



Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
1983 Volume I: Elements of Architecture

Looking At History Through Architecture

Curriculum Unit 83.01.04
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The primary objective of this unit is to teach history. The goal is to spark an interest in the subject by presenting a general picture of the continuous development of New Haven as part of Connecticut history. It is designed to emphasize visual memory and to utilize visual arts skills. Depending on how the unit is used, the time element may be open-ended. It can be taught as an enrichment to the Sixth Grade study of Connecticut history or it can be presented as an art course and would be equally appropriate for 7th & 8th grades.

The unit is divided into four major periods of architectural styles. They are in chronological order and serve as the basis for a time line which will be embellished by the accompanying narrative of historical events of the period.

It is necessary to say here that the dates I have used to describe the four architectural periods were determined by Carole Rifkind in *A Field Guide _ American Architecture*. Although, I have taken the liberty to begin the Colonial Period in 1638 when the New Haven Colony was founded. They are difficult, if not impossible, to fix precisely because no one period ended abruptly for another to begin. Therefore, the dates may seem general and overlapping was unavoidable. Few structures are “pure” in their architectural style, having borrowed from many influences. Most do reflect a dominant style in their design. But these are not points to belabor, better to present a picture of the on-going process of change and give the students a sense of their part in the continuum.

I have included information meant to capture the imagination, perhaps the students will be able to see themselves in the situations described. Rather than targeting rote memory, my objectives are to develop skills in observation and description, to create an understanding of the relationships of one part of history to another.

The large number of slides are included to implement the emphasis on the visual mode of learning. Descriptions of the slides are presented in viewing order. Lesson plans for specific activities, a vocabulary list of architectural terms, suggestions for field trips and other activities are also included.

COLONIAL 1638-1820

In April, 1638 Rev. John Davenport and Theophilous Eaton came to the place known as Quinnipiack with 250 followers. These two leaders clearly reflected the reasons for creating a new settlement. Davenport, a spiritual leader and Eaton a reknown merchant, were to lay the foundations of the society in which we live today, 345 years later. These leaders envisioned a church state which could prosper from the rich resources and natural harbor connected to the interior by rivers.

The land for the new colony which included the area now known as New Haven, East Haven, Wallingford, Branford, Cheshire, was purchased from the Indians, who moved to a reservation in the Morris Cove area. About 100 years later all the Indians had died.

The Nine Squares was formed in 1638. The center was reserved for a market place and the other “squares” were named for places known to the settlers in England, such as London & Kent. The center square was the site of the first trial when an Indian was decapitated for a crime and his head placed on display as a lesson to others! By 1639 the military was established with about 200 men. Just three years after their arrival, having been joined by others from England, the settlers had created a new life. Quinnipiack became the New Haven Colony and by 1643 the population had swelled to 800. The first church-meeting house was erected in 1640.

The colonists retained the social structure they had known in England. Free men were church members—the ruling class of the new colony. The rest of society included free planters, indentured servants, seamen, laborers, ministers, merchants, farmers, and artisans. Town meetings were held to discuss timber cutting, bridge repair, where cattle should graze and other issues important to a community. Education was a primary concern, Ezekiel Cheever, a teacher, had come with the first settlers to Quinnipiack and began teaching soon after the 1638 arrival.

Education was necessary to prepare new ministers to perpetuate the religious colony. Thoughts of college came with the settlers too, a man named David Yale was among them, but an economic depression held off its beginning until 1701. In 1660 Hopkins Grammar School began on the Green. Theophilous Eaton had envisioned a major harbor capable of international trade. In the early years of the colony, there was trade with New Amsterdam (NY), Rhode Island, Boston and Barbados. One attempt to send a ship to England failed, the ship disappeared without a trace. There was no money as we know it, trade was through barter and wampum.

The New Haven Colony was still closely associated with its mother country England, whose politics were of great importance to the colonists. In 1660 two men, Colonel Whalley and Colonel Goffe left England for the new colony, when the new king ascended the throne. They had signed his father’s death warrant. Soon after, royal officers followed in our-quit. The two, joined by Colonel Dixwell, became fugitives, protected by the colonists. They lived for a time in a cave on West Rock. The incident is known to us today as the “Three Judges”, Judges Cave is still a popular spot on West Rock.

The power that the New Haven Colony had hoped for ended in 1665 when it was incorporated into the Connecticut Colony. This marks the end of Rev. Davenport’s vision of an independent religious community. He died sad and bitter three years later in Boston. Economic pressures, and the king’s displeasure with the New Haven Colony for hiding the three judges were among the reasons the power went to the Connecticut Colony.

Changes bring opportunity and the new political structure brought stability. The community now turned to strengthening itself with law and order. Attention was given to the poor and handicapped. Town meetings

were held in Mr. Miles Tavern which was an important gathering place on the present site of the Taft Hotel. New Haven shared the status as co-capital of the Connecticut Colony with Hartford. In 1763 the State and Courthouse was built on the “Green” as the market place was now known. Its Georgian style reflected the prospering community. The harbor was a busy place, business was good and people were living better. Names such as James Hillhouse and Roger Sherman came to prominence.

Events abroad affected New Haven directly because the Connecticut Colony was still under England’s rule. While France and England were at war, 1690-1763, men from New Haven fought for the mother country. Other policies and decisions in England brought a realization to the Connecticut Colony—that it existed for the enrichment of England. Resentment began to build as a result of laws which failed to recognize the needs of the maturing colony. The Revolution and independence were the climax.

During the Pre-Revolution years development in the colony was rapid. By 1761, 6,000 people lived in New Haven, 1,500 near the Green. Most of the population was English with a few Dutch, Scotch or French. There were Blacks here in 1646, probably as slaves to wealthy families. One hundred thirty five years after the first settlers arrived the first Jewish family was known to be in the New Haven Colony.

