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FOLK ARCHITECTURE IN TENNESSEE: A CALL FOR NEW DIRECTIONS

George F. Fielder

ABSTRACT

The study of Tennessee folk architecture is still in the data collection phase of development. A sound theoretical framework within which architectural observations can be placed is not possible until we have a statistically adequate data base. The author summarizes the procedure of architectural recording necessary to provide such a data base and calls for a new organized effort in folk architecture research in Tennessee.

Introduction

When asked to write an article on Tennessee folk architecture several months ago, I glibly agreed, thinking that I could compile a reasonable statement on the range and variation in the types of traditional owner designed and constructed buildings in Tennessee. After a survey of the literature, however, I found that although a number of articles have been written on Tennessee housing (see the Selected References), they fall into two broad categories: description of selected individual structures (Madden and Jones 1969a; 1969b) and general trends perceived from statistically small samples (Scofield 1936; Hulan 1975). The problem of inadequate sample size is certainly not restricted to Tennessee folk architecture studies but characterizes most of the work in the United States.

What is generally lacking in Tennessee and other areas is a sound theoretical framework within which architectural observations can be placed. It is through such a framework that data (observations) are given meaning from the cultural standpoint. In our case the cultural meaning takes the form of explanation of cultural processes involved in the design and construction of traditional structures.

Henry Glassie, well-known folklorist and material folk culture scholar, has developed such a theoretical framework in his most recent book *Folk Housing in Middle Virginia* (1975). Acknowledging the deficiencies in previous researches such as limited sample sizes, bias toward certain socioeconomic classes, and limiting study to specific "types" of structures, Glassie examined and recorded in detail all of the structures in a three county area in middle Virginia. From this data he generated a set of rules applicable to the design and construction of houses that are analogous to a linguistic transformational grammar. The set includes rules covering initial layout, partitioning of space, and the piercing of vertical elements for windows, doors and the like. The rule set, produced from observations made only in the study area, is internally consistent for that area. House types in the study area are described by combinations of the rules thus well defining the elements and attributes that constitute his "types".

The implications for future studies arising from Glassie's research are significant and far-reaching. One is that before cultural interpretation can be attempted there has to be a statistically valid data base both from the standpoint

of areal coverage and numbers of observations. In folk architecture studies an adequate data base involves a complete survey of the study area with each structure recorded in detail (plans, elevations, and construction details).

A second implication is that the collection of data should be organized into patterns--an internally consistent set of rules connecting the observations in ways that are logical and culturally meaningful. In our case these are rules associated with the design and construction of a building.

Thirdly, "types" in the sense of "mental templates" of the designer/builder should be defined in terms of combinations of the rule set for the study area.

Consequently, the investigation of architectural differences, whether temporal, spatial, or culture group, becomes a comparison of differences in "types" (mental templates) and the composition of the rule set rather than the comparison of specific structural attributes such as corner-timbering notch style. In essence we are treating buildings as ideas rather than objects although with the realization that these are limits in our inferences.

Having a methodology available for the determination of architectural rule sets (Glassie 1975), the next steps in the development of Tennessee folk architecture are to collect data (field work), generate rule sets and derived types for various study areas, then compare and contrast the results with other areas, time periods, and culture groups.

Recording and Interpretation of Structures

The foundation of architectural pattern research is field work which can be one of the most challenging, yet rewarding aspects of folk culture studies. One learns to appreciate (and love) old buildings in a way that is difficult to describe but is undoubtedly related to a fuller understanding of the complexity of architectural competence. As Glassie (1975: 21) remarks "If nothing else, he [the student] may never again feel comfortable in discussing folk houses as the products of simple minds solving simple problems."

Folk structures are artifacts in the sense of being the product of complex interaction of ideas, techniques, and materials. Since buildings rarely remain unchanged from their original form or function, the thorough recording of a structure also includes an interpretation of clues indicating changes in form and function. These clues (attributes) are in the form of overall building shape, partition of space within the building, and a plethora of construction details ranging for example from the basic kind of construction--frame or log to the style of nails used in attaching weatherboards.

It is difficult to instruct someone in an analytical technique solely through the means of the written word; expertise can only reach a high degree through experience and training. The following guidelines are offered, not as detailed instruction, but as a starting point for the development of such an expertise.

