

NATIONAL PARK SERVICE

2016 BOARD REPORT

NATIONAL CENTER FOR PRESERVATION TECHNOLOGY & TRAINING



LEE H. NELSON HALL
NATCHITOCHEs, LOUISIANA

REPORT

OF THE ADVISORY BOARD OF THE
NATIONAL CENTER FOR PRESERVATION TECHNOLOGY AND TRAINING

NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF INTERIOR

NATCHITOCHEES, LOUISIANA

April 20, 2016

NATIONAL PARK SERVICE

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This report is published by the Preservation Technology and Training Board, established under Title XVI, Section 470 of Public Law 102-575, October 30, 1992. The purpose of the Board is to advise the Secretary of the Interior regarding the operations of the National Center for Preservation Technology and Training. The specific duties of the Board are to (1) provide leadership, policy advice, and professional oversight to the Center; (2) advise the Secretary on priorities and the allocation of grants among the activities of the Center; and (3) submit an annual report to the President and the Congress.

The National Center for Preservation Technology and Training (NCPTT) is an office of the National Park Service, established under the National Historic Preservation Act, as amended, which states,

The purposes of the Center shall be to —

- 1) develop and distribute preservation and conservation skills and technologies for the identification, evaluation, conservation, and interpretation of prehistoric and historic resources;*
- 2) develop and facilitate training for Federal, State and local resource preservation professionals, cultural resource managers, maintenance personnel, and others working in the preservation field;*
- 3) take steps to apply preservation technology benefits from ongoing research by other agencies and institutions;*
- 4) facilitate the transfer of preservation technology among Federal agencies, State and local governments, universities, international organizations, and the private sector; and*
- 5) cooperate with related international organizations including, but not limited to the International Council on Monuments and Sites, the International Center for the Study of Preservation and Restoration of Cultural Property, and the International Council on Museums.*

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INTRODUCTION

This Board Report, written for the Spring 2016 meeting of NCPTT's Preservation Technology and Training Board, serves as a bridge across a year when the Board was unable to meet. It covers all of Fiscal Year 2015, but includes updates through the first six months of FY2016. In the year and a half since the Board last met, NCPTT has seen significant organizational changes, and perhaps the most productive period in the Center's almost 22-year history.

Highlights of the last 18 months include our first symposium on the conservation of Mid-Century Modern structures, our first major publication for sale through the Friends of NCPTT, publication of a major new handbook on disaster preparedness for homeowners (funded by the Louisiana Governor's Office of Homeland Security and Emergency Preparedness), and the addition of dozens of closed-captioned, web-searchable videos from our last several symposia. We concluded our cooperative work on geospatial modeling of the archeology of Death Valley National Park, and hosted a 20-year retrospective at the Society for American Archaeology on the Center's research in the field.

Our role as technical advisor to a National Trust HOPE crew project at a nearby National Historic Landmark touched many young lives, and led to NCPTT proposing and managing a much larger project this Spring at Chalmette National Battlefield in New Orleans. Our partnership with the University of Georgia helped preserve the legacy of early historic landscape leaders, and we produced a model inventory of historic plant materials in the oldest European cemetery in the Louisiana Purchase for the Cane River National Heritage Area.

Significant organizational challenges included Executive Director Kirk Cordell's detail to National Park Service Headquarters in Washington for 10 weeks from August into October, 2015. He served as Deputy Associate Director for Stewardship and Science, overseeing the NPS's park-centered cultural programs across the nation and serving as Federal Preservation Officer for NPS. He continued to carry those duties after his return to Louisiana, with periodic trips back to DC, until a permanent Deputy was hired at the end of January. At that time, the NPS cultural programs were realigned with the specific intention of raising the profile of NCPTT and science-based decision making in cultural resources management. Cordell became the Deputy Associate Director for Science, Technology, and Training in the cultural resources directorate, taking over management of the Science Policy, Disaster Response, and Climate Change advisors, the Cultural Resources GIS program, the Federal Preservation Institute, and a planned Web & Media group. The ensuing months have been consumed with establishing new positions, most of which will be located in Natchitoches; among these is a new Deputy Director for NCPTT, which will also serve as Assistant Deputy Associate Director under Cordell.

Perhaps the most encouraging development came with the publication of the President's budget proposal in February, which seeks an additional \$750,000 for NCPTT's grants program. Though far from being appropriated in what promises to be a difficult budget year, it remains the first base budget increase proposed for the Center since its founding in 1994.

We invite you to peruse the following pages to see the many accomplishments of our dedicated and talented staff. We believe we have leveraged the funding entrusted to us to make a significant impact on the practice of historic preservation in the U.S., and are excited about the opportunities to accomplish more in the coming months.

ARCHEOLOGY & COLLECTIONS

The objective of the Archeology & Collections Program is to develop innovative methods, tools, and processes to better manage archeological resources. To meet this objective, the program conducts workshops and conferences, and issues grants.

RESEARCH

NCPTT signed a cooperative ecosystems study agreement (CESU) agreement with University of Illinois' Geospatial Laboratory, to conduct GIS modeling and analytical research. This effort is the second phase of the study "A Cultural Resources Location Probability Model for Death Valley National Park." This effort conducted ecological niche modeling of 2,046 archeological sites by executing unique locational probability models characterized by environmental and geomorphic variables. A user guide and bias report was written on Death Valley National Park and a paper documenting the research and results is being submitted to the Society for American Archaeology's digital journal, *Advances in Archaeological Practice*, for review and publication.

MENTORING

Several interns and students worked with the Archeology and Collections program this past year. Ryan Ware, undergraduate at Louisiana Scholars College, Northwestern State University, interned with Britt to collaborate on a weekly social media campaign. The Facebook posts highlight a particular NPS park each week, as well as upcoming conference announcements and technology transfer job postings. During the summer of 2015 Christina Ramazani, a graduate student at Mississippi State University, served 10 weeks as the Archeology and Collections intern. Her focus was to research and report on archeological surveillance methods and technologies. Also, Milan Arpino, a 10th-grader at the Louisiana School for Math, Science and the Arts, worked diligently creating and maintaining an archeological contacts database.



CONFERENCES

During FY2015, NCPTT convened and chaired a session at the 80th Annual Society for American Archaeology, San Francisco, CA. The session, entitled “A 20 Year Retrospective of NCPTT Sponsored Archeological Research,” included 12 papers and showcased some of the most significant contributions to archeology via the grants program. Specifically, the researchers re-examined their original work and addressed the impact to their respective fields on how their work has influenced their research. This seminar included papers that covered topics ranging from the development and fielding of magnetic susceptibility, archaeogeophysics, and multi-beam swath bathymetry. Other papers included a friction cone-penetrometer, plasma extraction Carbon-14 analysis, site location probability models, lithic characterization, ceramic thin-section analysis, freshwater shell artifact and temper sourcing, aerial archaeology, and Native American consultation protocols. Tad Britt, Chief of Archeology and Collections, and Lindsey Cochran, a 2014 summer intern and University of Tennessee graduate student, presented their research and findings of the Death Valley archeological predictive and management models.

Other conferences included a presentation of ongoing research at the Death Valley Natural History Association, November 2015, Death Valley, CA, and at the Society for Historical Archaeology, D.C., January 2016. NCPTT participated in a discussion forum at the Society for American Archaeology, April 2016.

TRAINING

The Archeology and Collections program sponsored and implemented four workshops. 1) Beginning Metal Detecting for Archeologists was a two-and-a-half day course held in Santa Fe, NM. 2) Desert Geomorphology for Archeologists, a week-long course held in Las Vegas, NV. 3) Archeological Predictive Modeling for Archeologists, a three-day course held at the University of Arkansas, December 2015. 4) Petrography for Archeologists, presented March 9-10, 2016, in Phoenix, AZ.

OUTREACH

NCPTT participated in four archeology day events in October 2015, reaching over 250 children and adults. Several technologies were demonstrated and discussed. Technologies included a PXRf instrument, an Infrared video camera, and a petrographic microscope with thin-section slides. The events occurred at the Louisiana State Museum, Baton Rouge, Louisiana; the Ball Community center, Ball, Louisiana; SCI-Port, Shreveport, Louisiana; and Walter B. Jacobs Nature Preserve, Blanchard, Louisiana. Additionally the Natchitoches Middle Lab 4-H club toured NCPTT in February, 2016. Tad Britt talked about archeology as a career and gave a presentation on Poverty Point National Monument using authentic artifacts, tools, and materials on loan from the Louisiana State traveling exhibit.

ARCHITECTURE & ENGINEERING

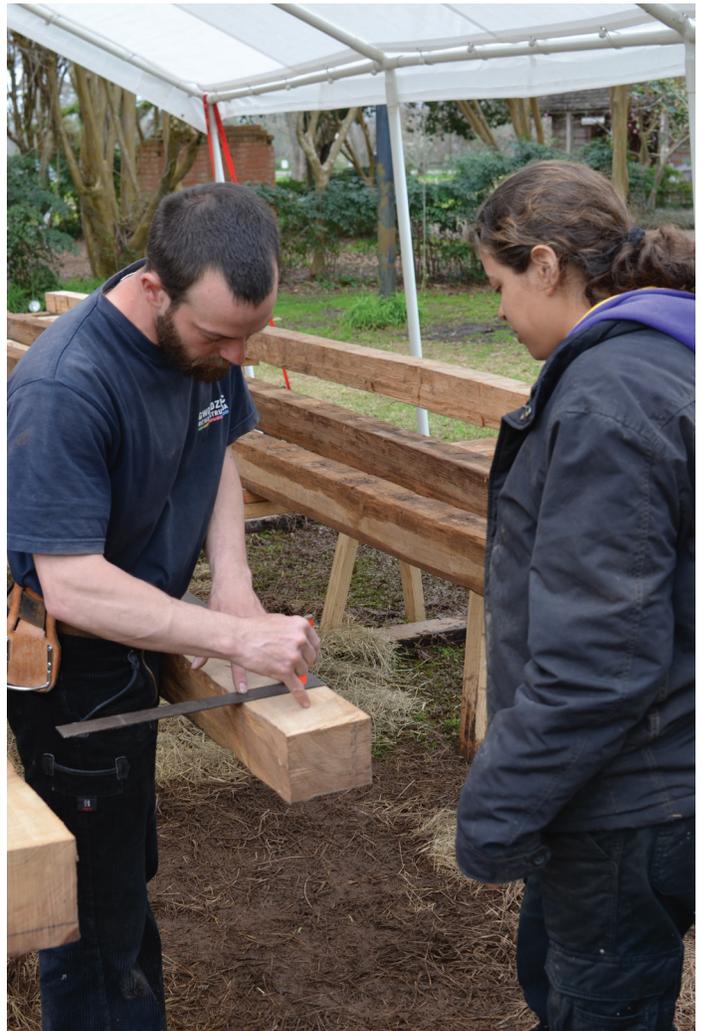
The Architecture & Engineering Program provides preservation practitioners with unique training opportunities and innovative research and technologies in the areas of architectural conservation, disaster preparedness and response, and sustainability for the historic built environment.