As the New Haven Colony had begun as a spiritual settlement so it remained 100 years later with one congregation. All was not harmonious however, and after 1735 many new congregations emerged. In 1748 a second church appeared and a third (Trinity) in 1753 where President George Washington worshipped in 1789. Some Catholic families were also present in the community.

In 1701 the Collegiate School was founded in Saybrook which was within the jurisdiction of the New Haven Colony. It was the realization of Rev. Davenport’s dream of a school for preparing leaders for his religious community. In 1718 the school was moved to New Haven, renamed Yale College. Ezra Stiles served as its first President. Yale College declared its independence by building its own chapel in 1745.

In 1716 the town looked like a small village with a market place at its center. The public buildings then were a jail, the night watch guardhouse, the first society (church) and the schoolhouse. The Burying Ground was located on the north side of the Green. It soon caused concern as it became a sprawling, unsightly place.

The Wharf which began with a few docks in 1682, was bustling in the mid 1700’s. There was shipping trade with England’s enemy France, eager for revenge. Among the things traded were cattle, lumber and flour. There were exchanged for sugar, salt and cotton. In 1748 the population was 1400 and by 1774 it had blossomed to 8,000. Ten percent of these were seafarers. The first post office and newspaper appeared in 1755 in the colony.

Men named David Wooster and Benedict Arnold now lived and served in New Haven along with Hillhouse and Sherman. Taxes were being imposed on land and personal property by England. While many colonists began to stir in their desire to be out from under the rule of England, many remained loyal. The ruling class in society still reflected English attitudes. What people wore signaled their social position. The upper class wore fine clothes made of expensive fabrics often brought from England while the poorer people wore coarser homespun fabrics, pants made of deerskin and heavy woolen stockings.

Oysters had long been enjoyed by the River Indians and the settlers soon engaged in creating an industry from oystering. By 1766 regulations were passed to protect the industry from those who would take them out of season.

By 1763 the New Haven Colony had five doctors and five lawyers practicing their respective professions. Until then, people had generally tended to their own medical needs with knowledge passed down to them through generations. Some ministers or teachers had special knowledge in medicine or law but it was secondary to their other professions.

From 1756-1763 the Seven Years War between France and England was fought here. The result of participation in that event and extended trade was contact with other colonies and the spread of ideas. By 1771 a new awareness and sense of unity had developed, up and down the Atlantic Seaboard. The colonists were ready for independence.

The Revolutionary Period 1775-1784 marks the time when the colonists finally rebelled against the mother country. New Haven had formed a military company in 1775 and gathered supplies and munitions. The British invaded New Haven from two points—from Savin Rock in West Haven and the Lighthouse Point area in East Haven. The Pardee-Morris House was burned to the ground, a battle raged at the site of what is now Whalley/Broadway/Dixwell. Citizens loyal to the British may have appealed to the officers who spared the Green and college from destruction. Men from New Haven fought on land and sea.

Names of important men of the period include Nathan Hale and Benedict Arnold. Artists Colonel John Trumbull, Amos Doolittle and Ralph Earle painted scenes from the Revolution.

On July 4, 1776 the Declaration of Independence was signed. One of the signatures is that of Roger Sherman from New Haven. During the Revolutionary Period, New Haven continued to grow. The effect of the Revolution was a new confidence among the people to create an American society. After the separation from the mother country came the opportunity to become more self-reliant. Banks and city government were established. In 1784, New Haven became a city separate from the surrounding towns. At that time there were 400 Colonial style wooden houses in the area of the Green. No factories or merchants were located there. The streets were dusty, muddy and unnamed. Stagecoaches carried passengers and mail to New York while the harbor provided the main means of travel and shipping. Long Wharf was the hub of activity for the city. The years 1784-1800 were public spirited. The first elections were held for clerks, sheriffs and a mayor. Industries included tobacco growing and making pennies. President George Washington visited New Haven in 1789.

1790-1820 THE FEDERALIST PERIOD

The first session of Congress struggled with concern for the abolition of slavery. There were about 2,000 slaves in Connecticut, 30 in New Haven. The African Society was formed to promote freedom for slaves. There was a predominantly black neighborhood near the Wooster Square area. Many of those who lived there were leaders in the community, owned homes, farms and land. Three gravestones in the Grove Street Cemetery, the first planned in the US. with family plots, bear names of people who lived in the neighborhood.

Attention turned to local problems in New Haven. The Board of Health was formed in 1795 as a result of yellow fever, scarlet fever and smallpox epidemics. In 1788 the Fire Department was started.

The Grove Street Cemetery was created in 1797 because the Burying Ground on the Green had become an ugly sight with between 3,000-5,000 graves. Elm trees were planted around the city. There was need for better roads, banks were started throughout the state and Long Wharf was a busy scene with much shipping

to the West Indies. Important citizen names of the time were Stiles, Sherman, Hillhouse and Baldwin. Timothy Dwight was the second president of Yale.

A portrait of New Haven in 1800 would show four public wells on the fenced in Green where cattle grazed. The people began to wear looser fitting, more comfortable clothes. The traditional English dress of wigs and silks disappeared and everyone dressed the same.

By 1815 immigrants from many European countries arrived. All three churches that stand on the Green had been built. Monuments from the Burying Ground were being moved to the new cemetery.

The harbor was very active. A black man named William Lanson solved a long standing problem by building the wharf out into the harbor, using stones from East Rock. This great feat meant that cargo could be unloaded directly onto the wharf instead of transferring it to smaller boats that carried it to land from the ships. New manufacturing appeared, carriages, clocks, wool cloth, rubber boots, arms and hardware meaning jobs and progress for New Haven.

Thomas Jefferson became President in 1801. He worked to make the country more democratic because in many ways the government's power was still held by the same families who ruled 150 years earlier.

