



NCPTT Notes

The Newsletter of the National Center for Preservation Technology and Training • Issue 39

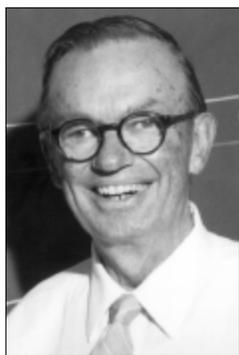
Lee H. Nelson: Preservation Pioneer

By Sharon Park

As NCPTT dedicates its new home, Lee H. Nelson Hall, this November, many are curious about the building's namesake. Who was Lee Nelson and how did he affect the field of preservation?

Nelson (1927-1994), a distinguished National Park Service architect and Fellow of the American Institute of Architects, was a pioneer in preservation and a mentor to many in the field. He joined the National Park Service (NPS) as a summer intern in 1958 and retired as the Chief of the Preservation Assistance Division in 1990.

The National Park Service awarded two of its highest honors to Nelson during his 32-year tenure: the Meritorious Service Award in 1974 and the Distinguished Service Award in 1988.



Lee H. Nelson

He had a longstanding interest in developing a research center, and so it is fitting that the National Park Service, through the National Center for Preservation Technology and Training, honors one of its own.

Lee Nelson perceived the need for a center dedicated to preservation research technology early in his career. Back in 1962, at a preser-

vation meeting in Philadelphia, Lee and a number of NPS architects, engineers, and exhibit specialists discussed their desire for a center of this type. Lee understood and endorsed the need for technology to be used as a tool in a preservation context and worked for many years to help establish a center for this purpose.



Lee Nelson (second from right) in the Governor's Council Chamber in Independence Hall in 1971 at the completion of the paneling reconstruction.

As a result of a congressional report by the Office of Technology Assessment in 1986, Nelson's desire for a research center was confirmed. The National Center for Preservation Technology and Training was established in 1992 and its offices and research facilities have recently moved into the renovated Women's Gymnasium on the campus of Northwestern

State University of Louisiana.

Nelson was born in Portland, Oregon, the son and grandson of Norwegian carpenters. He spent most of his childhood in Oregon and an early work of his involved recording and documenting covered bridges and historic churches in his home state. He graduated from a technical high school and received his Bachelor's in Architecture from the University of Oregon in 1957.

After Nelson completed his Master's in architecture at the University of Illinois in 1958, Charles E. Peterson, the founder of the NPS Historic American Buildings Survey, hired him. Nelson's first assignment was as part of a team

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Editor
Mary Striegel

Copy Editors
Mary Carroll
Andy Ferrell
Jeff Guin

Designers
Jeff Guin
Andrew Sanders

Contributors
Mary Carroll
Rodney Harrison
Robert Stearns
Sheila Richmond
Mary Streigel
Sharon Park
David West
Nancy Morgan
Mark Gilberg
Connie Ramirez

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Fall Forum and Dedication Set for Nov. 6-7

Immediately following the Lee H. Nelson Hall dedication and public tour on November 7, an exciting day-and-a-half forum called "Charting NCPTT's Role in Preserving America's Heritage in the 21st Century" is slated to begin. Approximately 43 invited participants will convene at Nelson Hall on the Northwestern State University campus in Natchitoches, Louisiana. The invitees will review the state of historic preservation and share their recommendations for strategies that NCPTT might employ to better link technology to the preservation of prehistoric, historic and cultural landscape sites.

A diverse range of organizations will be represented at the NCPTT forum – organizations that share a common interest in preserving America's heritage. Organizations sending representatives include: the National Park Service, other federal agencies, state preservation programs, tribal preservation programs, the National Trust, universities, non-profits and various major corporations. Invitees from these organizations will participate in a forum with five main topics:

1. *Technology and Historic Preservation in the 21st Century: What's Needed?*,
2. *Who? What? Where? Technology and Research – Where Is It Happening?*,
3. *Defining NCPTT's "Market Niche": We Can't Do It All,*
4. *A New Way of Doing Business: How Best Can NCPTT Serve Its Mission?*
5. *Developing NCPTT's Business Plan: A Road Map for Preservation Technology in the 21st Century.*

As the title of topic five suggests, an aim of the November forum is for discussants to provide the framework for drafting a NCPTT business plan. Input from the forum participants and other stakeholders invested in historic preservation will assist NCPTT staff in drafting the Center's business plan. It is anticipated that a finalized business plan will be implemented beginning in FY 2003 and will provide NCPTT with the road map to achieving its mission: using technology to preserve America's natural and cultural heritage.