ENGINEERING FOR HISTORIC TIMBER FRAMING WORKSHOP

NCPTT partnered with the Preservation Trades Network, the Association for the Preservation Historic Natchitoches, and the Friends of NCPTT to hold a workshop investigating the engineering issues facing historic timber structures on February 9-12, 2015. The focus of the workshop was African House, which is a 200-year-old low fired brick and log structure, located at Melrose Plantation outside of Natchitoches, Louisiana. African House is a unique structure with a large timber frame cantilevered roof and is home to murals by famous folk artist Clementine Hunter. Instructors discussed engineering, materials, and collections issues that the building is facing.

HOPE CREW – AFRICAN HOUSE

NCPTT was the preservation advisor for the African House HOPE Crew project to restore the timber frame roof system. HOPE stands for Hands On Preservation Experience and is an initiative of the National Trust for Historic Preservation to provide hands-on training to young people in preservation crafts. The NTHP works with historic site owners to match them up with a trades expert, a preservation advisor, and a service corp for the project. As African House is located near NCPTT and is an important resource for the local community, NCPTT staff assisted in organizing and planning the project and made numerous site visits to document the work. The announcement was also made during the project that African House was named a National Treasure by NTHP. African House was the first project completed by the HOPE Crew that was not an NPS or NTHP site.



Gerald F. David explains to Katie Lagarde how to lay out measurements for rafters. Credit: NPS/NCPTT|Sarah Marie Jackson

NCPTT HOSTS VISITORS

In March, NCPTT hosted visitors from the NPS Northeast Region's Historic Architecture, Conservation, and Engineering Center (HACE) at its facilities in Natchitoches, Louisiana. The visitors included Museum Object Conservator Joan Bottkol, Architectural Conservator Karen Fix, Historic Structure Research & Documentation Chief Eric Breitreutz, and Historical Architect and HACE Branch Chief David Bittermann. HACE staff toured NCPTT's laboratory facilities and visited the staff and resources at nearby Cane River Creole National Historic Park. The visit provided an opportunity for staff from the two programs to discuss their ongoing projects and possible avenues for future collaboration.

Later in March, NCPTT hosted a group of 15 students from the University of Texas at San Antonio historic preservation program. The students toured NCPTT's laboratory facilities and visited nearby Cane River Creole National Historic Park to learn about the application of preservation principles. The students also toured Melrose Plantation and were able to speak with partners on the African House HOPE Crew project to learn more about the planning process and the overall project.

RESILIENT HERITAGE

Beginning with Hurricane Katrina and continuing through Hurricanes Ike and Sandy, NCPTT has garnered valuable "boots on the ground" experience responding to cultural resource needs in post disaster response and pre-disaster planning. As a result, NCPTT was approached by the Louisiana Division of Historic Preservation to create "Resilient Heritage: Protecting Your Historic Home from Natural Disasters." Funding for this project was provided by the Louisiana Governor's Office of Homeland Security and Emergency Preparedness. Sarah Marie Jackson, NCPTT, and Patrick Sparks, Sparks Engineering, were the primary authors.

While owners of historic residential buildings are the target audience, many others can benefit from the information provided. Implementing the guidance outlined in this booklet will be a key tool in helping to safeguard historic buildings and possibly help prevent repetitive property loss, while maintaining the integrity of the historic building for years to come. This manual includes recommendations for ways to better prepare or harden historic homes to withstand disasters. While focused primarily on hurricanes and flooding, it also offers strategies on protecting buildings from hail storms, ice storms, tornadoes, coastal subsidence, wildfires, dam and levee failures, and hazardous materials spills.



Protecting Your Historic Home from Natural Disasters

Developed By:



Funded By:



Cover of Resilient Heritage booklet on disaster preparedness for historic homeowners.

MATERIALS CONSERVATION

The Materials Conservation Program works to bridge the gap between laboratory science and real-world historic preservation applications. NCPTT scientists and conservators undertake this work through research, training, consultations, and outreach. The goals of the program are (1) to gain a better understanding of the way cultural materials decay and (2) to test new treatments that can slow that deterioration.

RESEARCH

NCPTT continues to expand research capabilities. This year, NCPTT added a freeze / thaw chamber that will allow researchers to test materials under thermal stresses. Additionally, the Center has acquired a metallurgical microscope to complement our suite of microscopic techniques. We are expanding our laboratories with the recent addition of space in Fournet Hall on Northwestern State University's campus. Work will continue to bring the lab spaces up to date.

NCPTT researchers are continuing Phase II studies into the performance of rust stabilizers, known as rust converters. These products are used on ornamental iron found in architecture and

Jason Church operates NCPTT's new Pyrolysis Gas Chromatograph Mass Spectrometer.



cemeteries. This second phase looks at the performance of commercially available rust converters in a salt environment. Successful converters from Phase I testing are joined with other similarly formulated products and are being tested for failure in accelerated weathering and a salt humidity chamber. This research will help preservationists in coastal environments make decisions when preserving architectural iron. Completion of this research is expected in 2016.

In addition to the useful research done at its laboratories, NCPTT supports young scientists and conservators. Lanaisha Dugas investigated the role of primers and paint applied to historic exterior wood. Titi Shobayo explored ways to remove crude oil from historic bricks. Currently, Alexa Beard is evaluating methods to remove mineral deposits from granite.



Volunteers raising and aligning headstones at Chalmette National Cemetery as part of the HOPE Crew Project.

TRAINING

NCPTT led the HOPE Crew at Chalmette National Cemetery, a volunteer project (March 7-April 1, 2016) that documented, realigned, and cleaned headstones in the cemetery with the goal of connecting the city of New Orleans with the preservation movement and the National Park Service through hands-on work. This project was a partnership between NCPTT, the National Trust for Historic Preservation, and Jean Laffite National Historical Park with sponsorship by D2 Biological Solution.



Volunteers cleaning grave markers at Chalmette National Cemetery as part of the NTHP HOPE project.

STAFF

A turnover in scientific staff includes the departure of Curtis Desselles and Carol Chin from the program. NCPTT is exploring possible new ways to boost its research capacity. Some options may include developing a lab manager position, hiring post-doctoral fellows, or offering research facilities to professors on sabbatical.

HISTORIC LANDSCAPES

The Historic Landscapes Program encourages research and partnerships that advance techniques and training in historic landscape management.

PARTNERSHIPS

The Historic Landscapes Program gained ground this year through strong partnerships. Locally, the program partnered with the Cane River National Heritage Area in a project to document the vegetation in American Cemetery. Located in the Natchitoches National Landmark District, the cemetery is the oldest European cemetery in the Louisiana Purchase. Historic landscape intern Laura Bradford mapped and identified all of the trees, shrubs, and vines in the cemetery, and noted their size and condition. She recorded the inventory on a map of built features created in ArcGIS by NCPTT employee Adam Cox. The combined map provides a comprehensive inventory of cemetery features.

NCPTT Intern Laura Bradford documenting vegetation in American Cemetery, Natchitoches, Louisiana.



For the second year, the Historic Landscapes program partnered with the University of Georgia to record oral interviews with early leaders in cultural landscape preservation. As most of the early work in cultural landscape preservation began in the late 1960s and gained momentum in the 1970s, many of the early practitioners are able to provide first-hand accounts of the beginnings and the growth of the profession. To date, thirty-four interviews have been conducted with current and former NPS and Parks Canada employees, university professors, and private practitioners.

Building on recommendations of a national workgroup, NCPTT is partnering with the Olmsted Center for Landscape Preservation (OCLP) to create an online preservation training program for cultural landscape maintenance workers. NCPTT landscape preservation associate Maggie O'Neill is working closely with OCLP staff to create an engaging program that will provide caretakers with the knowledge and skills necessary to maintain historic landscapes.

NCPTT is also partnering with the National Register of Historic Places to create the online publication "Acknowledging Landscapes: Presentations from the National Register Landscape Initiative." The National Park Service began the initiative in 2013 to study nominations of landscapes to the National Register of Historic Places. As part of the initiative, National Register Staff hosted a series of webinars organized topically on different landscape types and agency approaches to nominations. Each webinar includes three to six video presentations discussing successes and challenges in nominating landscapes to the National Register. The online publication will provide a summary of each webinar presentation, a link to the presentation and presentation transcript, and links to related National Register nominations.



Tim Murchison, a field staff employee at Cane River Creole National Historic Park, was interviewed to describe the maintenance work on a vernacular landscape. This footage will be used in Micro Lesson One: What is a cultural landscape?

SYMPOSIA

Divine Disorder 2015, Conference on the Conservation of Folk and Outsider Art, Atlanta, Georgia, February 24-26, 2015

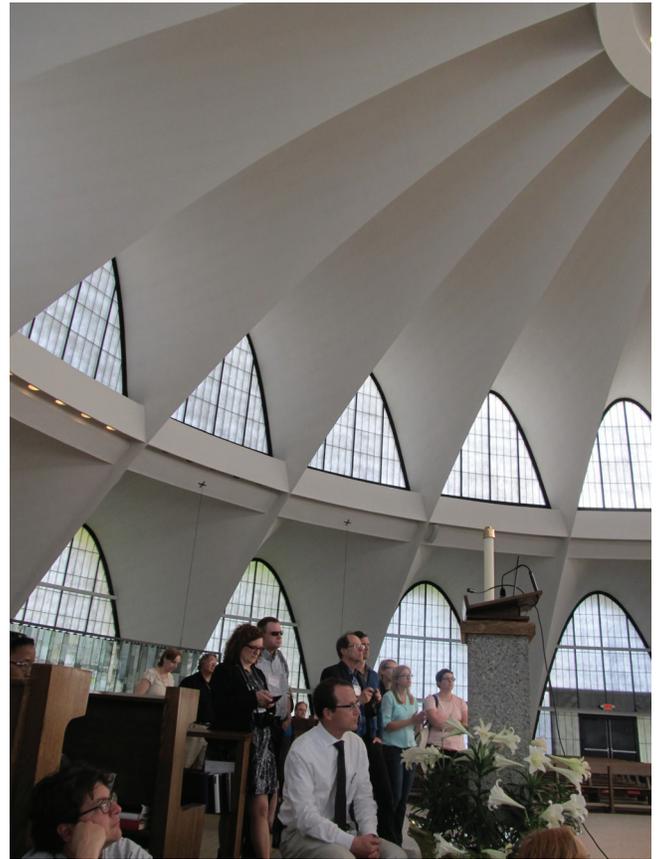
NCPTT organized and hosted the three-day conference that drew over 50 participants from around the country. This conference focused on the under appreciated decorative works of non-traditional artists. The conservation of these works is vital to preserving the life story of those artists outside the mainstream art community. The final day of the conference took place at Paradise Garden and featured talks on the Gardens as well as behind-the-scenes tours. Partners for the event included the High Museum of Art, Paradise Garden Foundation, and Lord Aeck Sargent Architecture.

Participants in the 2015 Divine Disorder Symposium visit Howard Finster's Paradise Garden.



Mid-Century Modern Structures: Materials and Preservation Symposium, St. Louis, Missouri, April 13-16, 2015

More than 100 participants at this symposium learned about the city's exemplary structures during the four-day event organized by NCPTT, the Friends of NCPTT, the Jefferson National Expansion Memorial, the American Institute of Architects St. Louis Chapter, Washington University in St. Louis, and the World Monuments Fund. The symposium was the kick-off event for NCPTT's NPS Centennial symposium series. In addition, it marked the 50th anniversary of the National Historic Preservation Act. The symposium featured a free public lecture, entitled "The Legacy of Eero Saarinen," given by Susan Saarinen, Kent Kochmeier, and Robert Moore at Washington University in St. Louis. The symposium included distinguished speakers such as Gyo Obata, Gunny Harboe, and Robert Silman. A special half-day session focused on the study of the Gateway Arch. The event culminated in a tour of the Frank Lloyd Wright house at Ebsworth Park, and the Priory Chapel at St. Louis Abby.