Just as New Haven thrived as a seaport, a new disaster struck which brought an end to Theophilus Eaton's vision of a great harbor. The British blockaded ships all along the east coast which stopped trade, jobs and the flow of money. This was known as the War of 1812. When it was over, other ways of supporting the city were created as factories for manufacturing were built. New Haven became famous for making buttons, wool and for Eli Whitney's gun factory. At the same time, many people moved west to find new land and opportunities.

By 1820, the first black church was formed. More congregations soon followed. Two synagogues were formed also as many Jews came to America seeking freedom from oppressive governments. The church—state became separate, ending the original concept of the colony forever.

ARCHITECTURAL HISTORY

The COLONIAL PERIOD 1638-1820 includes three styles, COLONIAL, GEORGIAN and FEDERAL.

The first Colonial design was dictated by the realities of life—climate, economy and available technology. The colonists were pioneering people who experienced a hard, no frills life. Their creations reflected the fact that their time was spent in the struggle for survival.

The basic Colonial design was blunt with little ornamentation. The buildings were wood frame on a stone foundation with a clapboard (narrow boards) exterior. They were painted earth tones (grey, brown) if they were painted. Roofs were steep, lower on the north side, gables (symbols of home) stood sharply out from the structure. The harsh climate made it necessary to connect the house, barn and sheds. Windows and doors were recessed for protection from the weather. The inside was one large room with a sleeping loft above and there was one chimney in the center of the house. This design has been called the "saltbox". Hinges, handles and nails were hand forged iron. Windows had as many as twelve small panes.

The GEORGIAN style 1735-1790 was popular at a time when life was getting easier. It could be called high

Colonial. The land had been settled, a life style was developed and people could turn their attention to the finer things such as learning and the arts. Homes were designed with more comfort in mind. The wealthy built estates while farmers, artisans and traders built simplified versions. Artisans and craftsmen who could produce fine detail had come from Europe bringing their knowledge of styles with them. Design books were available for carpenters to copy.

The houses were basically square and symmetrical, that is, the same on both sides of a center. Early Georgian houses were clapboard cut narrower and painted blue, green, yellow or pink. For later Georgian homes, bricks were used to create patterns and carved wood was used for trim. Brass hardware was used instead of iron. Window panes were large—six over six. Chimneys were now placed at both ends of the house, providing more heat. The entrance to the house consisted of elaborate doors with columns on either side supporting a pediment. Steps led up to the door which gave the appearance of importance to the house. The facade (face or front) was flat with doors that projected slightly. Spaces between windows and doors were even. The general appearance was horizontal. Roofs were no longer steep as in the earlier Colonial style.

FEDERAL 1790-1820

After America had broken its dependence from England, there was a strong national desire to create a distinctly American identity in architecture. As more people prospered, there was a desire for comfort, quality and dignity. As democracy became the national issue, the class structure brought from England began to disappear and the American identity belonged to everyone.

“Architecture is worth great attention,” Jefferson declared, “As we double our numbers every twenty years, we must double our houses . . . It is then, among the most important arts; and it is desirable to introduce taste into an art which shows so much.”*

President Jefferson was a student of architecture.

The Federal style reached further than Georgian for elegance and refinement. Brick or clapboard, delicate brass or iron hardware, white or pastel colors and fences of wood or iron were combined to create structures with balance and symmetry. The four room plan was usually rectangular. Straight lines, harsh angles of early Colonial designs were replaced by curved stairs, oval or elliptical shapes seen as projecting bay windows. Fanlights over doors framed with sidelights all flanked with classical columns and finished with detailed moldings created an entrance which announced a grand home occupied comfortable, refined people. Windows were larger, six over six, more elaborate with ornament above detailed lintels. Arches appear over windows. Roofs were low, surrounded by an elegant balustrade. Chimneys were placed at end walls.

The Federal style was especially popular in the South and far more elaborate than the New England version which tended to be modest. The grand homes in the South were built by wealthy people who hired architects from Europe and considered themselves aristocrats as in the English social structure. Massachusetts also followed the English social model.

In most of New England however, there was a conscious effort to create a new society of equality for everyone. The wealthy and educated hired local architects and builders. They did not attempt to set themselves as far apart from the rest of the people as those in the South.

SLIDES—COLONIAL PERIOD 1638-1820

When viewing slides, point out roof line, window placement, number of panes, entrance size, placement and ornamentation. Note size, placement and number of chimneys.

1. Pardee Morris House—Colonial 1680. Originally built with two stone end walls. It was burned down by the British in 1779. Rebuilt and restored. Note shed attached.
2. Pardee Morris—stone end, chimney, shed is a later addition. Twelve over twelve windows.
3. “Lean to” style—Colonial 1710. Member of original family lives here today.
4. “Lean to”. Sheds attached, low roof, no ornament. Original iron hardware has been replaced.
5. Connecticut Hall—Old Campus, Yale—Georgian/Federal 1750.
6. 35 Elm Street—Colonial/Greek Revival 1805.
7. 12 Academy Street—Federal 1810.
8. 601 Chapel Street—Federal 1810.
9. United Church on the Green (North Church)—Federal 1812.
10. Center Church on the Green—Federal 1812. Ithiel Town built this church.
11. 32 Elm Street—Federal 1816.
12. 27 Elm Street—Federal/Greek Revival 1828-1838.
13. 754 Chapel Street—Bassett Hardware was in business for 300 years.
14. Door—Batell Chapel—note hardware. This is not a Colonial building but the hardware is Colonial style.

LESSON PLAN—SLIDES AND HISTORICAL INFORMATION

The unit is divided into four sections each consisting of slides and historical information of approximately the same period.

If the unit is taught as a supplement to the 6th Grade study of Connecticut History it would be most effective to present each section after the appropriate period. The unit may be taught as a course of its own.

