A GEOGRAPHY FIELD TRIP: THE HAW RIVER VALLEY

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Field study is an essential, in many instances critical, facet of the geographical learning process. It is the way in which the student is brought into actual contact with geographic elements that have been identified, or can be studied, through library research, remote sensing, and statistical inquiry. Field study involves first-hand encounter with the complex linkage between human patterns —the activities and artifacts of people— and the physical environment — topography, drainage, weather/climate, and vegetation.

This article resulted from an informal, voluntary field trip organized by graduate students at the University of North Carolina-Chapel Hill. The study area was the Haw River Basin, selected because of its long association with one of the Piedmont's more prominent economic activities, the cotton textile industry. The focus of the field trip was in the Alamance County portion of the drainage basin (Figure 1), where the textile industry has its greatest impact. Preliminary field studies and library research revealed a three-tiered structure to textile industry landscapes in the Haw River Valley. The oldest tier is associated with the initial industrialization of the valley by cotton textile mills attracted to water-power sites along the banks of the Haw, from 1837 to 1880 (Figure 2). A shift to steam power, and later to electricity, created a second tier of textile plants, from 1880 to 1930, along the Southern Railway that bisects Alamance County through Mebane, Graham, and Burlington. A third tier of more contemporary plants is clustered at the interchanges of Interstate 40/85 along the southern margins of Burlington and Graham.

Field study is the way in which the student is brought into a direct contact with an area's geographical elements. This way the student can personally observe critical linkages between physical and cultural environments

Field Trip Preparation

To be effective, a field trip requires a substantial amount of preparation in researching background information, selecting routes, scheduling stops, and field-checking sites. A number of such working details are presented here to show how this particular field trip was put together, and to provide possible guidelines for other groups planning similar activities.

The first practical step was to determine the level of interest in the field trip. This was done by polling potential participants, who were also asked to choose from a list of possible field trip dates. From this information the appropriate size vehicle was reserved for the agreed-upon date. Individuals volunteered for specific research responsibilities based on their area of expertise. The division of labor

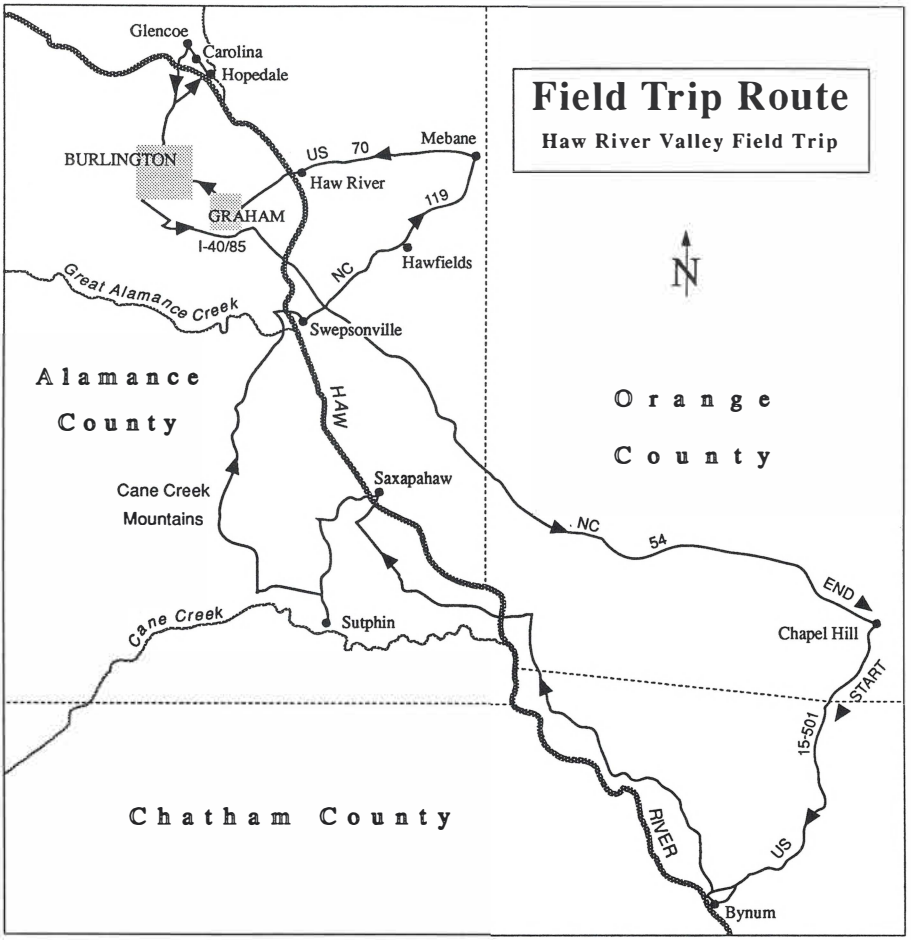

Figure 1. Haw River Valley field trip route.

among the three co-leaders on this trip was as follows; the conceptual framework and cultural geography was handled by one person, social geography by another, and physical geography by the third.

