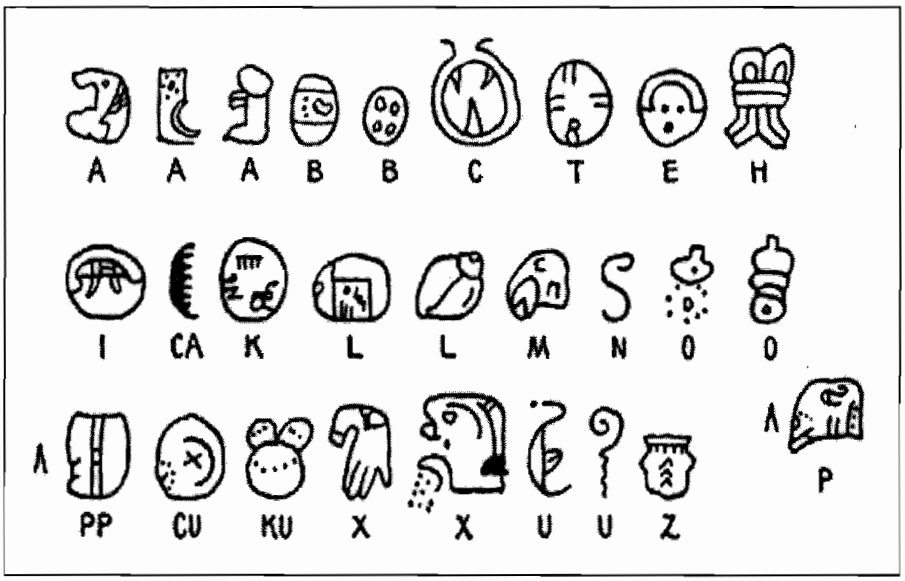

TQM Diagram Shapes



4x4=16=8=8


airport
church
golf course
interstate highway
hotel
U.S. highway
state highway
county highway





Hieroglyph

From the ancient Greek: *hieros*, "sacred, holy" and *glupho*, "to carve, to engrave, to cut out". An element of an ideographic writing system.

A writing system of ancient Egypt, Maya and other ancient civilizations, using pictorial symbols to represent individual sounds as a kind of word puzzle which uses pictures to represent words or parts of words.

Hieroglyph= Symbol= have a meaning=convey an idea

Language and Symbols

All languages are made up of symbols. The word "cat", for example, whether spoken or written, is not a literal cat but a sequence of symbols that associates the word with a concept. Hence, the written or spoken word "cat" represents a particular concept formed in the mind.

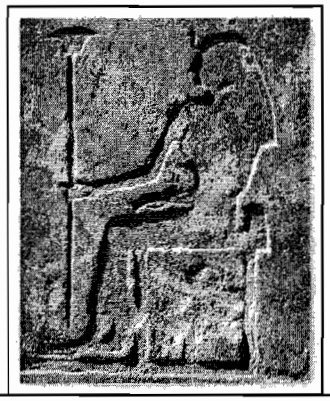
Another example of the symbol "cat" would be an object, such as a stuffed animal, that is referred to as a cat. The stuffed animal resembles or exhibits similarity to a real cat. A person can view the object and see the semblance to the real creature that is known to have fur, is soft to the touch, and purrs.

The study or interpretation of symbols is known as symbology, and the study of signs is known as semiotics.

Calusa, Cat Effigy

Symbolate

A symbolate is a technical term for an object that serves as a symbol. For example, a scepter is a material object that serves as the symbol of royal power. In addition to being a symbol, a scepter can be picked up and wielded. However, the scepter fulfills its symbolic purpose when it is wielded by a monarch. Objects have physical properties; a scepter is essentially a rod with ornamentation. The rod only becomes a symbol of power when people view a scepter held by a monarch and accept the monarch's authority.



An Egyptian Hieroglyph depicting a person with a scepter in hand

Interpretation

What is it?

1. The act of interpreting; explanation of what is obscure; translation; version; construction; as, the interpretation of a foreign language, of a dream, or of an enigma.

2. The sense given by an interpreter; exposition or explanation given; meaning; as, commentators give various interpretations of the same passage of Scripture.

3. An artist's way of expressing his thought or embodying his conception of nature.

4. The act or process of applying general principles or formulae to the explanation of the results obtained in special cases.

Language

A language is a dynamic set of visual, auditory, or tactile symbols of communication and the elements used to manipulate them. Language is considered to be exclusively a human mode of communication; although other animals make use of quite sophisticated communicative systems, none of these are known to make use of all of the properties that linguists use to define language.

Human spoken and written languages can be described as a system of symbols (sometimes known as lexemes) and the grammars (rules) by which the symbols are manipulated. Most human languages use patterns of sound or gesture for symbols which enable communication with others around them. There are thousands of human

languages, and these seem to share certain properties, even though many shared properties have exceptions.

