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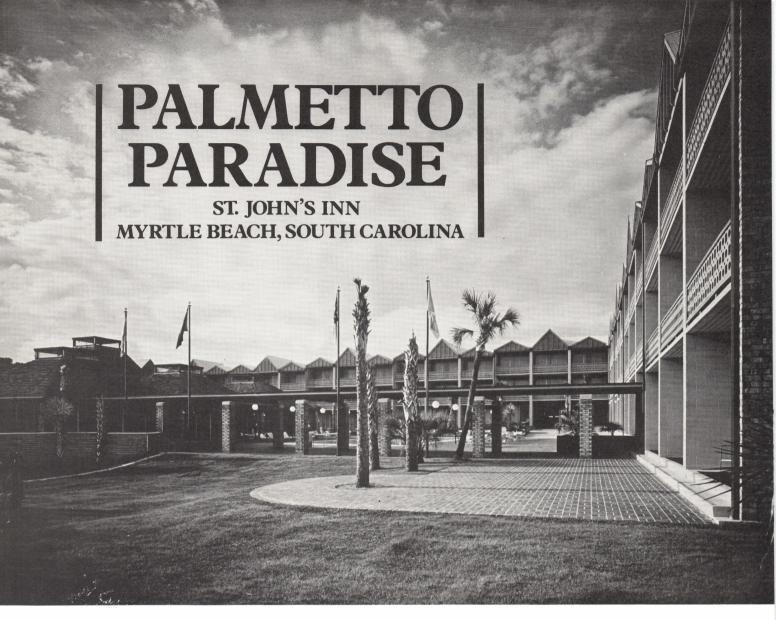
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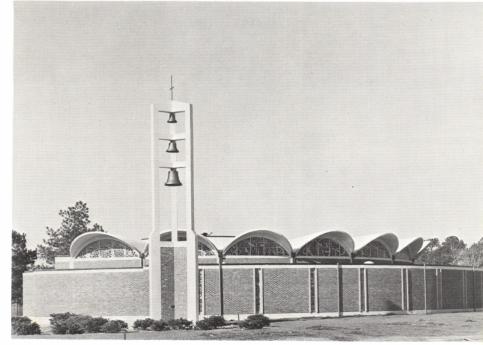
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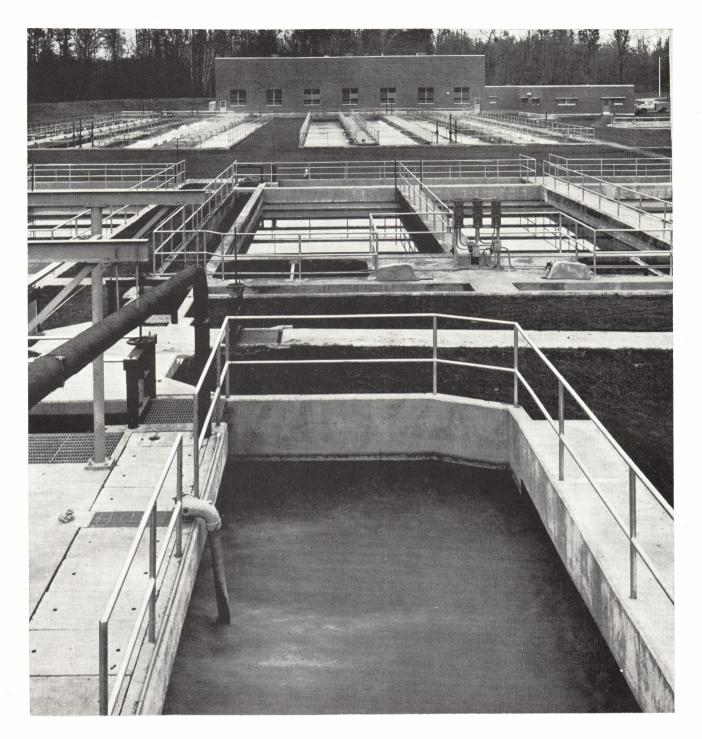
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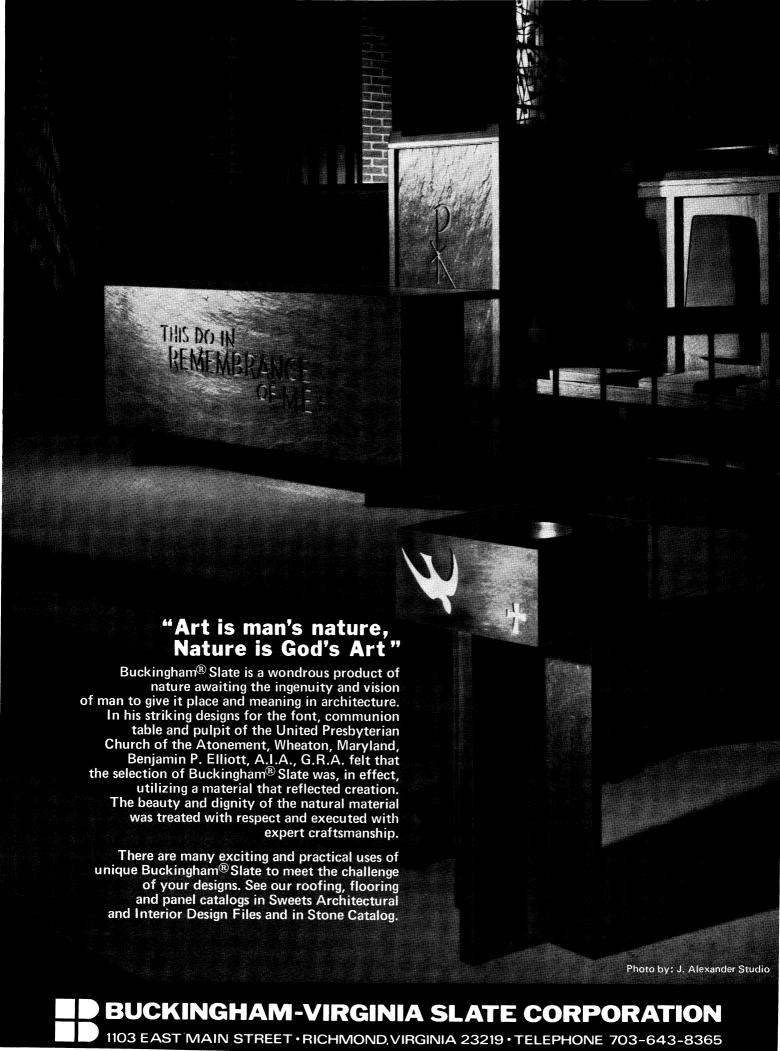
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PART II

ARCHITECTURE IN NORTH CAROLINA

1700-1900

Lawrence Wodehouse

After the Revolution, and an increase in westward expansion, it became obvious that New Bern was no longer a suitable central location for the capital. The General Assembly met at various towns throughout the state, and each legislature discussed the need for a permanent seat of government. The Hillsborough Convention of 1788 provided for the location of a capital situated within ten miles of the Isaac Hunter plantation in the newly established County of Wake. A petition brought to the General Assembly by Joel Lane in 1771 created Wake County from Cumberland, Johnston, and Orange Counties. During the Revolution the 1781 General Assembly met in the hills of Wake at the house of Joel Lane at Bloomington, and in 1788 they paid him 1378 Pounds for one thousand acres of land on which to build the town of Raleigh. The town was surveyed by

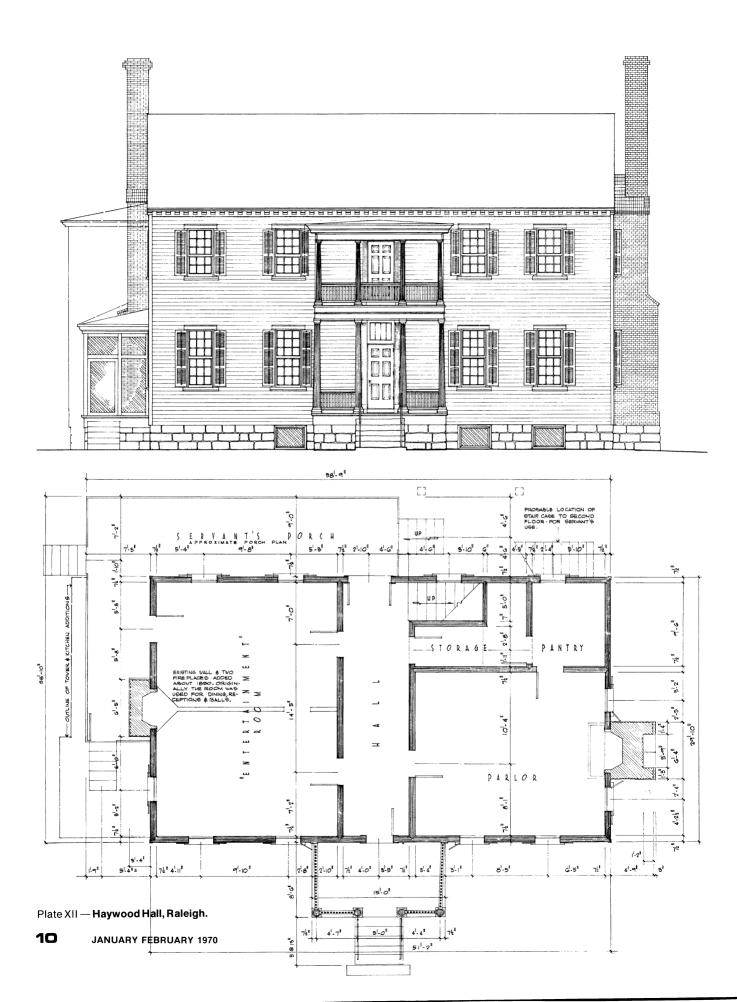
William Christmas in April, 1792. He designated a central square and four quadrants, each with its own square. This plan was rather similar to William Penn's plan for Philadelphia. Rhodham Atkins, a carpenter from Massachusetts, began the construction of a State House in the central Union Square in 1792, and within two years it was sufficiently complete to be used. One of the first houses constructed in Raleigh, and the oldest now standing, was begun in 1794 for State Treasurer John Haywood (Plate XII). It still stands as a dignified "double pile" on the north side of New Bern Avenue only two blocks from Union Square. The interior woodwork is quite refined. At the rear of the Haywood House are a series of outhouses and barns.

