

### III-5. The Significance of Masonry Vernacular Architecture in the Development of Design Strategies for Small Cities and Towns

Michael Alfano, Jr.

Assistant Professor of Architecture, School of Architecture, Florida A & M University, Tallahassee, FL 32307

#### ABSTRACT

*The small southern town and city usually have as their core fabrics vernacular masonry buildings. The taxonomy of these buildings is usually load-bearing party walls, two or three stories in height. In many of these core areas this fabric is underused, and in many situations in a state of deterioration. Yet with appropriate strategies this same fabric might be turned into a very usable resource for the community.*

"Cities need old buildings so badly it's probably impossible for vigorous streets and districts to grow without them." (Jane Jacobs, *Life and Death of Great American Cities*.)<sup>1</sup>

The small southern town and city usually have as their core fabrics vernacular masonry buildings. In many of these core areas this fabric is underused, and in many situations in a state of deterioration. These core parts of our cities and towns should no longer be neglected, but must be looked at as a viable resource and alternative to constructing new buildings.

The reason they have become significant alternatives to starting anew is complex and economics is a prime factor. This new economic viability is due to a number of parameters: rising inflation, cost of construction, and most significantly, the increasing cost of energy in the United States. We simply cannot afford to overlook reuse as a possible means to meeting more of our space needs. With appropriate strategies, this same fabric might be turned into a very usable resource for these communities.

The intent of this paper is to focus on the southeastern region of the United States and explore the factors present in this area. Many of these forces are shared by other areas of the country, but there are some unique occurrences that make this region a worthwhile study area.

The morphology of southern cities and towns was greatly influenced by their early settlers. These immigrants came primarily from England, and an endemic characteristic of the southern city, also from England, is the square. This taxonomy can be seen in the 1733 plan for Savannah, Georgia by Lord Oglethorpe (See Diagram 1). This is probably the most consciously planned example, but Charleston, South Carolina and Williamsburg, Virginia are also prototypes that exhibit similar patterns. These public spaces were at one time the primary focus of these urban areas and in most cases were regional focal points. Today, due to our extended cities, the cores centering on these squares have suffered a shift in importance to the point where they are now just another node on the network, although many still maintain much of their historic governmental function.

The taxonomy of Quincy, Florida, located in the northwestern part of the state, is an excellent example of how these squares are usually organized. Elements of the square have in many cases symbolic content and also function as activity settings. Diagram 2 shows the county courthouse and administrative offices (A) occupying the central

position of the Quincy town square, representing the local authority. It is by far the most architecturally polite building in the setting. The role this region had in the War Between the States is symbolized in the statue paying homage to the Confederate War dead (B). The square is bounded by vernacular masonry buildings of various heights fronting the square.

The buildings on the square in Quincy are classic urban buildings in that construction consists of structural masonry party walls which are perpendicular to the street, have a wood joist floor and roof system, may or may not have residential or office space on the next floor. Today much of the ornamental masonry work that covers the main facades uses materials such as corrugated aluminum, plaster, and other false fronts ostensibly to improve or modernize their image. The rear of these buildings usually is used for service entrances, and in the past also served as stables for the stores. The square provides the setting for ceremonial activities, civic groups use it for occasions, and it provides a place where day laborers can gather to await a job offered from a pickup truck.

At the building scale the south has a long tradition of using masonry for a number of reasons, the first being that the soils of the region can be used to make brick. The other major factor is that the early settlers, predominantly from England, brought a tradition of building in masonry with them. This concern was being exhibited in the American colonies as well as England where the city of London was being rebuilt as a masonry city, primarily of brick. The prior construction method had been primarily frame construction.<sup>2</sup> One reason this new tradition was being adopted was its fire-resistant characteristics. Thus lessons learned in England from events like the great fire of London in 1666 influenced the early settlers of the south in their selection of material.<sup>3</sup>

Another factor that may have influenced an early use of masonry was the fact that the English government utilized an indenture system to colonize this part of the country. Due to the system of indentured landholders, the English government was the owner of the farms and actually proclaimed laws like the one in 1637 by the Royal Governor Wyatt which declared that any farm of 100 acres or more had to have a dwelling house of brick 24 feet by 16 feet with a cellar. This law of course was not completely obeyed.

Communications between early settlers and England state as early as 1611 "the most important task which the

colonists had to perform was the manufacture of bricks.<sup>5</sup> To this end, kilns were erected at Henrico in 1611 (Henrico is approximately the site of present-day Richmond). By the year 1620, Virginia was actually exporting bricks to Bermuda.<sup>6</sup> At the turn of the century brick was so common it was being used to support marble imported as tombstones from England.<sup>7</sup> Barons Castle in Surrey County, Virginia, circa 1655,<sup>8</sup> is an example of early masonry construction in the American colonies albeit a rather grand house, and not the normative size house being built at the time.

Traditional urban designs were modified in order to satisfy localized needs such as security, climate and societal forces. An excellent example of this modification is the Charleston, S.C. single house which is a reaction to the hot humid climate prevalent in Charleston during most of the year. This design allows for through ventilation of every room in the house. Charleston also exhibits the more traditional row house which regulates the garden area to the rear and fronts the street.