Field trip preparation involves several critical steps: research for background information, selection of route, scheduling appropriate stops, and prior field checking of sites

Most of the field trip preparation time was spent doing library research, but it was necessary to "ground truth" library findings with the study area by taking periodic trips into the field. Due to the lack of literary documentation, the recent past poses a challenge to the field researcher. What is read in the literature may not be what is seen in the field, as more current, and possibly yet to be explained, landscape features may be encountered. Newspapers, periodicals, and first-hand accounts from local residents were used to help bridge this informational gap. For physical geography it

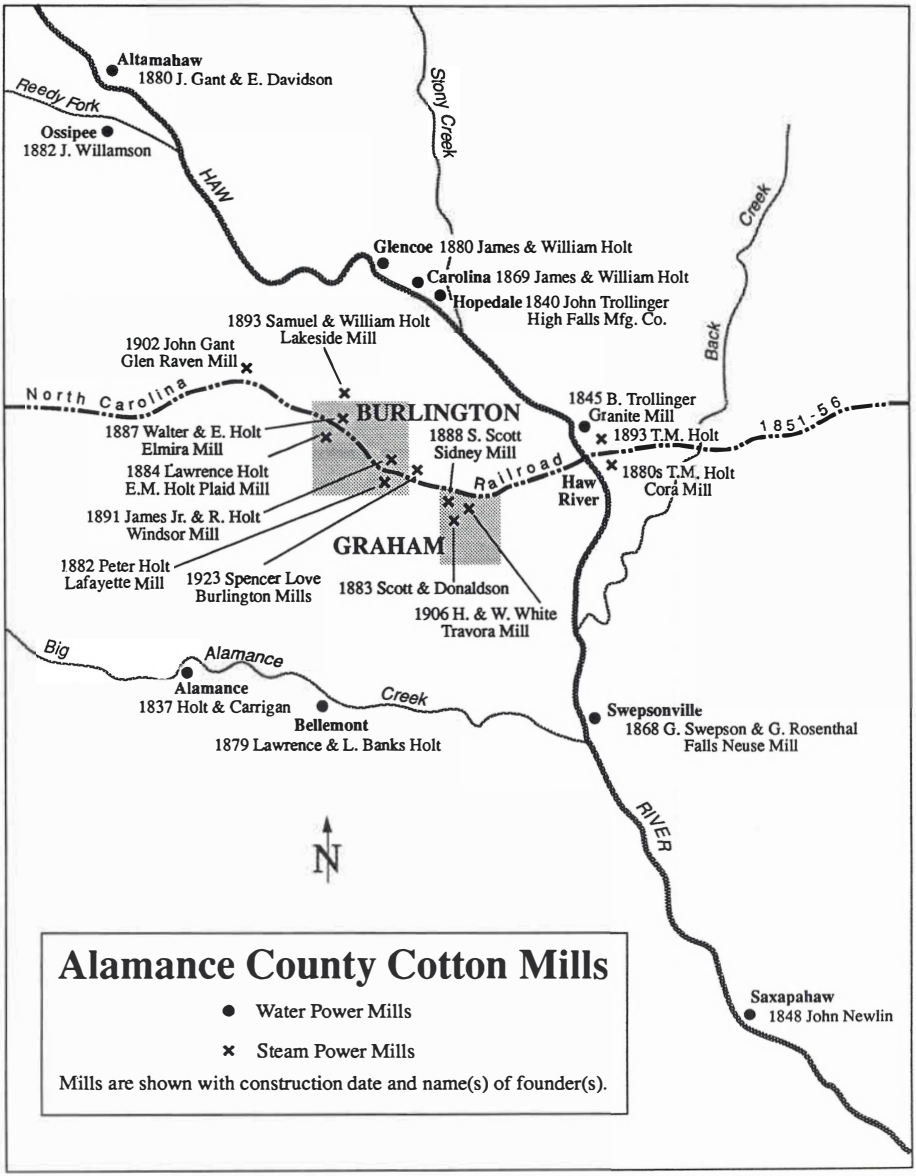

Figure 2. Alamance County cotton mills

was a matter of finding vistas and sites that illustrated processes common to the region. Sites that expressed geomorphic, pedogenic, biogeographic, and fluvial processes had to be ferreted out, then dovetailed with cultural artifacts. For example, there seemed to be an association between geologic contact zones and mill sites along the Haw. Another pertinent relationship was the link between soil

fertility, farm productivity, and the migration of impoverished rural people toward the economic opportunities of the mills. Fieldwork was critical in locating sites that expressed these man-land linkages.

