

Rediscovering the Vernacular

by:

Mark W. Gibson

Thesis submitted to the Faculty of the
Virginia Polytechnic Institute
and State University
In the partial fulfillment of the
Requirements for the degree of
Master of Architecture

approved by:

William Green, Chairman

Lorenz Moser

William Galloway

September 2000

Dedication

For the anonymous builders
Whose callused hands created
The edifices that housed the
Common man and his common needs.

And

For

Móni

Abstract

This thesis is an attempt to address the making of vernacular architecture as a way of thinking. Particular attention is paid to an anthropological approach to the subject with specific concern given to scientific methodology.

In part, the thesis consists of a cursory study of the research that has been conducted in the field of vernacular architecture. It offers an overview of the various approaches to researching vernacular architecture and the overall results.

The thesis also explores the modes of thought of pre and post industrial societies and the various influences that come to bear on thought.

This thesis examines the thought processes involved in the initial stage of design and proposes the use of vernacular thought process, on a conscious level, as an aid to this stage of design. It offers, as an example, a preliminary design to show how this can be addressed



| | |
|--|----|
| Introduction | 1 |
| Interpretations in Vernacular Architecture | 3 |
| The Functional Approach | 6 |
| Construction Methods & Materials | 8 |
| Geographic Context | 12 |
| The Sociological Context | 14 |
| The Industrial Paradigm | 17 |
| Examination of Reasoning | 19 |
| Paradigm Shift | 21 |
| Neo-Vernacular | 24 |
| The Project | 26 |
| The Site | 30 |
| Related Structures | 32 |
| Design Methodology | 36 |
| Credits | 58 |
| Readings | 59 |
| Vita | 60 |

Table of Contents

Introduction

The following is a concise investigation into the nature of vernacular architecture and how that knowledge can be made useful in contemporary design. The approach, simply stated, is to understand the thought process in order to understand the design.

To begin this study, the first goal was to explain the term *vernacular*. This term has had a variety of definitions and explanations that tended to be focused primarily on the interests of the individual researcher, never encompassing all of what was considered *vernacular* by other scholars. It was decided to review the literature available and try to come to some conclusion as to a general consensus on the subject. It was found that the explanation of Camille Wells had the best foundation. Wells divides the approaches to understanding vernacular architecture into two categories:

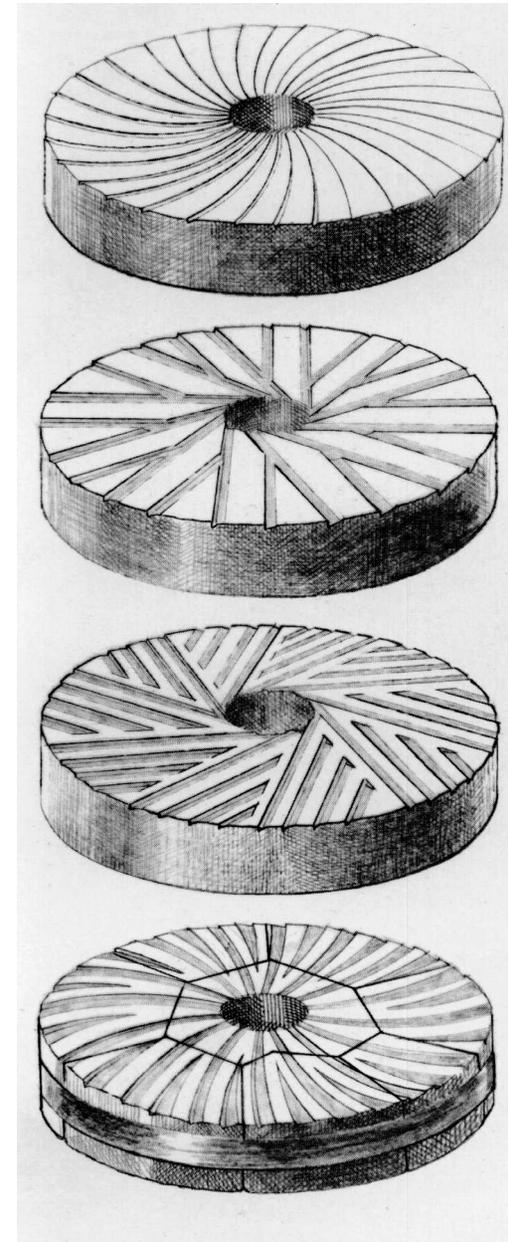
- how architecture is used and changes with time due to shifting functional needs
- how architecture reinforces certain social constructs.

These categories were used as a guide and an explanation was sought within their boundaries.