The traditional party wall buildings found in these urban area exhibit characteristics that make them viable for a number of uses. The structural walls are fireproof, and with minor adjustments would probably meet most local code requirements for public assembly functions. A fact that could be a significant energy issue is the heat gain and heat loss characteristics of this type of morphology. The party wall construction allows for a low surface area in relation to the total mass which of course reduces both of these factors. These buildings were designed and built at a time when mechanical cooling hadn't been invented yet so they used passive means to make their interior environment comfortable. They usually exhibit high ceilings to create a stack effect. This strategy keeps the hottest air above the living plane. Front to back ventilation is also prevalent with floor to ceiling windows to assist this cross ventilation. This allows the ambient temperature to be lowered, and helps to counter the high humidity. The possible uses these buildings might house covers a wide range of functions. Commercial, civic, educational and housing, are some generic possibilities. There already exists in the region a tradition of reuse that is growing in magnitude. Some towns and cities have already recognized this potential resource and acted to use it. Two examples are Biloxi, Mississippi, one of the most recent, and New Orleans, where this tradition has existed in the Vieux Carre for generations.

In Biloxi a number of blocks of masonry buildings have been refurbished (Diagram 3A), parking has been provided (B), streets have been closed to traffic and turned into a pedestrian mall (C). The mall still allows vehicular movement to cross the pedestrian path at clearly defined intersections (D). This effort is integrated with new construction of significant architectural quality and does more than create a positive commercial environment but also provides a social focus for the town.

The Vieux Carre in New Orleans has long exhibited this phenomenon of evolution. The buildings of the French Quarter have a patina of wires, ductwork and additions that is part of their charm, and a raised con-

sciousness of New Orleans citizenry has preserved the quality of this environment.

Any design or planning endeavor must be approached with a thorough understanding of the local situation and a procedure must be developed that defines issues and identifies criteria to resolve them. The tools needed to generate physical solutions are shared by any competent architect or urban designer.

The primary facet that an architect must address when dealing with reuse is that of being sensitive as to what is valuable in a situation: what has the potential for being evolved and what does not. The architect must then understand his obligation to develop syntactical relationships between the existing and proposed adjustments as he is now working as a surgeon on the environment.

There are three primary situations that most design settings involving reuse fit into. The first is working within an existing form or organization and developing new functional systems and activity settings that must be integrated with the existing organization. The second mode is that of expanding existing functional systems and activity systems. This mode is more additive in nature. The third mode is designing in a strong context, possibly in relation to elements of historical significance.

In all three of these situations the parameters that must be explored and integrated into a new generation are the same general issues that a designer must consider in designing a new structure, but must be evaluated with different consideration. A general listing of these parameters and some possible issues relative to each are presented. This list is not meant to be exhaustive.

#### 1. Site/Context

- A. What is building's relationship to the passive systems that act on it? Is there an opportunity to reinforce or take advantage of these relationships?
- B. What are the existing services the building receives? Are they sufficient for the building to achieve its maximum potential?
- C. What are the legal systems that are being enforced? Do they need to be varied? If so, what is the best potential strategy to do—through what regulatory agencies?
- D. What are use patterns that might be affected (positively or negatively) by any new generation?

#### 2. Built Form

- A. Are there any hierarchical values in present situation? Are they relevant to new activity settings?
- B. What is the total space available? What kind of use does it lend itself to?
- C. What is the experiential nature of the existing spaces? Do these perceptual experiences lend themselves to new programmatic requirements?

#### 3. Structure/Organization

- A. What is present loading capacity?
- B. What is condition of the system?
- C. How does it lend itself to new spatial organization?
- D. Does the system meet current legal requirements?



4. Environmental Technology
  - A. What is condition of existing systems?
  - B. What are existing capacities? Are they sufficient to service new function?
  - C. What is the present distribution pattern?
  - D. Do existing patterns lend themselves to proposed uses?
5. Semantics/Aesthetics
  - A. Does the existing architectural language still have social meaning?
  - B. Is there historical value in the existing articulation?
  - C. Is there a dialogue between existing language and the contemporary semantic layers that might be overlaid?
6. Materials and Connections
  - A. What are characteristics of existing materials? What more contemporary materials are they compatible with?
  - B. What is condition of existing materials? What are the processes necessary to repair or refinish them?
  - C. Has there been deterioration in existing connections?

In addition to developing physical design strategies, economic and legal concepts must be developed to meet defined intentions of local plans. An example of this kind of strategy might be to have local banks form a mortgage pool specifically for the refurbishing of these areas. This type of strategy would allow the local community much more control and flexibility as governmental red tape would be avoided. Local government agencies could lease space in buildings for library expansion, educational facilities, and back office space to form a guaranteed income base for owners. This could be a positive step for local government as it reduces the need to maintain properties, and large capital investment.

A vehicle that also might help to instigate this kind of development might be short term tax incentives to property owners for developing properties in poor condition. This method can work in a number of ways: by either short term tax exemptions or short term periods where the appraised value of the properties would not be raised to the new level the improvements would incur.