Communication

Communication is the process of conveying information from a sender to a receiver with the use of a medium in which the communicated information is understood the same way by both sender and receiver.

It is a process that allows organisms to exchange information by several methods.

Communication requires that all parties understand a common language that is exchanged, these exchange can involve auditory means, such as speaking, singing and sometimes tone of voice, and nonverbal, physical means, such as body language, sign language, touch, eye contact, or the use of writing. Communication is defined as a process by which we assign and convey meaning in an attempt to create shared understanding. This process requires a vast repertoire of skills in intrapersonal and interpersonal processing, listening, observing, speaking, questioning, analyzing, and evaluating. It is through communication that collaboration and cooperation occur. Communication is the articulation of sending a message, through different media whether it be verbal or nonverbal.

Nonetheless, communication is usually described along a few major dimensions: Content (what type of things are communicated), source, emisor, sender or encoder (by whom), form (in which form), channel (through which medium), destination, receiver, target or decoder (to whom), and the purpose or pragmatic aspect.

Between parties, communication includes acts that confer knowledge and experiences, give advice and commands, and ask questions. These acts may take many forms, in one of the various manners of communication. The form depends on the abilities of the group communicating.

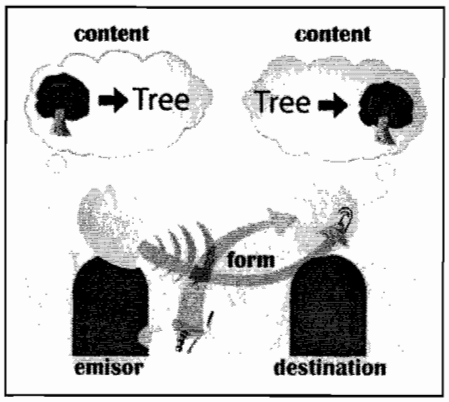
Together, communication content and form make messages that are sent towards a destination. The target can be oneself, another person or being, another entity (such as a corporation or group of beings).

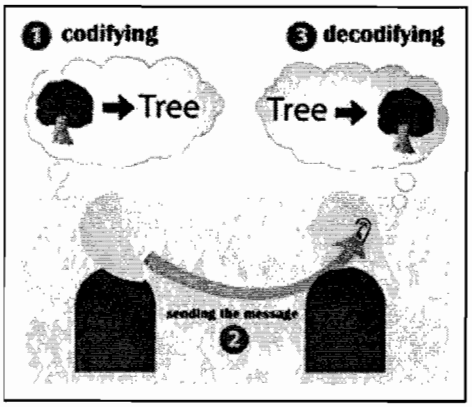
Communication can be seen as processes of information transmission governed by three levels of semiotic rules:

1. Syntactic (formal properties of signs and symbols),

2. Pragmatic (concerned with the relations between signs/expressions and their users)

3. Semantic (study of relationships between signs and symbols and what they represent).





Let's Play The Telephone Game

This fun an easy game ties up the idea and concepts of oral communication and interpretation.

How to play

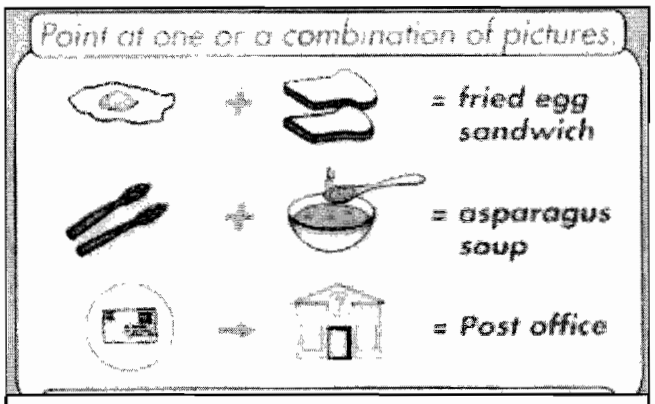
Choose as many players as possible. Line them up such that they can whisper to their immediate neighbors but not hear any players farther away. The player at the beginning of the line thinks of a phrase, and whispers it as quietly as possible to her/his neighbor. The neighbor then passes on the message to the next player to the best of his or her ability. The passing continues in this fashion until it reaches the player at the end of the line, who calls out the message he or she received.

If the game has been 'successful', the final message will bear little or no resemblance to the original, because of the cumulative effect of mistakes along the line. Deliberately changing the phrase is often considered cheating, but if the starting phrase is poorly chosen, there may be disappointingly little natural change.

Communicating Using Symbols

This technique uses symbols for bathrooms, restaurants, medical necessities, and many other things needed for travel. The symbols would be immediately understood by anyone in the First World and many in the Third World. The symbols can be combined, used to compose sentences in a manner, to express more complex ideas.