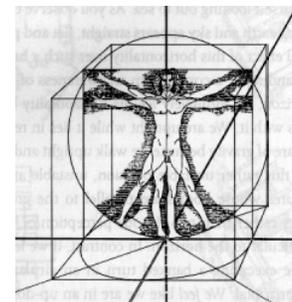
The second part of this study was focused on the '*Industrial Paradigm*'. Delving into the psychological under-

tones of the thought processes at work in design, it was hypothesized that these thought patterns have changed due to the intellectual pressures brought on by the scientific and industrial revolutions. The field of anthropology was studied heavily for this section since thought process is an important method of explanation. A comparison was made between the process of thought that manifested itself in vernacular architecture, and the process that is predominant today.

The final section of this study addresses the adaptation of this knowledge of vernacular thought process for use in architectural design today. The results of which is a design for a restaurant. This is a preliminary, concept stage design that was created using the inductive approach discussed in the second section, but with the inferences being drawn from a very different source. It is not a completed design, but simply a concept dealing with shapes and planes, adapting both the natural and the built environments to cause the desired affect on an inhabitant's sensory experience.



Interpretations in Vernacular Architecture



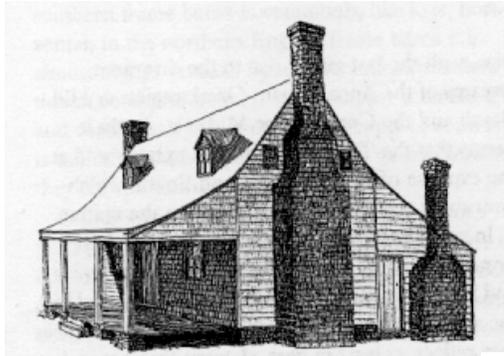
“All of us are creatures of the day; the rememberer and the remembered alike” *1*



It was decided that seeking an explanation in vernacular architecture would render more usable results than attempting to locate or formulate a definition. Definitions are based on the limits or an outline of the term in question. The complexity of vernacular architecture makes it incredibly difficult to define limits that would encompass all of what researchers have come to include in this term.

An explanation, on the other hand, is simply an interpretation of the term and attempts at an explanation in vernacular architecture studies have resulted in many interpretations. But all have had one goal on mind, to understand the reasons for its existence.

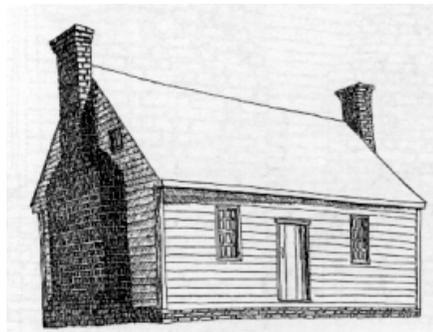
"...an explanation is a confirmed statement that subsumes a given cause under an accepted law." 2



1



2



3

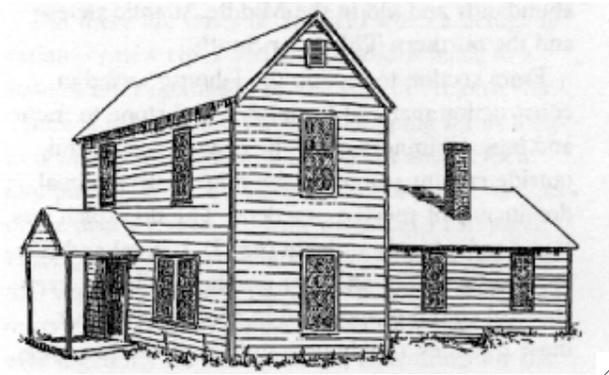
*Image 1 Tidewater house with a two-chimney appendage and a front gallery
Image 2 Unit frame tidewater house.
Image 3 Two-room, frame tidewater house.*

The Functional Approach

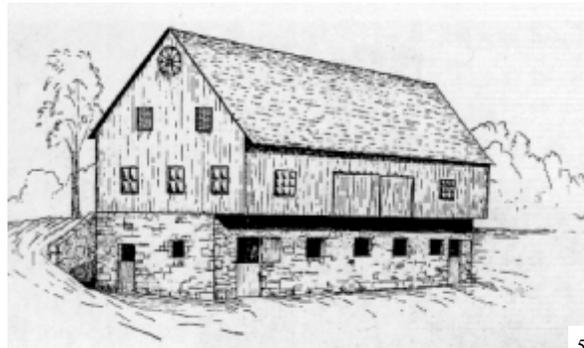
The majority of studies attempted in the early years of vernacular architecture research were based on function being a means of understanding these structures. This focus ranged from the individual building, to entire communities, to migration flow patterns. This approach makes the assumption that the existence of a building and the form it has taken are the direct and primary result of specific, physical influences.