Dedication Agenda

Tuesday, November 6

- 6-7:30 pm Buffet and cocktails at NCPTT
8-9 pm Gala Concert Celebrating America at Magale Recital Hall

Wednesday, November 7

- 8:30-9 am VIP Tour for Stage Guests
9-10:15 am Dedication Ceremony
10:15-12 pm Open House, Demonstration, Tours

Forum Agenda

Wednesday, November 7

- 12-1:30 pm Lunch (NSU Ball Room) with an address on Lee H. Nelson
1:30-3 pm Forum: Topic 1
3-3:15 pm Break, coffee and refreshments
3:15-4:45 pm Forum: Topic 2
6-7:30 pm Cocktail Party, hosted by President and Mrs. Webb at their home
7:30 pm Dinner on your own

Thursday, Nov. 8

- 9-10 am Coffee and refreshments
10-11:30 am Forum: Topic 3
11:30-1 pm Lunch (NSU Ball Room)
1-2:30 pm Forum: Topic 4
2:30-2:45 pm Break, coffee and refreshments
2:45-4:15 pm Forum: Topic 5
4:15-4:30 pm Closing remarks



Remembering the Way it Was

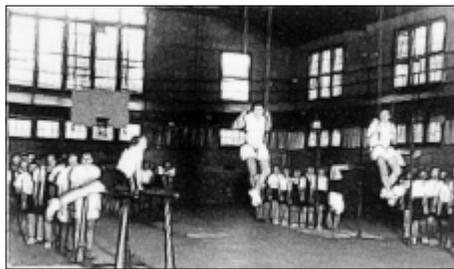
For almost 40 years, Lee H. Nelson Hall served as a classroom building and activity center for female physical education students on the campus of what is now Northwestern State University (NSU). The women's physical education program took over the gym when a newer men's gymnasium was completed in the early 1930's, providing a lifetime of fond memories for the women who had classes there.

"It wasn't a pretty building, but it was a home away from home for us," said Dr. Violet (Davion) Shaver, a 1939 graduate who was a member of the physical education faculty from 1955 until 1978. "The faculty who taught there had a special interest in each one of us."

And many of those students can't think of the gym without remembering the faculty member who had the biggest impact on students, Thelma Kyser.

"Mrs. Kyser was the building" said Lou Baxter, a 1941 graduate who later taught physical education from 1965 until 1980 at Northwestern. "Her program led to a lot of girls going into physical education."

Kyser, who taught at State Normal School (now NSU) from



The Women's Gymnasium—now Nelson Hall—was "home away from home" for female students for nearly 40 years.

1922 until 1940, was a pioneer in women's physical education in Louisiana. She established the first academic major in physical education in Louisiana—the first curriculum in the field for women.

On the first floor of the building were dressing rooms and a dance studio. Freshman football players sometimes used one of the dressing rooms. Because of the building's layout, spectators could look down on games from the track.

"I remember people standing on the railing of the track looking down on the games," said Shaver. "They would eat parched peanuts and sometimes the shells would fall on the floor and we'd have to stop the games to clean them up."

"We played volleyball, badminton and basketball and used

the track," said Dr. Colleen Lancaster, a 1948 graduate who was on the health and physical education faculty from 1956 until 1986. "The balls or the shuttlecock would go up there a lot and someone would have to go up and get it."

Many students got their first impression of Northwestern when they came to play in basketball tournaments.

"I played in a basketball tournament at Northwestern when I was in high school," said Baxter. "There was no chance for women to play basketball in college at the time. I had a scholarship which would allow me to go anywhere in the state. I chose Northwestern because, when I was here, everyone was so helpful and friendly."

My husband saw me for the first time one day when I was coming out of the gym," said Peggy Sibley of Natchitoches, a 1951 graduate of Northwestern who later married Natchitoches businessman S.T. Sibley II. "I think he spent a lot of time on his porch on College Avenue."

After more than 30 years of

... The faculty who taught there had a special interest in each one of us ...

use, the building began to show the first signs of age. Lancaster asked Northwestern's administration in the late 1950's for a new floor in the dance studio, air conditioning and new lockers to give the building a facelift.