This technique is utilized by many travelers including government and diplomatic officials serving oversees. The beauty of this technique is that it utilizes universal ideas/concepts and allows users to communicate when understanding spoken and/or written language offers potential communication barriers.

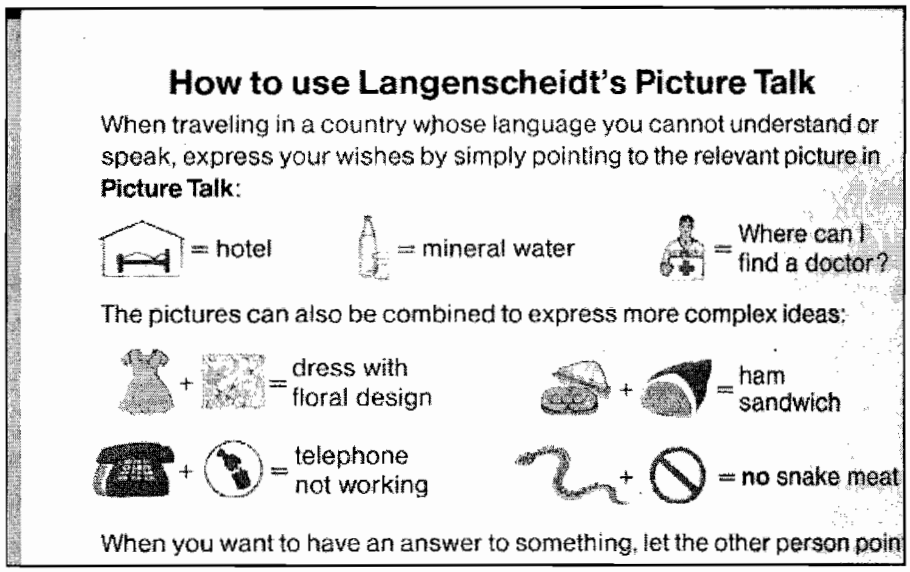


By combining the drawings, an idea can be expressed; however this idea is still subject to interpretation.

As we find ourselves conducting business in the age of global economy we encounter that the geographical aspects that were barriers in the past are disappearing. The need of understanding each other has never been as imperative as many people find themselves conducting business in the international market realm.

Several authors such as Langescheidt have compiled the basic principles of picture communication, such as using universal ideas to express concepts, in useful books that are available in the market today. The concept follows the same principles of written communication that ancient people such as Egyptians, Babylonians and Native American cultures used to express ideas and interpret the world around them.

Let us Practice Using the Following Table



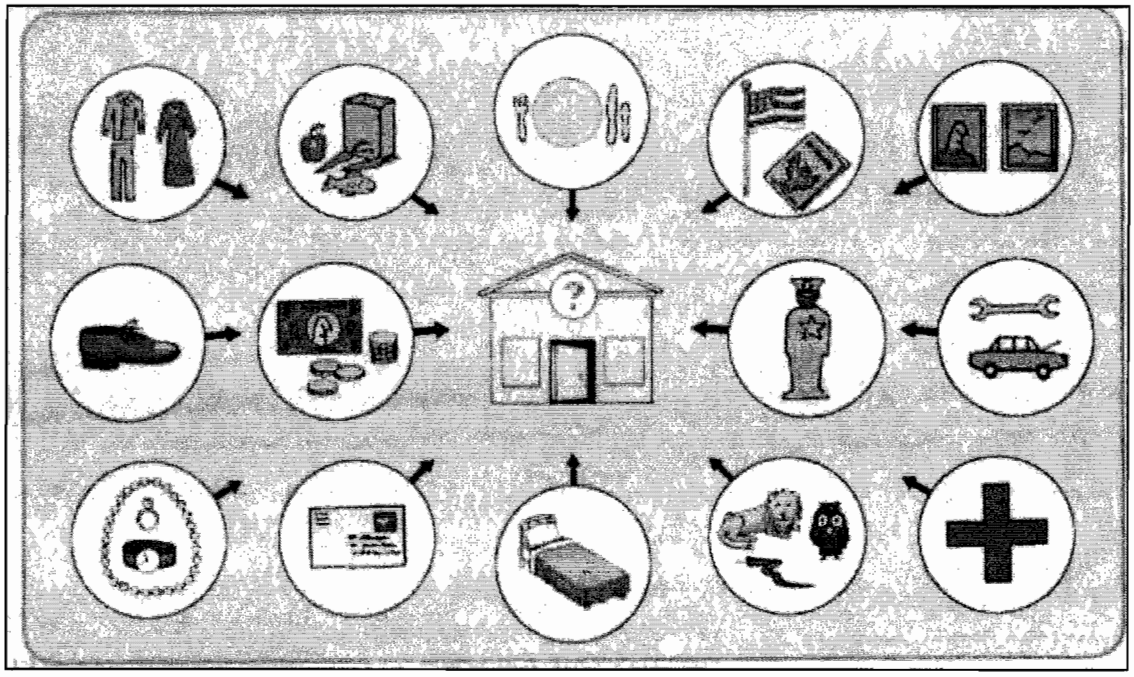
1. Observe the pictures
2. As the arrows show the central idea is the picture with the (?). This particular picture can represent many things (Example: police station, hospital, home, etc).