The minimum level of architectural recording applicable to the development of rule sets as described above include the following attributes--plan, section, elevations, and construction details including the kinds of materials employed.

An architectural plan is a horizontal slice through the building at a specific level. Viewed from above with the portion above the slice removed, the plan shows the horizontal allotment of space within the structure (FIGURES 1, 2). Plans, usually prepared showing a slice about four feet above the floor level so that it will cut through door and window openings, are made from field measurements commonly drawn at scales of 1/8"=1', 1/4"=1', and 1/2"=1'.

A section drawing is similar to the plan except it is a vertical slice through the building showing the internal vertical use of space since the height of floors, and other horizontal elements are depicted. Sections are prepared at the same scale selected for the plan.

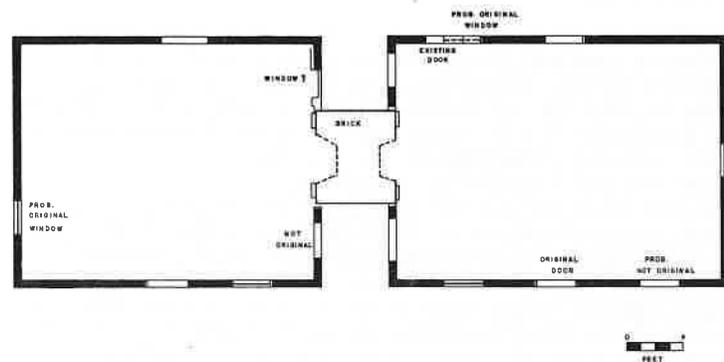


FIGURE 1. Example of a plan drawing originally drawn at 1/4"=1' scale.

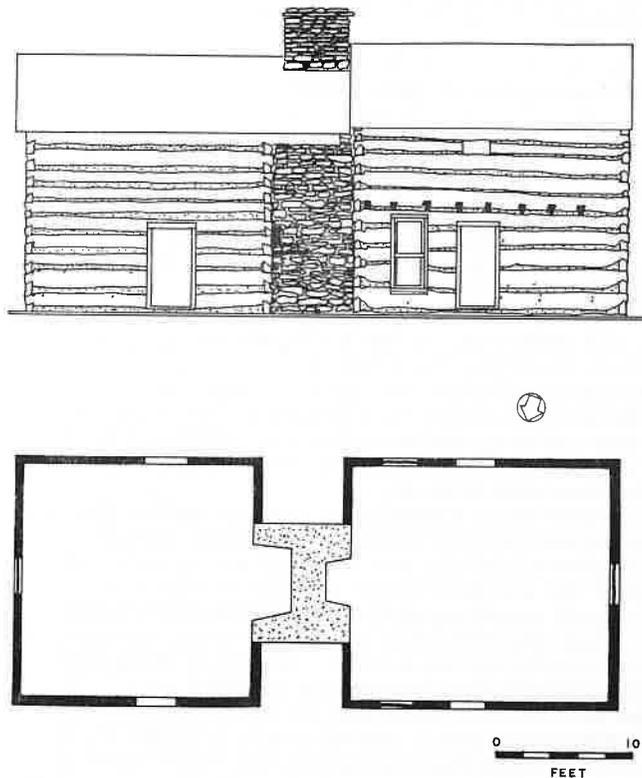


FIGURE 2. Example of a north elevation and plan. Original drawn at 1/2"=1' scale.

End and side views of a building are called elevations in architectural terminology. Elevations, usually drawn at the same scale as the plan, record the arrangement of structural openings such as windows, doors, and chimneys as well as the height of the building. Elevations are identified by direction; a *north elevation* is the drawing of the *north face* of a building as viewed from the *north* (FIGURE 2).

Construction details can indicate the date of construction, availability of resources, and cultural selection processes. They include but are not limited to such things as foundation type, roofing material, style of nails used, type of hinges, window construction, and the type of corner-timbering on log buildings. Corner-timbering types in themselves can be quite interesting; in Tennessee are found full dovetail, half dovetail, saddle, "V", square, and *pièce sur pièce* (FIGURE 3). The latter mode was widely used in Louisiana and Canada and has been reported in Tennessee (Kniffen 1969:8). The *pièce sur pièce* method employs the use of vertical hewn timbers mortised into the plate and sill. These posts which are located at the corner contain a deep vertical groove into which fit tongues (tenons) on each of the horizontal wall logs (FIGURE 4). The author has seen only one house in Tennessee built with this technique, a double pen, central chimney house built with one pen using the "V" notch, the other, perhaps later, pen using *pièce sur pièce* (FIGURES 5, 6, and 7).