But as the university continued to grow, the existing facilities could not accommodate all male and female students who took physical education classes. In 1970, a new Health and P.E. Majors Building was completed on

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Heritage Area Awards Cemetery Renovation Grant

By Nancy Morgan

The Cane River National Heritage Area awarded \$175,000 in 2001 to 12 programs and individuals for research, development and historic preservation projects. Among these, the American Cemetery Association was awarded a \$35,000 grant to restore the American Cemetery located in the National Historic Landmark District of Natchitoches, Louisiana. The cemetery contains graves dating from the mid-18th century to the present and occupies the original site of Fort St. Jean Baptiste, a French fort constructed in 1720.

The American Cemetery Association will provide matching funds for the project, the total cost of which will exceed \$70,000. The scope of the project entails restoring walls, headstones, and gravesites; renovating pathways; installing new signage and flagpoles; erecting a wrought iron fence around the cemetery's perimeter; and installing lighting in the interior of the cemetery.

The project will be carried out in phases. Landscape Architect Jeff



Time, weather and vandalism have taken a toll on American Cemetery's tombstones, some of which date back to the 18th century. Planners estimate the restoration to exceed \$70,000.

Carbo of Alexandria, Louisiana, is overseeing project planning and implementation; American Cemetery Association member Jim Pierson is coordinating the project. The staff at the National Center for Preservation Technology and Training is providing consultation throughout the American Cemetery restoration project.

The project began with two clean-up days at the American Cemetery during the summer. The City of Natchitoches, the American Cemetery Association, and local volunteers collaborated to begin clearing dead trees, overgrown brush, and litter from cemetery grounds. Their efforts have earned them praise from the community, as the cemetery now is more accessible to residents and tourists.

The next phase of the project is an investigation in which archeologists will survey the rear of the cemetery and excavate areas the fence will cross. Given the site's 200-year history, the archeological investigation could reveal un-

marked burials and yield artifacts from the early French fort. Once the archeological investigation is complete, the fence will be erected.

Although the entire restoration project will take several years to complete, the American Cemetery Association anticipates that the fencing and lighting will be complete in 2002.

Congress established the Cane River National Heritage Area in northwestern Louisiana in 1994 to preserve and promote the nationally significant cultural, historical, and natural resources of the Cane River region.

Nancy I. M. Morgan is executive director of the Cane River National Heritage Area Commission. (318) 356-5555



Andy Ferrell, NCPTT public outreach coordinator, examines the broken headstone of a tomb in the American Cemetery. The renovation began this summer with general groundskeeping and clean-up projects.

Stopping the Hands of Time: Nine Tips for Cemetery Preservation

By Mary Striegel

When I was a child, I spent many a Sunday afternoon with my grandmother having a picnic in Cave Hill Cemetery in Louisville, Kentucky. We would spread our blanket on an open area, then peacefully enjoy the surroundings. After our meal, we would search for the prettiest tombstone or the oldest tombstone. We would seek to find someone famous. We would visit my great-uncle's grave. Sometimes I would bring pencil and paper along and draw my favorite sculpture.

I have come to learn professionally what my grandmother must have known all along. Cemeteries are places of learning that tie the young and old together to who we are and where we have come from. From cemeteries we can learn about the lives of people who make up a community. We can learn about landscapes and plants. We can enjoy artwork and architecture.

I recently had an opportunity to participate in the Restoration and Renovation Conference in New Orleans. During this time, I took part in a workshop and three sessions related to cemetery preservation. Here are nine tips for cemetery preservation that I learned.

1. Create a master plan. When preservation of a cemetery comes into public focus, there is a sense that restoration work must be immediate. When cemetery preservation efforts are rushed, serious consequences may result. A wise first step in preserving an historic cemetery is the development of a Master Plan. Good plans include an integrated approach for gravesite documentation, treatment, and maintenance.

It will include plans for landscape issues and establish a list of priorities.

2. Document the cemetery. Create a field survey sheet for the documentation of each grave site. If possible store information in a computer database. Enlist others to assist in this documentation. It is important to provide volunteers with training on identification of monument types and ways to note condition prior to field surveys so that the information is consistent. Make sure that accurate inscriptions from tombstones are recorded. Try to identify the material from which the grave marker is constructed.

3. Assess the condition of gravesites. Inspect individual tombs on a regular basis for structural defects. Are the grave markers broken? Note the conditions of the tomb and its surrounding environment. Is standing water present that can aid in plant growth, or accelerate deterioration of masonry joints? Is vegetation growing on surfaces? What is the condition of the landscape around the tomb? Keep this information on your field survey forms.