3. As you put together your idea, keep in mind that this is your own interpretation. Examples:

   a. Pointing out the pictures given below, tell the class that you have pets at home.

   b. Pointing out the pictures given below, tell the class that your car has broken down and you need to get it fixed, but first need to go the bank and get some money

   c. Now that you got the hang of it, try combining the pictures into more complex ideas. Let's try it!!

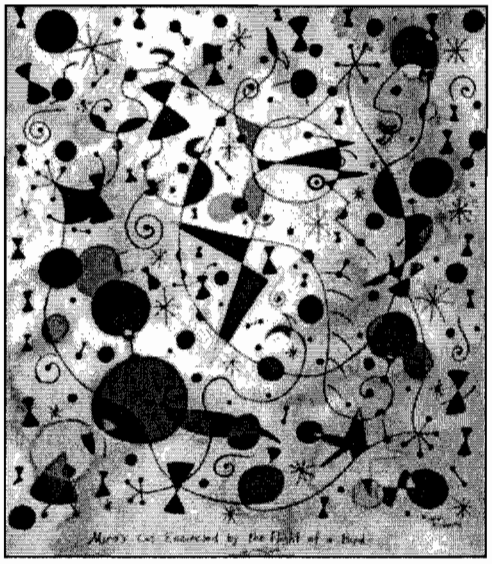


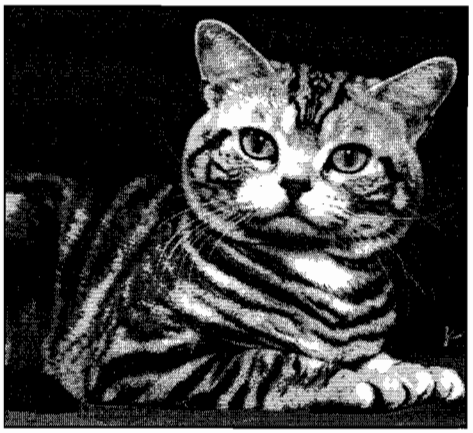
The pictures in these charts are only symbolic representations of real life objects. The objects they represent give them the meaning(s). The meaning can be interpreted in more than one way by the same person or by different people. It is possible that interpretation can lead to confusions or misunderstandings in communication. This does not necessarily mean that message was not clear to begin with. It simply means that people have the capacity to interpret messages or information in different ways.

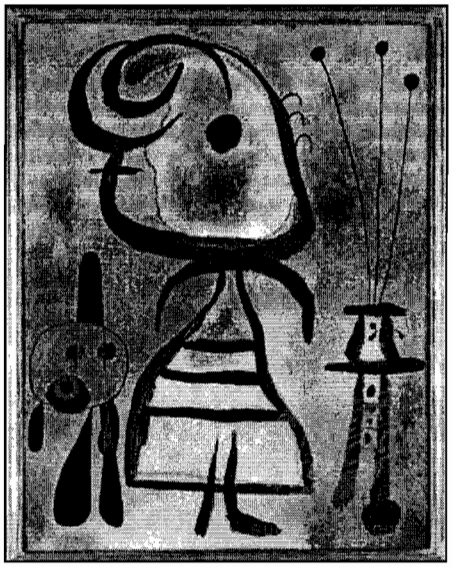
Misunderstanding of an idea does no mean that the message was sent incorrectly by the sender or that the receiver does not have the capacity to understand the idea that is being conveyed. Sometimes ideas convey abstract concepts which meanings are open to interpretation and possible misunderstandings .

The photographs below are from two famous works of art by world renowned surrealist artist Joan Miro (1893-1983). Take a few minutes to observe them. Pay close attention to the colors, shapes and lines.

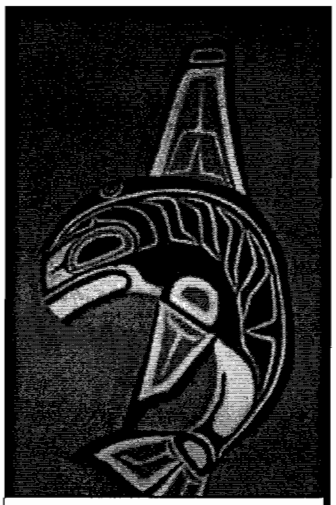
What do you see in these pictures?







