

Lakeport Plantation Restoration

Technical Report No. 8

Lakeport Porches



Greek Revival architecture is considered to be the first national style of American architecture. Found on homes across the nation, from brick townhouses in the north, to small farmhouses in the midwest, to large plantation homes in the south, Greek Revival architecture was the choice of the rich and the poor from the early 1820's until the Civil War. Influenced by the war between Greece and Turkey, Americans identified Greece's struggle for independence with their own struggle for independence from Great Britain. To America, Greek architecture represented political freedom.

Built to resemble the temples of early Greece, Greek Revival architecture is characterized by its linear shape; the low pitched hip roof with heavy cornice and dentil molding, the wide frieze board running along the roofline, and its symmetry of form; the paneled entry door with sidelights, the tall, double-hung windows, evenly spaced. The most defining feature of Greek Revival architecture is the large porch at the front of the house. Often two stories, the porch is designed with a large, gabled pediment supported by tall columns and decorative pilasters. It is the front porch that clearly defines the architectural style of Lakeport Plantation house as Greek Revival.

It is difficult to determine the exact origins of the American porch. In colonial America, the small, gable-roofed porch found on homes in the north was influenced by Great Britain. In the south, the porch was influenced by other sources. Colonial traders introduced the large, open porch to the south after finding them on homes in the Caribbean, where the humid climate was similar to that of the colonial south.



The large two story front porch and the ornamental iron porch can both be seen in this photo of Lakeport Plantation house. Both porches have "walk-through" windows that raise from the floor and allow passage from the interior of the house to the exterior.

It is the front porch that is the most defining architectural feature of Lakeport Plantation house. The large gabled pediment and supporting columns and pilasters clearly define the house as Greek Revival.

West African slaves were also influential in the introduction of the porch in the south. The shotgun house, built by African slaves, is believed to be one of the first American houses to have a front porch.

The original function of the porch was to provide a sheltered entrance to the house. As America changed, so did the porch. Especially in the south, the porch became an extension of the house, a place for social gatherings. Grand entrances were built to reflect and define the architectural style of the house. The Greek Revival style porch design suited the warm climate of the southern states. The large porch with tall windows provided ample shade and ventilation.

The Lakeport Plantation entry porch has all of the defining characteristics of Greek Revival architecture. The large gabled pediment that sets above the two story porch is framed with decorative cornice and dentil moldings, an elaborate rose window in the center. Large wood columns, square in shape and slightly tapered, stand from floor to ceiling on each floor, providing support for the large pediment. Decorative pilasters, or flattened columns, project from the wall at each end of the porch. Between the columns and the pilasters are a spindled balustrade, or porch railing, that surrounds the first and second floor porches. In the center of the porch, on the first and second floors, is an entry door, with tall windows on each side. The windows on the first floor are “walk-through” windows, opening from the floor to allow passage from the inside of the house to the porch outside.

At each end of the porch are two small, cast iron balconettes, only two feet deep. Although they can be



The small, cast iron balconettes that set at each end of the front porch of Lakeport Plantation house are considered strictly decorative as they are too small to be functional.





The ornamental iron porch is constructed almost entirely of decorative cast iron. It can be accessed from the north parlor. Because of its location and design, It is considered to be the more formal porch

accessed by “walk-through” windows, it is believed, because of their size, that they were largely used for decorative purposes.

On the north side of Lakeport Plantation house is the ornamental iron porch. This porch is constructed almost entirely of decorative cast iron. A pair of “walk-through” windows allows entry from this porch into the north parlor and an entry door provides access into the drawing room behind. Above this porch is a balcony that is surrounded by decorative ironwork. Because of the location and design of this porch, it is considered to be the more formal porch.

At the back of Lakeport Plantation house is a large ell shaped porch. This porch runs along the back of the main house and down the single story ell where the kitchen, commissary and plantation office are located. This porch provides shelter as one passes from the main house to the kitchen or commissary. Considering its location, the purpose of this porch was probably strictly functional. Its design is simple. The columns are the same as the front porch. There is no fancy balustrade. The one element that gives the impression of grandeur to this porch is a “walk-through” bay window that opens into the music room. The panes of this window are made of an opaque patterned glass, allowing light into the room while maintaining privacy.



The purpose of the ell porch was strictly functional, providing sheltered access from the main house to the kitchen and commissary. Of simple design, the one decorative element is the bay window that holds opaque patterned glass window panes.