Participants in Mid-Century Modern Structures Symposium visit the Obata designed St. Louis Priory Chapel.

NCPTT: A Twenty-year Retrospective of Sponsored Research for Archaeological Innovation, San Francisco, California, Society for American Archaeology, April 15-19, 2015

NCPTT's Archeology and Collections program held a 20-year retrospective at the 80th Annual Society for American Archaeology meeting in San Francisco, California. The seminar focused on the innovative contributions of the past and honored current award recipients. The researchers re-examined their original work and addressed the impact to their respective fields, how their work influenced their research, and progress in their study areas since the initial award. This seminar included papers that covered topics ranging from the development and fielding of magnetic susceptibility, archaeogeophysics, multi-beam swath bathymetry, and a friction cone-penetrometer, to plasma extraction Carbon-14 analysis, site location probability models, lithic characterization, ceramic thin-section analysis, freshwater shell artifact and temper sourcing, aerial archaeology, and Native American consultation protocols.

Dance Halls, Juke Joints, and Honky Tonks, Lafayette, LA, March 21-23, 2016,

NCPTT, the Friends of NCPTT, the Center for Louisiana Studies, Louisiana Division of Historic Preservation, and the Bayou Vermillion District hosted a three-day symposium focused on the issues associated with the preservation of dance halls and similar sites throughout the rural South.

PTT GRANTS

The Preservation Technology and Training (PTT) Grants program provides funding for innovative research, training, and publications that develop new technologies or adapt existing technologies to preserve cultural resources. Each year, the National Center awards grants of up to \$40,000 to non-profit organizations, universities, and government agencies. Grant recipients undertake innovative research, provide unique training opportunities, and produce publications which meet national needs in the field of historic preservation.

2015 PTT GRANT AWARDS

On July 15, 2015, NCPTT announced the recipients of the 2015 PTT Grants. Last year, fifteen grants totaling \$533,500 were awarded. These grants provided funding for innovative research, training, and publications to develop new technologies or adapt existing technologies to preserve cultural resources.

Grant projects incorporated modern technology and techniques in documentation and conservation that have impact beyond the grant project. The Pennsylvania State University will study energy and indoor environmental quality to help building owners better understand how these measures are impacted by the adjustment of windows, insulation, and mechanical systems. Research on new surveillance systems by the State University of New York will help better protect archaeological sites from looting and vandalism.

FY 2015 grant recipients were:

National Park Service, Southern Arizona Office (Vanishing Treasures), Phoenix, AZ: A Quantitative Assessment of Architectural Material Losses using Terrestrial Laser Scanning. (\$16,500)

California Department of Parks and Recreation, Sacramento, CA: Development of a Mobile Computer Application for Recording and Submittal of Historical Resources Data. (\$40,000)

National Park Service, Southeast Archaeological Center, Tallahassee, FL: Revisiting Arcryloid B-72/Paraloid B-72 and Barrier Numbering: Solutions for Archaeological Museum Collections (\$40,000)

Idaho State University, Pocatello: Digital 3D Preservation and Documentation for Historic Cultural Landscape and Museum Collections, Grand Teton National Park. (\$39,000)



Oilfield Estate is an example of historic landscapes to be documented with a smartphone app funded by an NCPTT Grant to Purdue University using near-field communications technology.

Purdue University, West Lafayette, IN: Enhancing Historic Landscape Visualization (\$40,000)

North Dakota State University, Fargo, ND: Multi-Functional High Performance “Green” Nanocomposite Coating for Metals (\$38,000)

Mesilla Valley Preservation, Inc., Mesilla, NM: Field Kit and Methodology for Detecting, Measuring, and Remediating Salt Attack (Salt Weathering) in Adobe and Earthen Structures (\$25,000)

Cornell University, Ithaca, NY: Rapid-Deployment Geophysical Reconnaissance Team for the Assessment of Threatened Cultural Resources in the American Arctic – Yukon Charley Rivers National Preserve, Bering Land Bridge Natural Preserve, Gates of the Arctic National Park and Preserve, Barrow at the Birnirk National Historic Landmark (\$39,500)

The Research Foundation of the State University of New York, Syracuse, NY: Novel Electronic Technology for Real-time Detection of Trespass at Archaeological Sites (\$39,000)

University of Oregon, Eugene, OR: A Preliminary Manual of Policy and Management Responses to Climate Change Impacts on Cultural Landscapes, Phase 2 (\$39,500)

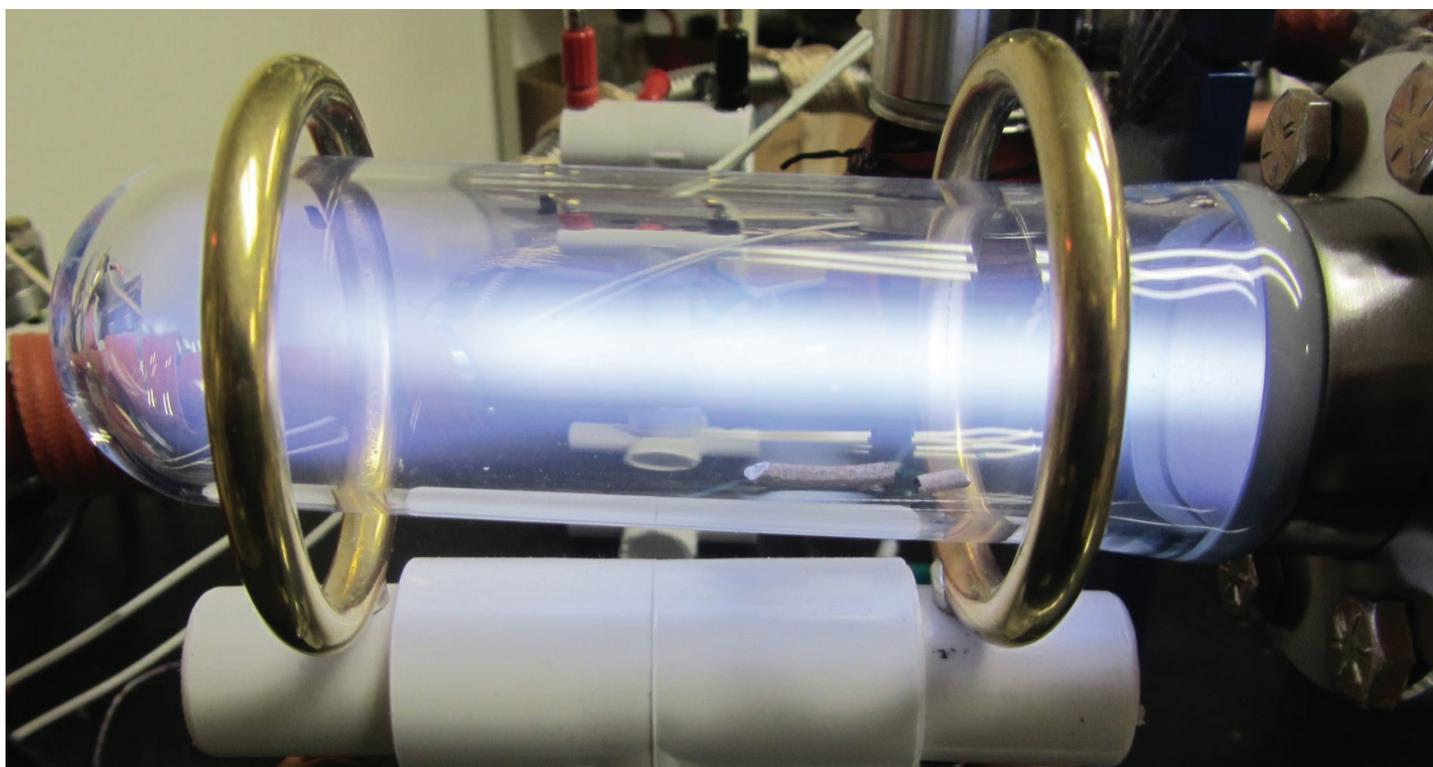
The Pennsylvania State University, University Park, PA: Probabilistic Modeling of Energy Use and Air Quality in Historic Buildings (\$40,000)

University of Texas, Austin, TX: Using Eularian Video Magnification to Study the Effect of Fluctuations in Relative Humidity on Cultural Heritage Materials (\$30,500)

CyARK, San Francisco, CA: Preserving Heritage with Low Cost Documentation (\$31,200)

University of Akron, Akron, OH: Development of in situ Shallow Subsurface Spectroscopy for the Geochemical Characterization of Archaeological Features and Anthropogenic Soils (\$37,800)

Museum of New Mexico Foundation, Santa Fe, NM: Low Energy Oxygen Plasma Radiocarbon Sampling (\$37,500)



Argon cleaning plasma used to sample objects as part of the grant to the Museum of New Mexico.

NCPTT announced its 2016 PTT Grant Funding Opportunity on September 1, 2015. The funding opportunity was posted on grants.gov, distributed via email to over 5000 people on NCPTT's mailing list, and sent to professional organizations for further distribution. PTT Grant funds will be used to undertake innovative research that develops new technologies or adapts existing technologies to preserve cultural resources. The maximum award for PTT Grants is \$40,000.

In addition to the regular PTT Grants, NCPTT issued a new funding opportunity, called the NCPTT Media Grants, that provides funding to small projects. These funds will be used to develop publications, web or mobile applications, and video products that offer preservationists a better understanding of tools and resources available to preserve cultural heritage. The maximum award for NCPTT Media Grants is \$15,000.

NCPTT received a total of 38 proposals requesting \$1,384,000 in funding in the 2016 Preservation Technology and Training Grants Program. Additionally, 15 proposals were received requesting \$190,607 in funding in the 2016 Media Grants Program. All proposals underwent an internal peer review. Seventeen PTT Grant applications and four Media Grant applications were selected for further review by a national panel. Funding is expected to be \$300,000.