Background on Native American Symbols



Native American -Pacific Northwest "Orca"

Native people believe that the Creator or Spirit is in everything that breathes, hears, tastes, smells, senses and sees, all with lessons to be shared. The lessons that nature teaches set a pattern, and each person must find a way to fit into this pattern for happiness and harmony with self and nature. All creatures and plants were equal, each performing its talents according to its abilities. Native American animal symbols and their totems represent the physical form of one's spirit helper - his or her guardian or guide.

On most southwestern pottery and art the connection between the spiritual and the real world is represented by symbols. These represent natural aspects such as the tangible and the intangible. For instance the thunderhead symbol resembles a bird. Many native symbols are different kinds of animals, all of which had special meanings to Native Americans. These meanings sometimes varied from tribe to tribe. As a whole, Native American cultures used different symbols which were used the same way we use words in our modern day and age. Many Native American tribes used to adorn themselves with permanent or temporary tattoos made of vegetable and mineral pigments. These tattoos included symbols that had special meaning to them and perhaps were used to identify themselves as part of a clan or a tribe.

Many people believe that most Native American symbols were merely spiritual in nature. The truth is that some were not at all. Some tribes used symbols as ways of marking trails or they would make petroglyphs on walls and trees to record a significant event such as a big battle or a great hunt. As it has been mentioned, other symbols also identified different tribes and clans. There are also many symbols that had no meaning at all except for merely decoration. These can be seen in pieces of pottery and baskets. Some symbols were used for spiritual purposes only, and were different from tribe to tribe.

***A detail from one of Le Moyne's engravings** from Timucua Chief Outina. Note the tattoos and markings on his skin. What do you think their significance is?*

Activity 1

Symbol Talk- Creating a Hieroglyphic Story.

Duration: 30 minutes

Location: Classroom

Using what you have learnt at this point about communication, language, interpretation and symbols you will be able to put together a story using only the symbols provided to you in the chart below. You can also use colors to indicate certain things such as questions, feelings such as happiness or sadness, etc.

Materials x person

Symbol dictionary (1 sheet)

1 Scissors

1 Blank Paper

Glue

Pencils

Assorted color pencils

Procedures:

1. Working in pairs, use a blank piece of paper and at least 30 symbols to tell your story. You can use the symbols individually or can combine them in groups. If you think it is necessary, you can create your own symbols to supplement the list. Once you have created your story make sure you write it in English on a piece of paper and do not let anyone see it.
2. Swap papers and ask the person to interpret your story. Make sure you write their version in a piece or paper.
3. Compare the original version of your story and your partner's version.
4. As the following questions: How do they differ? Are they similar?
5. Discuss your findings with the group.

Native Americans and Symbolic representation Northern Native American

Sign	Name	Meaning	Sign	Name	Meaning	Sign	Name	Meaning
	4 Ages	Infancy, Youth, Middle & Old Age		Eagle Feathers	Chief		Morning Stars	Guidance
	Arrow	Protection		Enclosure for Ceremonial Dances			Mountain Range	
	Arrowhead	Alertness		Fence	Guarding Good Luck		Paths Crossing	
	Bear Track	Good Omen		Gila Monster	Sign of the Desert		Peace	
	Big Mountain	Abundance		Headdress	Ceremonial Dance		Rain Clouds	Good Prospects
	Bird	Carefree - Lighthearted		Hogan	Permanent Home		Raindrop-Rain	Plentiful Crops
	Butterfly	Everlasting Life		Horse	Journey		Rattle-snake Jaw	Strength
	Cactus	Sign of the Desert		House of Water			Running Water	Constant Life
	Cactus Flower	Courtship		Lasso	Captivity		Saddle Bags	Journey
	Coyote Tracks			Lightening Snake			Sky Band	Leading to Happiness
	Crossed Arrows	Friendship		Lightening and Lightening Arrow	Swiftness		Snake	Defiance, Wisdom
	Days and Nights	Time		Man	Human Life		Sun Rays	Constancy

	Deer track	Plenty Game		Medicine Man's Eye	Wise, watchful		Sun Symbols	Happiness
	Teepee	Temporary Home		Thunder-bird	Sacred Bearer of Happiness Unlimited		Thunder-bird Track	Bright Prospects
	Warding off Evil Spirits							

A postcard. "AMERICAN INDIAN SYMBOLS and their meanings. The earliest writings of the American Indians were those of signs and symbols. These symbols are always apparent in their handicraft and jewelry."

If necessary use the space below to draw your own symbols and pictograms. Remember to label them.

Activity 2

Stone House Symbol Scavenger Hunt

Duration: 30 minutes

Location: Stone House (interior and exterior)

Using what you have learnt at this point about communication, language, interpretation and symbols you will head to the Stone House with your group to look for 10 specific symbols that the architect use to decorate the house in 1922. In front of the Stone House your instructor will give you the rules of the game.