In 1800 the population of Raleigh had risen to 669; by 1820 there existed a large brick

Indian Queen Tavern, a Methodist Church (1808 and 1811), a public school (1810), a Baptist Church (1818), the 1818 Building of State Bank of North Carolina and an Episcopal Church (1820).

By 1818 the State house (Plate XIII) was considered too small, and Irvin Nichols Sr. and Jr. were employed to remodel and enlarge it. The capital was damaged by fire in 1830 and was destroyed in 1831. For the construction of a new building Ithiel Town, A. J. Davis, and David Paton were contracted to design the new structure; all were architects by profession.⁶

This is the period which produced the designer trained in architecture through apprenticeship. Whereas the architect of the eighteenth century designed within the limitations of rules of proportion and relied upon copy-



books of the leading designers in the field, the nineteenth century designer was liberated from antiquity by the Romantic Movement. This movement sought liberalism in form and subject matter, an emphasis on feeling and originality, and a sympathetic interest in primitive nature, mediaevalism, and the mystical. This love of nature and idealization of freedom spread from painting, poetry, and landscape architecture to all the arts. Even the work of the classicist designers evolved into a "Neo-Classicism" or "Romantic-Classicism," as it is more usually designated. Therefore, it is not surprising that the design forms resulting from the French Romantic-Classicists of the mideighteenth century, and Enalish Romantic mediaeval gothic revival of the late eighteenth and early nineteenth centuries were slowly introduced into America.

Thomas Jefferson was appointed ambassador plenipotentiary to Paris by Congress in 1782. On returning to Virginia he designed the capitol at Richmond, based upon the Madison Caree at Nimes, France. An English architect, Benjamin Henry Latrobe, a Romantic-Classicist apprenticed to C. R. Cockrell, later helped Jefferson to design the University of Virginia. The simplicity of form of these buildings is reflected in many public buildings throughout America today.

A typical example of Romantic-Classicism in North Carolina is the Wilmington Public Library (Fig. 20), built by John Allen Taylor in 1840 as a residence for himself. It is a two-story building constructed of pressed brick and covered with a veneer of marble. The form is of a simplicity uncommon in the Victorian era, having a series of horizontal and vertical intersecting planes completely devoid of ornament.



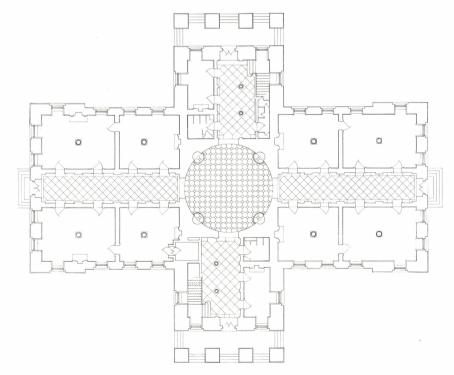


Plate XIII — North Carolina State Capitol, Raleigh.

Even the balusters of the balcony above the main entrance are cylindrical without the usual series of moldings and bulbous shapes. Another building in the classical tradition, but with a simplicity reminiscent of the work of the Adam Brothers in England, is the Masonic Temple in New Bern (1808).

Jefferson's collaborator, Latrobe, who designed part of the nation's capitol, built one structure in North Carolina. Major Daniel M. Forney, United States congressman representing North Carolina, met Latrobe in Washington and invited him to design a mansion for him on the Forney tract in Lincoln County, established by his Huguenot grandfather, Jacob Forney, in 1752. "Ingleside" (Plate XIV), as the house was named, dates from 1817 and is dominated by a two-story portico of lonic design.

William Strickland, a pupil of Latrobe, planned several notable buildings for the federal government. He designed many buildings in Philadelphia, including the Exchange, completed in 1834. The following year he was given two federal commisssions, one of which was a Branch Mint (Fig. 21), for the city of Charlotte. It was destroyed by fire in 1844 but rebuilt two years later according to the same T-shaped plan. Although it has a symmetrical facade with a large pediment over the central bay, it is severely Romantic-Classical. The stucco walls on the piano nobile level above the stone basement are panelled with wall bands and, despite a frieze at the eaves level, the structure is of the utmost simplicity. Only the two Doriccolumns of the portico betray a reliance upon antiquity.

Orange County Courthouse in Hillsborough, built by Captain John Berry of Hillsborough in

1845, has a Doric columned portico of four columns instead of the usual six. Captain Berry (1798-1870) was typical of the local builder who turned to design. His work reflected that of many of the more famous architects-Richard Upjohn and A. J. Davis working in the state, who were equally at home designing in the style of any period. Berry was able to design the Hillsborough Methodist Church in Greek style, the Baptist Church in early Romanesque, and St. John's College, Oxford, in an eclectic style, with three Islamic domes and gothic windows. "Sans Souci" several other houses in Hillsborough are attributed to him and, like the courthouse, imitate many of the designs found in the builders' copybooks of the period. These copybooks were written by such men as Minard Lefever, Asher Benjamin, and Alexander Jackson Davis, Davis published his "Rural Residences" in 1837.7

Another Jeffersonian structure similar to the courthouse at Hillsborough is the 1857 Rowan County Courthouse (Fig. 22) in Salisbury with a Doric portico and large windows to light the interior. Northampton County Courthouse (Fig. 23) at Jackson, built in 1859, has lonic columns and a grand flight of steps to the portico as in the Roman prototypes.

A. J. Davis designed Smith Building, now the Playmakers Theatre (Plate XV), on the campus of the University of North Carolina at Chapel Hill in 1849. The form of the building is Jeffersonian, and the corner capitals, a free adaptation of the Corinthian order, reflect the work of Jefferson's collaborator Latrobe, who designed similar capitals for the extension to the Capitol in Washington. John Berry of Hillsborough was the contractor for the building.



Fig. 20



Fig. 21



Fig. 22

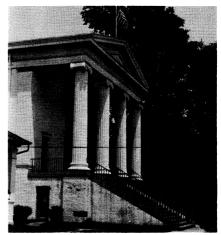


Fig. 23



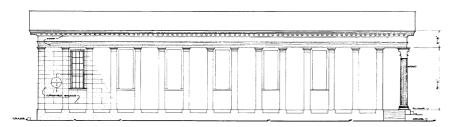
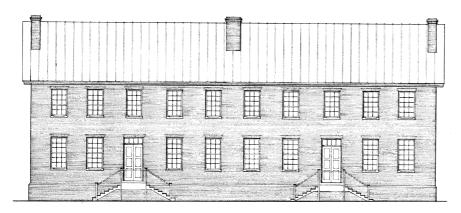


Plate XV — Smith Hall, U.N.C., Chapel Hill.



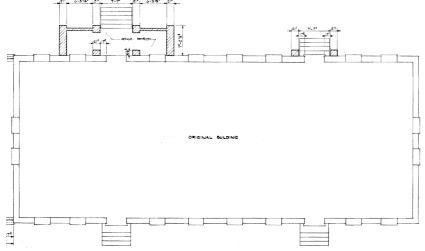


Plate XVI — Old East, U.N.C., Chapel Hill.

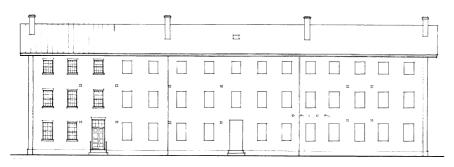


Plate XVII — Old West, U.N.C., Chapel Hill.

Earlier buildings at the University of North Carolina include Old East (Plate XVI), the first building on the campus, dating from 1793, designed by the "mechanic," James Patterson. Old West (Plate XVII) was, built by Captain William Nichols in 1822. Nichols was appointed state architect that year. The firm of Town and Davis designed the addition to Old West in 1843.

A. J. Davis, a partner of Ithiel Town, from the year 1829, designed several buildings of differing styles in North Carolina. He received \$170.00 probably remuneration for the general design and layout in 1860 for drawings of Davidson College. C. E. Walker, who was paid \$1000.00 by the College, was probably the architect and designed the individual buildings and supervised their construction. The Eumenean and Philanthropic Halls constructed in 1849 and 1850 on the Davidson campus. have two-story porticos with staircases incorporated into the porticos similar to some of the villas of Palladio. The brick walls are divided into bays by simple pilasters and reflect a careful articulation of design elements.

Slightly earlier in his career, A. J. Davis, of Town and Davis, was responsible for the coordination of the design of the state Capitol in Union Square, Raleigh. The original State House begun in 1793, only one year after the establishment of the capital in Raleigh and designed by Rhody Atkins of Massachusetts, was completed the following year. It was in a dilapidated condition by 1818, and after a small fire in 1830, it was burned to the ground in 1831. Both houses of the legislature authorized the rebuilding of the State House in the same design as its predecessor and set up a commission for its construction. Captain William Nichols and his

son, of Alabama, who had suggested a Georgian style remodelling of the original brick structure, began the reconstruction of the new State House out of granite from a local quarry. After considerable expenditure and suggestions of underhanded dealings on the part of the Commissioners leading to their resignation, William Nichols, Jr. was replaced by Ithiel Town of New York, who had studied architecture under Asher Benjamin. Davis was in charge of the design and David Paton, a young Scotsman who had trained under Sir John Soane in England, was the supervising architect for construction on the actual site. The services of Town and Davis were dispensed with in 1834. Paton continued as supervisor and before his dismissal in 1840, produced 229 detail design drawings for the building. The Capitol as it stands today, unaltered by succeeding generations, is a pleasant building of cruciform plan with a unity of design that one would hardly expect with so many designers engaged in its construction. The House of Representatives and the Senate Chamber, situated in the east and west arms of the plan, lead directly off of the cantilevered granite balcony within the rotunda. All detailing is classical except for one or two small rooms with simplified form of gothic woodwork.