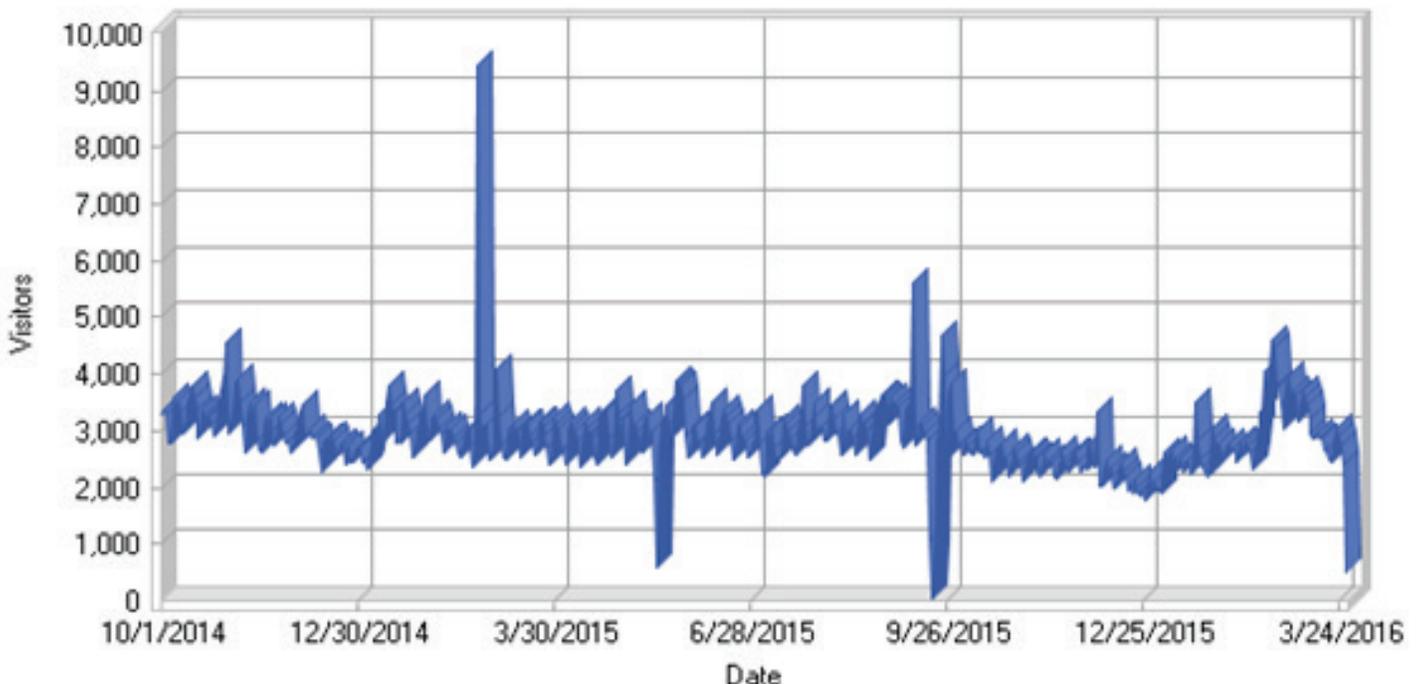
Additionally, NCPTT was awarded special CRPP funding this year to support National Park Units, Centers, Programs, and Regional Offices for research that applies modern technologies to the preservation of cultural resources in national parks. The maximum grant award was \$30,000. Project duration is one year. NCPTT received 37 completed applications from most regions requesting more than \$860,000 which would have leveraged more than \$360,000 in matching funds. NCPTT staff reviewed and recommended 9 projects for funding.

COMMUNICATIONS & INFORMATION TECHNOLOGY

NCPTT Website

Between October 1, 2014, and March 31, 2016, the NCPTT website received over 17 million page views from 2 million visitors, 800,000 of whom were unique visitors. Page views increased by over 300%, visits by 25%, and unique visitors by 40%. Mobile devices are used by 17% of visitors, a rise of 28%.

Total daily visitors from October 1, 2014-March 31, 2016. The number of visitors spikes when a page becomes very popular, usually via sharing on social media. It can also drop sharply during an Internet service outage, shown as two dips in the center of the graph, or decline during holidays or periods of low publishing.



Articles published to the NCPTT website are automatically shared via Twitter, and select articles, videos, and publications are posted on Facebook. The Preservation Technology Podcasts received over 20,000 downloads by over 17,000 visitors.

The number of visitors ebbs and flows daily but spikes when a page becomes popular, such as an internship announcement or training event, the publication of new conference videos or podcasts, or renewed interest in previously published content such as a study on rust converters. A drop in visitors typically occurs during holidays and weekends, during periods when little new content is published, or when NCPTT has an internet connection outage, denoted by the sharp dips in the middle of the preceding graph.

Video

Video remains a highly effective return on the investment of NCPTT resources and reached over 187,000 visitors who watched more than 1 million minutes, over 16,000 hours, a rise of 30% in visitors and 22% in time watched. The most popular videos are hands-on practical tutorials. The most popular video is a Spanish language version of “The Application and Preparation of Limewash.”

NCPTT has a well-honed process for video production from high-definition capture at a symposium, post-processing, transcription, captioning, and publication to YouTube and the website. Search engine indexing of the posted transcripts helps discovery of the videos. A typical video from a symposium presentation receives one view every few days and NCPTT usually publishes 20 to 30 videos from each of these multi-day events. While views of these videos typically peak shortly after publication, the audience grows over time.

Top 10 Most Popular Videos: October 1, 2014-March 31, 2016

Video	Times Viewed	Minutes Viewed (Percentage)
1. Pintura de Cal (Application and Preparation of Limewash, Spanish version)	125,303	407,533 (26%)
2. Walls of Stone: How to Build Dry Stone Walls and Rock Fences	69,063	545,744 (35%)
3. Building Dry Stone Retaining Walls	22,227	195,869 (13%)
4. Application and Preparation of Limewash	17,101	52,304 (3.4%)
5. An Axe to Grind: Part 1	12,461	117,564 (7.6%)
6. Lifting and Hoisting Stone Grave Markers Iron Fence Repair	7,772	18,654 (1.2%)
7. An Axe to Grind: Part 2	3,896	34,966 (2.3%)
8. Made from My Own Hand: An Introduction to Concrete Grave Markers	2,944	7,349 (0.5%)
9. NCPTT Iron Fence Repair – Cemetery Monument Conservation	2,926	7,584 (0.5%)
10. Realms of the Unreal and the Henry Darger Archives	2,848	13,761 (0.9%)

10 Most Popular Symposia Videos: Lifetime

Video	Symposium	Views
1. Realms of the Unreal	Divine Disorder (2012)	7,219
2. Made from My Own Hand: An Introduction to Concrete Grave Markers	International Cemetery Preservation Summit (2014)	3,042
3. A Comparative Study Using LiDAR Digital Scanning and Photogrammetry	3D Digital Documentation (2012)	2,184
4. FBI Investigation of Clementine Hunter Forgeries	Divine Disorder (2012)	1,448
5. Close Range Photogrammetry vs. 3D Scanning for Archaeological Documentation	3D Digital Documentation (2012)	1,000
6. Preserving Falling Water – An American Icon by Robert Silman	Master Builder Dialogues (2012)	812
7. Portland Cement vs. Historic Gravestones	International Cemetery Preservation Summit (2014)	756
8. James Hampton's Throne of the Third Heaven of the Nations' Millennium General Assembly	Divine Disorder (2015)	672
9. Creating a Conservation Plan for Vol-lis Simpson's Whirligigs	Divine Disorder (2012)	648
10. Aquatic Plants for Water Quality Maintenance in Water Features and Fountains	Fountain Fundamentals (2013)	643

Top 10 Most Popular Publications: October 1, 2014-March 31, 2016

Publication	Downloads
1. Best Practice Recommendations for Cleaning Government-Issued Headstones	18,303
2. Historic American Timber Joinery: A Graphic Guide	5,989
3. Mechanical Anchor Strength in Stone Masonry	4,531
4. Elimination of Subterranean Termite Populations from the Statue of Liberty National Monument Using a Bait Matrix Containing an Insect Growth Regulator, Hexaflumuron	3,895
5. Historic American Roof Trusses: II. Queenpost	2,017
6. Manual on Conservation Methodology for Historic Buildings and Structures: Puerto Rico and the Virgin Islands	1,608
7. Digital Image Analysis of Petrographic Thin Sections in Conservation Research	1,291
8. Comparative Study of Rust Converters for Historic Outdoor Metalwork	1,022
9. Rapid Building Site Assessment	1,021
10. Evaluating Sites with Late 19th & Early 20th Century Components for Eligibility in the National Register of Historic Places: Using Turn-of-the-Century Whitewares as Economic Indicators in Assessing Collections and Developing Contexts	951

HERITAGE EDUCATION

Bousillage Demonstration, Natchitoches, LA

As part of its heritage education outreach, NCPTT made a presentation to 50 kindergartners and teachers at the Northwestern State University Elementary Laboratory School in Natchitoches, LA. Staff engaged the students in the history of this traditional earthen building technology and talked about the bousillage buildings that could be seen locally at Cane River Creole National Historical Park. Students learned some of the French terms associated with bousillage and were actually able to test their skills at mixing the soil and moss mixture, and forming torchis (the formed unit of bousillage) and hanging them over the barreaux (light horizontal wooden members) of a columbage (timber framed) wall assembly.



Conservation Careers, Natchitoches, LA

Northwestern State University of Louisiana's Middle Laboratory School's 4-H Club visited NCPTT on February 17th. The club's learning theme this year is careers. NCPTT Chief of Archeology and Collections, Tad Britt, discussed what an archeologist does and showed the 6th-8th grade students stone artifacts from Poverty Point (Louisiana). After giving the group an introduction to NCPTT, Materials Conservator Jason Church talked to the students about what a conservator or a conservation scientist does. Their visit concluded with a laboratory visit where the students got to analyze pot shards with pXRF and view thin sections of ceramics under magnification.

Leigh Jackson playing with mud during Bousillage Demonstration

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APPENDICES

TRAINING AND PRESENTATIONS

The National Center develops and conducts seminars and workshops nationwide on topics ranging from maintaining historic fountains to disaster preparedness and recovery. The staff of NCPTT also speak at conferences, provide hands-on experiences for school groups, and give other presentations, disseminating the National Center's research and sharing its knowledge of preservation topics. The following is a list of training programs offered.

EVENTS

Planning for Change: Disaster Preparedness for Preservation, November 11, 2014, Savannah, GA: NCPTT staff and other NPS colleagues presented a day-long Preservation Leadership Training session at the National Trust FastForward Conference. The workshop presented vital information on how best to plan for the unexpected and discussed different approaches for assessing vulnerabilities.

Engineering for Historic Timber Framing Workshop, February 9-12, 2015, Natchitoches, LA: NCPTT partnered with the Preservation Trades Network, Association for Preservation of Historic Natchitoches, and Friends of NCPTT to host a four-day workshop investigating engineering issues facing historic timber structures.

Fiber Identification and Analysis for Conservation Workshop, March 24-26, 2015, Houston, TX: NCPTT partnered with the Museum of Fine Arts, Houston, Texas to host the workshop taught by Nick Petraco, retired head of the NYPD forensics lab.



Students gather around instructor Nicholas Petraco as he demonstrates mounting fibers.

Cemetery Monument Care Basics Workshop, April 25, 2015, Houston, TX: Jason Church taught a four-hour workshop on monument cleaning at the Olivewood Cemetery in Houston.

Cemetery Monument Cleaning Workshop, May 1, 2015, Savannah, GA: Jason Church taught a workshop to Savannah School of Art and Design students.

Beginning Metal Detecting for Archeologists, May 8-9, 2015, Santa Fe, NM: NCPTT and Connor Consulting conducted the two-day training that included an introduction to metal detectors and metal detecting capabilities and a field practicum where attendees used various detectors in a real archaeological situation.

Desert Geomorphology for Archeologists, May 11-15, Las Vegas, NV: NCPTT, the Friends of NPCTT, and the Desert Research Institute partnered to host the five-day workshop focused on the fundamentals of desert geomorphology by using a variety of methods and techniques.

Stained Glass Symposium: Creation, Preservation, And Appreciation of Stained Glass, June 19-20, 2015, Washington, DC: NCPTT sponsored the two-day workshop organized by APT.

Wood Identification for Preservation Professionals, June 23-25, 2015, Natchitoches, LA: NCPTT hosted the workshop taught by Dr. Suzana Radivojevic, University of Oregon Historic Preservation Program. The course included a hands-on exercise in sampling, sample preparation, macroscopic and microscopic techniques, and integration of lectured material into practice.