In either case:

1. Teacher may read description of architectural period to students or distribute copies of the information.
2. Show slides. Teacher may read description which accompanies each slide.
3. Teacher may read historical information or distribute copies to students who could circle dates or underline information to be placed on time lines.
4. Time line—to be developed after each section. Use architectural periods as basis. Historical information can be filled into columns above time line. See following example.

(figure available in print form)

LESSON PLAN—RELIEF MAP OF COMMUNITY

Objective: to create a mini community relief map; to work as a group; to engage students in decision making process.

Goal: Students may gain insights to the elements of a community and the considerations in community planning. To reinforce awareness of the environment.

Materials: Elmer's glue, polyester fiber fill, variety of wood shapes approximately 1"X1" or 2"X2", wood approximately 3'X5', black markers, paint, brushes, sandpaper. (3'X5' should be painted lightly on back side or it may warp).

Procedure: Motivation—What is a community? What do we have to think about to make one?

1. Divide the class according to elements listed below:

hospital	1 piece of wood	purple paint	1 student
library	1 piece of wood	grey paint	1 student
school	1 piece of wood	orange paint	1 student
fire station	1 piece of wood	red paint	1 student

police station	1 piece of wood	blue paint	1 student
stores	15 pieces of wood	yellow paint	5 students
houses	30 piece of wood	white paint	6 students
trees & bushes	fiber fill	green paint	3 students
3' X 5' wood		green paint	4 students

2. Streets should be drawn on 3'X5' wood by teacher—grid pattern for example.
3. Distribute wood and sandpaper and paint. (Some jobs seem bigger than others—all are important to community). All wood pieces sanded and painted. Fiber fill—roll in green paint and set aside to dry. 3'X5' wood—paint all green *except* roads. Must dry before other things can be added.
4. Glue trees and bushes onto green areas.
5. In order—bring up the groups to glue their pieces on to the 3'X5' wood. Ask each group where their building could best serve the community. (Most public buildings will be in the center area). Where do people like to live? Where do stores need to be? What other buildings could be added to this community? A farm? A zoo?
6. Name the community and streets. Create a family for the houses. Set cardinal directions (NSEW). Problem solving activities—How do you get from Sue's house to Tonya's house? Which buildings are in the NW area of the community? etc.
7. Follow-up discussion: Planned communities vs. those that develop gradually.

LESSON PLAN—MURAL

- Objective: to create a mural from beginning to end of unit which will serve as a visual time line; to reinforce observation skills; to reinforce visual memory.
- Goals: Students will gain an understanding of continuity of architectural styles. Students will remember general form and major elements of architectural styles.
- Materials: slides, projector, paper such as Kraft paper from a roll (the bigger the better!), markers, paint and brushes.
- Procedure: To be done at end of each of the four architectural periods.

1. Tape paper to wall or blackboard.
2. Project slide onto paper. Use a good example of the style of the period. ie. front view of a house.
3. Define the outline and a few details, windows, doors, columns, roof.

4. Place buildings next to each other to develop continuity. 5. Paint

VOCABULARY WORDS

pediment arch eave
molding facade horizontal
vertical symmetry asymmetry
lintels panes ashlar
motif clapboard column
balustrade classical architect
revival

Suggestions: Put words in alphabetical order. Syllables. Define. Use in a sentence. Illustrate each word.

GREEK REVIVAL 1820-1860—EARLY VICTORIAN 1840-1860

At this time, education, another of the early settlers great concerns, became the center of attention. In the early 1800's, the community realized its schools were inadequate and improvement was desperately needed to prepare its children to be good citizens and leaders. In 1853 the public school system began with a grade school named after Noah Webster. The first high school began in 1859, the first class of 127 graduated in 1866. A public library was opened in 1887 so all citizens could pursue self-improvement. Yale College continued to grow in size and importance. It became a world-famous institution. The emphasis in the community was on culture and personal growth. Music and art were respected. Nathaniel Jocelyn was a well known painter whose portrait of Cinque, leader of the Amistad slaves hangs in the New Haven Colony Historical Society today. The New Haven Register was started in 1812. The press became more important as people learned to read and sought intellectual improvement.

Many new inventions such as the cotton gin and the stone crusher, as well as improved methods of manufacturing helped make New Haven an industrial city.

In 1852 Edward Malley opened his store. Businesses grew and more banks opened. Many hotels were built. The site of the Taft has always been occupied by an inn or hotel. There was even an inn on top of East Rock.

Many agencies were developed to provide services to the community. People's rights and needs were being recognized and protected.

Greek Revival architecture reflected intellect, prosperity and stability. Ithiel Town and Henry Austin were designing buildings to celebrate the city's spirit and prosperity. The wooden fence around the Green was replaced by an iron fence in 1846. Gas lamp-posts were placed around the Green about 1850.

The issue of whether or not to eliminate slavery was an issue that concerned everyone by 1830. In New Haven people generally supported abolishing slavery but at the same time they had "opposed the establishment of a

Negro College. . . .in 1831.”**

People were confused and divided on the issue. It would take thirty more years and another war to resolve it. First, something happened in New Haven to rally support for the slaves. In 1839, a group of slaves took control of the ship, the *Amistad*, after being kidnapped from Africa. They eventually ended up in jail in New Haven charged with murder and piracy. On nice days they exercised on the Green and became popular with the New Haven citizens who contributed to their comfort and supported their freedom. Eventually they were freed and went back to Africa. Cinque was their leader.

People everywhere in America became involved with the slavery question. Fighting broke out in many areas. The Mason-Dixon line was drawn, Abraham Lincoln was president and the nation was set for a civil war.

ARCHITECTURAL HISTORY – GREEK REVIVAL 1820-1860

This style was the expression of a nation that sought innovation and greatness. Recent discoveries of ancient ruins contributed to the admiration for Greece and respect for its culture of beauty and perfection. Knowledge of the style was spread through builders guides. The Greek Revival was in the great plantation houses of the South and Southwest.