Davis designed the State Hospital for the Insane in 1848, but only the Jeffersonian courthouse-like entrance portion remained until recently. Davis also received several minor commissions from the state. One example will suffice to illustrate the eclecticism of this architect who exemplified his age. Although a Greek-revivalist in his public buildings, Davis usually used Italianate detailing in his residences. "Montrose," the home

of William Alexander Graham in Hillsborough, was of the New Bern type plan with a hall the full length of one side of the house. Davis proposed a central hall, an octagonal library, and bay windows, all added on to the front of the New Bern form, reducing the rooms of the original building to minor rooms at the rear of his new creation. He made two perspective sketches, one showing the house with overhanging bracketed eaves in the Italian mode, the other with pointed arches and castellated battlements of a mediaeval English manor. The Davis remodelling was never carried out.8

The primary roots of the Modern Movement are the introduction of new materials and the effects of mass production of the Industrial Revolution, Romantic-Classicism, and the Gothic Revival.

The mass produced cast iron structures built as a result of the Industrial Revolution are almost nonexistent in the state. The large warehouses built along the waterfronts of Baltimore, Philadelphia, New York, and St. Louis were not needed in the ports of a state whose economy was based upon agriculture.

The Gothic-Revival was another matter. This style, which had its roots in the poetry, painting, and landscape of England was introduced into North Carolina. Horace Wapole, the sophisticated dilettante of Twickenham, England, built a playhouse ("Strawberry Hill") in which he reflected the playful use of Gothic forms prior to the purification evolving with the Gothic Revival of the 1840's. There also existed a continuing Gothic tradition of the mastermason, especially in the country districts of England, which had never outgrown the needs of the Mediaeval period. It is, therefore, the playful-Gothic and the tradition of the Middle Ages which

appear in the early Gothic-Revival buildings in North Carolina prior to the period of Richard Upjohn. Upjohn was the American counterpart of the English purifier Augustus Welby Northmore Pugin.

St. John's Episcopal Church in Fayetteville (Fig. 24) was "built something in the Gothic" in 1817. It burned in 1831, but was rebuilt with its original walls in the Gothic Revival style. The multiple spires on the twin towers of its facade give the structure a theatrical appearance like the engravings of Henry VIII's Field of the Cloth of Gold. St. Matthews Church in Hillsborough, built in 1824 by the local builder Captain John Berry, is picturesque and related to the playfulness of the early Gothic-Revival.

Thomas U. Walter, famous for his designs of the facade and the dome of the nation's Capitol, was typical of the architects of his day and age. He used classical forms for governmental, banking, and public buildings and Gothic forms for religious architecture. He designed two churches in North Carolina: St. James in Wilmington (Plate XVIII) constructed in 1839 and the Chapel of the Cross in Chapel Hill built in 1842. Both have an array of Mediaeval motifs; both have tall pointed windows of the Decorated Period and tower buttresses. There are square-headed windows the chapel in Chapel Hill and castellations that are rather Tudor in feeling. Both have decorative arches above their entrances which gives the facades a rather flamboyant appearance.

An English immigrant named Richard Upjohn carried the banner of a purer Gothic Revival from the writings of A. W. N. Pugin to the United States. Before discussing his contribution to nineteenth century design, it is well to examine the religious movements of the period to which

the Gothic forms of architecture were adapted.

The Church of England, an established church with Tory clergy, did not fit into the free democratic society of North Carolina in the late eighteenth century. Quakers and Moravians were pacifists who did not contribute to the fight for freedom, but their service to the wounded was commended by the leaders of both sides. Methodists remained loval to the mother country during the cause The Presbyterian for freedom. Church was split between the loyalist Highlanders and hostile Scots-Irish.

In 1700 the population of the state was an estimated 5000 persons. By 1800 it had grown to a hundred times that number, and throughout each successive decade of the nineteenth century an average of more than 100,000 persons were added. Poverty, transportation difficulties, and the small number of ministers prohibited the gathering together of people of a similar faith.

The Protestant-Episcopal Church founded in Philadelphia in 1789 was not established in North Carolina until 1817 when the Reverend John Stark Ravenscroft became first Bishop of the Diocese of North Carolina. In 1830 there were thirty-one Episcopalian congregations, mostly in large towns, served by eleven ministers.

Richard Upjohn, architect of Trinity Church, Broadway, New York, was invited to design Christ Church (Plate XIX) on Union Square in Raleigh in 1848. It is of the Early English Gothic period in style and typical of churches built in the areas of mediaeval England where stone was plentiful. The leaders of the mediaeval-Gothic Revival believed in this traditional approach. Windows are tall and narrow "lancets," a type common before the development of tracery in the Decorated

and Perpendicular periods of mediaeval Gothic. The broach spire reflects this tradition in its stone construction. Upjohn also designed Grace Church (Fig. 25) in Plymouth, Washington County (1859-60).

Although Upjohn was a professional architect, founding member, and first president of the American Institute of Architects. he also catered to the small rural congregation, which could not afford either professional services or sophisticated design, by publishing and writing "Upjohn's Rural Architecture" in 1852. It was intended for small, poor country parishes which were usually compelled to build in wood using local craftsmen and labor as a "free will offering." If the congregation could raise about \$3,000 for materials and \$5.00 for the copybook, they could have a pleasant building with a capacity of 150 people. As an alternative, they could build a church of a simple box design for as little as \$900.

A frame chapel, which followed one of the copybook designs, can be found on the campus of the Episcopal School for Young Ladies established in Raleigh in 1842 and acquired by the Episcopal Church in 1897. St. Mary's Junior College, as it is known today, has a chapel constructed in 1854 by Mr. Cameron from designs by Richard Upjohn. The chapel measures 24 feet by 53 feet. A certain amount of remodelling, including the addition of two transepts, was done in 1905. The strips of vertical boarding bands look well with the narrow lancet windows. A hooded canopy is over the entrance, and the cartwheel "rose" hexagonal window dominates the south facade. Several other examples of small wooden chapels existed, but they are not necessarily based upon Upjohn's designs. St. Am-

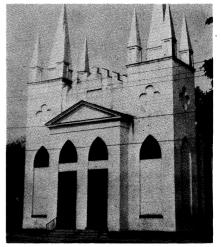


Fig. 24

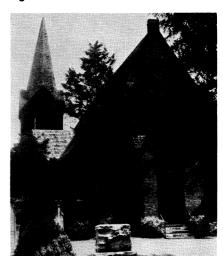


Fig. 25

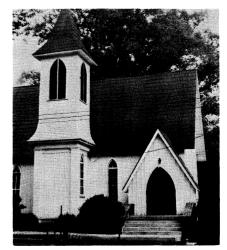
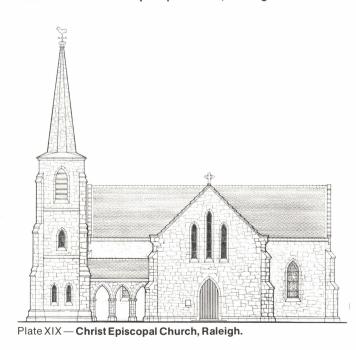
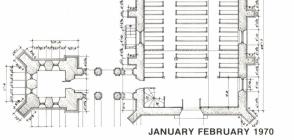


Fig. 26

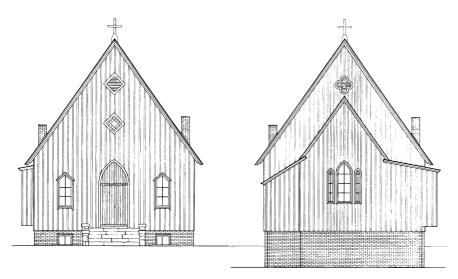


 ${\it Plate XVIII-St. James Episcopal Church, Wilmington.}$





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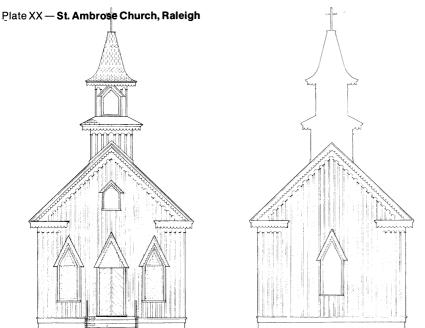


Plate XXI — Grace Episcopal Church, Trenton.

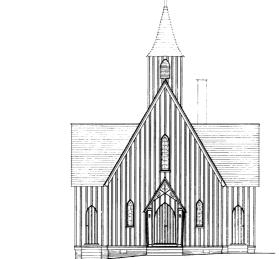


Plate XXII — St. Mark's Episcopal Church, Halifax.

brose Episcopal Church (Plate XX) on South Wilmington Street in Raleigh was set up by churchmen connected with St. Augustine's School and ten men from Christ Church in 1868. Many other towns have these carpenter's Gothic chapels; at Burlington in Alamance County is St. Athanasius Episcopal Church built in 1879; Beaufort, Carteret County, St. Pauls Episcopal Church in 1857; Trenton, Jones County, Grace Episcopal Church (Plate XXI) in 1885, a decorative little church with tower and spire over the end gable, and St. Marks Episcopal Church (Plate XXII) in 1854, Halifax, an early simpler version with tower.9

The window heads of the Trenton Church are triangular, and the decoration is quite playful, especially the corbel table of small arches which terminate the pattern of the vertical boarding. Weeksville in Pasquotank County has a chapel with an octagonal side tower, but the most ornate of these essentially simple buildings is St. John's (Fig. 26) in Marion, in McDowell County, with a shingle roof and a tower which splays out at the eaves' level above a panelled base.