3D Imaging for Heritage Projects Field School, July 13-31, 2015, Nantucket, MA: NCPTT and the University of Florida Historic Preservation Program partnered to host the three-week field school on historic preservation applications of photogrammetry and 3D laser scanning. Participants completed a 3D laser scanning project.

Photogrammetry Workshop, July 13-17, 2015, Nantucket, MA: NCPTT and the University of Florida Historic Preservation Program partnered to host the five-day workshop to provide historic preservation professionals and students with a working knowledge of photogrammetry including the equipment, field work planning and techniques, processing, and products.

3D Laser Scanning Workshop, July 20-24, 2015, Nantucket, MA: NCPTT and the University of Florida Historic Preservation Program partnered to host the five-day workshop to provide historic preservation professionals and students with a working knowledge of 3D laser scanning including the equipment, field work planning and techniques, processing, and products.

Documentation Technologies Workshop, September 4-5, 2015, Honolulu, HI: NCPTT sponsored the two-day workshop. Participants learned about the latest technologies for obtaining the information and data critical for project planning, analysis, and diagnostics, as well as how to assemble an effective data gathering strategy to fit differing project needs.

Resetting a Gravemarker, September 19, 2015, Pensacola, FL: Jason Church gave a demonstration during the Florida Humanities Council Annual Meeting.

Fountain Fundamentals, November 1, 2015, Kansas City, MO: NCPTT helped organize and teach the two-day workshop taught at the APT Annual Conference. The workshop included classroom lectures, a fountains tour, and site visits at several of the Kansas City fountains.

Salt of the Earth: Conservation of Historic Masonry Impacted by Salts and Rising Damp, February 19, 2016, New Orleans, LA: NCPTT funded the day-long symposium through the PTIT grants program. The symposium explored issues related to conserving buildings that are subject to soluble salts and rising damp.

Petrography for Archeologists, March 9-10, 2016, Phoenix, AZ: NCPTT, the Friends of NCPTT, the Southern Arizona Office of the National Park Service (SOAR), and the Center for Historic Architecture and Design (CHAD) in the University of Delaware's School for Public Policy and Administration offered a two-day hands-on course in thin-section petrographic analysis of archeological ceramics for NPS employees and partners.

Documentation Technologies Workshop, March 11-12, 2016, Philadelphia, PA: NCPTT sponsored a two-day workshop organized by APT focused on the use of the latest technologies for obtaining the information and data critical for project planning, analysis, and diagnostics.

After the Storm: Wet Recovery Workshop, March 24, 2016, Natchitoches, LA: NCPTT, in partnership with the Cane River Creole National Historical Park and the Friends of NCPTT hosted a day-long free workshop for homeowners affected by the historic March 2016 floods in Louisiana.

STAFF PRESENTATIONS

Greening What's Already Here: LEED EB:O&M is the New Preservation Tool, October 22, 2014, New Orleans: Andy Ferrell and project partner Barbara A. Campagna presented at the GREENBUILD conference.

NCPTT Research, February 3, 2015, Savannah, GA: Jason Church was guest lecturer in the SCAD Historic Preservation Department.

Stone Analysis, February 4, 2015, Savannah, GA: Jason Church was guest instructor in the SCAD Historic Preservation Department.

Paint Analysis, February 3, 2015, Savannah, GA: Jason Church was guest instructor in the SCAD Historic Preservation Department.

Workforce Tips and Insights, February 4, 2015, Savannah, GA: Jason Church was guest lecturer in the SCAD Historic Preservation Department.

Career Paths in Preservation, February 5, 2015, Savannah, GA: Jason Church was guest lecturer in the SCAD Historic Preservation Department.

Building Systems, February 5, 2015, Savannah, GA: Jason Church was guest instructor in the SCAD Historic Preservation Department.

Materials Conservation: Paints and Primers, March 12, 2015, Natchitoches, LA: NCPTT Intern Lanaisha Dugas presented at the Northwestern State University of Louisiana Research Day.

The Removal of Weathered Crude Oil and its Effect on Historic Masonry, March 12, 2015, Natchitoches, LA: NCPTT Intern Titi Shobayo presented at the Northwestern State University of Louisiana Research Day.

Homemade Funerary Arts with the Wade Family: Using Oral Histories to Help with Preservation, March 20, 2015, Natchitoches, LA: Jason Church presented the keynote address at the annual Louisiana Folklore Society.

Digital Modeling in the Parks: How 3D Laser Scanning and Photogrammetry are Transforming the Management of Cultural Resources, March 26, 2015, Berkeley, CA: Kirk Cordell presented at the Science for Parks, Parks for Science conference sponsored by the University of California, Berkeley, and the National Park Service.

The Role of Science in the Care of Cultural Heritage, March 26, 2015, Berkeley, CA: Mary Striegel presented at the Science for Parks, Parks for Science conference.

Evaluation of Cleaning Methods and Products for the Removal Of Weathered Crude Oil from Cultural Materials, March 26, 2015, Berkeley, CA: Carol Chin presented a poster at the Science for Parks, Parks for Science conference.

3D Documentation of Cultural Heritage Items: Capturing Digital Surface Models of the Malmberg Basket Collection, March 26, 2015, Berkeley, CA: former NCPTT intern Brittany Mabry presented a poster on her research at the Science for Parks, Parks for Science conference.

Reinforced Repairs of Stone Grave Markers, Recent Research of NCPTT, and Experimental Design and Sample Matrix, April 30, 2015, Savannah, GA: Jason Church was guest instructor in the SCAD Historic Preservation Department.

Cemetery Documentation and Establishing Preservation Priorities, April 24, 2015, Houston TX: Jason Church presented a public lecture at a program celebrating 140 years of Olivewood Cemetery.

A Calm Call on a Thursday, May 13, 2015, Miami, FL: Jason Church presented at the AIC-CERT meeting at the American Institute for Conservation Conference.

Hand in Hand: Conservation of Latex, May 13, 2015, Miami, FL: Jason Church presented a poster at the AIC-CERT meeting at the American Institute for Conservation Conference.

NCPTT and Technology Resources for Historic Preservation, May 14, 2015, Lake Charles, LA: Andy Ferrell presented at the Louisiana Annual Preservation Conference.

Introduction to Historic Cemetery Care, August 28, 2015, Tahlequah, OK: Jason Church presented at the Cherokee National Annual Conference of Community Leaders.

Everything but the Kitchen Sink: The Beauty and Variety of Materials used in Vernacular Markers, September 19, 2015: Pensacola, FL: Jason Church presented at the By These Hands Conference, organized by the University of West Florida.

The Social and Cultural Significance of Vernacular Markers in the African-American Cemeteries, October 1, 2015, Grambling, LA: Jason Church presented at the Grambling State University's Founder's Day celebration.

Preservation and Maintenance of Stone and Masonry Monuments, November 20, 2015, Chapel Hill, NC: Jason Church gave the keynote address at the North Carolina Preservation Consortium Annual Conference.

Art Conservation as a Career: Historic Cemetery Sculpture and Folk Art, March 16, 2016, Thibodaux, LA: Jason Church gave a lecture at the Nicholls State University's Art Department's ART DAY.

PUBLICATIONS AND MEDIA PRODUCED

NCPTT PUBLICATIONS

- **Resilient Heritage: Protecting Your Historic Home from Natural Disasters**, Sarah Marie Jackson, NCPTT and Patrick Sparks, Sparks Engineering.
- **Proceedings of the Mid-Century Modern Structures: Materials and Preservation Symposium**, National Park Service Centennial Symposium Series, Edited by Kathryn Doyle, Andrew Ferrell, Frank E. Sanchis, III, and Mary F. Striegel.

PTT GRANTS PUBLICATIONS

- **East at Main Street: Asian Pacific Islander American (APIA-Mapping Project)**, Donna Graves for Advancing Justice-Asian Law Caucus.
- **Development and Documentation of Geomorphic Characteristics in Support of a Cultural Resources/Archaeological Favorability Model for Death Valley National Park**, T.F. Bullard, S.N. Bacon, H.L. Green, Desert Research Institute.
- **Climate Change and Cultural Landscapes: Research, Planning and Stewardship DRAFT**, Robert Melnick, University of Oregon.
- **Application of a Biotechnology Technique for Accurate Identification and Regional Localization of Mammalian Materials in Native American Cultural Heritage**, T. Rose Holdcraft, Peabody Museum of Archaeology and Ethnology, Harvard University.
- **Preserving Timber Structures with Non-destructive Evaluation of Critical Joinery**, Paula Crovella, State University of New York.
- **Application of Genetic Sequencing for Comprehensive Analysis of the Bacterial Communities Associated with Mercury-Treated Museum Collections**, Dr. Timberley Roane, University of Colorado Denver.

GENERAL VIDEOS

- **Preserving Falling Water - An American Icon** by Robert Sillman.
- **A Tale of Two Towers and Two Holes in the Ground**, Neil Ronk, The Christ Church; Charles Cook, R.S. Cook and Associates; Nick Gianopulus, formerly of Keast & Hood Co. and Bruce Gill, Historic Harriton House.
- **Archeology Day: Workshops and Events in 2014-2015**, Tad Britt, NCPTT.

SYMPOSIA VIDEO

Mid-Century Modern Structures Symposium

On April 14-16, 2015, NCPTT partnered with the Friends of NCPTT, the World Monument Fund, the American Institute for Architects St. Louis, Washington University in St. Louis, and the Jefferson National Expansion Memorial to hold a three-day symposium on the preservation of mid-century modern structures in St. Louis, Missouri. The following video presentations were closed-captioned and made available on the NCPTT website.

- **Low, Light and Livable: From Modern to Ranch in Arkansas, 1945-1970** by Holly Hope, Arkansas Historic Preservation Program.
- **Investigating and Understanding the New York State Pavilion's Tent of Tomorrow and Observation Towers** by Evan Kopelson, Vertical Access, and Nancy Hudson, SILMAN.
- **Mid-Century Commercial Modernism: Design and Materials: A Presentation at the Mid-Century Modern Structures Symposium** by Carol Dyson, Illinois State Historic Preservation Office.
- **Identifying the 1950s Ranch House Interior as a Cultural Resource** by Laura Kviklys, University of Georgia's College of Environment and Design.
- **Fiberglass Reinforced Plastic at the Fair** by Mary Jablonski, Jablonski Building Conservation.
- **No Thermal Break, No Problem: Upgrading Kahn's Stainless Steel Windows in the Richards Building** by David Fixler and Matthew Chalifoux, EYP Architecture and Engineering.
- **An Engineer's Approach to Forecast the Long-Term Effects of Environmental Thermal Cycles on the Aluminum Works in the Artillery Sheds at the Chinati Foundation** by James Parker, Simpson Gumpertz & Heger.
- **Preserving the Gateway Arch: Evaluating Fire Protection and Life Safety Conditions Using a Performance-Based Analysis: A presentation at Mid-Century Modern Structures Symposium** by Anne Weber, Mills + Schnoering Architects, LLC, and Jennifer Wiley, Hughes Associates.
- **Gateway Arch Stainless Steel Weld and Surface Discoloration Evaluation: A Presentation at the Mid-Century Modern Structures Symposium** by Catherine Houska, TMR Consulting.
- **Material Change: Attenuation to Significance** by Christopher Domin, University of Arizona.
- **New Contexts: Preservation Challenges of Modern Era Design** by Ann Dilcher, Quinn Evans Architects.
- **The Farnsworth House** by Ashley Wilson, National Trust for Historic Preservation, and Robert Silman, SILMAN.
- **St. Louis' Mid-Century Modern Architecture: The Matter of Materials** by Mary Brunstrom, Washington University, St. Louis.
- **Separating Baby from Bathwater: Conflict Resolution in Modern Materials, Systems & Form** by Walter Sedovic, Walter Sedovic Architects.
- **Restoration and Replication of Steel Elements at Frank Lloyd Wright's Fallingwater and Solomon R. Guggenheim Museum** by Pamela Jerome, Architectural Preservation Studio.
- **The Knapp's Centre: 1930's Art Moderne Icon Reinvented** by Bradley Cambridge, Quinn Evans Architects.