Preparation done by the Instructor

The instructor will set up the 10 laminated pictures next to the objects are looking for. Note: Keep in mind that some of these objects are historical and delicate; therefore; the picture can not be directly placed on it, so look for it carefully.

Materials x person

Laminated pictures of the 10 items placed in site prior to starting the activity

1 Blank Paper

1 Pencil

Procedures:

1. Working in pairs you will look around the House for 10 symbols. You only have 20 minutes to complete the game. The symbols you are looking for will be found inside the house as well as the outside verandahs, breezeways and paths adjacent to the Stone House.
2. Once you identify the symbol, collect its picture and keep it with you. Make sure you spend a couple of minutes studying the real object. As you will discuss your findings.
3. Move on and look for the next object.
4. When time is up, the group will re-gather at the starting point for a group discussion by sitting in a circle.
5. The instructor will have a similar copy of the pictures which depict the objects you saw. His/her version will have also the description of those objects including the location where you found them.
6. The instructor will go over the objects one at the time, and will show pictures to the group. Then he/she will ask questions about the meaning of the symbols.

Activity 2

Stone House Symbol Scavenger Hunt. Hand these photos out to students and ask them to answer the questions attached to each photo.

1.

The capitals (the upper portion) of the columns adorning the Stone House are decorated with various designs and motifs depicting an array of different items. Each is unique in content but the common denominator includes the use of various types of animals, plants and geometric forms. The columns were carved in site by the hands of Bahamian artists working in the construction of the house.

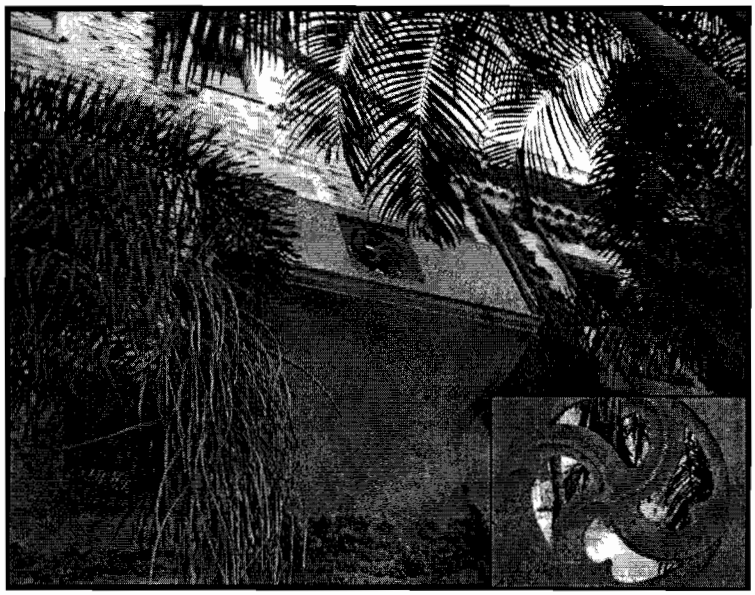
Questions

In general what is the significance of the design?

Specifically, what could be the meaning of the animals depicted in this particular column?

Do you think the capitals had a meaning or they were just purely decorative in purpose?

2.



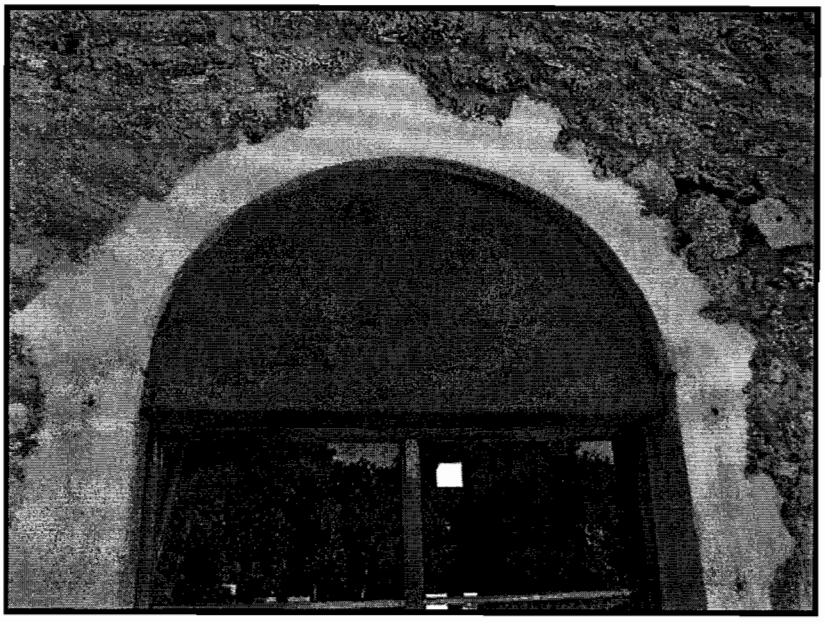
The Stone House features all the characteristics that make it a Mediterranean Revival House. These include the asymmetry of the building, the use or arches and columns, the use of barrel tiles and forged iron. A less notorious and often **missed feature of the House includes Mr. Deering's wife bedroom balcony.** Perch up on the second story of the house and hidden among palm trees you will find it. Look closely and you will notice an interesting symbol.