In the sphere of religious activity the period from 1800 to 1860 is usually termed the Great Revival. During this period the Methodists, who had made a bad start by criticising slavery, soon changed sides and by 1860 had 61,000 members in some 966 essentially rural congregations. They emphasized religious reform, prayer, humanitarianism, education, and camp meetings. Rural Methodists gathered together at an encampment of "wooden tents" and listened to inspired orators preach the word. Pleasant Grove Methodist Camp Ground (Plate XXIII), in Union County, is typical of many of these camp grounds. It has a large square of huts or

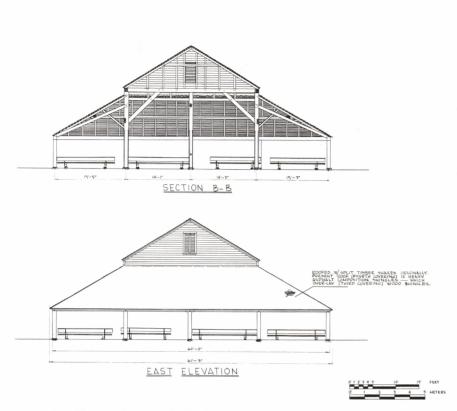


Plate XXIII — Pleasant Grove Methodist Campground Arbor, Union County.

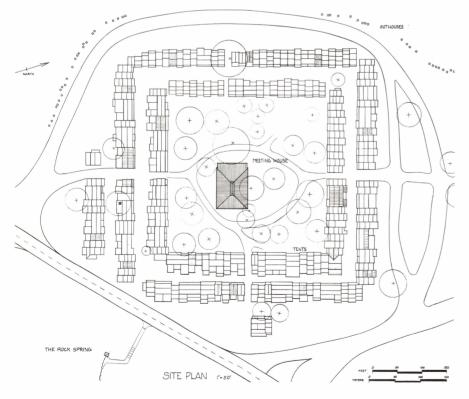
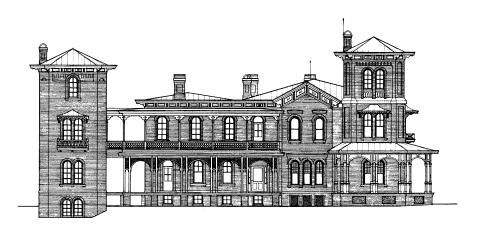


Plate XXIV — Rock Springs Campground, Lincoln County.

"wooden tents" surrounding an arbor under which the meetings were held. The arbor usually consisted of a large pitched roof. similar to a tent with open sides except for wooden supports for the roof structure. Surrounding the square would be a spring for water, horse and cow pens, and various outhouses. The Rock Springs campground (Plate XX-IV) exists near Denver in the northeastern corner of Lincoln County. North of Lincolnton towards Maiden is St. Matthew's Church Arbor built for the Reformed Church whose members were generally opposed to camp meetings, especially of the revival type promoted by the Baptists and Methodists.

Upjohn's "Rural Architecture" provided the basis of design for local carpenters. Similar copybooks, concerned with the design of residences, were written by A. J. Davis and one of his close associates. Andrew Jackson Downing. Illustrations from these books reflect styles of building from a number of countries throughout the world. The various styles of the English mediaeval period produced quite a wide choice of fashionable forms; there were styles from almost any Medi-Suburban terranean country, Greek, Spanish, Moorish, Etrusand Palmyran suitably adapted to local use. However, it was Italian Renaissance forms. especially of Tuscany or Lombardy, which appealed to the taste of most Americans, usually a wooden version of the Italian villas constructed originally of stone, marble, and stucco.

Wilmington, the largest city in the state until 1910, perhaps has the most varied collection of such villas. These appear along avenues lined with oaks, maples, and magnolias, situated between Second and Fifth Streets. Detailing varies from house to house, but



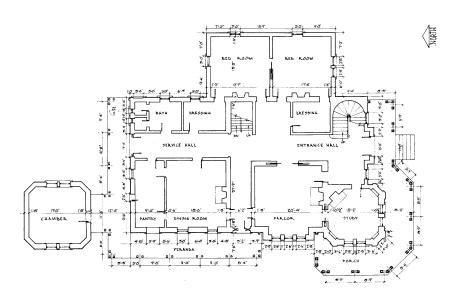


Plate XXV — Rufus S. Tucker Residence, Raleigh.

generally they have wide overhanging eaves supported with large ornate brackets. The windows, either square-headed or round-headed, like those of the early Italian Renaissance, have frames, pediments, or overdecorative Mannerist moldings usually made of painted cast iron. Sometimes these window mouldings and eaves brackets are painted in contrasting colors to offset the somber and serene flat colors of the walls which act as a backdrop. A deep frieze is usually situated below the eaves or integrated with the brackets; this sometimes includes attic windows, surrounded by wreath-like decoration, used for ventilating the roof space of the building. Porticos with columns in the form of free adaptations of the classic orders usually run along at least the front of the house. Balustrades and wrought iron railings span the spaces between the columns around the porches.

Many examples can also be found in New Bern, Raleigh, or Salisbury, towns which expanded appreciably during the latter half of the nineteenth century. The Tucker Residence (Plate XXV) formerly on St. Mary's Street in Raleigh, designed by William Percival, had many additions, but the early bulky form of the Italianate structure with its wide tower furnished a cool retreat with a view.¹⁰

Less Italianate and more Grecian are the more symmetrical country villas such as "Cherry Hill" (Fig. 27) in Warren County or a later house called "Casine" in Franklin County.

In the western part of the state at Flat Rock in Henderson County there is an Italianate church by Charles Baring called St. John in the Wilderness (Fig. 28). It consists of a simple gable-ended chancel, a stubby tower, a pyramidal roof, and a large overhang. It was started as early as 1834 by

summer residents from Charleston and Savannah, and the Italianate details date from 1854.

Prior to the Civil War another plan form became popular, especially in New York State. This plan came from a book published by O. S. Fowler in 1854 entitled A Home For All, or the Gravel Wall and Octagon Mode of Building, New, Cheap, Convenient, Superior and Adapted to Rich and Poor.11 Fowler suggested the octagonal house because, with the same perimeter wall area as a square house, the owner gained twenty percent more area internally. However, most of the rooms have triangular plans and are difficult spaces in which to arrange furniture. New York still has well over a hundred such buildings, some with surrounding porches and others in the cobblestone style of the Finger Lakes Region. The plans for these octagonal houses are sometimes ingenious. It is usual, however, to have a hall from front to rear incorporating a staircase with a square room on either side and four triangular rooms in the corners with access either directly from the hall or indirectly from the hall or indirectly from the square rooms. Such structures were not constructed in any large number in North Carolina. One exists in the region of Lake Mattamuskeet in Hyde County and another, the "Jones Place" (Fig. 29), just east of Swansboro in Carteret County, dating from 1856.

After the Civil War, Italianate houses took on a different appearance with the admixture of the French Beaux Arts Second Empire style. Such houses had steep mansard roofs pierced with dormer windows and bulbous, concave, or convex towers instead of the earlier low pitched roofs rising from the bracketted eaves. Those built immediately after the war were usually termed General Grant Style.

Two Raleigh contractors, Thomas H. Briggs and James Dodd, incorporated Briggs and Dodd Hardware Company, and in 1874 designed the Briggs Building (Plate XXVI) located on Fayetteville Street. Still used as a hardware store, it is the only storefront of this period remaining untouched by later generations. Briggs also designed the A. B. Andrews House (Fig. 30) on the southwest corner of the intersection of North Blount and East North streets. This house illustrates the addition of French design, especially in the convex and concave bulbous roofs, to the Italianate forms of the lower storys. In 1875 Dodd designed and built a house (Plate XXVII) for himself on the northwest corner of Hillsborough and Harrington streets. Shortly after it was completed he was forced to sell it; and in 1889 it came into the possession of the Hinsdale family. the present owners, who still own it. It is not as ornate as the Andrews House, but has all the characteristics of the period, including rather Mannerist columns and brackets on the front porch. Similar to this house are three smaller but equally pretentious wooden structures built by three brothers, one of the houses is named the Captain Lee House on the northeast corner of North Jones Street and East North Street in Raleigh.

If Wilmington is considered the home of the early Italianate Villahouse and Raleigh the home of the later forms, Warrenton is the home of the so-called Greek-Revival residence. This type of residence is essentially an axially planned house with a symmetrical Georgian facade incorporating, however, both a Greek portico and general detailing. The influence ultimately came from Romantic Classicism and books such as Stewart and Revett's



Fig. 27



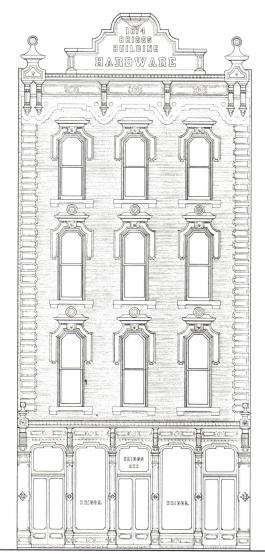
Fig. 28



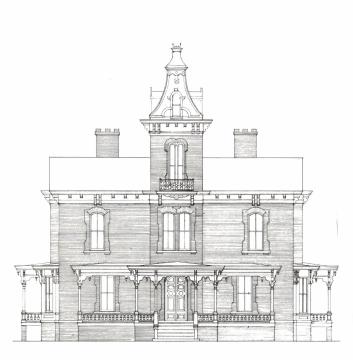
Fig. 29

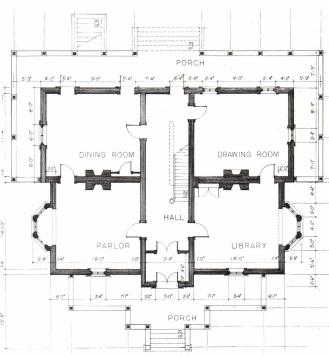


Fig. 30



 ${\sf Plate\,XXVI-Briggs\,Hardware\,Store,Raleigh.}$





 ${\it Plate\,XXVII-Hinsdale\,House,Raleigh.}$

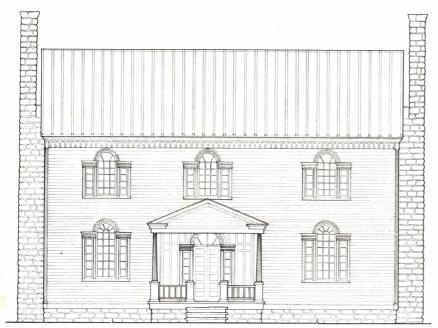


Plate XXVIII—Old Collin's Place, Franklin County.