4. Evaluate the landscape. Assess landscape elements including the trees, shrubs, and plants, but the pathways, roads, benches and lighting of the cemetery. Think long-term about the landscape. Will trees cause damage in the future? Are they healthy? Consider how the cemetery is currently used and determine circulation of people and/or cars within its boundaries. Consider security issues and the need for fences. Remember that landscape

Restoration Resources

There are many good resources for more information about cemetery preservation, including books, non-profit organizations, and Internet sites. For more information, check out the following:

Graveyard Preservation Primer

A Graveyard Preservation Primer by Lynn Strangstad. This book covers the entire spectrum and includes surveying a cemetery to determine what most needs to be repaired or restored, preparing a plan for a restoration project, documenting data from and about the stones, cleaning, repairing and resetting stones.

AGS

The Association for Gravestone Studies was founded in 1977 for the purpose of furthering study and preservation of gravestones. (413) 772-0836. www.gravestonestudies.org.

SOC

Save Our Cemeteries, Inc. is a non-profit organization established in 1974 to preserve, protect, and promote historic cemeteries of New Orleans. (504) 525-3377. www.saveourcemeteries.org.

St. Louis Cemetery #1

Learn more about preservation efforts at St. Louis Cemetery #1, New Orleans through the website:

www.noladeadspace.org

This project is a joint effort by the Louisiana Division of Historic Preservation Office of Cultural Development and Tourism, the Samuel H. Kress Foundation, Save Our Cemeteries, Inc., The Archdiocese of New Orleans, The Graduate School of Fine Arts University of Pennsylvania, The School of Architecture Tulane University, and others.

Chicora Foundation

The Chicora Foundation, Inc. is located in Columbia, South Carolina and specializes in cemetery history and preservation. (813) 787-6910. www.chicora.org.

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Thermal Imaging Puts Termites in the Red

By Mark Gilberg

Recent advances in infrared technology, including the development of inexpensive infrared cameras, have led to the development of exciting new applications.

One such application is the use of infrared technology to detect and locate subterranean termites in buildings and structures. Termites are an important structural pest in the United States, costing the public billions of dollars each year.

Subterranean termites are particularly destructive and are a significant threat to historic buildings given the traditional use of wood as a building material. Termite damage is both costly and irreversible and can diminish the historic significance of a structure through the loss of original building fabric.

Subterranean termites construct nests that house the colony. Termite nests generate heat as a consequence of the metabolic activity of millions of individual termites as well as the presence of fungi within the nest. It is this temperature differential between the nest and its environment that makes it possible to locate subterranean termite activity in buildings using thermal imaging devices such as infrared cameras. In addition, subterranean termites also bring considerable amounts of moisture into a building to construct their nests and mud tubes. This moisture readily absorbs and re-emits infrared radiation thus contributing to the temperature differential.

Over the past year, NCPTT, in conjunction with Real Time Thermal Imaging, the New Orleans Mosquito and Termite Control Board, and Dow Agro Sciences



Photo by Ed Freytag

St. Alphonsus Church was constructed in 1855 and closed in the 1970s. In 1990, The Friends of St. Alphonsus was formed to restore the historic building. Infrared detection and sophisticated eradication systems are being used to deal with the church's termite problem.

has been exploring the use of thermal imaging using infrared cameras as a tool for locating subterranean termite nests in historic buildings. These trials, conducted at St. Alphonsus Catholic Church in New Orleans yielded some very encouraging results, suggesting the potential widespread application of this new technology.

St. Alphonsus Church

St. Alphonsus is located at 2045 Constance Street in New Orleans, a short walk from the French Quarter. It was constructed in 1855 by the Redemptorist Fathers to serve the religious and social needs of the many Irish Catholic immigrants who settled in the area in the 1840s. St. Alphonsus forms part of what was once referred to as Ecclesiastical Square, a complex of religious structures associated with the Catholic Church that occupied five adjacent city blocks. Designed in the Italianate style, St.

Alphonsus is constructed of brick and is noted for its magnificent frescoes, paintings and stained glass windows imported from the studio of F.X. Zettler of Munich.

Rising operating and maintenance costs coupled with urban flight to the suburbs led to the closing of St. Alphonsus in the late 1970s. In 1990, a small group of concerned citizens formed the Friends of St. Alphonsus, a non-profit organization dedicated to the restoration of this magnificent structure. The church is leased from the Archdiocese of New Orleans and now serves as a local community center known as the St. Alphonsus Art and Cultural Center.