A typical Greek Revival building consisted of a two story temple facade (front) with a triangular pedimented gable. Hollow wood columns were free standing or applied to the facade. White wood frame houses of the style are seen everywhere. Regional materials such as ashlar (square cut) granite, sandstone or marble were used to create smooth surfaces then trimmed with wood Greek motif ornaments. Cast iron decorated porches and stair railings.

Windows were treated with bold lintels or heavy molding. They were typically six over six as in the Federal period. Doors were flanked by sidelights trimmed with wood ornaments of leaf-like or geometrical design. The entrance was temple-like, grand and impressive.

Throughout history columns have held a special significance. Originally they were reserved for temples and symbolized godlines. Columns give a building an appearance of great importance, they signify power. The Greek Revival style became popular here as an expression of the democratic principle of equality. Columns were no longer reserved for the wealthy or for important public buildings. Many small homes were built with columnar entrances. How proud those people must have felt passing through their majestic, temple-like doorways!

EARLY VICTORIAN 1840-1860

The Pre-Civil War years saw life in America become more complex with more people, epidemics, scarcity of jobs and crime. Religious, ethnic and racial conflicts rose in big dirty cities. While people had more, social problems developed. The population began to retreat to rural areas. Building styles began to reflect the emphasis on freedom of choice, individuality and importance of the home and family. The styles of this period are characterized by bold designs with irregular forms, harmony in building and surrounding grounds and

usefulness.

GOTHIC REVIVAL—a typical building of this style is strong, vertical, gables and dormers, steep roof and bold grouped chimneys. While a wooden Gothic house is made with narrow boards used vertically, rustic stone was also widely used. Chunky iron was used for hinges, to crest a roof, and as fence posts. Windows, often diamond paned, were varied in size and placement. Entrances were grand and multiple. Towers suggested a medieval appearance.

ITALIAN VILLA—like the Gothic Revival, window size and placement were varied and chimneys were grouped. Roofs were lower, openings arch shaped, windows were two over two. Double doors were surrounded by rough cut masonry. The arch and smooth surfaces are major characteristics of the Italian Villa style and its relative the Tuscan style.

SLIDES—GREEK REVIVAL 1820-1860

Note simplicity, columns, solid appearance, geometric shapes.

1. 7&9 Wooster Street—#9 Jewett House—Greek Revival with a Mansard Roof (steeply sloped sides which rise to flat top) 1833.
2. 46 Hillhouse Avenue—Greek Revival 1834. Member of original family resides there. Note purple color—there is another house on the street of the same color.
3. 541 Chapel Street—Wooster Square—Greek Revival 1835. Note Garland design near roof and over all simplicity.
4. 37 Wooster Street—Robertson House—Greek Revival 1836.
5. 546-8 Chapel Street—Wooster Square—Greek Revival 1842.
6. 538 Chapel Street—Wooster Square—Colonial colors, Mansard roof.
7. 8&10 Academy Street—Wooster Square—Yellow house on left is Greek Revival 1850. Note roof lines created by the two buildings.
8. High Street—Skull and Bones—Secret Society—Yale University—Greek Revival 1856.
9. Greek Revival—Note unusual window treatment.
10. Building on Chapel Street. This is a clear example of a facade.

Suggestions:

1. Look for columns on houses and public buildings. Notice the variety of styles—sketch them.
2. There are two or three Greek Revival mini houses on Edgewood Avenue near Park Street. One house is only fifteen feet wide. Compare it to the Court House, Post Office, churches & library on the Green.

SLIDES—EARLY VICTORIAN 1840-1860

Gothic, Italian Villa, Egyptian Revival

1. Trinity Church—on the Green—Gothic Revival 1813. Ithiel Town built one of the first Gothic Revival churches in America.
2. Trinity Church detail. Note shape of arch and rich stonework,
3. Dwight Hall—Old Campus, Yale—Gothic Revival 1842. Henry Austin, architect whose magnificent building designs were the most popular of the time.
4. Grove Street Cemetery Gates—Egyptian Revival 1845-48—Henry Austin. Built because the Old Burying Ground on the Green was too unattractive and needing space.
5. Grove Street Cemetery—Office building inside gate.
6. 584 Chapel—Italian Villa 1845—Henry Austin. Islamic motif makes this home unusual and graceful.
7. Grand and welcoming entrance.
8. Dana House—24 Hillhouse Avenue 1849—Henry Austin.
9. 52 Hillhouse Avenue—Tuscan/Italian Villa 1849—Henry Austin.
10. Hillhouse Avenue—no front entrance, two side entrances.
11. 604 Chapel Street—North House—Italian Villa 1852—Henry Austin.
12. 604 Chapel Street—Detail—rich play of angles.
13. 607 Chapel Street 1854. Henry Austin may have built this house. Note double bow front (roof line). Look for other houses like this in New Haven.

LATE VICTORIAN 1860-1900

On the eve of the Civil War, New Haven had a railroad and had begun to have a 'city' look. Stores and banks lined the streets. Wooster Square and Hillhouse Avenue were neighborhoods of splendid homes built by Ithiel Town and Henry Austin. New burial grounds were created outside the growing city as 40,000 now lived in New Haven. Sidewalks and paved roads stretched out from the center of town to newly developing areas. Water was carried in pipes to every neighborhood.

The harbor had seen better days but served its community with four steamboat companies.

Men from New Haven, Rear Admiral Foote and Major General Terry were among many who distinguished themselves during the war. While thousands served as soldiers, the citizens at home made supplies and cared for the returning wounded.

The first Civil War casualty from New Haven was Theodore Winthrop who was buried in the Grove Street Cemetery. War began April 1861, ended April 1865. Less than a week later, President Lincoln was shot.