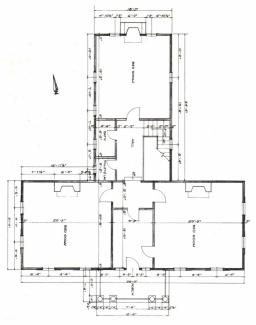


Plate XXIX — Mordecai House, Raleigh.

Antiquities of Athens (1762) and various other copybooks which included advertisements such as Works in Architecture of Robert and James Adam (1773). The dozen or so dwellings of this type in Warrenton reflect the influence of the Coleman-White-Jones House remodelled in 1840 by Captain W. J. White. It is of wood construction with pairs of large external brick chimneys at either end. The house has a refined detailing based upon the free adaptation of the so-called "Palladian motif." The Mary Burwell Parsonage of 1843 on Main Street in Warrenton has a similar character, especially in the Doric frieze at eaves' level. However, the single-story portico has brackets of a more Italianate character.

Greek Revival residences of this type can be found in the vicinity of Warrenton, especially to the southwest towards Louisburg and south from there towards Raleigh. Many of the structures are in a poor state of repair today. Between Centerville and Louisburg is the Old Collins Place (Plate XXVIII) which also has the "Palladian motif" repeated on all five windows and the central entrance of the main facade. The design has been well handled, although the Palladian motif has been used as an overall decorative form instead of as a note of emphasis in the centre of a symmetrical facade as is usually the case.

"Midway Plantation" near Raleigh is constructed in a style similar to the Warrenton Greek-Revival style. In Raleigh however the two-story portico predominates and reflects the influence of the brick State Bank (later Christ Church Parsonage) built on New Bern Avenue in 1818. The Mordecai House (Plate XXIX), most of which dates from 1824, is similar to the bank although of wood frame construction. The



Plate XXX — Cooleemee Plantation, Davie County.



Plate XXXI — Bellamy Mansion, Wilmington.

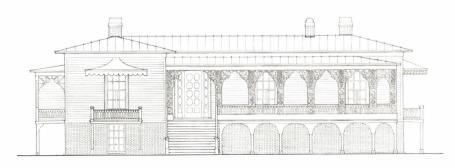


Plate XXXII — Verona, Northampton County.

ground level columns are Doric and the second story are Ionic. The Lewis House at 515 North Wilmington Street is also similar, but with the added incongruity of an Italianate bracketted as well as a modillioned cornice and pediment.

Godey's Lady's Book for January, 1850, illustrated an Anglo-Grecian Villa, adapted by Major Peter W. Hairston, in 1856, in the house on his 12,000-acre plantation near Mocksville in Davie County. Hairston named his conglomerate pile of Romantic and Classic features "Cooleemee" (Plate XXX). It has bay windows extending the interior out into nature, an Italianate cupola, a classical frieze, cornice, pediments, Ionic porticos, and pairs of round-headed Romanesque windows.

Had North Carolina not been "disloyal" in 1861, it would have prized several buildings in the Greek tradition by Ammi Burnham Young, who held a post equivalent to that of federal architect from 1852 to 1862. He designed the Naval Hospital at Wilmington, which, after a variety of uses, was torn down following the Second World War. In its place, a more Italianate design by federal architect A. B. Mullett was built in the 1870's. 12

So far, the main movements of the nineteenth century resulting from the Romantic Movement have been analyzed. The Gothic Revival, found chiefly in religious buildings and a few residences, and the Classic and Greek Revival. with Italianate detailing in the design of villas, have also been discussed. There are, however, many examples of the eclectic forms of the Victorian period, a period of the "battle of the styles," throughout the state which reflect a number of other historic periods and styles as well as regional forms.

The Louisiana style house surrounded on all four sides by a colonnade and crowned with a single roof instead of the usual Beaufort shed roof is not too common in North Carolina. One dilapidated house of this type exists in Pender County about eighteen miles north of Wilmington on US 117. Also, the Bellamy Mansion (Plate XXXI) in Wilmington, although over decorated with Victorian details, has the character of a Louisiana plantation. In Northampton County about six miles east of Garysburg on US 158 stands Mowfield with its slender columns, stepped out frieze, and modillioned cornice. It has a colonnade covered by the main roof along only one side. Across the road stands Verona (Plate XXXII) (1857), a low lying Gulf Coast villa with geometric gingerbread decoration on the porches.

Flemish Renaissance forms were introduced in two almost identical county buildings, the Sheriffs (1831)in Jackson, Northampton County and the Clerk of Courts Office (Plate XXXIII) (1832) in Halifax, Halifax County. Both have stepped gables. and the Halifax office has tall spiky pyramidal forms on each step of the gables. They both have a plaster cove moulding at the eaves and identical stone lintels above the doors and windows.

Dutch Renaissance form is represented by the Gaston County Courthouse (1848) at Dallas, Gaston County with stairs leading up to a central entrance on the main upper level. More Dutch in feeling is the Fayetteville Market House, (Plate XXXIV) which is typical of the butter-houses and custom-houses which dominate many of the towns in Holland. Designed in 1838 as a market house for the sale of meat and produce, the Fayetteville Market has an arcaded selling area at



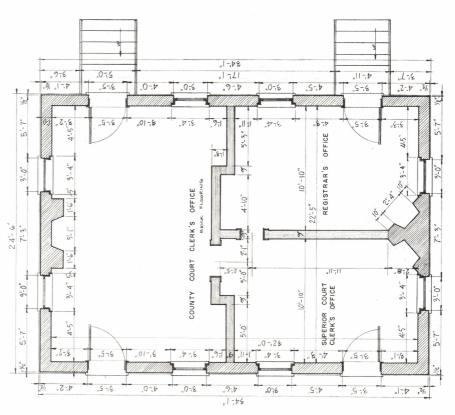


Plate XXXIII — County Clerk's Office, Halifax.

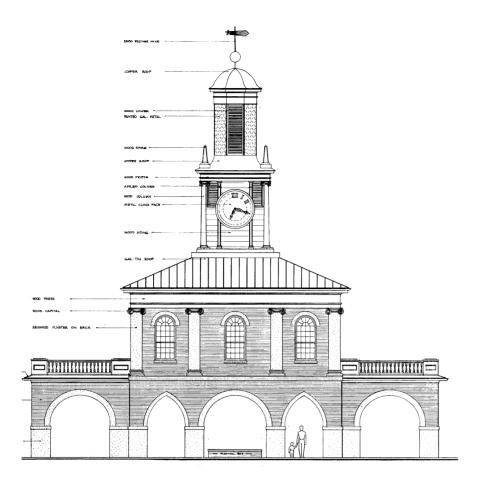




Fig. 31

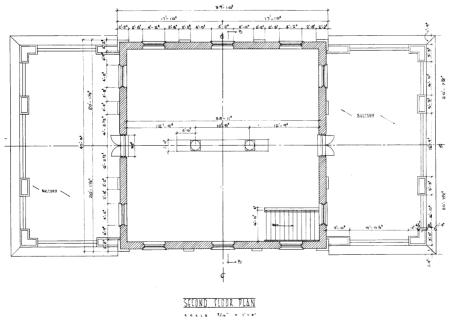


Fig. 32

Fig. 33

 ${\bf Plate}~{\bf XXXIV} - {\bf Old~Market~House, Fayetteville.}$

Fig. 34



Fig. 35



Fig. 36

ground level with offices above the roof which is surmounted by a clock tower, as are many of the European predecessors of this American design.

Wilmington is the only town boasting a synagogue with onion domes and horseshoe arches reminiscent of Islamic architecture.

The British Government offices at the Centennial Exhibition in Philadelphia (1876) introduced to the American scene the halftimbered old English cottage in Queen Anne style with a flavor of Gothic. Adopted to the American form of construction, it became the "stick style." It even encouraged America to look back to her own tradition of the coloperiod and incorporate simple rustic motifs into the design of the 1880's. Characteristics of this style varied from state to state, but generally the verandahs were of wood whether the walls behind them were of brownstone or of polychromed brick; the roofs were slated or shingled. Such houses tend to be large and rambling with huge central halls, ingle nooks, bay windows, and imaginative hips, gables and turrets in the roof design. New Bern and Washington (Beaufort County) have one or two examples of this style (Figs. 31 and 32), but they are in poor condition. In order to find a wellpreserved example it is usually necessary to look to the great institutions which have maintained the structures in a continuous state of repair. The Governor's Mansion (Fig. 33) in Raleigh is a case in point. Here, the commissioned Samuel Sloan, an architect from Philadelphia, the fountain-head city of the Queen Anne style in America. Sloan brought his young assistant, Adolphus Gustavus Bauer, to Raleigh, and together they designed this noble Governor's Mansion. It is not as ornate as other "stick style" structures having a reasonably plain fretwork on the porches. The most decorative elements are the turned support columns on the porches. In New Bern and Washington, the better examples of this style have halftimbering on the gables, cartwheel-like motifs in the corners of the porches, and doily-like edging. One cottage in Murfreesboro has silhouette cut-outs of men in the porch supports (the reverse of pastry gingerbread men).