Today, St. Alphonsus is just beginning to overcome years of deferred maintenance, which has resulted in a number of problems including extensive termite activity and water damage. Both native subterranean termites, and the

Formosan subterranean termite, introduced from Asia after World War II, are present. Formosan subterranean termites, unlike most subterranean termite species, will build nests above and below ground. The above ground nests are typically found in walls and roof voids as is the case for St. Alphonsus. Dow Agro Sciences is presently conducting a series of field trials at St. Alphonsus to establish the extent of termite activity and to assess the effectiveness of their new termite baiting technology that employs both below and above ground bait stations.

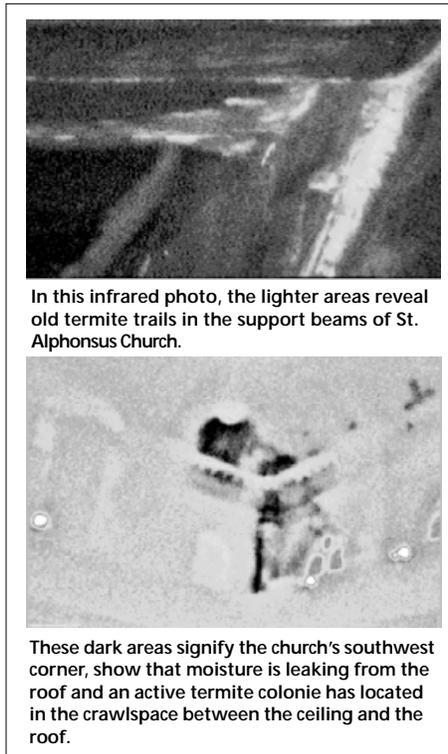
Thermal imaging basics

Thermal imaging devices take advantage of the fact that all objects emit infrared radiation.

Devices such as infrared cameras create pictures based on the heat emitted by a viewed object as opposed to ordinary cameras that exhibit images as a result of light reflected off objects. In general, commercial infrared cameras detect radiation within the following range of wavelengths: 3-5 microns (middle wave infrared) and 7-14 microns (long wave infrared).

Infrared radiation outside these wavelengths is absorbed or blocked by particulate matter or gases in the atmosphere and thus cannot be detected. Infrared radiation, like visible light, can be focused and collected using optical devices and converted to an electronic signal. In practice, the latter can be translated into a video signal and assigned a particular shade of gray on a monitor corresponding to different temperature levels. Thus, thermal imaging devices generate images based on differences in temperature of the viewed scene.

The amount of radiation emitted by an object is proportional to the temperature of the object and



a material property of the object referred to as emissivity. Emissivity is a measure of a materials ability to absorb and emit infrared energy. The latter is important because objects with different emissivities may appear to have different temperatures even if they are in fact the same temperature.

Thermal imaging analysis of St. Alphonsus

The thermal imaging device used in this field trial was a Palm-IR 250 handheld infrared camera with a spectral response of 7-12 microns . The sensor was an uncooled Ferro electric focal plane array capable of resolving temperature differences of 0.05 degrees centigrade. The real-time images were recorded on a digital video camera. A graphics software program was used to process the different images captured during the trial.

Thermal imaging of the ceiling of St. Alphonsus quickly revealed evidence of considerable water damage, particularly in the southwest corner of the church. Here, the wet, wooden lathes could be

clearly seen through the overlying painted plaster.

Thermal imaging of many of the wooden support beams directly above this area in the roof void yielded a number of circular shaped anomalies that later proved to be subterranean termite nests. Similarly-shaped anomalies were observed in other support beams throughout the roof void, though it was not possible to verify the presence of termite nests in every case due to limited access. This was one of the principle advantages of thermal imaging in that it allowed the remote examination of inaccessible areas of the roof void. Excess moisture due to leaks in the roof, however, tended to mask termite activity and rendered the interpretation of thermal images extremely difficult following periods of heavy rainfall.

Conclusions

Thermal imaging has great potential as a quick, nondestructive means of accurately locating termite nests in buildings and as a tool for assessing the effectiveness of subsequent treatment measures. It also holds great promise when used in conjunction with termite baits to ensure the accurate placement of aboveground bait stations.