The Post Civil War Period 1865-1900 saw the development of industry, business and the urban center. The familiar farm scene life style began to disappear as people flocked to the cities to work.

New hopes for the harbor came with business growth. Lighthouses, breakwaters and bridges were added to improve the area.

In 1873 New Haven was described as a city with new streets, new buildings, factories and conveniences for its people. The old wooden structures were disappearing and being replaced by limestone, brownstone, brick and iron. The famous Elm trees were being destroyed by worms and beetles. In the early 1890's trolleys provided transportation in the city, making shopping areas available to people in the suburbs. Electricity was available to the community. A New Haven man invented the sprinkler system, a great contribution to fire fighting. Fires had long been a hazard because of gas lamps and wood houses.

New Haven and Hartford had shared the power as co-capitals of the colony for 150 years. In 1873 New Haven lost the vote and Hartford emerged as the state capitol.

On July 4, 1876 New Haven celebrated the 100th anniversary of independence of the US. with parades, fireworks and speeches.

Waves of immigrants arrived bringing new skills, labor for the factories and problems. Health and housing required hospitals and homes. Many new churches and synagogues were built.

New Schools were built to provide education for the rapidly growing population. The first kindergarten began with Welch School in 1892. In 1869, after the Civil War and the end of slavery, Black children were enrolled in the public schools, for they had been educated separately until then. In 1887 the Public Library opened.

Theater and concerts came to New Haven. People crowded in to see Vaudeville, plays and to hear symphonies. Sleighing was a popular sport, salt-water bathing in summer. Many clubs and athletic organizations were formed. Football, baseball and track at Yale provided heroes who were idolized by boys on vacant lots and in city parks.

It was during this time that the Winchester arms factory grew to be one of New Haven’s largest and most important industries. Sargent and Company and the New Haven Clock Company were other major industries of the period. Trade unions were formed bringing improved working conditions and wages to the workers.

During the 1870’s the telephone and typewriter were invented creating new conveniences and jobs. New Haven was the first city to issue a telephone directory.

The population of New Haven was a little over 100,000 at the turn of the century. Nearly one third of those people had been born in another country.

ARCHITECTURAL HISTORY – LATE VICTORIAN 1860-1900

During this period millions of people came from Europe to swell the American cities creating great commercial urban centers, each with its own social, economic and ethnic character. In the cities tenements and row houses were built to accommodate the masses many of whom worked in the new factories. A new American dream was shared by many who wanted a single family house with a lawn.

New technology and the railroad system meant mass produced, prepared materials such as birch, stone and glass were made available to the builder. Up to date builder’s guides gave details for many new styles. Central heating, indoor plumbing, refrigeration and gas lights solved problems and brought comforts to homes. Designs became larger and more detailed.

A nostalgic mood made Classical and Colonial Revival styles popular especially for the wealthy, who built enormous homes. Symmetry, tight organization and clear definition remained major elements of these styles. The Victorian Gothic style is characterized by dark red brick and complex designs.

The Queen Anne style home is recognized by its elaborate wood decoration using intricate patterns.

The Late Victorian period is often considered a time when people expressed the most freedom in designing buildings. Americans had finally abandoned the English social structure and were about to enter a new era and class division—that of the blue collar worker vs. the white collar worker. The new social structure was a result of modern industry, worker vs. owner. During this transition people experimented sort of an “anything goes” attitude. Many styles prevailed.

SLIDES—LATE VICTORIAN 1860-1900

1. City Hall on the Green—Gothic 1861—Henry Austin. The facade is being saved, will be incorporated into new Government Center.
2. City Hall—detail windows. Note arch and rich ornament of windows.
3. Brownstone Row—Chapel Street 1870’s.
4. Brownstone Row detail.

5. Gothic House 1870's—Queen Anne style.
6. Court Street Row Houses 1875.
7. Steele House—1879-81. This and the Adler House were the private homes last to be built on Wooster Square.
8. Steele House detail. Note stamped brick detail, woodwork and slate roof.
9. Adler House—note unusual window and stamped brick work.
10. Gothic House—Orange Street.
11. Gothic House—Orange Street.
12. Hendrie Hall 1894—Venetian Palazzo style. Three distinct stories each different but related. On Elm Street.
13. Educational Center for the Arts. Spanish Revival 1896.
14. Detail of building on Chapel & High Streets. Note rich ornament.
15. 460 St. Ronan Street 1913—Georgian style in Late Victorian period.

SUGGESTIONS FOR DISCUSSIONS, FIELD TRIPS AND ACTIVITIES

Discussion:

1. Ornament in architecture: Past vs. Present
2. Loss of handcrafts in our society. Lack of contact with older family members and technology contribute to younger generations not learning crafts.
3. City Symbols—New York—Empire State Building, Paris—Eiffel Tower, London—Big Ben, Rome—Coliseum, New Haven—?
4. Invite a representative of the New Haven Preservation Trust to speak to the class. Students could debate a current issue being considered by the Trust. (This would be most appropriate near

the end of the unit).

5. Invite an architect to speak to the class. Or go to his/her studio.
6. Colors and shapes in buildings—keep a sketch book, use to create a painting or design.
7. Sounds and smells of a community. How do horses, trains, ships, factories, etc. bring changes to a place?
8. Fads & trends in music, clothing, hair, etc. What changes in style have you observed and experienced in your life?

Field Trips—Call for information and appointments where appropriate.