Questions

In general what is the significance of the design?

Do you think the design had a special meaning or do you think it was purely decorative in purpose?

3.



The arched tops of the ballroom windows follow the design of Stone House arches. In these spaces the architect utilized simple line designs that include animals, lines and various geometric forms.

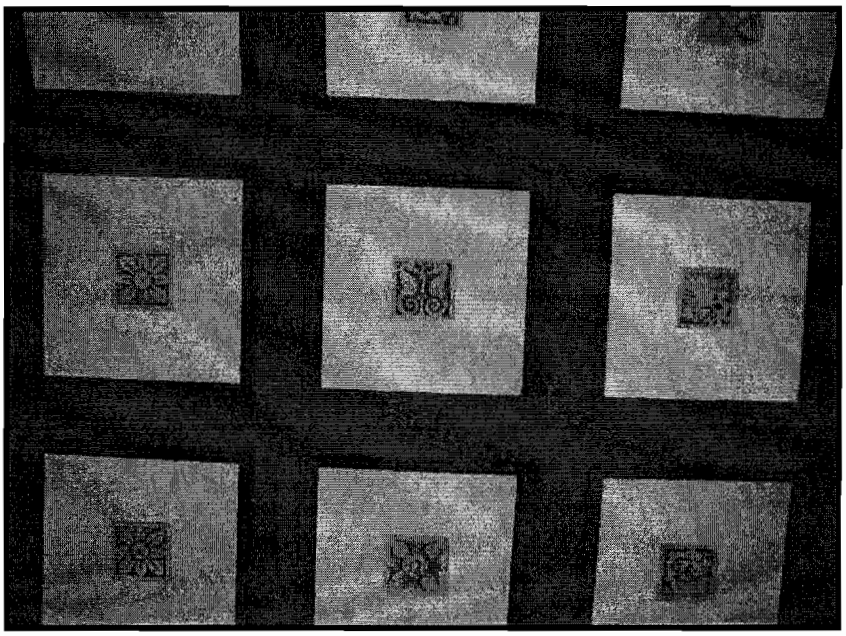
Questions

In general what is the significance of the design?

Do you think the design had a special meaning or do you think it was purely decorative in purpose?

What does this particular example means ?

4.



This ceiling is in a style called coffering. The beams that crisscross the ceiling are made of reinforced concrete, but are designed to simulate wood. As a result of this design, a space is formed in between. Each is decorated with a specific symbol. Find the seahorses and interpret their meaning. Find the seahorses and interpret their meaning.

Questions

How many types of symbols do you see?

What animals or plants do they represent?

Do you think they have a special significance? Or do you think that their use was purely decorative in purpose?

Do you each symbol has a special meaning or do you think that the combination of all has a meaning?

5.

This mantle piece was purchased by James Deering from an antique shop in New York as a birthday gift for his older half brother Charles Deering. It has interesting and puzzling designs and motifs.

Questions

How many types of symbols do you see?

Do you think they have a special significance? Or do you think that their use was purely decorative in purpose?

What do you think the bull skull means?

6.

This capital is adorned with bird designs. For centuries people have view animals and plants as symbols to represent their countries.

Questions

What kind of bird do you see being represented here?

Why do you think the artist chose that particular type of bird?

Can you think of a symbol of the United States that was selected by US Founding Fathers to represent the country?

Why do you think they chose that bird?

7.

This beautiful antique in Neo-Gothic design is a chandelier adorned with mythological Greco-Roman motifs.

Questions

Do you know the name of this mythical animal?

After careful observation, can you **describe this animal's physical appearance?**

What do you think its significance is?

8.

This tapestry is just one of several that made up Charles Deering's private art collection. His tapestries included examples from the Mediterranean and the Middle East.