- **Investigating the Visible Stains on the Stainless Steel Skin of the Gateway Arch** by Josh Friedland, Christine Freisinger, and David Megerle, Wiss, Janney, Elstner Associates, Inc.
- **Adaptive Reuse of the American Zinc Building and Other Works** by Gyo Obata, HOK.
- **Material Matters** by Gunny Harbo, FAIA.
- **The Space Age in Construction** by Justine P. Bello, Caroline Guay, Tom McDowell, Mark Rabinowitz, Joseph Sembrat.
- **Modernism at Risk** by David E. Bright, Knoll, Inc.
- **Form Concrete, Establishing Common Ground** by Amanda Burke, Missouri State Historic Preservation Office.
- **Material, Building Type or Beauty — What Makes Preserving Brutalist Architecture in Buffalo So Hard?** by Barbara Campagna, BAC/Architecture + Planning.
- **Structural and Material Evaluation of Thin Shell Concrete (Hyperbolic Paraboloid) Structures in the Pacific Northwest** by Tyler S. Sprague, University of Washington.
- **Study of Stains and Markings on the Gateway Arch in St Louis** by Stephen J. Kelly and Al O'Bright, NPS Midwest Regional Office.

Divine Disorder 2015

On February 24-26, 2015, NCPTT, in partnership with the Friends of NCPTT, the High Museum of Art and Paradise Gardens, held a three-day conference on the conservation of folk and outsider art in Atlanta, Georgia. The following video presentations were closed-captioned and made available on the NCPTT website.

- **James Hampton's Throne of the Third Heaven of the Nations' Millennium General Assembly** by Helen Ingalls, Smithsonian American Art Museum and Renwick Gallery.
- **The Winds of Change: When a Place Changes... and Changes a Place** by Kimberly Van Dyk, Planning and Community Revitalization Department for the City of Wilson, North Carolina.
- **E.T. Wickham: The Intersection of Family and Preservation** by Brittany Wickham Walker, Middle Tennessee State University.
- **How to Move a Mountain: the Documentation and Display of Displaced Art Environments** by Karen Patterson, John Michael Kohler Arts Center.
- **Expression of Faith and Fear: The Chauvin Sculpture Garden** by Kenny Hill and Deborah Cibelli, Nicholls State University.
- **Kohler Foundation, the Journey to Preserve Vernacular Art** by Terri Yoho, Kohler Foundation, Inc.
- **Revisiting Clementine Hunter's Murals at African House** by Jill Whitten and Robert Proctor, Whitten & Proctor Fine Art Conservation.
- **Treatment Considerations for a Newly Discovered Madonna** by Martin Ramirez by Susan M. Peckham, Library of Congress.
- **Extraordinary Legacy; the Folk Art Collection of the High Museum of Art** by Susan Crawley, High Museum of Art.
- **Art Environments: Curatorial Roles and Responsibilities** by Jo Farb Hernandez, SPACES – Saving and Preserving Arts and Cultural.

- **Pasaquan, the Journey Continues** by Peter Schoenmann, Parma Conservation, and Shane Winter, International Artifacts.
- **Where is the Doubt, Faith: A Case Study in the Community-Based Preservation Efforts of Margaret's Grocery and the L.V. Hull Home** by Jennifer Joy Jameson, Mississippi Arts Commission.
- **How is the Conservation of Outsider/Folk Art Unique? Or is it?** by Barbara Appelbaum and Paul Himmelstein, Appelbaum and Himmelstein.
- **Producer/Process/Production the Sacred Chaos of Preserving the Artist and/or the Art** by Norman Girardot, Lehigh University.
- **Prophecy in Exterior Latex: Documenting the Message of Isaiah Robertson** by Fred Scruton, Edinboro University.

National Council for Preservation Education Conference

On July 15-16, 2014, the National Council for Preservation Education (NCPE) and the Friends of NCPTT held a two-day conference on preservation education at NCPTT. The following video presentations were closed-captioned and made available on the NCPTT website.

- **Documenting Preservation History through Education: The New Orleans Preservation Timeline Project** by John H. Stubbs, Tulane University.
- **An Unlikely Paper Trail: Identifying the Sites and Inhabitants of the Tenant Quarters Community at Magnolia Plantation** by Dustin Fuqua, Cane River Creole National Historical Park.
- **Preservation Education Challenge: Establishing Heritage Curricula and Professional Practice in Emerging South Asia Democracies, Pakistan—A Case Study** by Robert W. Ogle and William C. S. Remsen, Boston Architectural College.
- **All Preservation is Local, Excerpt...: Reflections on Conducting Preservation Coursework Abroad** by Jeffrey M. Chusid, Cornell University.
- **The Use of Infographics in Preservation Planning** by Andrea Livi Smith and Tasha Horton, University of Mary Washington.
- **Technology, Preservation Education, and Managing Change in the Alamo** by Carolina Manrique and Robert Warden, Texas A&M.
- **The Documentation Course: Beyond Drawing** by Carter Hudgins and Amalia Leifeste, Clemson University/College of Charleston.
- **From Theses to Capstone Experiences: Engaging Students in Community-Based Preservation** by Rebecca J. Sheppard and Catherine Morrissey, University of Delaware.

International Cemetery Preservation Summit

On April 8-10, 2014, NCPTT, in partnership with the Canadian Ministry of Culture, Forest Lawn Cemetery, and Willowbank School, hosted a two-and-a-half-day summit in Niagara Falls, New York, and Ontario, Canada. The following video presentations were closed-captioned and made available on the NCPTT website.

- **Preservation Planning for Historic Cemetery Landscapes** by Martha Lyon, Martha Lyon Landscape Architecture, LLC, Northampton, Massachusetts.

- **The Challenges of Treating Delaminating Slate Headstones: New Treatments with New Materials** by Irving Slavid, MCC Materials.
- **Modern Problems in Historic Cemeteries** by Frances Ford, Richard Marks Restoration, Inc., Charleston, South Carolina.
- **Returning From Oblivion: The Reemergence of a World War II Memorial Sundial** by Minxie and James Fannin, Fannin-Lehner Historic Preservation Consultants.
- **Portland Cement vs. Historic Gravestones** by Jonathan Appell, New England Cemetery Service.
- **Red Jacket: Sculpture Conservation Treatment in Forest Lawn Cemetery** by Francis Miller, ConservArt LLC.
- **Maintaining Leadworks for Cemetery Monuments and Mausolea** by Angus “Gus” Fraser and David Gallagher, Mount Auburn Cemetery in Cambridge, Massachusetts.
- **In Small Things Remembered: The William Peters Reeves Grave Memorial at Kenyon College** by Dennis Montagna, National Park Service’s Monument Research & Preservation Program, Philadelphia Region Office, Philadelphia, Pennsylvania.
- **Made from My Own Hand: An Introduction to Concrete Grave Markers** by Gordon Bond, Garden State Legacy and Stephanie M. Hoagland, Jablonski Building Conservation, Inc.
- **Handcrafted Gravemarkers of Julius “Jesse” Thomas** by Anne Shelton, Independent Preservation Consultant.
- **Fragile Grounds: Mapping South Louisiana’s Cemeteries** by Jessica H. Schexnayder and Mary H. Manhien, LSU FACES Lab.
- **Photogrammetric Documentation of Weathered and Damaged Headstones at the Cataraqui Cemetery, Kingston Ontario** by George Bevan, Department of Art Conservation, Queen’s University, and Alexander Gabov, Conservation of Sculptures, Monuments and Objects (CSMO).
- **Reimagining August Bloedner’s 32nd Indiana Infantry Monument (1862)** by Sara Amy Leach, National Cemetery Administration, U.S. Department of Veterans Affairs.
- **Conserving the Nation’s Gravesite: Treatment of the Tomb of the Unknowns at Arlington National Cemetery** by Debora Rodrigues and Amy Hollis, Architectural Preservation Services, LLC.
- **Nationwide Monument Conservation at National Cemeteries: Planning, Management, and Treatment Implementation** by Sara Johnson, Conservation Solutions.
- **Confederates in the Cemetery: Federal Benefits & Stewardship** by Elizabeth G. Heavrin, Cultural Resource Analysts, Inc., and Sara Amy Leach, National Cemetery Administration, U.S. Department of Veterans Affairs.

PODCASTS

Episode 59, Alexandria Historic Preservation Commission, interview with Megan Lord, Alexandria Historic Preservation Commission.

Episode 60, Laser Cleaning and Laser Scanning, interview with Dr. Martin Cooper, Lynton Lasers.

Episode 61, The Molecular Weight of Silk and Interpreting “Biscuits,” interview with Kathryn Hallett, Historic Royal Places.

Episode 62, Digital Documentation and Reconstruction of Old Sheldon Church, interview with Chad Keller, Savannah College of Art and Design.

Episode 63, Saving Art Environments and Unpermitted Dinosaurs, interview with Jo Farb Hernandez, SPACES.

Episode 64, Where Preservation is Needed, there is HOPE, interview with Monica Rhodes, HOPE Crew.

Episode 65, HOPE comes to Africa House, interview with Monica Rhodes, HOPE Crew and Molly Dickerson, Melrose Plantation.

Episode 66, Why Historic Preservation? Interview with Davis Allen, Derek Llamas, Jaime Dail, Maggie O’Neill, and Eli Lurie, Savannah College of Art and Design.

Episode 67, Preserving Henry Ford’s Legacy, interview with Julie Dzurnak, Jake Hildebrant, Cayla Osgood, Jessica Lafrance-Hwang, and Brook Adams, Henry Ford Museum, Dearborn, Michigan.

Episode 68, Quadricycle Questions with Moses and Andrew, interview with Conservation technician Andrew Ganem and volunteer Moses Noland, Henry Ford Museum, Dearborn, Michigan.

Episode 69, Bringing Cultural Landscapes into the 21st Century, interview with Stephanie Nelson and Leah Edwards, National Park Service Cultural Landscapes Program.