1. Grove Street Cemetery
2. Center Church on the Green—Old Burying Ground in the basement—do grave rubbings.
3. Yale Art Gallery—look for artists and scenes from New Haven.
4. Yale Center for British Art—A look at the English way of life—heritage of the New Haven Colony.
5. The New Haven Colony Historical Society. Colonial Life, Maritime History—the Harbor, Models of architectural styles.
6. The Green
7. Wooster Square
8. Yale Campus
9. The Long Island Oyster Farm

Activities:

1. Observe and describe public art such as the orange sculpture by Alexander Lieberman in the New Government Center.

2. Keep a progress report on the New Government Center by Paul Rudolph. Located in block of Church and Orange, Elm and Court Streets.
3. Time line—genealogy. One generation = approx. 20 years. Describe New Haven when your great great great grandmother was living—this problem solving activity would be most appropriate after the other time lines have been developed.
4. Compile list of architects for slides and place names on time line to parallel that of architectural and historical periods.

20TH CENTURY 1900 TO PRESENT

The early settlers would have had a hard time recognizing New Haven in 1900. Their dream of a great harbor was not realized but the town had developed into a fine commercial center. The community still supported its religious foundations now varied due to the many groups of immigrants living here. The oyster industry was active as it had been in the earliest years of the colony. The railroad had replaced ships as the major carrier of guns, hardware and rubber goods which were sold nationally.

The long tradition of interest in civic improvement was continued when the public demanded that the jungle of overhead telegraph wires be buried in 1912. The public wells on the Green were covered over in 1913. The area was surrounded by Victorian style buildings in brownstone, limestone, brick and iron. A new library and courthouse would soon be built on the Green.

Monuments to famous people and important events were erected. Several beautiful new banks were built in the business area around the Green. Yale's Peabody Museum, Art Gallery and Woolsey Hall were opened to the public in an effort to promote better relations between the University and the town. A campaign was begun to save the elm trees, in danger from disease. The battle was lost in the end, today there are no elms in New Haven. New parks were created on the edges of town. East Rock, Edgewood and West Rock parks reflected the persistent emphasis on beauty for New Haven. An amusement park was developed at Savin Rock, once the landing site of the British. Trolley cars and split hot dogs became a trademark of the town.

The population of New Haven stood at about 100,000. In recent years many people had come from Italy, Russia and Ireland.

These Pre World War I years were marked by concerns for local improvement, politics and leisure time.

World War I, 1917-18, was fought on two fronts—in Europe and at home. While 10,000 men went to fight on another continent, the Home Guard was active protecting the Elm City from possible danger to its arms plants, now at full production for the war. An anti-aircraft gun was placed on East Rock although it was unlikely the enemy could ever reach the US. The town and Yale cooperated to provide services to the community during the crisis.

Unfortunately, an incident occurred when the soldiers returned home in 1919 to scar the good relations

between the town and Yale. A riot broke out between veterans from the town and students. Some felt the students hadn't done their part in the war, but many students had served. Two years later New Haven and Yale united to honor the war heroes, and to forget the ugly incident which was probably the result of a difficult time for all.

The 1920's brought the Jazz Age, Prohibition, cars, women's suffrage and more technology and industry. The Ku Klux Klan was extremely active during this period, even today they are a force to be reckoned with. Fads came and went as people sought excitement in their leisure time. The five and ten cent stores and supermarkets replaced small "mom & pop" businesses. Radio and movies opened the world up to everyone with fantasies and scenes of life elsewhere. Then came the Great Depression of 1929-1933. Hunger, and despair gripped the nation.

The American mood was changed when Franklin D. Roosevelt became President in 1933. He created new programs to help the country recover. He used the radio to speak to the nation, to give people faith. It worked. The country and New Haven returned to normal, factories hummed and people again had the means to live normal lives.

Yale University expanded rapidly during 1931-41. New buildings such as the Law School and Payne Whitney Gymnasium were built.

This period of production and peace was to end soon. Adolf Hitler had begun his reign of terror in Germany.

In 1938 New Haven celebrated the 300 years of its existence. The city looked back with pride on its accomplishments and contributions to American life. More than 160,000 people lived here in 1938, many more lived in suburban areas and depended on New Haven for schools, work, shopping and entertainment. The old dream of a major seaport continued to elude the-city but other equally important ideals did not. New Haven continues, to this day, to consider education, religion, business and civic matters its highest priorities.

The 1940's brought World War II, men and women from New Haven fought with other Americans in Europe and the South Pacific. At wars end came the 'baby boom', assembly lines, wealth and television.

The 1950's saw the Korean Conflict, McCarthyism which contributed to a period of conservatism, President Eisenhower, hero of World War II and sprawling suburbs as the 'baby boom' continued. As new technology, developed during World War II, demanded more education, more average Americans went to college. The Space Age began when Russia sent the first rocket into a dimension unexplored. The US. and Russia had become competitors in every field since World War II when we were allies. Space would become the new arena for competition between the two countries. Communist Russia and Democratic America were in direct conflict. Approximately 165,000 people now lived in New Haven.

The 60's saw the Viet Nam Conflict and a new perspective of war for our country. As in all wars, New Haveners served their country, and along with many Americans, began to doubt and finally openly oppose our part in the struggle. Dr. Martin Luther King led Blacks in the struggle for equality, long denied in America. Some of our greatest leaders were assassinated, President Kennedy, Dr. King, Malcom X and Robert Kennedy. New Haven was the scene of the controversial Black Panthers trial.

Widespread drug use and rising crime became new problems seeking solutions. As New Haven and the nation settled down from a stormy decade, the 70's brought new issues to our attention. The threat of Nuclear War, the computer age, megabusiness, the environment, Watergate and the energy crisis have demanded

discussion and solution.

New Haven today is a city of varied ethnic and racial influences. The rise in the Hispanic population has brought another new sound to our streets—the Spanish language. Another period of economic difficulty seems to be passing, to the great relief of the community. New problems bring new solutions. New Haven will continue to meet the challenges of the present and future as it has done in the 345 years of its proud past.

ARCHITECTURAL HISTORY — 1900 TO PRESENT

The industrial economy and the machine age meant jobs and money for most people in the early part of the century. Architecture began to express the desire for space and light. New materials and structural principles were available. Comfort, convenience and single family homes were on the minds of many.