Thermal imaging is particularly suitable for the examination of historic structures given the need to preserve original building fabric and to minimize damage to historic elements. Moreover, it can be integrated into a total building analysis where it can used to identify water ingress as well as previous restorations.

Mark Gilbert is the NCPTT Applied Research and Technology Transfer Program Director. mark_gilberg@ncptt.nps.gov

FPI Addresses Concerns of Federal Agencies

By Constance Ramirez

The Federal Preservation Institute is a new initiative of NCPTT to meet the historic preservation training needs of Federal agencies. It is committed to five program activities:

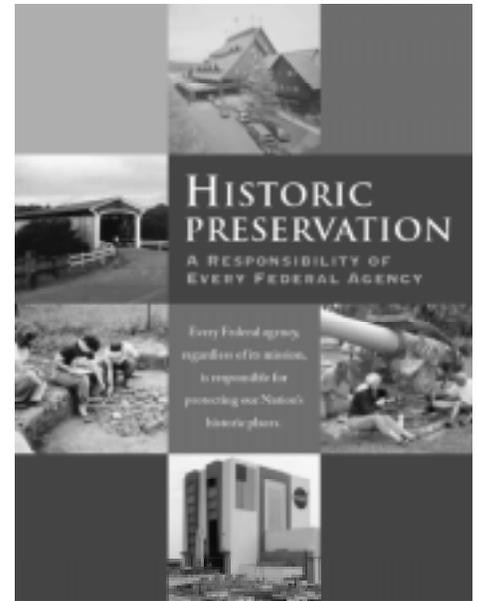
- (1.) Provide information on historic preservation for senior Federal executives.
- (2.) Increase information about training by and for Federal agency staffs.
- (3.) Deliver short, special subject, seminars on "hot topics" for the Federal Preservation Officers that represent each agency.
- (4.) Develop knowledge and skill standards for each historic preservation task.
- (5.) Convene the Federal Training Work Group consisting of Federal agency staffs to monthly meetings to share training information, work on joint projects, and get up-to-date information about NCPTT projects and historic preservation issues.

The Institute's program was developed by Constance Ramirez

while on loan from the U.S. General Services Administration. In July, the National Park Service selected her to be the institute's first director. Under her direction, the Federal Training Work Group has produced an illustrated folder, "Historic Preservation: A Responsibility of Every Federal Agency," for agencies to use when briefing new political appointees and senior staff on their historic preservation responsibilities.

Currently, the Institute is working in cooperation with Dr. Kathleen Byrd at Northwestern State University on a website that will provide basic information to all agencies about their responsibilities for consultation with Native Americans regarding cultural resources. This and other online training for Federal agencies will be available on the NCPTT website and, in the future, on an internet learning site being developed by the Institute in partnership with George Mason University.

FPI will ensure that informa-



The folder "Historic Preservation: A Responsibility of Every Federal Agency" helps familiarize political appointees on their preservation responsibilities

tion from NCPTT projects is provided to Federal agencies. Also, through development of its training site, FPI expects to demonstrate how technology can serve preservation training and education.

Constance Ramirez is director of the Federal Preservation Institute.
(202) 343-9569
constance_ramirez@nps.gov.

Noteworthy Staff Changes

Dr. Robert Stearns has accepted the position of manager for the National Native American Graves Protection and Repatriation Act Program (NAGPRA). This program focuses on NAGPRA implementation outside the National Park Service. National NAGPRA is a program of the National Park Service's National Center for Cultural Resources. For more information about the program, see <www.cr.nps.gov/nagpra/>.

Stearns served as executive director of the National Center for

Preservation Technology and Training for the past year. He established the NCPTT Public Outreach Program and worked to enhance public awareness of NCPTT's role in the preservation of America's cultural heritage. Stearns' emphasis was on growing the center and developing excellence in the work we do.

Ms. Fran Gale has accepted a position as technical director at Prosoco, Inc. in Lawrence, Kansas. As technical director, Gale manages research and develop-

ment of new products. For more information about Prosoco, Inc. see <www.prosoco.com>.

Gale served as NCPTT's training director for six years. Her work at NCPTT included developing and facilitating training for public and private preservation practitioners.

During Gale's tenure, NCPTT funded numerous training activities focusing on two main themes: (1) training in the use of new preservation technologies and (2) the use of new media in delivering training.

Lee H. Nelson ...