Routing the field trip is very much like arranging photographs for a show. Pertinent images are arranged in a meaningful sequence in order to achieve the desired effect

Once the relevant background materials were assembled, the field trip route had to be decided. Routing a field trip is analogous to arranging photographs for a show. The sites (images) have already been established, visiting them in a specific order (sequencing) will produce the desired impact. For the Haw River Valley field trip a simple, arbitrary plan of starting downstream and going upstream worked well. Most of the physical geography sites came early, setting the physical environmental foundation for the field trip. The sequencing of cultural landscapes reflected the chronological orientation of the three-tiered structure of the textile industry in the Haw River Valley. The first cultural sites visited were mill villages established at water-power sites; followed by an examination of railroad-oriented landscapes; and finally, a tour through the Interstate corridor. Using a sketch map, must-see sites, like the view of Haw River from a railroad bridge, downtown Burlington, and the abandoned mill village at Glencoe, were identified as key foci. Redundant, or less enlightening sites were weeded out, and alternative sites and routings were established on a time-available basis.

The field trip packet is a guide to the experience, a record of the organizers' landscape interpretations to help guide the participants, and a resource for later review

A dry run, taken a week prior to the actual field trip, was mandatory. It gave the trip leaders needed travel times, site familiarity, and confidence. Timing is critical; once darkness falls the trip is over, so the trip was scheduled to fit within an 8:00 am to 6:00 pm time frame. Plenty of slack time was built into the schedule, and site stops were frequent. Too much driving time between stops will lull even the most ardent student asleep. Also during the dry run, an agenda was set for each site to emphasize its characteristics and show how it fit into the broader regional picture. Another important issue was the lunch stop. Burlington and Graham are blessed with plenty of grills and cafes with local flavor, but unfortunately, this trip was scheduled for a Sunday when the downtowns are literally closed. As one restaurant owner put it, "on Sunday we all go to church around here." Eating places along the secular Interstate solved the problem.

The last step in preparing the field trip was to put together a field trip packet, including maps and site descriptions. The field trip packet is a guide to the experience, a record of the organizers' landscape interpretations that can be used to help orient field trip participants, as well as a resource to be reviewed at a later date. The remainder of this article is a modified version of the Haw River Valley

field trip packet, presented here as both a product of the field trip preparation, and as a synoptic geographical view of the role of the textile industry in shaping the human landscapes of the Haw River Valley.

The Haw River Valley Field Excursion

CHAPEL HILL TO BYNUM: Alamance County lies within the Piedmont physiographic province. Nearly all of the bedrock underlying the field trip area is part of the Carolina Slate Belt. The Slate Belt is a large metamorphic terrace believed to have developed during the Taconic or Appalachian Orogeny, about 480 million years ago (Horton and Zullo 1991). The rocks consist of volcanic-sedimentary (volcaniclastic) formations, composed of interbedded slates, breccias, tuffs, and flows. These rocks vary from acidic or rhyolitic, to basic or andesitic in chemical composition, and generally have a well-developed cleavage, which gives them a slate-like appearance (Stuckey, 1965). Slate Belt is intruded in places by igneous granitic plutons and dikes. The dikes are primarily composed of diabase, a dark-gray to greenish-black, fine-to-medium-grained rock. These igneous intrusions post-date the regional metamorphism by about 200 to 300 million years, and caused local contact metamorphism in the rock surrounding the plutons (Horton and Zullo, 1991). Some of these dikes are exposed along the field trip route. Look for greyish-green, well rounded boulders along ridgetops.

Some disagreement exists over the geomorphic history of the Carolina Piedmont. Conflicting theories seek to determine whether the Piedmont is actually a dissected peneplane —that is, a surface which was eroded practically flat in the past, then subsequently uplifted causing streams to begin downcutting. There is general agreement, however, that the Piedmont is more or less in geomorphic equilibrium at this time, with gradual uplifting being offset by erosion (Horton and Zullo, 1991; Beyer, 1991).