Form

With function as a means of explanation, the forms vernacular architecture has taken are assumed to have direct correspondence to their natural and cultural environments. In regards to the natural environment, the gable roof can be used as an example. It is not a dominant feature where the need to deal with snow and heavy rains is not an issue in building design. Many examples can be found to warrant this approach; the heavy stone walls of the English cottage, the stilt-huts of the South Pacific, the underground dwellings of the Sudan. All of these being results of the influence of the natural world.



4



5

Image 4 Frame I-house.
Image 5 Pennsylvania German barn.

The cultural acceptance of and expectations on form also have an important affect on vernacular architecture. Culture, as Deetz defines it, is “a uniquely human system of habits and customs acquired by man through an extrasoteric process, carried by his society, and used as his primary means of adapting to his environment.” These habits and customs, which will be further examined later, and their impact on design can be readily seen even in the most utilitarian of buildings. The barn in Fig.5 is an example of this idea. The overhang is as much a cultural form as it is a functional form, having been derived or copied from European sources by immigrant farmers.

“The functional aspect of an object is at times clarified by the contextual aspect but may involve other considerations, since inferences regarding the function of the object in the culture which produced it involve the consideration of its contextual aspect as well as its functional aspect.” 3

Construction Methods & Materials

Research into vernacular construction methods and technologies have supplied a wealth of information concerning the vernacular builder's trade. It has also allowed insight into community structures and the importance of various trades in early societies.

The role materials played in vernacular design cannot be overstressed. The evolution of building technology can easily be linked to the availability of certain materials used for construction. As long as one, favored, material was abundantly available, there was no need to substitute a different, foreign material. Where vast timber forests were predominant, wooden structures were built. When this material became scarce, as happened in the Mediterranean area, the methods of construction turned to the use of stone. When large timbers became difficult to locate in England, half-timber frame construction was invented. And, in this country, the use of certain materials such as 'nogging' (brick & clay wall infill) and thatch for roofs, gave way to the use of wood siding and shingles. (Glassie & Kniffen p 159 CP)

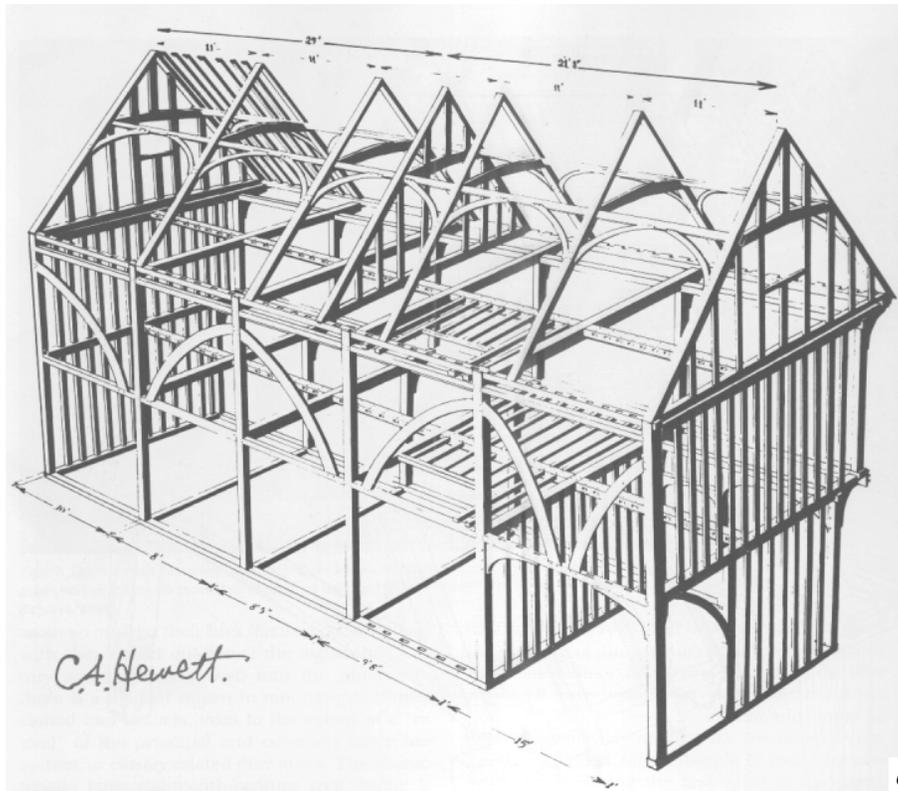


Image 6 Paycock's Houae, Coggeshall, Essex, Eng.
Ca.1500

"Folkways are comparatively the simplest and most direct expression of fundamental needs and urges. They conform to type with a minimum of individual deviation, and thus attest to the innate conservatism of their practitioners." 4