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doing architectural research and documentation drawings at Fort McHenry in Baltimore, Maryland. During his years with NPS, he helped formulate national policies on historic preservation consistent with his personal philosophy of identifying and retaining authentic materials and documenting physical data as a record for posterity.

Lee Nelson's early career (1960-1972) was spent with the Division of Design and Construction in Philadelphia. Preservation was still in its infancy and not even the name of the office reflected the term "historic." Spurred by the coming of America's bicentennial, Nelson became part of a team to document and restore a number of buildings at Independence National Historical Park. His most significant early work with the National Park Service was the project to research, document and restore Independence Hall.

Nelson's strong philosophy about preservation of historic materials—rather than their replacement—led to innovative technological engineering solutions. He always looked for solutions that protected the historic character of buildings with the retention of historic materials. Original materials tell a story and provide clues for missing components, which is why he felt it was so important to keep materials in place or to save elements in a study collection, should the building be altered or lost.

The National Historic Preservation Act of 1966 enabled the National Park Service to implement programs to preserve the nation's cultural heritage. Lee H. Nelson was among the first generation of NPS preservationists selected to carry out these mandates. In 1979, he became the chief of Technical



Nelson (center) with one of his student measuring teams at Independence Hall in 1961.

Preservation Services. This office was later renamed the Preservation Assistance division. He helped develop the "Secretary of the Interior's Standards for the Treatment of Historic Properties," and set in place procedures for compliance for projects utilizing federal funding. Nelson also guided the development of the preservation tax incentives program.

Even as an administrator he never lost his direction as an educator. He sought to write the definitive manual on historic preservation only to find the subject was too big to be contained in one book. He developed the famous "Preservation Briefs" series of the Technical Preservation Services division and generated other important technical series, including "TechNotes" and "Preservation Case Studies."

Nelson was an excellent writer and editor and left his legacy in his written work. He was active in the American Institute of Architects (AIA) Historic Resources Committee and was a founding member in 1968 of the Association for Preservation Technology (APT). He was the editor of the *APT Bulletin* for its first 10 years and this publication provided excellent

articles on preservation treatments to buildings in America, Canada and, later, international locations.

What cannot be appreciated are the hundreds of articles and other papers Nelson encouraged his staff and young professionals to research and write. Beginning with his editorship as the chief of Technical Preservation Services and later the Preservation Assistance division, the "Preservation Briefs" series has grown and now includes 50 topics. Conferences on the more recent past as well as continued research into timber construction all hark back to his nudging students to take a topic, get their hands dirty and then write about it for others.

There is still a lot of work to be done, and that is partly what the National Center for Preservation Technology and Training is all about. There is a continued need to find technological solutions using high tech engineering and scientific applications from industry and research organizations. Archeologists, museum collections and historic buildings and landscapes need these products and processes to document and preserve historic resources.

We all benefit from methodologies that Lee Nelson helped promote: solid research, detailed documentation, high-level peer review, testing and re-testing of approaches, long-term monitoring, and written records.

Sharon C. Park, FAIA, is chief of Technical Preservation Services at the NPS National Center for Cultural Resources in Washington, DC. She began working for Nelson in 1980 as an architectural reviewer for the tax credit program and as an author for technical publications. She has authored or contributed to 14 of the 42 "Preservation Briefs."



Before ...



... During ...



...After

Photo by Wayne Coco

Photo by Gary Hardamon

Isabella Welcomed to New Haunt

Before Lee H. Nelson Hall became headquarters for NCPTT, it was said to be home to the spirit of a Civil War-era nun, brooding over her lost love.

According to campus lore, “Isabella” inhabits the oldest building on Northwestern’s campus, which is Nelson Hall. The building, which is the former Women’s Gymnasium, was built in 1923.

After sitting idly for 30 years, a

... Tradition says she leaves a bloody handprint on the wall or door of every building in which she resides ...



Photo by Don Sepulvado

Students took part in moving Isabella to the Women’s Gym in 1982 after Caldwell Hall (above) was destroyed by fire. Students will welcome the ghost to the newly renovated and renamed Nelson Hall this Halloween.

\$2.6 million rehabilitation project has turned the building into the home of the National Center for Preservation Technology and Training.

NSU is planning a “Welcoming Ceremony” for Isabella, Oct. 31. The ceremony will begin at the university’s trademark columns and conclude at Nelson Hall after the NSU Theatre production of “The Tragedy of Frankenstein.”