BYNUM: During the early period of Piedmont industrialization the Haw River was a locational draw for textile manufacturers seeking water-power sites. Like most water powered cotton mills, the Bynum Manufacturing Co. located at a site already utilized by an earlier grist mill to take advantage of a pre-constructed mill dam. The company started manufacturing thread in 1872 and built a mill village of fourteen houses and a company store. During the early 20th Century, isolated riverine mill villages typically generated their own electricity before being tied into a regional power grid. This was also these for Bynum which was electrified by power generated at the mill in 1922. The electric turbine visible at the end of the head race dates to 1940. Whereas most cotton manufacturers sold off their mill houses in the 1930s and 1940s, Bynum remained a company town until 1977. Since 1972 the Tuscarora Co. has used the mill to produce

synthetic blend yarn.

It is important to remember that most Piedmont textile workers were farmers before they came to the factories. Bynum is a perfect example of the typical isolated mill village (Figure 3a) that drew its employees from local farm families who had been driven from farming due to disastrous crop-lien practices and wild fluctuations in cotton prices after the Civil War. When they came to the mills (DeNatale, 1980), Bynum residents brought with them rural culture, such as local agricultural practices, folk medicine beliefs, and social activities.

Spatial structure of urban places in the Haw River Valley I,
Mill Village:
- **irregular streets**
- **privately owned, unincorporated**
- **one industry dominant**
- **homogenous mill houses**
- **small, isolated population**

BYNUM TO SAXAPAHAW: Situated to the south of the bright-leaf tobacco belt, and north of the cotton belt, the agricultural economy of Alamance County was dominated by corn, wheat, and oats for much of the 19th and 20th centuries. Poor soil fertility and a lack of markets limited agricultural prosperity. Industrialization and the rise of Piedmont cities, with their need for fluid milk, encouraged the expansion of dairying which currently dominates the agricultural landscape. Cattle grazing, poultry, and an occasional horse farm (activities that do not rely heavily on high soil fertility) are also evident.

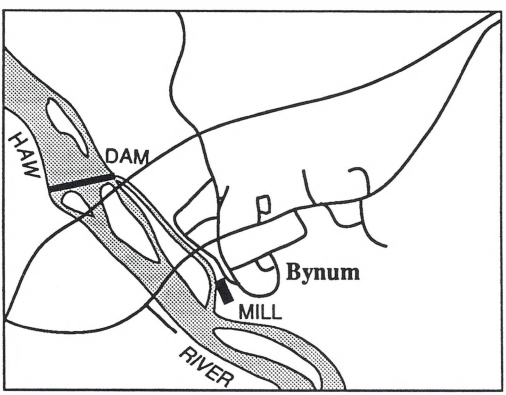

Figure 3a. Bynum: Haw River mill village, founded 1872

The dark red soils visible in the bare fields are primarily ultisols. These are formed in humid areas on felsic (i.e. feldspar and silica, as is commonly found in granitic rock) parent materials unaffected by continental glaciation. Ultisols are highly weathered soils, acidic, and characterized by a high content of low activity clays, such as kaolinite. Alfisols are often formed in this region from weathering of mafic (i.e. magnesium and ferrous) parent materials, which tend to be alkaline or basic, as opposed to acidic. Alfisols also tend to have a relatively high clay content. Base status is a primary difference between Ultisols and Alfisols; the former has decreasing base status with soil depth, the latter increasing base status with depth. Base status is a measure of soil fertility, and is determined by the amount of plant-available base elements (i.e. calcium, magnesium, potassium, sodium) in the soil. Therefore, Ultisols are generally less fertile than Alfisols (Boul, Hole and McCracken, 1989).

European settlement of the Piedmont has had a serious detrimental effect on soil and stream quality. An estimated 20-percent of

the North Carolina Piedmont has been essentially ruined for agriculture due to soil erosion resulting from poor land use practices in an area of intense rainfall and easily-eroded soils. This erosion led in turn to siltation of Piedmont streams and rivers. Declines in agriculture and better land use practices have reversed these trends somewhat, although sediment still continues to move into and clog larger streams such as the Haw (Horton and Zullo, 1991).