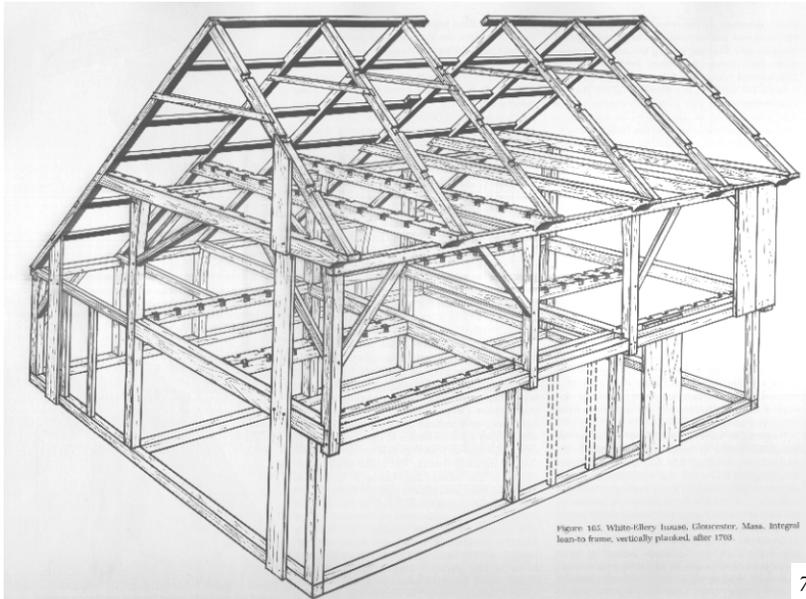


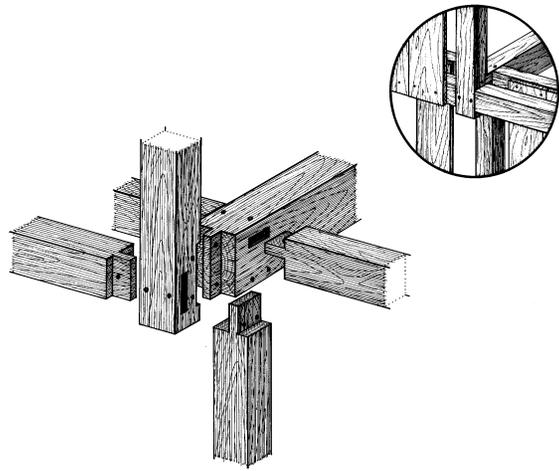
Figure 165. White-Ellery house, Gloucester, Mass. Integral beam-to-frame, vertically planked, after 1700.

7

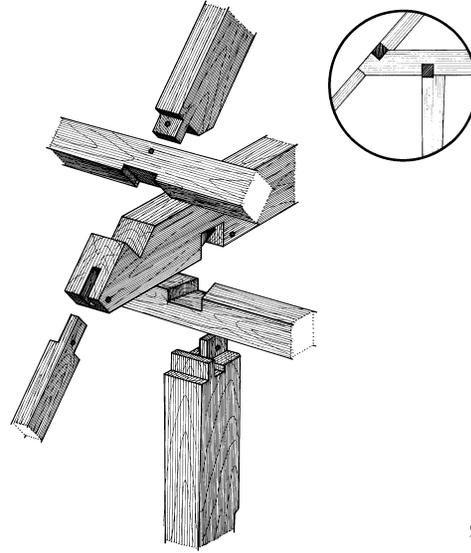
Image 7 White-Ellery house, Gloucester, Mass.

The actual construction of vernacular buildings was the result of traditional techniques and the availability of tools. In the early years of this country, we see European building technologies transplanted with very little change. The same construction methods were used as well as the same tools. The early settlers to this country were forced to use English made tools due to British trade regulations. (A. Watson) And, as Aldren Watson points out, this only began to change when rural men, who did not have money to pay for these imported tools, began to barter with the local blacksmiths for the manufacture of tools. These rural men, mostly uneducated in the building trades, ordered tools to be made that, eventually, evolved from their European counterparts into more streamlined, and some would say more primitive, products.