The small porch on the west end of the ell is accessible from the kitchen and the plantation office. This porch provides shelter when coming from the back yard where the dairy and the smokehouse are located.



A smaller porch sets on the west end of the one story ell, providing shelter for entries to the kitchen and the plantation office. This is a second entry to the kitchen. On the north side of the house, a stoop provides a second entry to the plantation office. This may have been the primary entry to the plantation office as it faces the front of the house.

At the time that restoration began, all of the porches on Lakeport Plantation house were in poor condition. Past repairs were evident but only served to cover up the deterioration. Once exposed, it was evident that the front porch was on the verge of collapse. Support beams for the large pediment were badly deteriorated as well as support columns on both floors. The support columns on the outside perimeter of the first floor were deteriorated to the point that only a sliver of wood remained to provide support for one column. The floor joists on both floors were also badly damaged.

Temporary bracing was used to support the pediment as the deteriorated porch components were removed. During this time the brick porch foundation was rebuilt and deteriorated floor joists were replaced. When the original floor joists were exposed, it was discovered that they had been built to set slightly higher than the supporting beams. The purpose of this was to allow air to flow underneath the porch decking to prevent moisture deterioration. This same type of construction was used when replacing



The small stoop provides another access to the plantation office from the north side of Lakeport Plantation house.

Extensive structural damage to the front porch of Lakeport Plantation house was discovered when restoration began in March, 2003.



the deteriorated floor joists. New porch framing was also constructed to replace the original.

The pediment was found to be structurally sound, although sagging. The dentil moldings and frieze boards were in good condition. Only a small section of the cornice moldings were salvageable. Cornice moldings were reproduced to match the original and the cornice was rebuilt. The rose window was removed and restored, using as much of the original material as possible. The pediment was raised to correct the sagging. This was done over a three month period to allow the framing members to settle gradually and keep the pediment from separating from the house.

Most of the original porch flooring on the first and second floors had been replaced at an earlier date. Only two small sections of the original flooring remained, in front of the first floor windows. The boards on the second floor were deteriorated badly in some areas, making the porch hazardous to walk on. All of the floor boards were removed and replaced with random width, tongue and groove lumber cut from old growth pine material.

The ceiling boards on the first and second floor were original. The first floor ceiling boards ran east and west and the second floor ceiling boards ran north and south. The purpose of this was to allow for water



In the photo at left the bracing is being removed from beneath the front porch pediment of Lakeport Plantation house. The bracing was used to support the pediment as deteriorated porch components were removed and new porch framing was constructed.



The photo at left shows original floor joists exposed during the front porch restoration. The original floor joists were built to set slightly higher than the supporting beams. The purpose of this was to allow air to flow underneath the porch to prevent moisture deterioration..

run-off on the second floor. The ceiling boards on the second floor also served as the bottom to the pediment. These boards were in excellent condition and were left undisturbed. The ceiling boards on the first floor were bowed and loose. These boards were removed and salvaged for re-use. The original ceiling boards were beaded board, pine material. Original ceiling boards were replaced with sinker cypress, an old growth cypress that has been reclaimed from the bottoms of lakes and rivers.

The pilasters are the flattened columns that project from the wall at each end of the porch. All of the pilasters are original including the capitals at the top. The crown molding used to construct the capitals is a Grecian style molding. This same style of molding is also found throughout the interior of Lakeport Plantation house. All of the pilasters were in good condition. Patching was necessary in areas where the pilasters touched the floor and where the porch rails went into the pilasters.

The front porch columns were not original to the house. The original columns would have been square in shape and slightly tapered with capitals at the top and they would have matched the original pilasters. New columns were built to match the existing pilasters. The new columns were constructed using sinker cypress material.



The photo at right shows a newly constructed column being set in place. None of the existing front porch columns were original to the house when restoration began. The deteriorated columns were all removed and replaced with new columns built to match the existing pilasters

The photo at right shows the capital that sets at the top of one of the original pilasters. The molding that makes up the capital is a Grecian style molding that is used throughout the house interior as well. This photo was taken from the Lakeport Plantation Historic Structures Report.



