**Sandwiching in History**
**Seed Warehouse No. 5**
**Plantation Agriculture Museum, Scott, AR**
**January 7, 2011**
**By: Rachel Silva**


## Intro

Hi, my name is Rachel Silva, and I work for the Arkansas Historic Preservation Program. Welcome to the Sandwiching in History tour of Seed Warehouse No. 5! I'd like to thank Linda Goza and Randy Noah from the Plantation Agriculture Museum for their help with the tour and for allowing us to tour the museum facilities for free!! Seed Warehouse No. 5 was listed on the National Register of Historic Places in 2010 for its association with the history of cotton production in Pulaski County and because it reflects mid-20th century agricultural architecture and technology.

## Scott, Arkansas

Early settlers in the Scott area were enticed by the rich bottomlands of the Arkansas River. William Scott emigrated here from Kentucky in the early 19th century. His son, Conoway Scott, was born here in 1815. By 1862 the Scott family owned 2,000 acres, 10 slaves, and other property valued at about $38,000. Conoway Scott died in 1866 just before the birth of his son, Conoway Scott, Jr.

Conoway Scott, Jr., grew up to operate the family plantation that had been established many years earlier by his father about 10 miles southeast of Little Rock, and he also owned a general store. In 1870 the Memphis & Little Rock Railroad was built through a portion of Mr. Scott's property, shifting the focus of area commerce from the Arkansas River to the railroad. His landholdings were eventually crossed by the St. Louis & Southwestern Railroad, or the Cotton Belt

line, and the railroad crossing became known as “Scott’s Station” or “Scott’s Crossing.” At some point, the sign at Scott’s Station was damaged, so the name was shortened to “Scott’s” and then just to “Scott,” giving the town its name. By the turn of the 20th century, a thriving community dominated by cotton plantations was well established. As the cotton farms grew in size and number, merchants opened several general stores.

In 1912 Conoway Scott, Jr., built a large, red brick building to house a general store, but neither he nor any members of his family ever managed it. Instead, it was operated by several other owners. A small wing was added to the northwest side of the building in 1929 to house the Scott post office. At some point, the general store was known as the Steele-Dortch store, and then it was called Foster’s store from sometime in the 1930s until the early 1960s. The general store building exhibits characteristics of the Craftsman style with its exposed rafter tails, large brackets, massive square porch supports, and multi-pane transom windows.

**Dortch family**

This seed warehouse was built in 1948 by Robert L. Dortch to accommodate his expanding commercial seed operation. The Dortch family played an important role in the development of agriculture in Arkansas. After his father’s death in 1858, 12-year-old William Pinkney Dortch moved with his mother to Arkansas and settled in Lonoke County. The Dortches purchased the land upon which Marlsgate is located and constructed the first of two frame houses located on the site before the present Marlsgate was built (1904). Dortch served in the Confederate Army during the Civil War. He was married after the war, but his wife died in 1874. In 1885 William Dortch married Nettie Steele, the daughter of Scott resident Thomas William Steele, who was also the largest landholder in Pulaski County at that time. As a wedding present to his daughter upon her marriage to Dortch, Mr. Steele gave her an 1,800-acre plantation adjoining the Dortch property. The Dortches built Marlsgate on their plantation in 1904 (designed by Charles L. Thompson).

William and Nettie Dortch had 5 sons: Thomas Steele Dortch, William Pinkney Dortch, George Little Dortch, William Reeves Dortch, and Robert Leake Dortch. Because he was the namesake, the second son, William P. Dortch, inherited Marlsgate after his father’s death in 1913. The 7,000-acre farm was divided among the five sons. [Marlsgate remained in the Dortch family until the beginning of the 21st century, when it was sold. It is now used as a venue for weddings and special events.]

**Robert L. Dortch**

William and Nettie Dortch's youngest son, Robert L. Dortch, was born in 1894. After inheriting a portion of his father's land in 1913 (about 1400 acres), Robert Dortch planted cotton and ran a successful plantation. It was so successful that his landholdings grew to 3,000 acres in the 1920s and then to over 5,000 acres in the 1950s. In addition to growing cotton, Dortch operated a gin and in the 1930s he became Arkansas's only registered, pedigreed cottonseed producer. He sold over 90,000 bushels of cottonseed throughout the Cotton Belt states (Arkansas, Missouri, and Texas) during that decade alone.