Other aspects of construction details have been discussed by many authors covering nail typology (Nelson 1963), building methods (Kniffen and Glassie 1966), tools (Mercer 1960) and many other specialized interests. Ching (1975) has written an excellent, moderately priced book on architectural drawing and equipment.

In addition to the scaled drawings discussed above, extensive photographic documentation should be made showing elevations, setting, and construction details. Both color and black and white photographs are preferred, but only black and white are permanent from an archival standpoint.

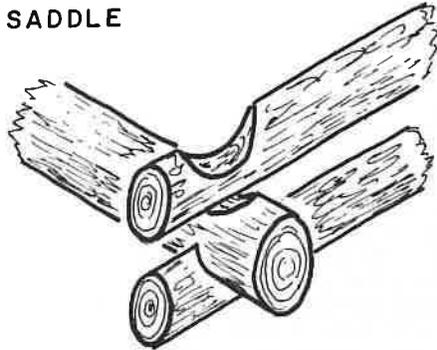
One recent development in the dating of log structures in middle Tennessee is the use of dendrochronology--tree ring dating. Bowers and Grashot (1975) have worked out a tree ring sequence for the period A.D. 1876-1973 using southern red cedar (*Juniperus virginiana* L.) in the vicinity of Castalian Springs, Sumner County. Bowers is continuing to investigate the applicability of dendrochronology to historic structures and once refined, the technique offers great promise.

In addition to descriptive records of buildings, historical and cultural information is also required. Context, location, date of construction, and the cultural background of the designer/builder all play important roles in the interpretation of broader patterns of architectural behavior. Context, in this sense, is the relationship of the structure to associated features such as other buildings, roads, topography, and communities. Location should be specified such that other researchers can precisely relocate the structure. Latitude and longitude taken from USGS 7-1/2' topographic quadrangles is one satisfactory method.

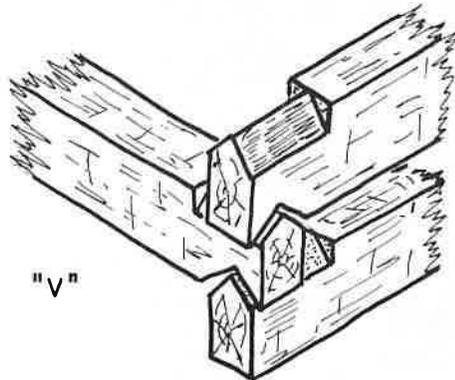
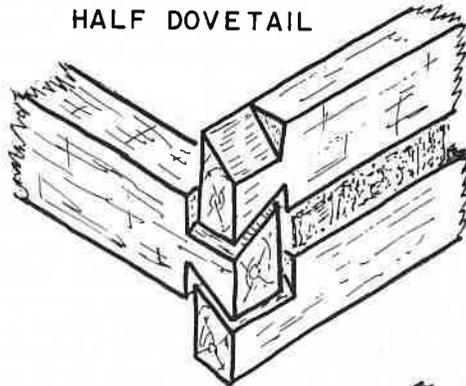
Conclusions

The study of Tennessee folk architecture is still in the data collection phase of development and must continue in this phase until we have a statistically adequate data base. Consequently, a discussion of Tennessee "house types" as was the original intent of this article is somewhat premature. Therefore, I am calling for a new organized effort in the research of folk architecture involving the cooperation and participation of persons interested in their local history and folk culture. There is a great deal of personal satisfaction and intellectual stimulation associated with the investigation of folk buildings. We need to become avid collectors of house, barn, and other structure plans with as much enthusiasm as we have directed toward material items.