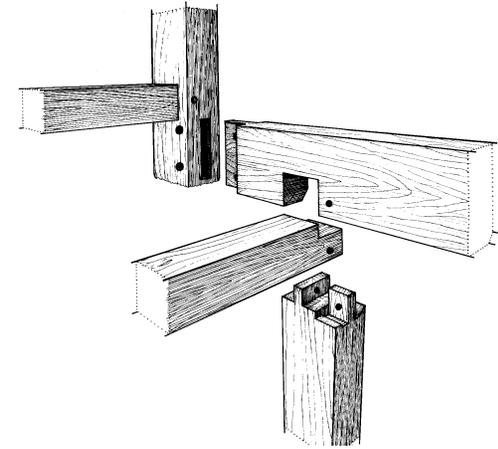
“...it is always earlier ends which are called upon to play the part of means: the signified changes into the signifying and vice-versa.” 5



8



9



10

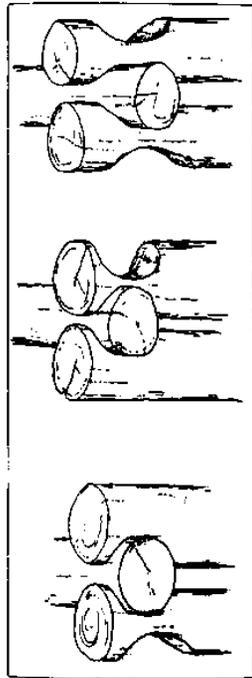
Image 8 White-Ellery house, Gloucester, Mass. Assembly of first- and second-story chimney posts, chimney girt, first-story "plate," and overhanging girt, with detail showing vertical planking, after 1703.

Image 9 Cooper-Frost-Austin house, Cambridge, Mass. Assembly of post head, rear plate, chimney tie beam, purlin, and principal rafter, ca. 1689.

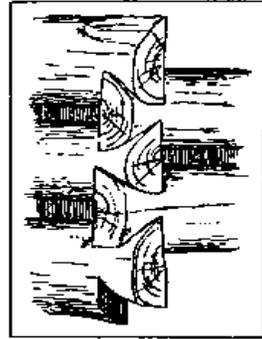
Image 10 Boardman House. Assembly of corner post, first-story plate, overhanging girt, end girt, and second-story corner post.

This same tendency became apparent in the architecture also. Slowly, the high level of sophistication and complexity of European building methods gave way to more economical building methods.

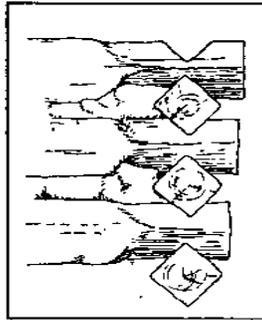
The guild system that was dominant in Europe never quite caught on in this country and the result of that lack of training, among other influences, was an evolution towards a more economical construction method.



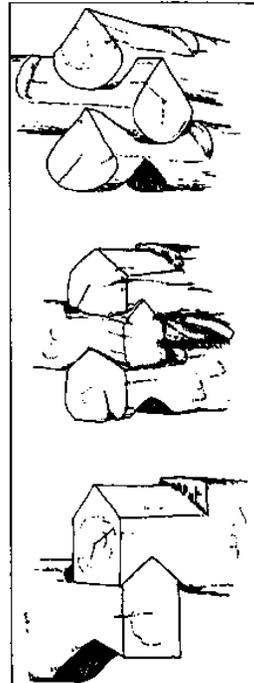
11



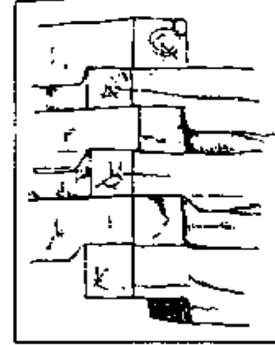
12



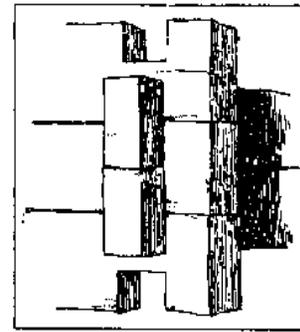
13



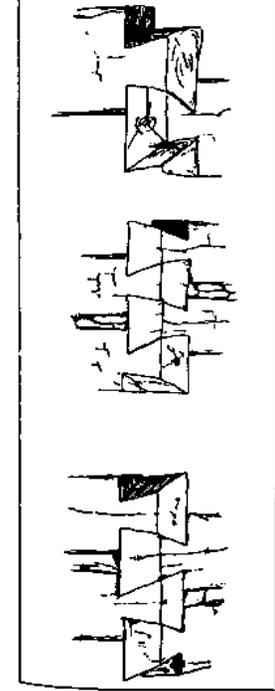
14



15



16



17

- Image 11 Saddle notches.
 Image 12 Semilunate crown on half-round logs.
 Image 13 Diamond notch
 Image 14 V-notches
 Image 15 Half notch.
 Image 16 Double-notch joint.
 Image 17 Full-dovetail notches

As new territories were opened and settlers began moving westward, we begin to see a lack of complexity in building methods. This was due to several influences, or rather the lack of influences. The complex timber-frame construction seen in New England houses was the result of Master housewrights who had trained for years in their craft. These men possessed the skills and tools necessary to build these structures. Settlers moving west were mostly farmers who had neither the skill, time, or tools to produce such intricately designed houses. They opted instead for log construction, a less sophisticated building

method that was known to some European cultures and also to several Native American tribes. This method of building required less labor, less skill, and fewer tools than timber-frame construction and, important to the frontiersman, the tools were such that they could be used for a number of other tasks essential to their survival.