Much of the work of Frank Lloyd Wright developed from the late nineteenth century. One small house (Fig. 34) in Rockingham has the Wright characteristic of the low lying form with a shallow-hipped roof extending out into the landscape.

Paralleling the "stick-style" is the Romanesque Revival Movement, a logical continuation of the Gothic tradition. Its great protagonist was Henry Hobson Richardson, whose influence extended to the smallest brownstone structures in the smallest town. Salisbury's First Presbyterian Church (Plate XXXV) is slightly more eclectic than is normally expected in the Romanesque vogue. It was constructed predominantly of brick with brownstone detailing around the doors and windows. Much of the craftsman tradition of carefully executed handwashed wood and stone forms can be seen in this church. Biltmore Village in Asheville, subsidiary buildings (Fig. 35) on the Biltmore Estate. and All Souls' Episcopal Church (Fig. 36) in the village all have similar Richardsonian characteristics but with a far more English flavor paralleling the early work of Sir Edwin Lutyens in England. All Souls' is very similar in massing to Richardson's Trinity Church in Boston.

Richard Morris Hunt was the

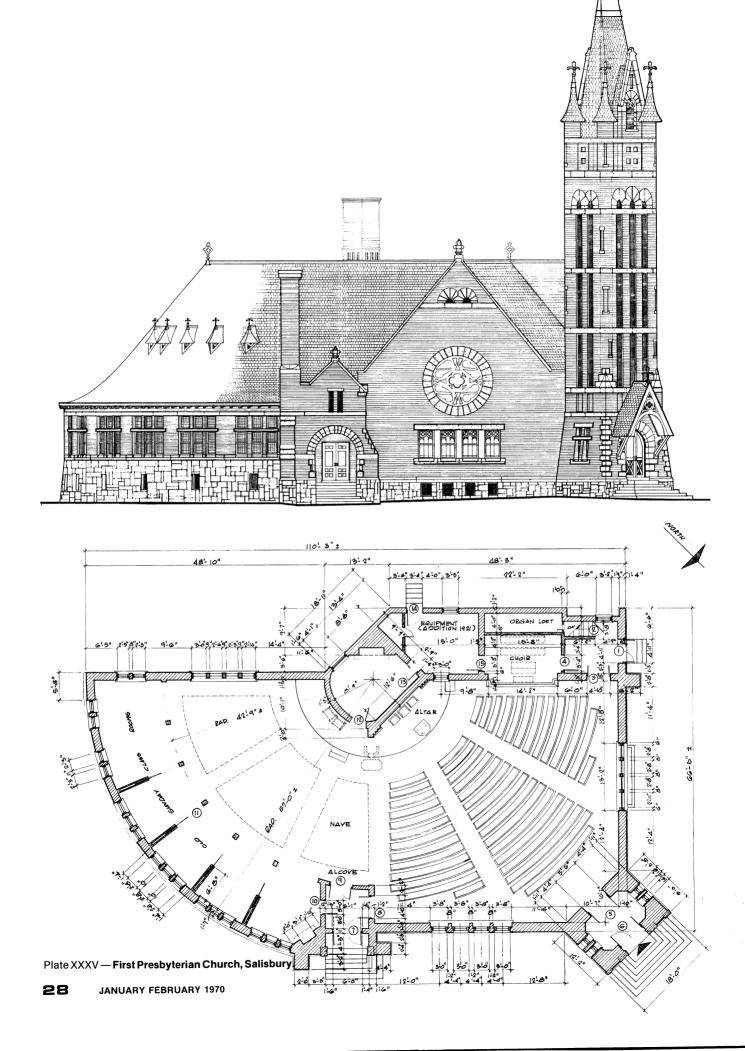




Fig. 37



Fig. 38

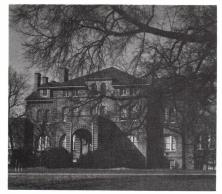


Fig. 39

architect of George Vanderbilt's Biltmore structures; Frederick Law Olmstead was the landscape architect and Chauncey D. Geadle the landscape engineer. Hunt was the first American to attend the Ecole des Beaux Arts in Paris, where after graduation he worked for Lefuel on the Bibliotheque du Louvre.

Therefore it is not surprising that when Hunt returned to America, in the late 1850's, his work was influenced by his knowledge of French architecture. At Biltmore he erected a huge pile reminiscent of the early French Renaissance style of the Loire Valley chateaux built by Francis I. The dominant feature of the main facade is the staircase taken from the chateau at Blois. Many interior spaces and supports are reminiscent of the schemes of Viollet-le-Duc who attempted to translate the structural principles of the Gothic period into cast iron, as illustrated in his Discourses on Architecture. Rafael Guastovino located in nearby Black Mountain, constructed and patented special assembly line kiln for brick tile construction for the floor structures at Biltmore. Guastovino used very shallow "Catalan" vaults of brick tiles, about two and a half inches in thickness. This form of construction was widely used at the end of the last century but soon died out. The system was also used by Guastovino in at least two Roman-Catholic churches which he designed: St. Mary's Cathedral in Wilmington constructed in 1906 in the Spanish Renaissance style, and St. Lawrence Church in Asheville (1909) which was in modified early Renaissance in style. In the latter church, the eliptical dome 82 x 58 feet in size. is constructed of three layers of woven brick tiles. Guastovino also contributed to the tile work in the Duke University Chapel in Durham.

One of Hunt's early apprentices was Frank Furness, who in turn became the master of Louis Sullivan. Furness' buildings in Philadelphia have a boldness which links the eclecticism of his predecessors with the originality of a body of architects, including Sullivan, called the "Chicago School." Furness did not build anything in North Carolina but, like Richardson, he had a certain amount of influence in the state. The Cooper Building (Fig. 37) of 1890 on Hillsboro Street in Oxford, Granville County, has some of the bold High-Victorian characteristics of Furness, as does the firehouse in Washington, Beaufort County.

Toward the end of the century several buildings in the modern idiom were being erected with the simple character of the Scandinavian style of the 1920's but predating that style by about twenty years. The railroad station at Salisbury (Fig. 38) is one such building. One or two eclectic motifs are still evident in this building but, generally speaking, the station is composed of simple geometric forms providing a total unity of design.

No discussion of North Carolina architecture would be complete without mentioning the utilitarian structures within the state which strongly reflect their function. The educational establishments housing agricultural laboratories and the technological machinery of the mechanical arts reflect this approach to simple and functional design. Industrial and military architecture has also reflected this simplicity in a functional approach.

The North Carolina State College of Agriculture and Mechanical Arts, now North Carolina State University, was established in 1889, Holladay Hall (Fig. 39) was the first structure and housed every function of the college. It

contained lecture rooms, offices, and temporary dormitories and had a chapel, a dining room, a kitchen, and a laundry in the basement. The architect was Charles L. Carson of Baltimore, who possibly had the same utilitarian attitude as Daniel Coit Gilman, first president of Johns Hopkins University in Baltimore. Gilman favoring utilitarian design stated; "when you do build, get an honest bricklayer, and make him build . . . first such rooms as you really want, leaving ample space for expansion."

This utilitarian approach was common to many industrial buildings springing up throughout the state at the end of the nineteenth century. Cotton mills and tobacco factories were simple, large brick structures devoid of decoration except for wall buttresses, concice tables, and sometimes a castellated parapet. These buildings were the result of expanding industrial concerns and reflected their financial growth.

The small farmer who cultivated a crop of tobacco and built one or two tobacco barns of simple, traditional log construction was not a part of this expanding economy. Agriculture did not regain its dominant role in the economy until well into the twentieth century. Thus the factory, with its technology and industrial processes, can be found cheek-by-jowl with the log cabin of an earlier tradition, but both were constructed for a similar utilitarian purpose.

All such buildings date from about the 1870's, but several industrial structures date back to the eighteenth century. They were primarily those structures dependent upon water power, the only source of power within North Carolina until the age of industrialization.

Samuel Pearson of New Bern built Yates Mill (Plate XXXVI) on

Lake Wheeler Road in Raleigh between 1748 and 1750. The present mill dates from the 1840's and has a wheel, twelve feet in diameter, for grinding corn, cutting lumber, and carding wool.

Wake County did not exist in the earlier period, and there were few houses and roads in the vicinity. Accordingly, raw materials were transported to the mill, and collected after processing, by boats or barges.

In Union County the Drury Morgan Grist Mill (Plate XXXVII) was the nucleus of all trading in the area and grew to a local trading center.

After the war in the 1860's wheat production never reached prewar levels because of the radically depressed agricultural system. Cotton, textiles, and furniture then became the primary industries and, in the 1870's, the production of chewing and smoking tobacco came into its own and established many fortunes.

Flu curing (as opposed to the slow natural drying process requiring more time and careful supervision) began about 1830 in North Carolina. It became extremely popular by 1880's because the small log barns employed in this process could be used twice during one curing season.

The tobacco barn is usually quite small as the time required to fill a larger barn could hazard the whole crop, especially if the leaves begin to wilt before the curing process takes place. After this heating or curing process the crop is placed in an ordering house for about six hours to replace the moisture in the dry leaves. The final processing takes place in the packhouse.