According to legend, Isabella lived before the Civil War. At one time she was in love with a young man who was killed in a duel of honor. She became a nun and lived in Bullard Mansion which was on the current site of Northwestern.

Isabella was a recluse who only came out at night to talk to her lover. Following a violent storm, she stabbed herself through the heart with a knife, leaving a bloody handprint on the wall.

Tradition says that she leaves a bloody handprint on the wall or door of every building in which she resides.

Isabella traditionally resides in the oldest building on campus. In 1904, she was moved to East Hall from Bullard Mansion when it was torn down.

Isabella was moved in 1926 from the site of the demolished



Photo by Shane Regions

East Hall to the music education building. When that building was torn down in 1948, Isabella was escorted to Caldwell Hall.

After Caldwell Hall was destroyed in a fire, Isabella was moved to the Women’s Gym on Halloween Night in 1982 in a ceremony that captured national attention. But the renovation of Nelson Hall and two fires in the building during construction may have displaced her.

“All of the work and the fires may have driven her away,” said Executive Assistant to the President Robert Crew. “We want to make sure she is welcome in her new home.”

Remembering ...

(continued from page 3)

Tarleton Drive and the Women's Gym was closed.

"Everything gets old after a while. We were beginning to ask about a new building with more space," said Lancaster.

Nelson Hall was originally constructed in 1923 and was designed by the architectural firm of Favrot and Livaudais, the largest in New Orleans at that time. The firm designed several of the most important buildings in the New Orleans Central Business District and numerous public buildings around the state.

For almost 30 years the only use for the building was for storage. Plans were made to convert the building into a museum honoring education in Louisiana, but organizers were not able to raise the needed funds. In 1984, the building's architectural significance was recognized when it was placed on the National Register of Historic Places.

A new use for the Women's Gym was developed after NCPTT was placed at NSU in 1992. Rehabilitation of the structure began in 1997, but disaster struck in November 1997 when a fire destroyed the interior of the building. Through the efforts of the Natchitoches Fire Department, the exterior was saved.

The fire delayed the project by more than two years. Work began in 2000 and was completed earlier this year. The building contains laboratories, a seminar room, a library, several private offices and open area offices.

Nine Tips ...

(continued from page 5)

aesthetics have changed over the years. Don't try to apply your personal aesthetic to an historic cemetery.

5. Prioritize the work. Consider the needs of the particular cemetery and create a list of projects based on those needs. Is the cemetery secure? Has it been documented? Are all the graves identified? Are there tombs at risk of collapse? Is historical research needed? Keep in mind the need for both short-term and long-term efforts. Assess the resources you currently have available.

6. Consider treatments. Conservation of stone monuments, sculpture and ironwork is usually the last effort that should be undertaken. Know the strengths and limitations of people assisting in the preservation effort. Cleaning stones should be done with the gentlest means possible. Begin with water and a soft brush. Do not use household bleach or abrasive techniques. The repair of tombstones and monuments requires previous experience with historical materials and treatments. Only skilled conservators should undertake restoration of tablets and sculpture.

7. Examine maintenance issues. Regularly scheduled maintenance for the monuments and grounds of the cemetery is an excellent way to practice preventative preservation. Maintain the landscaping next to tombs. Keep in mind that caution must be used when operating power equipment near masonry or ironwork. Training for maintenance and ground crews will minimize damage to markers.

8. Seek professional assistance. Conservation treatments are frequently time consuming and expensive. Contract with people

who have experience with historical materials and who respect the original fabric of the tombs. Ask contractors for details about their previous work. Can they provide a written plan for their proposed work that includes materials to be used in the treatments? Are they members of professional organizations such as the American Institute for Conservation of Historic and Artistic Works (AIC)? Are they insured?

9. Involve the community. Seek volunteers within the community. Use the cemetery as an educational and historical resource. Consider involving elementary schools, high schools, and colleges in projects. Cemeteries can be places to learn about science, math, art, ethnography, and history (See <www.angelfire.com/ky2/cemetery> or <www.history.org/history/teaching/graveyard2.htm> for examples). Involve the community in fund-raising efforts, such as annual cemetery tours.

Mary Striegel is director of the Environmental and Materials Research Program at NCPTT.
(318) 356-7444
mary_striegel@ncptt.nps.gov



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**National Center for Preservation
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NCPTT promotes and enhances the preservation and conservation of prehistoric and historic resources in the United States for present and future generations through the advancement and dissemination of preservation technology and training.

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NCPTT

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