Cottonseed: Cottonseed was considered to be a disposable by-product of the 19th century cotton industry, but it became a financial fortune to cotton farmers by 1890. Before large-scale commercial uses for cottonseed became feasible, it was a nuisance. It was fenced off in piles, burned, or dumped in nearby streams. Massive amounts of accumulated seed created an unfavorable odor that was feared would cause sickness. With the knowledge that oil cold be produced from cotton seed, the seed crushing industry evolved as a way to dispose of excess seed. Improved transportation routes in the late 19th century allowed the industry to really take off. By WWI, cotton seed oil was being used as a replacement for soap oils and edible fats. It could also be used in the manufacture of paint, fertilizer, mixed animal feeds, rayon, and nylon.

Of course, Mr. Dortch sold cottonseed for crushing, but his best seed was sold to replant for the next year. In fact, he kept the very best seed for himself. It came to the warehouse and was immediately sent through an overhead pipe system to the small building nearby (jokingly known as seed warehouse no. 6).

By the 1930s Dortch had developed a new variety of cotton called Roldo Rowden. Rowden cotton was first developed in the 1890s and was bred to produce taller plants with larger bolls having long fibers, early maturation, and wilt and storm resistance. Early maturation was especially important for cottonseeds because those plants were ready to harvest before the boll weevil attacked them. Dortch improved upon this variety with his Roldo Rowden cotton—it had exceptionally large, round, blunt end bolls. Because the sharp points were removed, it was ideal for hand picking. The name Roldo was derived from letters in his name—**Ro**bert **L. Do**rtch.

Dortch also developed hybrid seed corn, soybeans, and small grains. His 1940s promotional literature claimed he had "the most extensive cotton, hybrid corn, oat,

and soybean breeding program west of the Mississippi River" with sales in 14 states and around the world. He served as chairman of the Arkansas State Plant Board from 1939 to 1946 and president of the Arkansas Seed Growers Association.

In 1937 Mr. Dortch built a cotton gin and seed warehouse no. 4 just to the east of here (across Hwy. 161) to be closer to the highway. He built an office building across the road from the gin in 1941 and a dryer/elevator for soybeans in 1946. All of these buildings are still extant—located over by Cotham's.

Dortch's seed operation continued to grow throughout the 1940s, partly because in 1942 he hired Dr. Llewellyn Humphrey to manage his seed breeding operation. Dr. Humphrey had previously headed the University of Arkansas's plant breeding research. Dortch gave him a 950-acre experimental breeding farm where he grew new crop varieties, monitored plant growth, and prepared seed samples for test plots. Under Dr. Humphrey's guidance, Dortch's breeding operation greatly expanded and achieved national attention. [In 1958 Dr. Humphrey took a job with the Dept. of State as an agricultural advisor to the government of India. He died in 2001, but India now produces better cotton than the U.S.]

So in order to accommodate this growth in the 1940s, Dortch constructed Seed Warehouse No. 5 in 1948. Dortch considered himself a layman architect, and it is said that he drew the plans for this building on a paper towel. He chose this location because it was close to both the highway and the Cotton Belt Railroad. A spur was built to connect it to the main track. The warehouse featured an improved ventilation system, whereby cool air entered the building through cracks in the floor (because the building sits up on concrete piers) and hot air escaped through the five cupolas along the ridge of the roof. Side doors provided extra ventilation. It was very important to have good air flow around the seed piles to avoid spontaneous combustion—water content in the seeds could cause the piles to overheat and ruin, or worse, catch fire (workers constantly checked for "hot spots"). The warehouse walls were designed to correspond to the angle of repose, which is how cottonseeds naturally pile—a wall tilted at a 48-degree angle would accommodate more seed piles and not explode from the weight of the seed against it. This warehouse also had a floor to ceiling auger system to transport seeds as they entered and left the building.

**Seed processing & distribution**

Cotton is planted in late April or early May and harvested between the end of September and early November.

Cotton had already been through the gin, leaving behind the raw seed. The raw seed was brought here and loaded into the outside auger.

From there, the seed went into the elevator (pulley system with little buckets) and up through the top auger.

The seed dropped down to seed piles, depending on which overhead auger door was open. The seed was stored in piles in the warehouse until an order came in.

When an order was placed, workers shoveled seeds into the floor auger—there were two different methods to get the seed into the floor auger—if it was a big pile of seed, workers would use one of the wooden seed towers. Seed was shoveled into the tower opening and dropped down into the floor auger. Once the pile dwindled lower to the ground, floor coverings could be removed and seed shoveled directly into the auger. The seed ran back down to the seed cleaner.

Cottonseed had to be cleaned because when it arrived at the warehouse, it contained dirt, sand, cotton burrs, and debris. The seed cleaner acted like a big clothes dryer—it moved seeds over a revolving screen called a “sand and boll” screen. The tumbling action shook away the debris, and a powerful blower removed the remaining debris. This seed cleaner was designed by Robert Dortch based on other models he had seen and it was built by his workers, so there is no manufacturer’s plate on it.