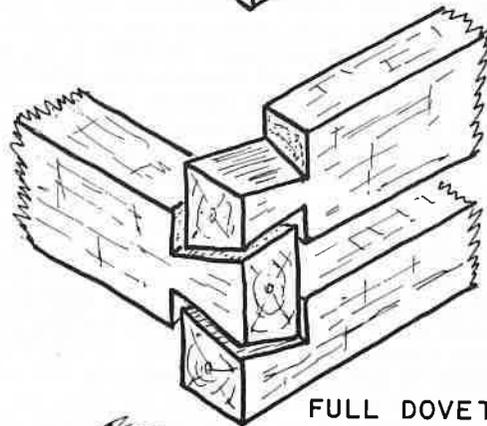
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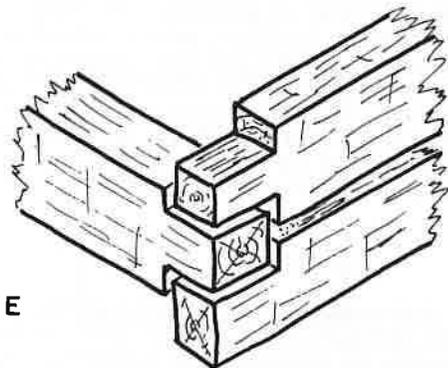
HALF DOVETAIL



"V"

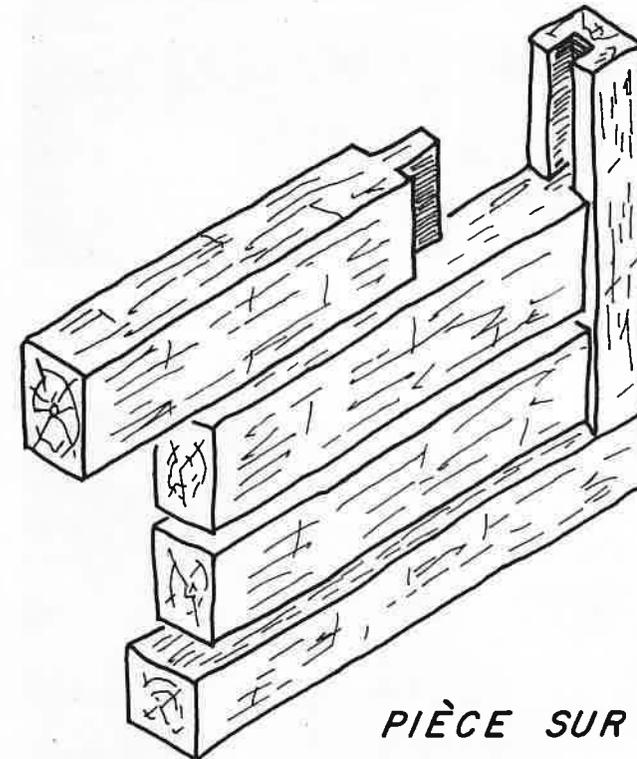


FULL DOVETAIL



SQUARE

FIGURE 3. Corner-timbering notch styles found in Tennessee.



PIÈCE SUR PIÈCE

FIGURE 4. Sketch of *pièce sur pièce* log construction technique.



FIGURE 5. South elevation, west pen *pièce sur pièce*, east pen "V" notch, Knox County, Tennessee.



FIGURE 6. Corner timbering detail, same structure as FIGURE 5.