Image 18 Ground plan of the building No. 3 Hess Andras Square, Budapest, Hungary.

Image 19 Ground plan of the house under No. 18 Orszaghaz Street, Budapest, Hungary. ca. 14th century.

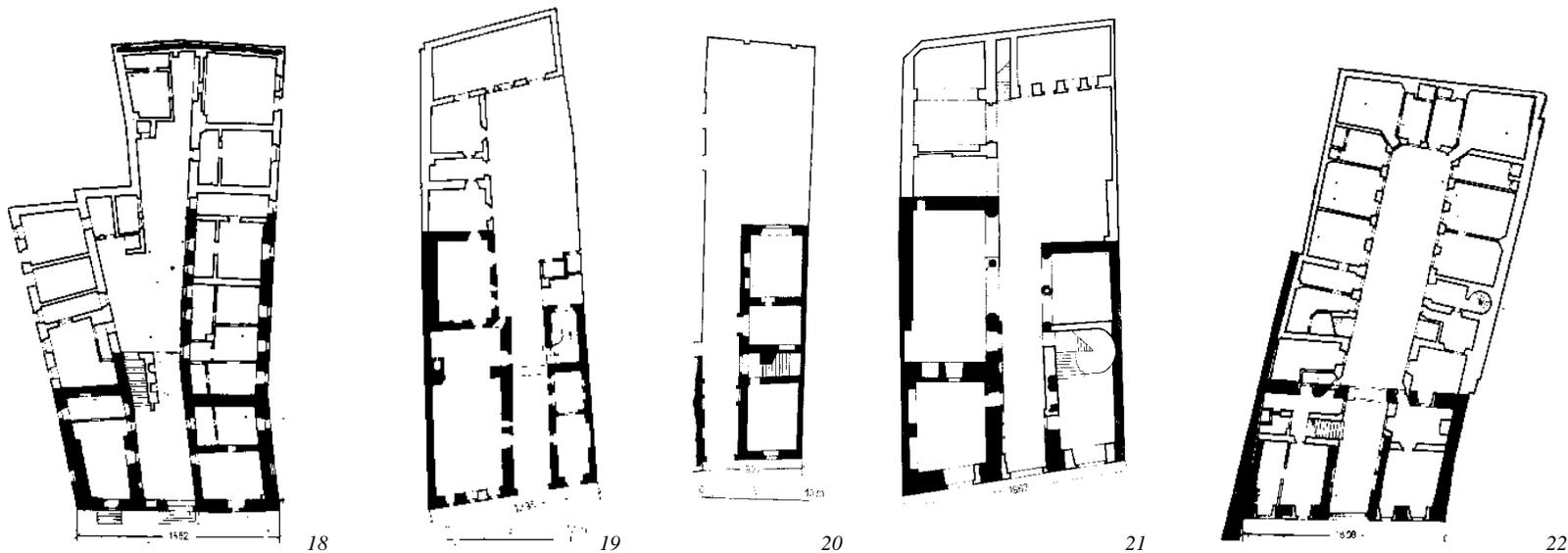
Image 20 Ground plan of the mediaeval walls of the house No. 47 Uri Street, Budapest, Hungary.