Once the seed had been cleaned, it was moved through overhead ductwork (no longer there) to the seed sacker. Before the seed was sacked, it was also dusted with Ceresan to keep bugs out of it. Two sacks were attached to the seed sacker and a diverter lever in the middle allowed one sack to be filled at a time. After the bags were weighed on platform scales, they were sent to the sack sewing area. Dortch sold his cottonseed in burlap sacks that were hand-sewn, but his Dortchsoy seed was packaged in paper sacks that were sewn on the sack sewing machine.

If a customer requested a truckload of seed, their truck was filled by the discharge chute outside. Or bagged seed could be transported via rail or truck. Long distance deliveries were shipped on the Cotton Belt Railroad. Mr. Dortch requested a few rail cars, which were dropped off on the spur track beside the warehouse. Once they were filled with sacks, Dortch contacted the rail officials, and the railcars were picked up by a locomotive.

Cottonseed was usually stored in the warehouse from September until January. Then the warehouse was emptied out and cleaned.

Railcars: The two railcars were donated to the museum by Union Pacific. The cars were made in 1948 or 1949 so they are contemporaneous with the warehouse. Union Pacific had them repainted with the Cotton Belt logo and moved them to the site. A spur track had to be reconstructed for them, but it is in the same location as it was historically. The main Cotton Belt tracks were taken up in 1996 or 1997.

Extra things:

Photos inside warehouse: Dortch is the man with the short tie and the mustache. Show the overhead view of his farm operation. See where the route of Hwy. 165 has changed slightly—used to go down by All Souls Church and now bypasses it. Also see how RR line and spur were situated and his small private seed house was closer to the highway. Has since been moved to get it off the road. Dortch was also an oil broker for Gulf Oil. See photos of his oil tanks and building with Gulf signs. This building still extant but not part of the museum—owned by Jim Matthews.

Seed warehouse no. 5 has about 12,000 square feet.

There were only 3 towers in the warehouse, but there could have been 4. The men also walked along the catwalk and came down the tower ladders to access seed piles throughout the warehouse. Used to use folding wooden screens about 6 to 8 feet tall to separate different kinds of seed in the warehouse. No longer there.

There was an intercom system in the seed warehouse, so Dortch could communicate with workers from his office down by Cotham's.

Double spiral seed separator: Vetch (legume) and oats were often planted together because the vetch replenished the soil with nitrogen and potassium. The seed separator separated the vetch and oats using gravity and a spiral design. The two seeds were shaped differently and traveled down the spiral at different speeds—the faster, rounded vetch seeds flowed out one spout and the slower, flatter oat seeds came out the other.

**Evolution of the Plantation Agriculture Museum**

In the early 1960s, the general store building was purchased by Robert L. Dortch and his daughter, Floride Dortch Rebsamen, to serve as a museum commemorating

Arkansas plantation life. The Dortch family donated many artifacts, but most of the museum's collections came from friends and neighbors. A steam train and track were installed and rides offered to the public (many area residents remember riding on this train—it is currently operated in Eureka Springs). The Plantation Museum opened in 1966 and father and daughter ran the operation until Mr. Dortch's death in 1972. Mrs. Rebsamen continued to operate the museum on her own until 1978. Then the building sat neglected until 1985 when it was acquired by Arkansas State Parks and became the Plantation Agriculture Museum. The Dortch family allowed the artifacts to remain in the museum building, and the state also acquired Seed Warehouse No. 5 at that time. Inmate labor was used to move the museum collections into storage in Seed Warehouse No. 5 while the general store building was being renovated. The roof had fallen into disrepair, so there was quite a bit of structural work done on that building.

The work on the general store/post office building was completed in 1990. A collection management facility was built in 1993. The Dortch Cotton Gin Exhibit building is located near the main building and houses equipment salvaged from the Dortch Gin that once stood near Bearskin Lake (about 2.5 miles from here). It was a circa 1919 cotton gin. However, the building itself is new—and there was never a gin on that site historically—the new gin building was built in 2003-04. Seed warehouse no. 5 was restored in 2008 to become an educational exhibit. As I told you earlier, the seed warehouse had previously housed many of the museum's artifacts. A little bit of lumber had to be replaced in the warehouse, but they didn't try to disguise that fact. To our knowledge, this is the only seed warehouse that has been restored to its original appearance and is open to the public.

Please feel free to spend time looking around the exhibits in this building as well as the other museum facilities. Thank you for coming! See you next month—Friday, February 4 at Taborian Hall (Dreamland Ballroom) at 800 W. 9$^{th}$ St. in LR.