The original front porch balustrades were missing from both floors. The second floor did have a simple balustrade that had been built to replace the original. Mortises of the original handrail and foot rail were uncovered when pieces of sheet metal were removed from the pilasters. This gave information about the shape of the railings as well as the height and how they were attached to the pilasters. Two of the original balusters were found on top of the commissary shelving, providing a model for their exact replication. The porch balustrades were constructed using old growth cypress material that had been salvaged from old industrial buildings in Greenville, Mississippi.

The only remaining evidence of the balconettes, which set on each end of the front porch, was vertical wood supports attached to the siding and a rectangular shaped cut-out below each window. The decorative cast iron was missing. It was discovered that the original cast iron had been removed in previous years and installed on a house in Lake Village, Arkansas. The ironwork was recovered and historic photos were used in the reconstruction of the balconettes.



The photos above and at right show profiles of the original handrail and foot rail for the front porch balustrade. These were discovered underneath pieces of sheet metal that were removed from the front porch pilasters. These photos were taken from the Lakeport Plantation Historic Structures Report.





The photo at left shows the original front porch balustrade as it was around 1925. This historic photo was taken from the Lakeport Plantation Historic Structures Report.

In the photo at right are two of the original front porch balusters found above the shelving in the commissary when restoration began. These balusters were used as a model for reproduction of the original front porch balustrades.



The photo at left shows restoration crew members setting a section of the new front porch balustrade into place.

The historic photo at right shows a balconette on Lakeport Plantation house around 1925. This photo was taken from the Lakeport Plantation Historic Structures Report.



In the photo at left, evidence of a balconette can be seen in the vertical wood supports on each side of the window and the rectangular shaped cut-out below the window. The photo below shows one of the original balconettes after restoration.





The photo at left shows the ornamental iron porch as it was in April, 1956. This photo was provided by Jerry Ford, the son of Alvin Ford, Sr., whose family was the last to occupy Lakeport Plantation house.

When restoration began on the ornamental iron porch, the decorative cast iron columns and balustrades were also missing. All that remained of the original cast iron was the frame, which had been left in place when the rest of the ironwork was removed. The brick foundation walls and floor joists were original but in poor condition and had to be removed and replaced. The existing flooring was not original to the house. It was in poor condition as well and was removed and replaced with a pressure treated pine material. The existing roof was a corrugated tin that had been put

on in the 1950's. From evidence found during restoration, it is believed that the original roof was a traditional flat seam metal roof. Copper was used for the new roof because of its durability. The original cast iron columns and balustrades were recovered from the same house in Lake Village that had acquired the balconettes. The ironwork was restored and, through paint analysis, was returned to its original green color. Once restored, the decorative ironwork was returned to its original location.

The original flooring on the ell porch was quarter sawn, tongue and groove. Very little of the original



In the photo at right the ornamental iron porch has been completely restored to its original condition.

The photo at right shows the ornamental iron porch before restoration began. The decorative cast iron had been removed, the porch foundation and flooring were deteriorated and the original roof had been replaced with corrugated tin. In the photo below the ornamental iron porch has a new foundation and the deteriorated floor joists have been replaced. The cast iron porch framing seen in this photo is original.



The photo at right shows a cast iron column being returned to its original location on the ornamental iron porch. In the photo below, a restoration sheet metal worker is soldering together the copper for the flat seam copper roof of the porch.



The photo at right shows the ell porch and a smaller porch on the west end of the ell as they were when restoration began on Lakeport Plantation house. The one story ell housed the commissary, kitchen and plantation office.



remained when restoration began. Most of the flooring was replacement and in poor condition. All of the flooring was replaced except a small area of the original in front of the bay window. When the floor joists were exposed, about half were deteriorated and in need of replacement. Floor joists for the ell porch were built in the same manner as the other porches, with the joists setting higher than the supporting beams. Deteriorated floor joists were replaced using this same technique. The original brick piers that supported the ell porch were removed and replaced.

The ceiling of the ell porch was a beaded board that was believed to be original. Poor installation and deterioration required its removal during restoration. When the ceiling material was removed, it was discovered that this was not the original ceiling. Surprising evidence showed that the original ceiling was constructed of lathe and plaster. It was concluded that the lathe and plaster ceiling had failed rather early as the beaded board ceiling construction was dated to sometime between the 1870's and the 1890's. A new lathe and plaster ceiling was built to replicate the original ceiling, using a modern cement based plaster. A cement based plaster is much harder and more durable for exterior use than the soft, lime-based plaster that would have been used originally.