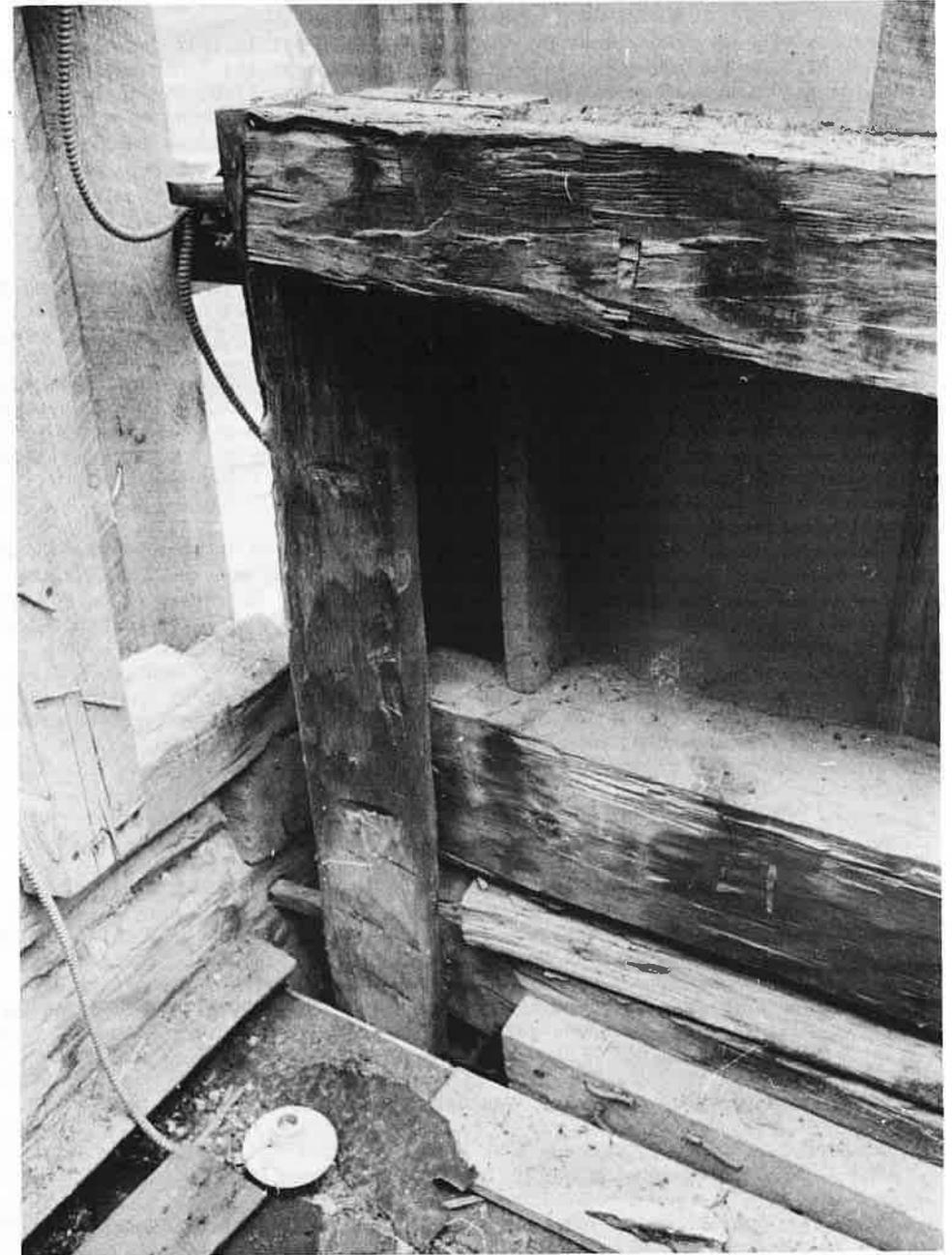


FIGURE 7. Detail of vertical post at plate, *pièce sur pièce*. Note peg holding post to other pen wall. Same structure as FIGURE 5.

Persons with an avocational or professional interest in folk architecture and local history are requested to write to the author at the Tennessee Historical Commission, 170 Second Avenue North, Nashville, Tennessee 37201 for additional information concerning the establishment of a voluntary state-wide folk architecture survey. The benefits, both personal and professional, can be enormous if such a program can be implemented.

Notes:

1. The structure illustrated in FIGURE 1 is located in Kingsport, Tennessee on Orebank Road (36° 32' 37" N Lat., 82° 29' 09" W Long.). The house, built ca. 1820, has "V" notch corner-timbering and is a National Register property.
2. The structure shown in FIGURE 2 is located in Anderson County, Tennessee along the Clinch River within the area administered by ERDA, Oak Ridge, Tennessee (35° 57' 48" N Lat., 84° 13' 24" W Long.). One log in the east pen is carved with the date 1844 but based on the settlement history of the area the structure or parts of it could date to the first quarter of the 19th Century. Additional historical research is in progress.
3. The structure shown in FIGURES 5, 6, and 7 was located in western Knox County, Tennessee. Razed in 1970 in conjunction with highway construction, it was located in Hardin Valley at Robinson Crossroads (35° 56' 56" N Lat., 84° 09' 32" W Long.). Date of construction has not been established other than local comments of "over one hundred years old".
4. Except for FIGURE 1 all drawings and photographs were made by the author. FIGURE 1 is adapted from field notes by John Milner, AIA, restoration consultant for the current work on the house and farmstead.

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