Old field succession in the North Carolina Piedmont is one of the more celebrated and studied examples of plant community dynamics, partly due to the distinct, dramatic, and rapid successional patterns which are evident here. This enables us to view the phenomenon at various stages along the route. Plant succession is a directional, cumulative change in the species that occupy a given area, through time. Primary succession is the establishment of plants on land not previously vegetated, for example, the colonization by plants of land scoured bare by retreating glaciers. Secondary succession is the invasion of land that has been previously vegetated, the pre-existing vegetation having been partially or completely destroyed by natural or human disturbances such as fire, wind, logging, or cultivation. Unlike primary succession, secondary succession occurs on sites where much of the soil and many plant propagules (i.e., seeds, rhizomes, roots etc.) still exist. As a result, secondary succession can, in some cases, progress 5 to 10 times as fast as primary succession (Barbour, Burk and Pitts, 1987).

"Old field succession" is occurring on abandoned land, formerly cultivated; the process or stagewise change in vegetation cover may eventually result in a climax forest of mostly hickory and oak trees

The North Carolina Piedmont is a gently rolling region with a mosaic of hardwood forests, pine forests, recently abandoned fields, and cultivated fields. Secondary succession occurs on the abandoned, formerly-cultivated fields, hence the name, "old field succession." The succession process leads toward a climax forest comprised mostly of hardwoods (eg. oaks and hickories) with a few scattered pines in the overstory (Barbour, Burk and Pitts, 1987).

The abandoned old fields are quickly colonized by a relatively large number of annual and perennial herbs, dominated by crabgrass and horseweed. The second year after abandonment, new species are added, and the dominant species shift to aster and ragweed. By the third year, species richness declines due to almost complete dominance of large clumps of the perennial grass broomsedge. Broomsedge continues to dominate for several more years as pine seedlings become established and increase in size and height. Eventually, the pines overtop and shade the broomsedge, thus ascending to dominance. In any given field, the pines tend to be all of one species: shortleaf pine on the drier sites, and loblolly pine on the moister sites. These pines tend to grow quickly, but since they are relatively shade intolerant, new generations of pines don't become established in their

own understory. Instead, hardwoods become well-established in the understory, and after a time, begin to out-compete the pines and obtain dominance. Secondary succession can stop at the pine stage if low intensity ground fires sweep a site every several years (Barbour, Burk and Pitts, 1987).

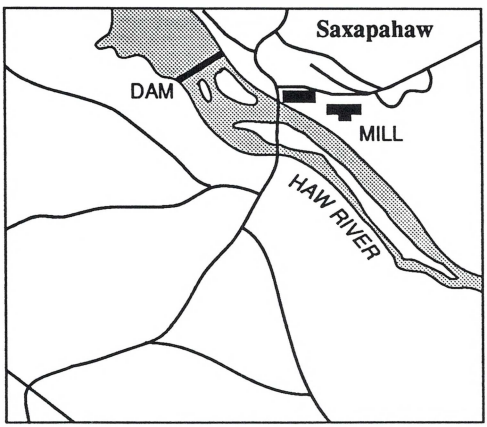

Figure 3b. Saxapahaw: Mill village, founded 1848

SAXAPAHAW: Quaker John Newlin built the original cotton mill in 1848. In 1873 the mill was brought into the Holt textile dynasty when patriarch Edwin M. Holt bought it for his son-in-laws John Williamson and James White. The mill operated as White-Williamson & Co. from 1884 to 1927, when it was sold to the Sellars Manufacturing Company (Figure 3b). Part of the plant is presently being operated by Dixie Yarns. The company store dates to the 1920s when it was operated by Sellars. The institution of the mill company store is part of a troubled history of oppression and paternalism associated with mill villages like Saxapahaw, in which the practices of mill owners that were supposed to be beneficial for their workers may have reinforced their poor socioeconomic status. Mill owners sometimes issued workers paychecks in the form of credit at the company store. However helpful this may have been for obtaining groceries and supplies, it also kept the workers tied to that mill and company store and prohibited them from using their limited pay elsewhere (Hall et al, 1989).

LINDLEY'S MILL: While the Haw attracted the larger water-powered cotton mills and their associated villages, lesser tributaries, like Cane Creek, remained important as power sources for grist mills, saw mills, and smaller cotton and woolen mills that required less horsepower. Lindley's Mill dates back to the mid-1700s and was water-powered until the 1970s. The current building and unused waterworks are 20th century constructions. The grist mill took advantage of a site inside an incised meander curve, with dam located on the upstream side of the meander feeding a race that cuts across the neck and drops down through the mill site located along the creek bank on the downstream side. The mill currently imports high-protein grain from the Midwest to produce flour for specialty breads served in restaurants in the Triangle area and elsewhere on the East Coast.