From 1900-1920 the Arts and Crafts movement popularized unpainted hand carved wood, leaded and stained glass and ceramic tile. In the years that followed, machines prepared concrete, glass blocks and steel framing. Although wood and stone continue to be the major elements of construction, as in any period, available materials make an obvious contribution to the general scene.

Many period revivals appear—Spanish and Dutch Colonial, English Tudor and French Provincial—in every region. The Prairie School and Bungalow style were very popular nation wide. The International style appeared emphasizing modern planning and materials. Cars have made it possible for sprawling residential areas to develop away from the city yet within reach. The American Dream has been realized by millions—the ranch style home with space and lawns has become part of the landscape.

The Modern architecture emphasizes surface and texture, minimal ornament and large areas of glass. Windows are often the only visible ornament. Often they are used to create rich and varied patterns. Low roofs and geometric shapes are major elements of design in homes and public buildings. Public buildings express height and great volume. With the emphasis on surface, linear or horizontal design and lack of ornament, these buildings create a threatening and unwelcoming appearance. Many modern buildings are difficult to read (understand) without written signs to tell us what to find inside and in many cases, how to get inside.

As time goes on, our tastes and needs change. History shows us that styles come and go and some return. This process will continue.

SLIDES — 20TH CENTURY 1900-PRESENT

1. Book & Snake—Secret Society Yale 1900.
2. Woolsey Hall 1901—Presently being cleaned. Circular portico.
3. Yale Boat House on Quinnipiac River 1909.
4. State Circuit Court 1909—Greco/Roman. Note contrast with building in background.

5. State Circuit Court—detail of columns with Ionic capitals, figures and finishing details.
6. Post Office and Court House 1913. James Gamble Rogers. Classical temple front. Columns with Corinthian capitals.
7. Post Office and Court House—detail—rich ornament.
8. Post Office and Court House—detail—rich ornament.
9. Brewery Square on Quinnipiac River. Old brewery being revitalized for living and shopping space.
10. Peabody Museum Entrance 1923—Gothic style. Grand entrance announces important building.
11. Factory—Grand Avenue 1927. Castle-like appearance.
12. Lupoli building—note symmetry—Greek Revival-like design, iron fence 1930's.
13. Conte School—Where is the entrance? This building doesn't tell us how to get in.
14. "Entrance"—Canopy declares the entrance.
15. Telephone Company—Church Street—Art Deco 1937.
16. Telephone Company—detail of entrance—note street lamp.
17. Ranch style house in suburbs 1940's.
18. Yale Art Gallery—Chapel Street—1953. Louis Kahn.
19. Ingalls Hockey Rink (called the Yale Whale) 1957. Eero Saarinen, he also designed the Yale Co-op.
20. Old and new—contrasting roof lines near Yale Whale.
21. Art and Architecture Building—Yale University, Chapel & York Streets. Paul Rudolph (Government Center) 1961.
22. Grand Avenue Fire Station 1961—Earl Carlin. Note flat textured surfaces, angles.
23. Kline Laboratory—Yale 1964—Philip Johnson. Seen from beginning of Hillhouse Avenue.
24. High-rise apartments in Westville. This style built for security and privacy. This style criticized as uninviting 1960's.
25. 900 Chapel Street—Chapel Square 1965. Typical urban commercial style. Entrance is of glass and steel.
26. Columbus School—Grand Avenue 1966. Flat texture surfaces, contrasts of light and dark, in and out spaces.
27. Contemporary row houses 1970. Sharp angles, steeply pitched roofs, weathered wood for Colonial effect. Style came from West Coast.
28. County Court House 1971. William Pederson and Associates who also designed New Haven Savings Bank—large angular building on the Green. Contrasts—dark and light, in and out spaces, geometric shapes, smooth surface. Entrance is well announced (obvious).
29. The Yale Center for British Art. Chapel Street 1973. Louis Kahn (also did Yale Art Gallery). Entrance is under the building and dark but visitor enters a burst of light inside. Irregular window size and placement, three story horizontal balances column-like verticals. Buffed surface.
30. Yale Center for British Art—from another angle. Note the way light plays on the windows.
31. Fire station—Goffe Street 1973—Venturi.
32. Jackie Robinson Middle School 1976—Front View.
33. Jackie Robinson Middle School—Rear View.
34. Modern building near Yale Whale 1970's. Note brick and slate. Geometric shapes, sharp angles, contrasting dark and light, irregular placement of shapes (although triangles balance at ends).
35. Quinnipiac River today.

36. Quinnipiac River today.

37. Long Wharf area today. Oil tankers are extent of shipping in the harbor today. Produce and meat sold in warehouse and theatre—restaurants and large office complexes. I-95 cuts through the area.

38. Old and new—Elm Street—New Channel 8 WHTV-1983 and remnant of the past.

39. Old and new—On the Green.

LESSON PLAN—SCULPTURE ON BASE

Objective: to create a similarity to a city scape. to reinforce observation skills.

Goals: Students will gain an understanding of architecture as sculpture. Students will consider physical relationships of buildings.

Materials: For each student; wood blocks approximately 3"X3", 8-10 wood pieces—variety of shapes approximately 1"X 1", sandpaper, Elmer's glue.

Procedure:

1. Sand all wood. Build a tower like structure, one small piece on top of the other, on the 3"X3" base. Use glue generously, it dries clear. Allow to dry overnight. Paint white.
2. Place a few sculptures in a row and observe at eye level. Sketch *outline* of the sculptures in a row.
3. A painting may be created by adding sky, trees, etc. in proportion to look like a city scape.

Notes

*Rifkind, *A Field Guide to American Architecture* , pg. 29.

**Osterweis, *Three Centuries of New Haven 1638-1938* , pg. 296

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