All these structures were originally of log construction but later developed into clapboard when the horizontal boarding could be satisfactorily sealed with bitu-

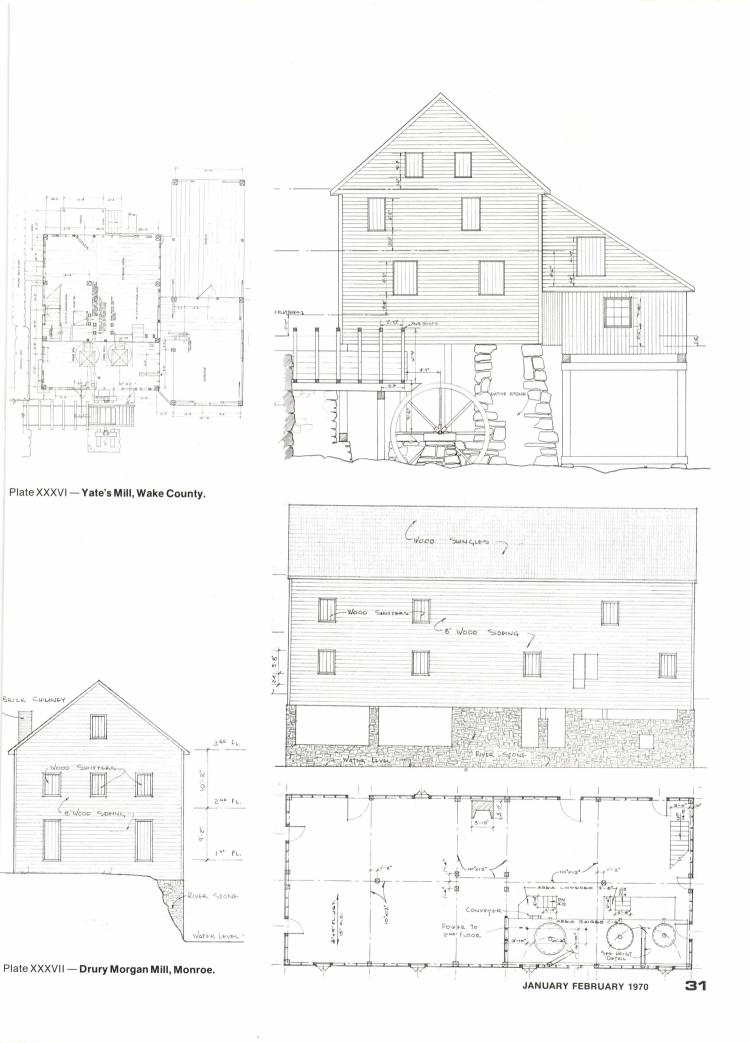
minous roofing felt. The "Old Young Place" in Franklin County has a good example of such a tobacco barn which dates from 1898.

The area north of Durham in Caswell, Person, Orange, and Durham counties still has many tobacco structures in reasonably good condition. About three miles out of Durham on the Roxboro Road stands a small log barn built in 1851, at the home place of Washington Duke. Returning from a northern prison after the Civil War, Duke began to use the log barn as a factory where he packaged his tobacco and printed the words, "PRO BONO PUBLI-CO" (for the public good) on the package.

Cotton presses were constructed throughout the state. Mules were hitched to the projecting arms of the presses which turned the screw to press and pack the cotton. An old press (Plate XXXVIII), built prior to 1850, existed on the Northfleet Plantation in Edgecombe County until it was moved to the Town Common in Tarboro.

Prior to the Civil War there were about thirty-nine cotton mills in the state; but despite an increase in cotton production after this time, there were fewer mills by 1870. Large masonry cotton factories, such as the Great Falls Mill (1876) in Rockingham, Richmond County, were constructed toward the end of the nineteenth century.

State railroads date from the early 1830's when a short line was constructed from the capitol in Raleigh to a nearby granite quarry where stone was quarried for the erection of that building. General construction of railroads was slow and neither they nor the early log roads, ever seem to have achieved the importance of water transportation until the closing years of the nineteenth century. Most towns of any size



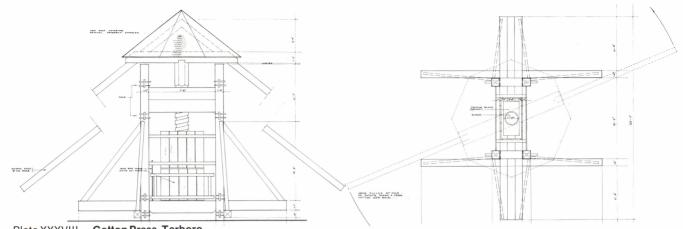


Plate XXXVIII — Cotton Press, Tarboro.

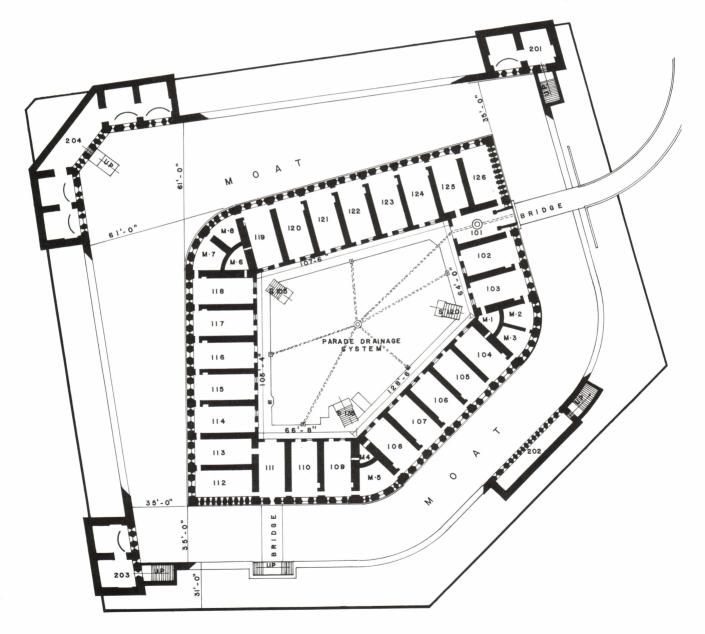


Plate XXXIX — Fort Macon.

have small railroad depots with wide overhanging eaves supported by wooden or cast iron brackets. Washington and Kenansville have large basilica church-like barns, but the large station is usually twentieth century building type.

Skillful military engineering endowed North Carolina with the large pentagonal brick structure known as Fort Macon (Plate XXX-IX). Built originally in the 1740's to protect Beaufort from Spanish invasion, it was rebuilt in 1828 and completed in 1835. It has barrel vaulted sleeping quarters, storage rooms, and dungeons. The entire structure is surrounded by a wide and deep moat.

The simplicity of form seen in industrial and military architecture returns to the functional needs of the early settlers of North Carolina. The log cabin is one of the early forms of domestic construction and also the prototype for the small tobacco barn. It reflects the indigenous character of an area where resourcefulness of a rural economy combined with available local materials in a subtropical climate to produce a logical vernacular of construction. Many of the houses described in this article were built and remodeled over several generations. Thus they have local character and are important to an understanding of the traditions and heritage of North Carolina. Few houses in this state can be compared to the wealthy plantation houses along the James River in Virginia or along the Ashley and Cooper Rivers near Charleston in South Carolina. Nevertheless, North Carolina has a distinct tradition which can be traced back to many sources. The influence of English architecture is exemplified by St. Paul's Church and the Chowan County Courthouse at Edenton and the Governor Tryon Palace at New Bern. Bermuda

and the Atlantic Seaboard states influenced the North Carolina coastal style, and Scots-Irish, German Lutherans, and Moravians introduced their own methods of construction, and integrated them with those already in existence in the areas in which they settled. An assortment of structures from various origins fused into a logical architecture, based upon local climatic, geographical, religious, and economic circumstances. The final product is a vernacular peculiar to North Carolina with an overlay of stylistic influences becoming most obvious with the battle of the styles in the Victorian era.

FOOTNOTES

⁶Cecil D. Elliott, "The North Carolina State Capitol," **Southern Architect,** V. No. 5, 1951, pp. 19-22, No. 6, pp. 23-26, and No. 7, pp. 24-27.

⁷Eva Ingersoll Gatling, "John Berry of Hillsboro, North Carolina," **Journal of the Society of Architectural Historians,** X, No. 1, (March 1951), pp. 18-22.

⁸John V. Allcott, "Architectural Development at Montrose' in the 1950's" North Carolina Historical Review, XLII, No. 1, 1965, pp. 85-95.

⁹Lawrence Wodehouse, "Upjohn's Rural-Architecture in North Carolina," North Carolina Architect, XV, No. 11, 1968, pp. 13-22.

¹⁰Lawrence Wodehouse, "William Percival, Architect, Raleigh, North Carolina," **North Carolina Architect,** XIV, No. 11, 1967, pp. 11-18.

¹¹John Maass, **The Gingerbread Age,** New York, 1957, p. 55.

¹²Lawrence Wodehouse, "Alfred B. Mullett's Court Room and Post Office at Raleigh, North Carolina," **Journal of the Society of Architectural Historians,** XXVI, No. 4, (December 1967), pp. 301-305.

BIBLIOGRAPHY

Allcott, John V. Colonial Homes in North Carolina, Raleigh, 1963.

Henderson, W. Old Homes and Gardens of North Carolina, Chapel Hill, 1939.

Johnson, F. B. and Waterman, T. T. **The Early Architecture of North Carolina,** Chapel Hill, 1947.

Lefler, H. T. and Newsome, A. R. The History of a Southern State, North Carolina, Chapel Hill, 1963.

Robinson, B. P., (Ed.) **The North Carolina Guide**, Chapel Hill, 1955.

Waugh, E. C. and Mills, R. North Carolina's Capitol, Raleigh, Raleigh, 1967.

Mr. Lawrence Wodehouse is a well known figure to the North Carolina Architect readers. In the past few years he has contributed several articles dealing with the historical architecture in North Carolina.

Presently Mr. Wodehouse teaches at the School or Architecture, Pratt Institute, Brooklyn, N. Y. Until June 1969, he has been associated with the School of Design, N. C. State University, in Raleigh.