While the Haw River attracted the larger cotton mills, smaller grist, saw, cotton and woolen mills remained wedded for a longer time to tributary rivers like Cane Creek

CANE CREEK MOUNTAINS: An erosional remnant, the

Cane Creek Mountains, is one of the Piedmont's lesser monadnocks. Thompson Mill Road passes over a saddle between Bass Mountain to the east and higher elevations to the west. While the topography is visually muted, high points are accentuated with radio towers. At roughly 240 feet above sea level, the saddle marks the highest point on the field trip and affords a quick glimpse northward into the Haw River Valley.

GREAT ALAMANCE CREEK: Upstream at Alamance Edwin M. Holt built the first cotton mill in Alamance County in 1837. In 1853 the mill produced the first dyed fabric south of the Potomac, refining a popular pattern called "Alamance Plaids." By 1900 descendants of E. M. Holt and their kin controled 25 of the county's 29 textile mills, and employed 25% of the county's labor force. Downstream from Alamance is the mill village of Bellemont, built by E. M. Holt's sons Lawrence and L. Banks in 1879.

SWEPSONVILLE: In 1868 George Swepson and G. Rosenthal built the Falls Neuse Mill at Swepsonville to compete with the Holts in producing Alamance Plaids. Style changes favoring ginghams caused a softening of the market for Alamance Plaids, but the Holts blamed Swepson for glutting the market, and a feud ensued. Up until the early 20th century, raw cotton arrived at Swepsonville by boat, shipped down the Haw from the railroad depot at Haw River three miles away. Virginia Mills (renamed after G. Swepson's wife in 1895) operated in Swepsonville until being destroyed by fire in the 1980s, leaving a largely empty mill site next to the remnants of the dam (Figure 3c).

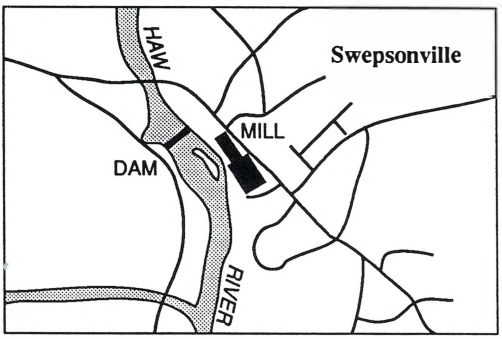

Figure 3c. Swepsonville: Mill village, founded 1868

HAWFIELDS: This interfluve between two Haw River tributaries was settled in the 1750s by agriculturalists who took up land along the Trading Path between Hillsborough and Salisbury. The first-order hamlet that developed to serve neighboring farms was abandoned in the 1850s when the North Carolina Railroad was built a mile north. Attracted by the potential prosperity of a railroad town, its residents moved to what became Mebane. The legacy of this low order central place is retained in the church and convenience store that occupy the site today. Nearby is a Honda parts plant, characteristic of the Japanese companies who are currently attracted to the Piedmont Crescent along I-85 because of the accessibility and lower land and labor costs.

MEBANE: Mebane was founded in 1855 as the Mebanesville

depot on the newly constructed, state-owned North Carolina Railroad. The mill villages of the Haw River were frequently built with irregular street patterns, reminiscent of rural farm villages (Hall et al, 1989). Railroad towns like Mebane, however, have more urbane roots, laid out in a grid pattern of streets oriented parallel and perpendicular to the tracks (compare Figures 3a, 3b, 3c, 3d, and 3e). Mebane is larger and contains a more diversified industrial base than the mill villages. Although Dixie Yarns has a Mebane plant, the furniture industry is dominant, with White Furniture and Kingsdown Mattress operating sizable plants in town. The housing stock, having been constructed largely by private contractors, is also more diversified, and contains the large and varied houses of a 19th century professional and managerial class, built in the high styles of the period. Politically, Mebane, with a history of local government, is incorporated, while the mill villages, with a collective history of industrial paternalism, still are not.

Spatial structure of urban places in the Haw River Valley II,
Railroad Town:
- **grid pattern**
- **public, incorporated**
- **diversified industry**
- **varied, privately built and owned houses**
- **larger population, linked to the outside by railroad**

HAW RIVER: The only Haw River mill village to be served by the railroad, Haw River is much larger than the rest, containing two cotton mills, and at one time, a hosiery. The irregular street pattern, and mill house residential landscape, however, is compatible with other villages (Figure 3e). Mill houses in the Haw River Valley reflect vernacular forms, based on hall and parlor, and Carolina I-house designs, typically with an attached kitchen in the rear.