APPENDIX C

FY 2015 BUDGET

FY 2015 NCPTT Budget	Appropriated Funds	
Federal Personnel	1,061,895	1,061,895
Personnel	1,061,895	
Travel	61,000	61,000
NCPTT Staff Travel	61,000	
Transportation of Things	300	300
ALL -- Express Shipping	300	
Rent, Communications, and Utilities	37,600	37,600
ALL -- Utilities -- Nelson Hall	23,000	
ALL -- Phone Service	10,300	
ALL -- GSA vehicle	4,300	
Printing & Reproduction	150	150
ALL -- Reproduction	150	
Services	11,900	11,900
ALL -- Maintenance/Security/Parking -- Nelson Hall	5,300	
ALL -- Advertising	500	
ALL-- Professional Memberships -- APT, ICOMOS, DOCOMOMO	2,500	
ALL -- Support for Arch Masonry Bridges Workshop	2,500	
ALL -- Other (transcriptions, insurance reimbursemnt)	1,100	
Training	12,500	12,500
ALL - Conference Attendance	4,000	
ALL -- Staff Training	8,500	
Supplies	51,250	51,250
ALL -- Books and Subscriptions	5,000	
AL -- Office Supplies	16,850	
ALL --Furniture	400	
ALL -- Laboratory Supplies	12,000	
ALL -- Tradeshow Promotional Items	3,000	
IT -- Software	14,000	
Capital Equipment	48,200	48,200
IT -- Hardware	39,000	
MC-- Lab Equipment	9,200	
Grants, CA, & Projects	684,205	684,205
ALL -- PTT Competitive Grants (additional \$106,500 provided by AD)	292,000	
ALL -- NCPTT NSU CA	340,119	
MC -- AIC	2,500	
AC -- DEVA Model Phase II (TA Great Rivers CESU)	14,273	
HL -- Phase II Leaders in Cultural Landscape Preservation Video series	15,000	
AE -- Task Agreement with APT for workshops, etc.	15,000	
AE -- National Building Stone Database	2,034	

AE --Wood Identification Workshop	1,029
AE -- Restoring Purpose: 21 Century Preservation Projects (Ghibran ext.)	2,250

Total Funds Expended

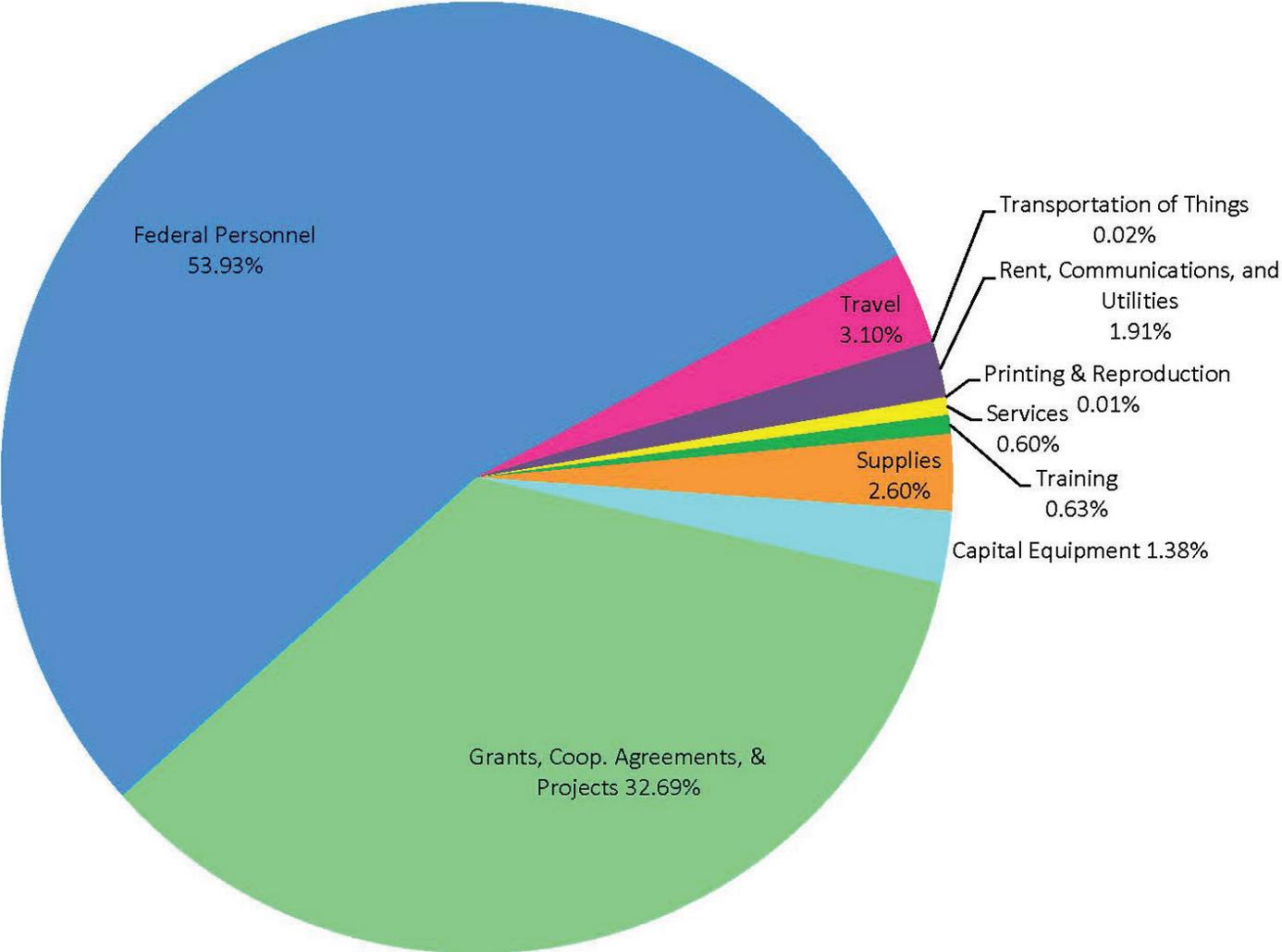
\$1,969,000

FIXED COSTS (extracted from above items)

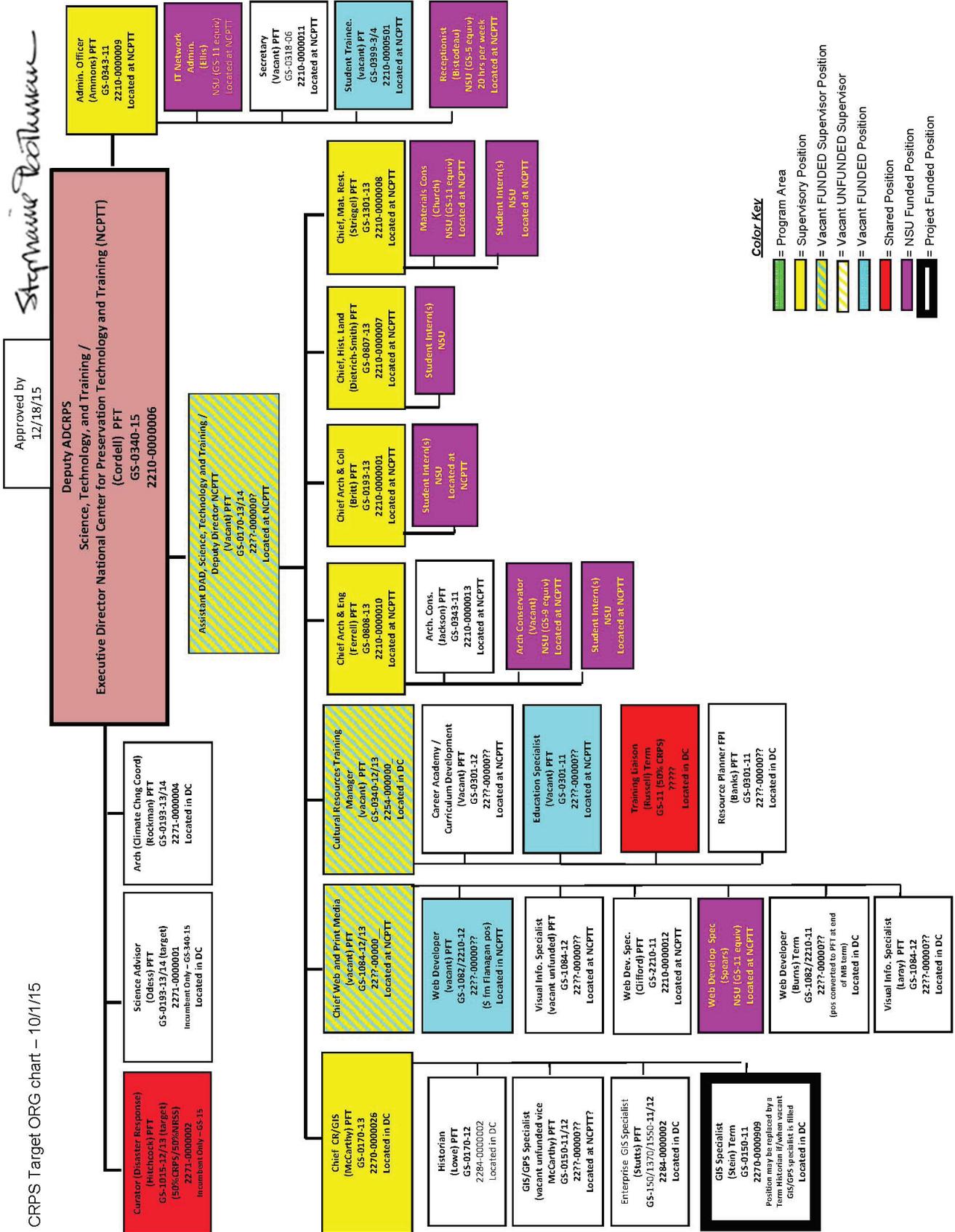
Building Fixed Costs	
Utilities	2,300
GSA vehicle	4,300
Copier Maintenance and Toner	1,227
Maintenance -- Nelson Hall	5,300
Phone Service	10,300
Janitorial (in NSU CA)	11,000
Total Building Fixed Costs:	34,427
Personnel Fixed Costs	
Federal Personnel	1,061,895
Permanent NSU Personnel	328,108
Interns	31,735
Total Personnel Fixed Costs:	1,421,738
Total Fixed Costs:	1,456,165

- AC = Archeology and Collections
- AE = Architecture and Engineering
- ALL = Center-wide activities
- HL = Historic Landscapes
- IT = Information Technology
- MC = Materials Conservation
- MRKT = Marketing

BUDGET PIE CHART



ORGANIZATION CHART



Minutes of the Annual Preservation Technology and Training Board Meeting
 April 20-21, 2016
 Ball State University

Attendees:

PTT Board Member	NCPTT Staff
Jim Garrison	Kevin Ammons
Lucy Lawliss	Tad Britt
Fred Limp	Kirk Cordell
Nancy Odegaard	Andrew Ferrell
Rob Pahl	Debbie Smith
Jack Pyburn	Mary Striegel
Jonathan Spodek	
Kat Valhos	
Norman Weiss	

Welcome:

Introduction of Mary Ann Heidemann, Director of the Historic Preservation Program at Ball State University. She offered introductory remarks about the history of Ball State University and the Preservation Program.

Meeting Called to Order by Chairman, Jonathan Spodek:

Jonathan Spodek welcomed group.

The meeting had a quorum and was certified as a legal meeting under the Federal Advisory Commission Act by Kirk Cordell, Designated Federal Officer for the Board.

Format of meeting: Conversation between the center staff and the advisory board.

Election of new PTT Chair and Vice-Chair:

Will meet in Natchitoches, Louisiana next year.

Jack Pyburn nominated Norman Weiss for Chair of the PTT Board. The nomination was seconded by Fred Limp. Weiss was unanimously elected. Norman Weiss rose from Vice Chair to the Chair position.