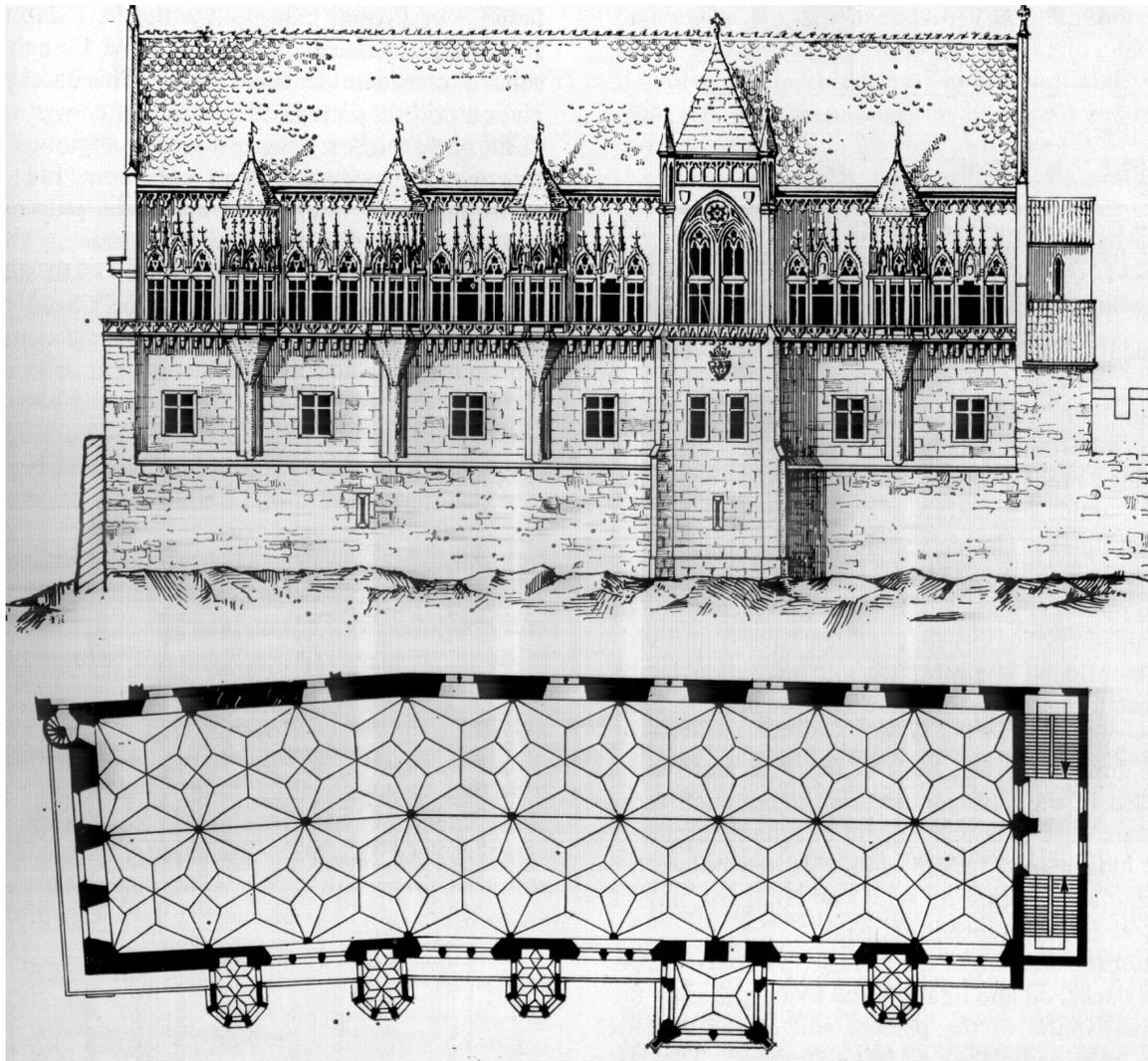
Image 21 Ground plan of house No. 2 Orszaghaz Street, Budapest, Hungary.

Image 22 Ground plan of No. 31 Uri Street, Budapest, Hungary.

Geographic Context

Another approach to vernacular architecture studies has been an attempt to understand these structures in their geographic context. At its most basic level, the geographic context can be viewed as the conditions related to the climate, topography, and the flora and fauna of a specific geographic location. The differences from one region to the next can be extreme and have an overwhelming influence on design, often giving rise to what becomes known as regional styles. But, on the level of the individual building, these influences may simply result in subtle changes in the directions of walls, as can be seen in Fig. 18-22.