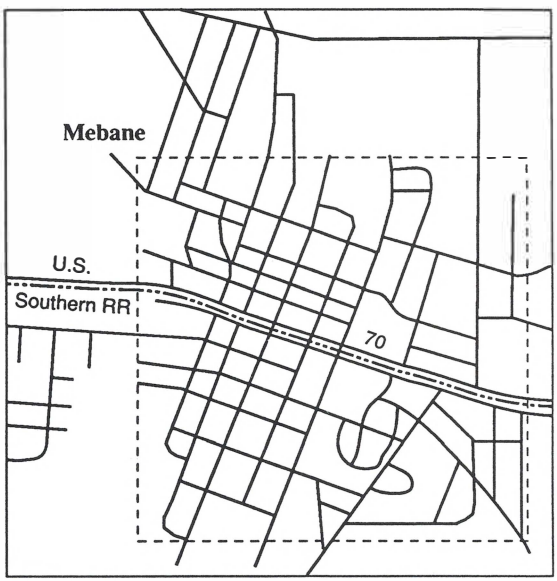

Figure 3d. Mebane: Railroad town, founded 1855

The Granite Mill was built by Benjamin Trollinger in 1845. Trollinger influenced the routing of the N.C. Railroad by building the bridges at Haw River, Back Creek and Eno River. He eventually lost his cotton and grist mills to Thomas M. Holt who expanded the mill, and built the nearby steam-powered Cora Mill in the 1880s. The Granite Mill has been manufacturing finished corduroy for Cone Fabrics since the 1930s. The Cora Mill became the Tabardrey Mill in the 1940s, and is now being operated by Kingstree Knitting Co. Unlike the other mill villages which were bypassed by the main

road immediately before or after World War II, Haw River still sits astride U.S. 70, although a bypass is currently being constructed to the north.

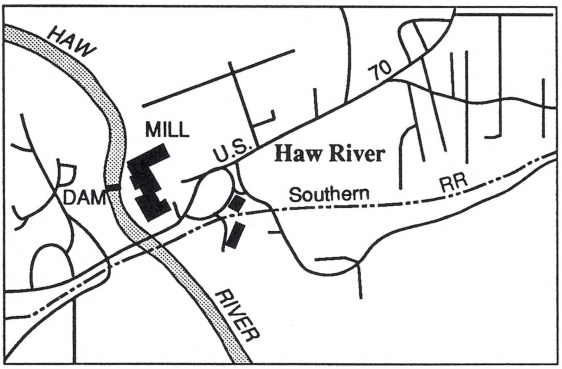

Figure 3e. Haw River: Mill village, founded 1845

The long history of mill construction in Haw River provides examples of mill working environments through the years. Though the specifics of the working environment have changed through time, it is fair to say that until well into this century, the mill environment was nearly intolerable due to cotton dust, high humidity and temperature, noise, work routines, and poor sanitation. Mill workers often could not hear for half an hour after leaving work, and many ended up with permanent hearing loss from a life in the mills. Byssinosis, or brown lung disease, a respiratory ailment derived from years of exposure to cotton dust, was common among textile workers in the area (Beardsley, 1987, Hall et al, 1989).

GRAHAM: When Alamance County was created in 1849, Graham was chosen as the county seat because of its centrality. The town was laid out with a traditional cardinal grid pattern with a small courthouse square located at the intersection of the principal north-south and east-west streets. The town became the hub of a radial regional road pattern that was altered after the arrival of the railroad. Graham's citizenry rejected the railroad and the potential noise and dirt it would create. As a result, the N.C. Railroad was built north of town, and the company shops planned for Graham were built two miles west instead.

BURLINGTON-GRAHAM RAIL CORRIDOR: With the adoption of the Corliss steam engine, textile mills no longer required isolated water power sites, and began to locate in the larger towns along the railroad. Burlington's first real estate development, Piedmont Heights (1911), was built as a working class neighborhood astride the Alamance Street Railway and proximate to the Southern Railway line. In 1923 Burlington Industries built its innaugural Pioneer Plant in the neighborhood, also constructing 70 mill houses in the bungalow style popular in the 1920s and 1930s.