Lucy Lawliss was nominated by Kat Vlahos for the Vice Chair position. Rob Pahl seconded. Lawliss was unanimously elected.

State of the Center Report by Kirk Cordell:

The PTT Board report covers a period of 18 months. The last year and a half has been the busiest time ever in the last 14 years of the National Center.

The relationship between NCPTT and the Friends group is very successful, and our cooperative activities are steadily growing. All training is being run through the Friends Group which gives us flexibility. We have perfected our symposia over the years. Efforts at convening symposia began with the nationwide cemetery preservation summit (Nashville, 2009). We invite experts and convene people at small and medium sized meetings.

Mid-Century Modern Structures: Materials And Preservation Symposium held in April 2015. Event was self-supporting. We videotaped the presentations, transcribed and closed-caption videos. Transcription is now web-searchable, leading to information dissemination ballooning. The print publication captured the excellent presentations, and is available by print-on-demand, on Kindle devices and as an ePub. The partners for the symposium were Jefferson National Expansion Memorial, AIA St. Louis, World Monuments Fund, and Washington University

National Park Service Organizational changes:

Joy Beasley, appointed Deputy Associate Director, Park Programs and National Heritage Areas

Kirk Cordell, appointed Deputy Associate Director for Science, Technology, and Training

Current program Chief and the Federal Preservation Institute, have been moved over to Cordell's supervision. Some new positions will be created in Natchitoches. We will hire a curriculum specialist, who will develop training across all the cultural programs. We are standing up a new Web and Print Media group. All new staff will be paid by other NPS funding, not from NCPTT operating funds. Kirk currently goes to Washington, DC once a month. There are three senior science advisors in DC, who now report to Kirk: Ann Hitchcock works on disaster response; Dan Odess, Science advisor; Marcy Rockman, Climate Change.

We will create a new Deputy Director at a GS-14 level to help manage the Center. All of these organizational changes give NCPTT some budget relief and increases staff at the Center.

Stephanie Toothman very much supports the efforts of the NCPTT. The current budget proposes \$750,000 in budget increases for the grants program, the first budget increase proposed since the Center's founding. We could end up with a million dollars to put out the door for research and technology.

There will be administrative changes coming after the elections that may lead to uncertainty.

Kevin Ammons has a heavy workload in getting the positions described, classified, advertised, and filled. We hope that the positions will be filled by the end of summer. We want to continue the position that Ed FitzGerald held, and plan to fill the position through NSULA.

Publications

Louisiana GOSHEP funded publication –Resilient Heritage: Protecting historic buildings from natural disasters.

Archeology and Collections Program

We have been working with Death Valley NM, developing probability modeling through a CESU with the University of Illinois. (See board report).

NCPTT intern has been hosting Archeology Media Campaign.

20th anniversary symposium of PTT Grants in Archeology held at SAA.

Training

- Beginning Metal Detecting for Archeologists
- Desert Geomorphology for Archeologists
- Archeological Predictive Modeling for Archeologists
- Petrography for Archeologists

Architecture and Engineering Program

Held an “Engineering for Historic Timber Framing” workshop

HOPE Project: Youth service project for the African House at Melrose Plantation. For the first time, the NTHP program sponsored a HOPE project focused on a privately held property.

Materials Conservation

We have added a Freeze Thaw Chamber to conduct thermal stress testing. We are expanding with another laboratory on the NSULA campus.

Training: HOPE Crew at Chalmette National Cemetery. This project was a large successful project. All volunteer program.

Historic Landscapes

Inventory of the vegetation in the American Cemetery

University of Georgia videotaped interviews of leaders in historic landscapes.

Worked with Olmsted Center for Landscape Conservation: curriculum development for maintenance workers at National Park Service sites.

Symposia:

- Divine Disorder 2015 Conference
- Mid-Century Modern Structures Conference, 2015
- Research Retrospective at SAA
- Dance Halls, Juke Joints, and Honky Tonks Symposium

2015 Grants Programs

Usually ask a board member to serve on review panels for the grants program.

Podcasts: still producing the only regular podcast program for historic preservation.

Videos that are very hands-on are the most popular videos that we have.

Very specific guidelines help the public.

FY 2015 Budget review

Climate Change Discussion

In summary, the National Center may:

- Convene cross-disciplines for symposia on climate change;
- Build upon disaster response work;
- Undertake more international conversations;
- Focus on place-based responses;
- Prioritize coastal areas affected by climate change;
- Promote efforts to protect within the zone rather than relinquish artifacts;
- Energy modeling through grant funding or convening activities;
- Establish case studies/best practices for changing climate zones and landscape vegetation;
- Increase accessibility of archeological information about past climate change events;
- Learn from adaptation strategies of Indigenous people;

Emerging Trends Discussion

In summary, the National Center may:

- Investigate emerging technologies such as Hyperspectral sensors (360 spectra combined with Lidar) to discover recent burials;
- Study and disseminate the latest trends in presentation of data including virtual reality, Microsoft holo-lens, and augmented reality for interpretation, for example;
- Investigate the use of unmanned aerial systems for preservation issues, as allowed by NPS policy;
- Address the issue of born digital data and the ability for this information to be archived;
- Create Best Practices documentation for a number of documentation methods, such as 3D documentation;
- Generate trusted assessments for new technologies including best case studies;
- Emphasize traditional buildings skills and crafts in addition to new technologies;
- Bring stakeholders and communities together;
- Continue to create Social media, podcasts, and preservation videos;
- Offer guidance to the consumers of the technology;
- Consider creating a technical brief series for preservation professionals; and
- Revamp and revive Preservapaedia;

Field Relevance Discussion

NCPTT is taking the results of studies to move forward with treatments. May want to help push treatment beyond the studies.

In summary, the National Center may:

- Help explain how treatment decisions are made;
- Take on more projects that lead to treatments;
- Continue to emphasize hands-on activities and skills in workshops;
- Focus on reaching the maintenance staff;
- Help develop the career academies for NPS, but open it up to outside preservation professionals;
- Help the public understand how technology helps us make it a better place to live;
- Provide advice for end users on how to contract for preservation expertise;
- Increase value of the National Center within the National Park Service;
- Create a skills roster of people that can help us train, within the NPS and within our grants recipients; and
- Develop oral histories with the experts that are retiring.

Documentation Discussion

Digital information for the documentation and research of historic properties is an area of rapid change. State historic Preservation Offices are grappling with digital information for compliance. There hasn't been a lot of direction from NPS on how to meet these requirements. Two main focuses for digital documentation are interpretive purposes and use as a cultural resource management tool.

In summary, the National Center may:

- Create funding opportunities for cultural resource professionals to experiment with technologies;
- Gather information and current best practices;
- Offer end users a decision tree to better understand the choices of digital documentation;
- Explain how digital documentation can translate back to HABS drawings;
- Serve as the main repository of information on digital documentation;
- Create best practice documents and regularly update them as the technology evolves; and
- Deal with the preservation of information issue.

Report: Working with Our Friends

Mary Striegel, Kevin Ammons, and Andrew Ferrell presented the model NCPTT is using to create new symposia addressing key preservation issues. These symposia provide significant cost recovery and reduce pressure on NCPTT's operating budget. They would not be possible without the support of the Friends of NCPTT. In addition to the meeting, the symposia create a series of other products, including videos of each presentation and a publication in both hard copy and electronic format. Other areas of the Friends work include sponsoring workshops. NCPTT would like guidance on who should be on the Friends of NCPTT board.

The Need to Convene Discussion

What are the topics that NCPTT should address?

In general the board was enthusiastic about the National Center's work on convening experts. They felt:

- The Center's convening role is the greatest and most productive tool it performs;
- Convening gives NCPTT the opportunity to expand on and move into other areas;
- It is the backbone of much of our work;
- The center needs more staff for effective development of symposia and experts meetings;
- Preservation should be better integrated into architecture schools and that NCPTT could serve as a center of information for students and resources for faculty;
- NCPTT should offer more courses for mid-career professionals in architecture, engineering, archeology, landscape architectures and allied fields;

- NCPTT should connect more to students and young professionals by connecting to student groups in professional organizations;
- Consider student awards;
- Touch on those cross-disciplinary topics that are unique to NCPTT's skill set;
- Create information that addresses public needs as well as professional needs.
- Some topics to consider include:
 - Climate change
 - Integrated and interdisciplinary preservation practice
 - Educators and preservation : How do you educate the educators
 - Digital data and archives
 - Fundamental of preservation (why, not just how)
 - Look to HOUZZ for a possible layout on our web site

Resolutions:

Whereas Norman Koonce, Frank Preusser and Suzanne Turner have served with distinction on the Board of Directors of the National Center for Preservation Technology and Training,
Whereas they have provided valuable counsel and advice to members of the staff of the center,
Whereas they have served on review committees for proposal reviews,
Whereas they have actively participated in board meetings and the decision-making process,
Now therefore
the board of the National Center for Preservation Technology and Training gratefully acknowledges the distinguished service and contribution of Norman Koonce, Frank Preusser and Suzanne Turner and extends to them best wishes in their future activities.

Whereas the National Park Service has conducted a reorganization of the cultural resources directorate,
Whereas this reorganization recognizes the dynamic and changing landscape of cultural resources and the significance of preservation technology and its future directions,
Now therefore the Board of Directors of the National Center for Preservation Technology and Training support the reorganization and commend the leadership of the National Park service for taking this important step

Whereas the Board of the National Center for preservation technology and training has reviewed the activities of the center's staff over the last 18 months,
now therefore the board acknowledges with appreciation the efforts of the staff and commends them on their contribution

Whereas Jonathan Spodek has served with distinction as the Chairman of the Board of National Center for Preservation Technology and Training since 2014
Whereas he stepped down as Chairman at the 2016 spring meeting in Muncie, Indiana
Whereas he served as host for the meeting
Whereas he has a long-term ongoing commitment to historic preservation activities in the Muncie area that have made a significant and positive impact to the community and its residents,
Whereas the meeting was very successful and the venues very comfortable and the activities enlightening

Now therefore the board of the National Center for Preservation Technology and Training acknowledges with the gratitude the many contributions of Jonathan Spodek to the Center and to Muncie and the national preservation community at large.

Whereas Ball State University was the host for the spring 2016 National Center for Preservation Technology and Training board meeting

Whereas the Department of Architecture and Planning and the Center for Historic Preservation at Ball State University have developed a nationally recognized program in preservation education

Whereas there were opportunities for the board members to meet university staff faculty and students involved in the historic preservation programs and to become familiar with their historic preservation activities

Whereas the board was very impressed with the student's skills and capabilities.

Now, therefore, the board of the National Center for Preservation Technology and Training recognizes the contribution of Ball State University to the national preservation community and commends its active involvement with the local community making historic preservation an important part of the economic revitalization.

Recommendations:

The PTT board members would like ideas of how they can better serve the National Center. Towards that end, The Board requests a one page simple list of things that the board can do in the next year for NCPTT.

Some examples that were discussed included:

- Help create Best Practices Topics for NCPTT's distribution. Kat Vlahos volunteered to assist with the digital documentation Best Practice document;
- Help with training efforts;
- Assist NCPTT's interns with research topics and review of experimental plans.

Thanks to all who have attended and participated. Special thanks goes to Jonathan Spodek who organized the meeting, not once but twice. Meeting Adjourns.