One of the columns on the ell porch was original, although in need of repair. The remaining columns were



The photo at left shows the original tongue and groove flooring that was left around the bay window area of the ell porch.



In the photo at left marks left by the original lathe and plaster ceiling can be seen. Evidence of the lathe and plaster ceiling was discovered when the second ceiling was removed from the ell porch.

replacements and did not match the original. Repairs were made to the original and new columns were reproduced to match. The one pilaster on the south end of the porch was also original. A matching pilaster was also constructed for the opposite end. There was no evidence of a balustrade on the ell porch. For safety purposes, a metal guardrail was hand fabricated and mounted along the outside edge of the ell porch.

Before restoration began, excavation by the archeologists had revealed that the brick piers supporting the west porch had slid off of their original footers. When restoration began, the west porch was in dangerous condition. The flooring was decayed and the porch roof was being supported by 2"x4" boards. The bead-board ceiling was all that remained of the west porch that was original and in good condition. This ceiling also matched the front porch ceiling. New piers were built on the original footers and all new flooring was constructed. New columns were built to match the front porch columns and the original ceiling was left in place. A metal guardrail was mounted along the outside edge of the porch.

The stoop on the northwest side of the house was completely removed and rebuilt. Some of the original porch decking was used in the rebuilding. A new brick pier was built to support the stoop.



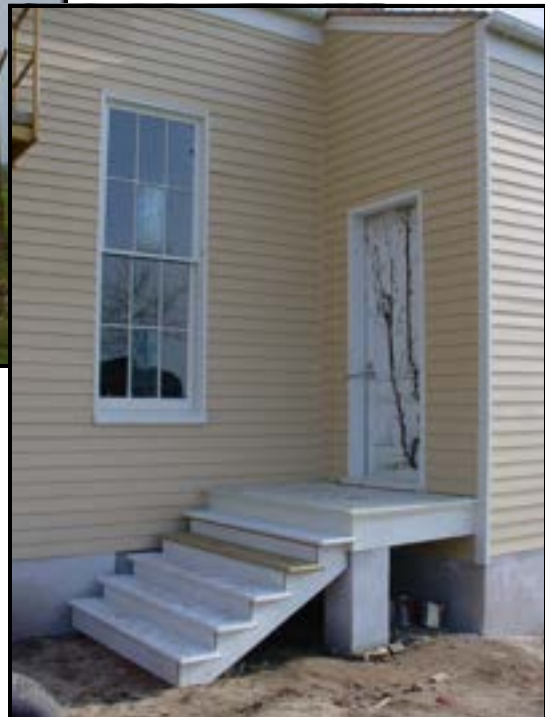
In the photo at right new columns have been constructed and set in place on the ell porch. The columns on the ell porch are built to match the columns on the front porch of Lakeport Plantation house



In the photo at left new piers have been built and new framework is being constructed for the west porch. In the photo below new columns are near completion for the west porch.



The photo above shows restoration work beginning on the stoop on the north side of Lakeport Plantation house. The stoop was completely removed and rebuilt. In the photo on the right the stoop is near completion.



When restoration began, all of the porch steps were replacements. It is not known in what fashion the original steps were built. Historic, circa 1925, photos show wooden steps on all porches visible. However, because of the age of the house at that time, it is unlikely that these steps were original. Wooden steps with closed treads, traditionally found on homes of that period, were constructed for all of the porches. Metal handrails were installed on all of the porch steps for safety purposes.

Lack of regular maintenance contributes to most porch deterioration. The porch flooring is the most vulnerable, being exposed to the weather year round. Problem signs to look for are peeling paint, rotted wood and cupped or loose boards. These are all signs of moisture penetration. A good coat of paint, properly applied, should help to prevent these problems. Paint should be applied in an unbroken line and should cover all wood surfaces. Paint touch-ups are necessary between paintings to reseal any cracks or open joints. Structural cracks, failed joints and insect infestation are larger problems that must be dealt with differently and require prompt attention. When properly maintained, a well built porch will last for many years.



The photo at left shows wooden steps that were built for the ornamental iron porch. Wood steps with closed treads were built for all of the porches of Lakeport Plantation house.

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Lakeport Plantation is an Arkansas State University Heritage Site located in Chicot County, Arkansas. The *Lakeport Plantation Restoration Technical Reports* were compiled by Ronnie and Sonya Walker to document the restoration of Lakeport Plantation.