Questions

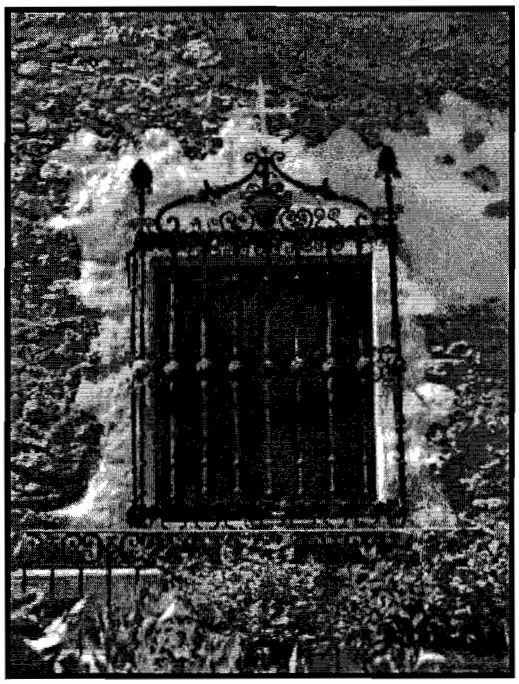
What do you think is the meaning the tapestry is trying to convey?

By looking at the clothes people are wearing can you tell what period of history is represented?

After careful observation of the object, do you see the symbol or word OCA?

What do you think OCA means?

9.



The Stone House is decorated with several forged iron object such as this window grill. Around the House both inside and outside these objects help create a centuries old feeling. Most of these objects were purchased in Spain form buildings that were being demolished and then were brought here.

Questions

What symbol do you see represented in this picture?

Which kind of building do you think it came from and why do you think so?

What do you think the bull skull means?

10. This is a bonus question

This emblem is the used to identify the Deering Estate at Cutler. It was the **original emblem used to represent Charles Deering's** castles in Catalunya, Spain: Marycel and Tamarit.

Clue: This emblem is nowhere represented in the house; therefore, you will not be able to find it. However it has always been present during the course of your visit to the Estate. Look closely and you will find it. Can you guess where it is?

Questions

Can you identify each individual symbol that make up this emblem?

What do you think this emblem represents?

Why do you think Charles Deering picked it to symbolize his Estates?

Activity 2

Stone House Symbol Scavenger Hunt. Instructor hand out.

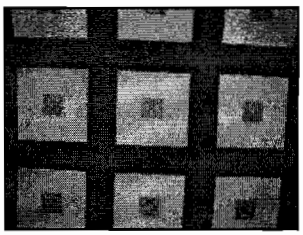
The capitals (the upper portion) of the columns adorning the Stone House are decorated with various designs and motifs depicting an array of different items. Each is unique in content but the common denominator includes the use of various types of animals, plants and geometric forms. Is it possible that the plants and animals depicted in the capitals are representations of the flora and fauna found in the area. What is th meaning of these lizards?

Perch up on the second story of the Stone House and hidden among palm trees you will find a small balcony adorned with an interesting symbol. In Western Native American culture this symbol represents the four ages: Infancy, youth, middle and old age.

The arched tops of the ballroom windows follow the design of Stone House arches. In these spaces the architect utilized simple line designs that include animals, lines and various geometric forms. Their representations almost match the ones of the column capitals. Along the wall of Charles's half brother house: Vizcaya, one can appreciate the same type of designs. They probably conjure the idea of tropical wilderness.

The 8 designs of the coffering ceiling of the Ballroom are represent various animals and plants; these include: seahorses (The Heraldic meaning is "Readiness for all employments for king and country" and also "power of the water." Symbolic meanings for the seahorse are:

- Patience FriendlinessProtection Inflexibility PerspectiveGenerosity/Sharing

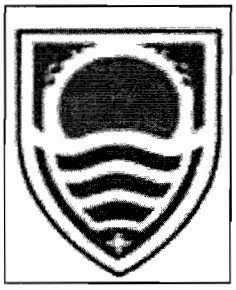


This mantle piece original form Italy adorns the central wall of the Ballroom. On it several symbols can be identified such as the bull skull, flowers and the lions leg and feet.

This capital is adorned with bird designs. For centuries people have view animals and plants as symbols to represent their countries. Birds of prey in particular have carved a niche among monarchs and many nations have chosen them as their symbols for their power beauty and majesty.

This beautiful antique chandelier in Neo-Gothic design is adorned with mythological Greco-Roman motifs. The griffin is a legendary creature with the body of a lion and the head and often wings of an eagle. As the lion was traditionally considered the king of the beasts and the eagle the king of the birds, the griffin was thought to be an especially powerful and majestic creature. Griffins are normally known for guarding treasure. In antiquity it was a symbol of divine power and a guardian of the divine.

This tapestry depicts several hunting scenes going on. If you look closely, one of the horses has the inscription of OCA on the side. OCA means goose in Spanish.

This forged iron window grill is adorned by a cross.

This emblem is the used to identify the Deering Estate at Cutler. It was the original emblem used to represent Charles Deering's castles in Catalunya, Spain: Marycel and Tamarit. The emblem shows the sun in red rising over the sea in blue. The green background, though not an original component of the emblem, was included as part of the design by Deering Estate staff in the late 1980's to represent the natural environment found at the Estate.