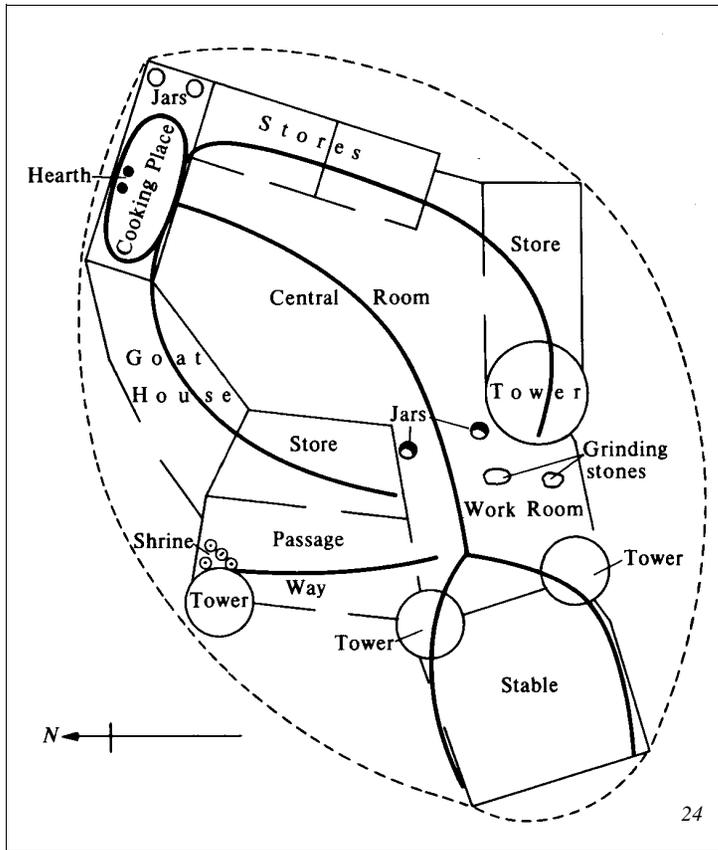


As can be seen here, even at a time when the buildings were completely dependent on a geometric approach, in the end, the topography of a site was the deciding factor and the builders simply adjusted the design to meet that constraint, often as the building was being constructed. Ironically, it was geometry that allowed for many of these structures to take these seemingly meandering shapes as is the case in Fig. 23.

It is understandable that economics played an important role in these decisions. It was not as feasible to adjust the landscape as it was to adjust the design of the building, making whatever allowances were necessary for the structural integrity of the building.

Image 99 Theoretical reconstruction of the great hall of the "Fresh Palace" built by Sigismund in the first quarter of the 15th century; drawn from foundation walls, descriptions and carved stones. (Gy. Kollar)

23



Dogon ancestral house.

The Sociological Approach

The sociological approach to studying vernacular architecture attempts an explanation based on responses to social constructs. These constructs have great affects on the psychology of individual builders, as well as groups of builders. This approach "...shifts the study of the vernacular from a problem of classifying inert objects as discrete examples to one of understanding a mental process through the examination of groups of artifacts that provide clues to the operation of that recurring, invisible process." (CP p xxii) This process is based on mental proclivities that are influenced by social pressures originating from several sources such as religion, social status, wealth, etc. The product is viewed as an "indication of thought" (CP p 394) based on "desire and emotion". (CP p 394)

"The big house (of each lineage within the village) comprises the dembere or 'room of the belly', that is to say, the central room, around which are placed a kitchen (obolom), three store-rooms (kana), a stable for goats (ende) and the denna or big room, flanked by the entrance (day) and another stable (bel de). On either side of the entrance and at the angles of one of the rooms are four conical towers surmounted by domes (arsobo).

The plan of the building is said to represent, on the one hand Nommo (the son of God) in his human form, the towers being his limbs; on the other hand, the kitchen and stable are said to be the heavenly placenta and the its earthly counterpart, together representing the head and legs of a man lying on his right side (and copulating), whose other limbs also have their architectural counterparts: the kitchen represents the head, whose eyes are the stones of the hearth; the trunk is symbolized by the dembere, the belly by the other room, the arms by the two irregular lines of store-rooms, the breasts by two jars of water placed at the entrance to the central room. Finally, the sex organ is the entry which leads by a narrow passage to the work-room, where the jars of water and the grinding-stones are kept. On these, young ears of corn are crushed, yielding liquid which is associated with the male seminal fluid and is carried to the left-hand end of the entry and poured out on the shrine of the ancestors." 6

“With the escalating level of decoration, genteel furniture, and fashionable new names, the old passage had evolved from its beginnings as an agent of social control to become a viable living space and, ultimately, an icon of status—a symbol of the social distinctions it had once enforced.”



27



28

The question of intent in vernacular architecture now becomes most important and the artifact itself used simply as a means of attaining insight into a given society. Seeking the reasons why vernacular builders created structures in certain forms, using certain methods, inquiries turn towards the understanding of culture. In doing so, revelations are uncovered pertaining to all aspects of vernacular design. As an example, the entrance hall in Fig.27 is a result of cultural construct based on the exhibition of wealth and social levels.

“...buildings are not the guileless embodiments of cultural values they are sometimes thought to be. Like documents, they can be biased, misleading, or ambiguous.” 7

Conclusion

While these approaches have brought about great advances in the study of vernacular architecture, most would agree that they are merely a beginning. We have progressed from viewing these buildings as entities to examining them as artifacts that lead to the understanding of the ways of life of the people who built and inhabited them. While a complete explanation of vernacular design has yet to be drawn, most would agree that there are attributes that are inherent and common to these structures. Architects who pursue design based on knowledge of these buildings may find the end result lacking this quality. The artifact itself can only answer a biased set of questions. Any clear explanation of vernacular architecture must address the mental process that was used in its creation. Once this process is fully understood, the designer may incorporate it or adjust it to be used in contemporary design.

“The principle thesis of the sociology of knowledge is that there are modes of thought which cannot be adequately understood as long as their social origins are obscured” 8