Located between Pioneer Plant and Piedmont Heights is Glen Hope Baptist Church, home to the congregation of Preacher George Washington Swinney. Swinney was a textile worker himself, before he felt the the call to the ministry. He had a profound effect on the local

In the Haw River basin the role of individuals, in shaping local culture and in molding the local cultural landscape, is critical to an understanding of the region. Here the names of Edwin M. Holt, George Swepson, Benjamin Trollinger and George Washington Swinney have all figured prominently

area; he is credited with cleaning up the moral environment of Piedmont Heights. It is unclear whether Swinney was truly a friend of the workers, or if he was in league with the mill ownership, which provided some financial support for his church. He was highly popular among the members of his congregation, but practices such as holding evening services every night during a strike may have been calculated to reduce participation in the strike (Hall, et al, 1989).

During the 1920s the hosiery industry, eventually dominated by Burlington Industries, surpassed the cotton textile industry in Alamance County, creating a different cultural landscape. Unlike the earlier cotton mills which were powered by water or steam, hosiery plants were powered by electricity. In addition to locating in the cotton mill-dominated industrial rail corridor, hosiery plants were also located with respect to highway transportation, the influence of which expanded during the 1920s. Contrary to the paternalistic cotton mills, hosiery manufacturers rarely built mill villages, but took advantage of local, urban-based labor forces with access to public transportation and automobiles. Most of the hosiery workers owned homes built by private developers.

COMPANY SHOPS: Located at the midway point on the N.C. Railroad, the town of Company Shops was founded in 1855 with the building of the railroad's maintenance and repair facilities. After the shops closed in 1886 the town was renamed Burlington and grew with the expansion of the cotton and hosiery industry. Much of the downtown dates to the prosperous textile production years of the 1920s. As a railroad town, the street pattern of Burlington is oriented toward the tracks which cut across the city on a northwest-to-southeast angle, skewing the grid pattern off the cardinal compass directions evident in the street pattern of nearby Graham.

The town of Company Shops was renamed Burlington with the demise, in 1886, of the NC Railroad maintenance facilities. Burlington's subsequent emergence as a center of industrial wealth has left a visually impressive historical architecture

Characteristic to the neighborhood of Fountain Place/ West Davis and West Front streets are large historical revival and bungalow style homes of the upper-middle managerial class that emerged with the industrial expansion of the early 20th century. Fountain Place, with its globular street lights and fountain located on an island in the middle of the street, reflects the early 20th century influence of the City Beautiful Movement. Piedmont Way, the main boulevard through working-class Piedmont Heights, has similar roots, although a more spartan appearance that mirrors the social status of that neighborhood.

HOPEDALE-CAROLINA: In 1840 John Trollinger built the High Falls cotton mill at a nick point in the Haw River near its

confluence with Stony Creek. Controled by G. Rosenthal after 1883, the mill was brought into the extended Holt family when James Williamson took control in 1904, renaming it the Hopedale Mill. Copland, the current owner, has produced synthetic fabrics and hosiery goods at Hopedale since the 1940s.

Upstream is the abandoned Carolina Mill started by James and William Holt in 1869. The mill village "on the hill" is clustered around an early 20th century standpipe. The final power shift for Alamance County textile mills from water and steam to electricity began in the 1910s. Freed from water power sites, water for processing is still important, specifically ground water untainted by pollution.

GLENCOE: Glencoe (1880), Altamahaw (1880), and Ossipee (1882) were the last Alamance textile mills to be built using water-powered machinery. All three were built or ultimately controlled by the Holt family. When the Glencoe Mill shut down in 1954 the village was abandoned. What remains is the shell of a 19th century cotton mill village. It is a near pristine, but decaying, relict landscape that the county would like to turn into an outdoor museum, but funds have yet to be procured. The mill buildings have been leased as storage space, and a carpet outlet and small lace manufacturer occupy the main building. The early 20th century water-powered electric turbine still produces electricity which is sold to Duke Power. Old field succession at different stages may be observed in what appear to be abandoned garden plots in and among the former mill houses.

As is evident from this fieldwork experience, direct, on-site observations provide excellent training for understanding dynamic and ongoing changes in an physical and cultural landscapes

INTERSTATE 40/85 CORRIDOR: Changes in the location of Alamance County textile plants reflect technological changes in power sources and transportation. During the initial water power stage mills were scattered at isolated riverine locations. Mills built during the steam power stage were clustered at trackside locations. The final electric power stage is characterized by decentralized mill locations with highway orientations, specifically I-40/85. A corridor of modern single-floor textile mills exists in industrial parks and at interchanges along I-40/85 on the southern margin of Burlington and Graham. They are not associated with a complement of mill houses, but the surrounding landscape is dominated by tracts of modest brick ranchers built after World War II.

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