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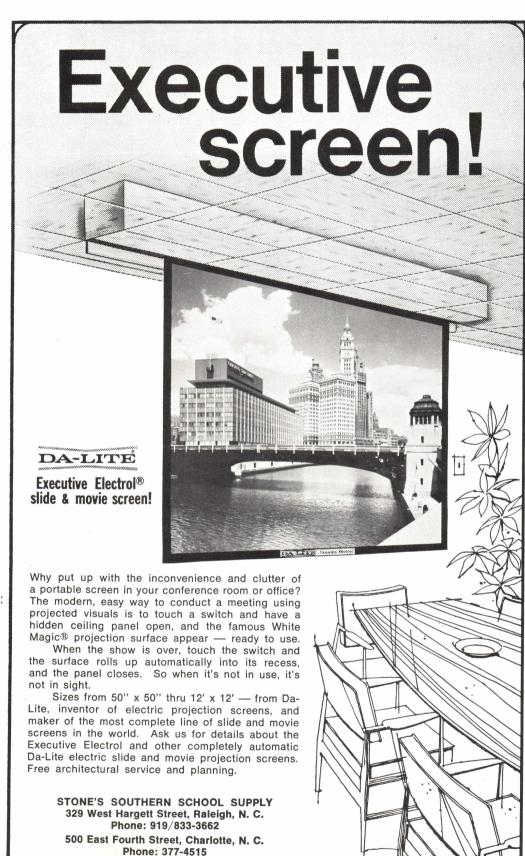
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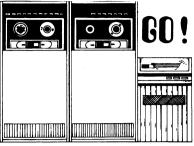
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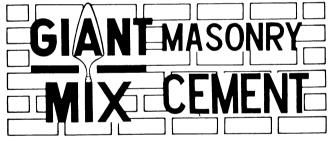
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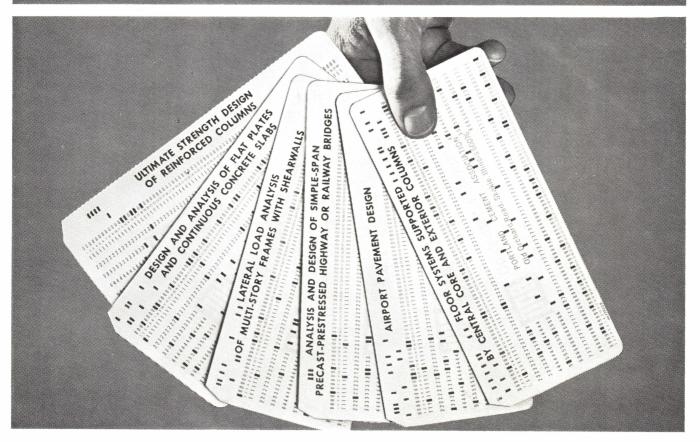
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THE NORTH CAROLINA "PROFESSIONAL CORPORATION ACT"

What It Permits and What It Prohibits In Architectural Practice

By R. Mayne Albright, Attorney

The new Professional Corporation Act, enacted by the 1969 General Assembly as Chapter 55-B of the General Statutes, applies to twelve professions including doctors, lawyers, public accountants, engineers and architects. While "tax savings" has been the impetus behind the recent extension of Professional Corporation Acts to forty-six States, including North Carolina, these Acts make changes in the rules of professional practice which should not be overlooked.

In the field of "The Practice of Architecture" as defined in G. S. 83-1 (3), two provisions of Chapter 55 are of particular significance: First, it specifically *permits* corporate practice upon compliance with the Act; and Second, it specifically *prohibits* practice by or through any corporation which has not qualified under the Act.

What is Prohibited

As to the second or prohibitory provision, the Architectural Practice Act was amended to read as follows: "Except as provided for in Chapter 55-B of the General Statutes of North Carolina, it shall be unlawful for any corporation to practice or offer to practice architecture in this State." (G. S. 83-12)

To qualify under the provisions of Chapter 55-B, a corporation must hold a Certificate from the N. C. Board of Architecture. To qualify for a Certificate from the N. C. Board of Architecture, the corporation must comply with the following *mandatory* provisions of Chapter 55-B:

- 1. At least one Director and one Officer (and at least one Incorporator of a new corporation) shall be a licensed architect.
- 2. The services of the corporation must be limited to the practice of architecture or of architecture and engineering.
- 3. All shares of stock in the Corporation must be owned by licensed architects or architects-engineers, where the corporation offers both architectural and engineering services.
- 4. No architectural corporation may do any act which its shareholders as individual licensees are prohibited from doing. Corporate Rule 2, N. C. Board of Architecture.

These requirements of G. S. 55-B limit corporate practice of architecture to those corporations whose sole work is in the field of architecture or architecture and engineering. *This means that "package"*

deals", by developers, financial agencies, general contractors or others, may not include architectural services. As a part of this prohibition, registered architects may not be employed, retained or commissioned by any corporation not registered under Chapter 55-B, nor may they furnish architectural services to or through such corporation in such manner as to enable such corporation to evade the requirements of G. S. 55-B. Corporate Rule 4, N. C. Board of Architecture.

Thus, except for services through corporations holding Certificates for the Corporate Practice of Architecture, the architect's contract for services must be with the owner and not with a firm or corporation which serves the owner. Of course, if the corporation itself is the owner, the architect may provide architectural services to the corporateowner either as its employee or on retainer or commission.

What is Permitted?

A corporation which has obtained the required Certificate of Registration may offer, contract for, and engage in the practice of architecture. It "shall enjoy the power and privileges and shall be subject to the duties, restrictions and liabilities of other corporations" under the Business Corporation Act, Chapter 55, except insofar as the same is limited by Chapter 55-B.

The corporation may own real and personal property necessary or appropriate for rendering the professional services, and it may invest in real estate, mortgages, stocks and other types of investments.

Its licensees shall have the same privileges and be governed by the same regulations, applicable to licensees in sole or partnership practice.

An architectural corporation may, in addition to architectural services, also offer and perform "such services as may be ancillary thereto." (Chapter 55-B-14) The phrase "such services as may be ancillary thereto" may be interpreted to include planning, site work, landscaping, (provided the title "Landscape Architect" is not used), preparation or reproduction of plans and specifications, renderings, illustrative material, etc.

By specific authorization of Chapter 55-B-14, one corporation may be authorized to provide both architectural and engineering or land surveying services, as defined in Chapters 83 and 89 respectively,

provided at least one corporate officer who is a stockholder thereof, is duly licensed by the licensing board of each such profession.

Finally, a professional corporation may, subject to applicable law and IRS regulations, seek the same tax advantages as are afforded to business corporations and their employees.*

The North Carolina Board of Architecture has prepared special application forms and Rules for Corporate Practice of Architecture, which are available upon request.

*After a long Court fight, professional corporations have attained equal tax status with business corporations, but some restrictive proposals are now pending in Congress.

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PCI has set a July 1 deadline for entries. Information on how to prepare the simple entry presentation required is available from the Prestressed Concrete Institute, 205 W. Wacker Drive, Chicago, Illinois 60606.



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OUR ENVIRONMENTAL CRISIS—

The Need For New Directions

by James C. Wallace

If it is true, and I think it is, that we are facing an environmental crisis which is global in scope, how can we in North Carolina meet that crisis? What can we do that we are not doing? What new directions are in order?

There are several important things which come to mind:

- 1. We must come to understand that entering what the politicians call "the Mainstream of American Life" is not an unmixed blessing, for, in fact, this highly praised waterway is probably a polluted one.
- 2. We must disabuse ourselves of the greatest myth of our time the myth that a sufficiently broad tax-base cures all ills. We only have to look at the City of New York in order to see that a tax-base, taken alone, and no matter how large it might be, is not enough. Surely New York has a tax-base which is broader than that of the entire State of North Carolina. Yet, as we gaze upon this great City, do we see its people enjoying the often-promised fruits of a broad tax-base? Not at all. We see a city which verges upon being ungovernable, uninhabitable and bankrupt.

Sooner or later — and I hope that it is sooner — We must realize that beating the bushes for industry, any industry at all, is a prescription for increasing our difficulties. The plain fact is that most industry eventually ends up by requiring more public money to be paid out in social services than the industries pay in to the governmental units in the form of taxes.

3. We must quit insisting upon looking into the wrong end of the telescope, seeking faraway goals and neglecting the near-at-hand. We should abandon any thought of becoming some kind of third-rate Detroit or Pittsburgh. We have only to look at the utter destruction of the environment of the Northeastern United States to realize that this course is to be avoided at all costs.

Rather than attempt to emulate industrial America, and repeat its mistakes, we should set a new course. We must establish, and clearly state, a list of priorities which leaves no doubt as to where our ultimate interest lies. Our first priority should be the preservation of our permanent environment, for without this essential condition no further progress will be possible. It is true, regrettably, that the preservation of clean water, clean air and pleasant

open spaces is not so glamorous a task as squiring the rich industrial prospect through a group of potential sites. But is is also true that saving the essentials of our environment for the long pull can be done more efficiently now than later. Restoring the quality of a damaged environment — if it is possible at all — is very expensive.

Once our permanent resources are being looked after, our second priority should be the seeking of high-grade, non-waste-producing industry. At the bottom of the list, and receiving little or no effort, should be the fly-by-night operators who come to us, most of them fleeing unions and the mess they have made elsewhere.

In short, if North Carolina is to step out front, we must turn ourselves around, completely, one hundred and eighty degrees. The smearing together of the words Conservation and Development, the talk of "balanced growth", the fuzzy phrases which sound good to everybody and mean little or nothingthis vote-getting rhetoric should cease. Only a clear statement or our long-range interests and priorities will serve North Carolina, and other areas as well, in the generations yet to come.

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