Some legal strategies might involve the use of zoning to create special districts where densities might be allowed to

be higher, or where vertical zoning might be allowed to encourage mixed use, and thus create a wider variety of activities for these areas. Another legal tactic might be to provide minimal parking requirements for this redevelopment. In the short run this might prove unpopular, but with the energy crisis intensifying, it would discourage the use of private transportation and encourage the use of whatever mass transit is available. An institute that monitors different situations and solutions might be formed to act as a clearinghouse for this kind of endeavor. The research center in Williamsburg, Virginia might serve as a prototype for this kind of center.

The spinoffs of these efforts should undoubtedly be the revitalization of these areas, an increased tax base, and a greater urban identity. This would allow these centers to return to their traditional significance instead of their present-day entropic slide.

## REFERENCES

1. Jacobs.
2. Bremskill, page 46.
3. Fletcher, page 1140.
4. Bruce, Volume II, page 137.
5. *Ibid.*, page 145.
6. *Encyclopedia Americana*, page 520.
7. Bruce, Volume II, page 144.
8. Bremskill, page 189.

Diagram of Savannah taken from: *The Urban Pattern*, page 55.

## BIBLIOGRAPHY

- Illustrated Handbook of Vernacular Architecture*. R. W. Bremskill. Universe Books, New York: 1970.
- Dimensions*. Charles Moore and Gerald Allen. Architectural Record Books, New York: 1976.
- Encyclopedia Americana*, Volume B.
- Economic History of Virginia*, Volumes I and II. Philip Alex Bruce. Macmillan & Co, New York: 1896.
- American Building: The Historical Forces That Shaped It*. James Marston Fitch. Houghton Mifflin Co, Boston: 1966.
- A History of Architecture on the Comparative Method*. Sir Bannister Fletcher. Charles Scribner's Sons, New York: 1970.
- The Urban Pattern*. A.B. Gallion and S. Wisner. Van Nostrand Co, Inc., Princeton: 1963.
- Life and Death of Great American Cities*. Jane Jacobs, Random House, New York: 1961.

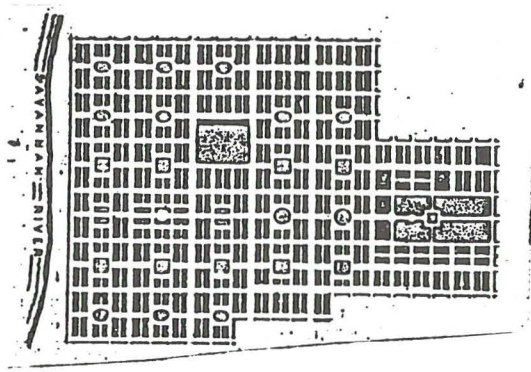


Diagram 1.

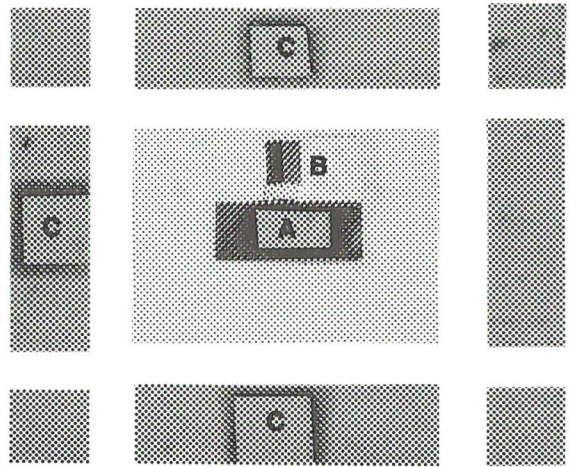


Diagram 2.

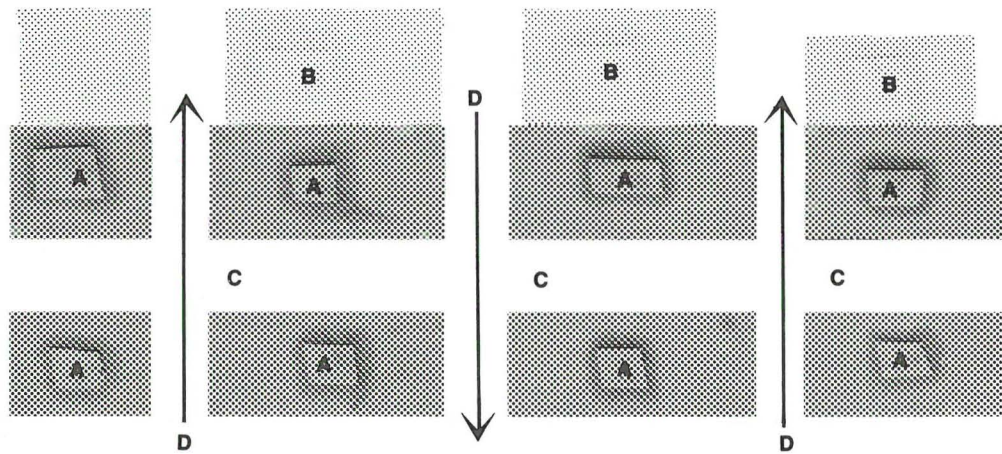


Diagram 3