1956

Log Culture in Hill Louisiana.

Martin Wright

Louisiana State University and Agricultural & Mechanical College

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LOG CULTURE IN HILL LOUISIANA

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Doctor of Philosophy in

The Department of Geography and Anthropology

by

Martin Wright
B. A., Louisiana State University, 1949
M. A., Louisiana State University, 1950
August, 1956
ACKNOWLEDGEMENT

In grateful acknowledgement to Dr. Fred B. Kniffen, Department of Geography and Anthropology, Louisiana State University and Dr. Sigurd E. Erixon, Nordiska Museet, Stockholm, Sweden, for their guidance and assistance. The financial assistance rendered by the Office of Naval Research and the Ford Foundation is also gratefully acknowledged, as well as the patient understanding of the writer's family.
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ABSTRACT

Extending into the present state of Louisiana are several lobes of the Southern Hill culture. The areas occupied by this culture present a material appearance that is entirely different from the appearance of other culture regions of the state. Even to the casual observations of laymen a cultural distinction is recognizable. Such cultural distinctions stimulated a systematic study of the varying landscapes of Louisiana.

A survey of the material features of the rural landscape of the entire state was accomplished by a field party in 1949. From this survey the areal extents of the various culture regions of the state were delineated. One recognizable cultural expression was called Hill Louisiana. It consisted of the several lobes of Southern Hill culture which extended into the state. This landscape, as well as the others which were still recognizable, was subjected to intensive study by individuals in 1950. The most unique cultural complex of Hill Louisiana proved to be its preoccupation with the use of logs for construction purposes. This log culture suggested additional study in a European area of log construction (Scandinavia) in 1952. An attempt was made to determine the origins of American traits as well as to compare the techniques of log usage in the two areas.

From these studies the elements of Hill Louisiana were isolated from others within the state. These Hill elements
were described and their uses, evolutions, and relationships to other elements were determined. Composite ensembles of farm units representing the significant phases in Hill Louisiana's cultural development were compiled. Of prime importance are the definition of log construction aspects in Louisiana and their relationships to the Hill South and to European antecedents. The study has been extensive and has resulted in many generalizations but specificity was accomplished in that Hill Louisiana's most unique house type--the double-pen--was gradually traced back to its prototype in Sweden--the pair-cottage.
INTRODUCTION

Concepts and Methodology

Even to the casual observation of the layman, the cultural difference between "Hill Louisiana," a term herein used to refer to the Louisiana portion of the widespread Southern Hill culture, and other areas of the state is readily apparent. By common recognition there has long been a "hill-land" or "piney-woods" culture within the state. This recognition has engendered various attempts to define North Louisiana as opposed to South Louisiana or "Anglo-Saxon Louisiana" as opposed to "French Louisiana." Such endeavors, however, have done little more than emphasize the recognition of gross cultural differences within the state.

In the summer of 1949 an extensive survey of the cultural geography of Louisiana was launched under the auspices of the Office of Naval Research. Directed by Dr. Fred B. Kniffen, a field party consisting of three graduate students, including the writer, conducted a car traverse of the state during that period. Study was restricted to rural settlement, since rural areas preserve in greater purity the local folk heritage and are far less complex than cities. Information was recorded on field sheets previously derived by trial and error. The traverses were restricted as often as possible to roads other than the newer main highways in order to observe the older basic forms. These traverses were designed to cover the state with a
network whose mesh seldom exceeded thirty miles and was generally considerably less.

The field party covered about 12,000 miles and recorded information concerning approximately 45,000 farmsteads, plus additional data on sporadically encountered but relevant features of rural settlement. The material recorded included those discernible features of the rural landscape which could be critically observed by such a method. A detailed discussion of the method of recording and the material recorded is included in this thesis as Appendix A.

Compilation and summarization of this tremendous wealth of raw data were partially completed by the beginning of the second field session. It had, however, yielded the following necessary and significant results:

(1) Settlement-type patterns were revealed—as well as their distribution over the state—thus providing the means for dividing the state into its several cultural sections.

(2) Areas of relatively pure settlement patterns were indicated.

(3) Source material in great quantities was provided concerning the various elements of the patterns and the nature of their associations.

Hill Louisiana, emerged as an entity set apart from other landscapes by the distinctive appearance of its material features. Its key house types were derivatives of log houses and these, in association with a distinctive type of barn (also derived from log construction), plus a minimum of scattered outbuildings, formed farmsteads devoted chiefly to a
cotton-corn economy. The latent background of preoccupation with log culture was peculiar to it alone. It was farther distinctive in that it was the only culture of Louisiana whose nuclear area lay beyond the political boundaries of the state. Previous studies\(^1\) had revealed this cultural relationship. Hill culture was intruded into Louisiana from other areas of the South and is thus a reflection within the state of similar settlement throughout a more extensive region.

The car traverse, however, yielded a static flat picture of 1949 settlement patterns. Information of a dynamic nature was sought during the summer of 1950 when intensive studies of each of the various regions were conducted. The writer was selected to study the Hill region on the basis of previous work as well as personal inclination.

During this second field period, carefully selected sample areas within the broad cultural region were studied intensively by several widely accepted field methods. (For detailed sampling techniques and field methods see Appendix B).

This portion of the field work yielded dynamic information concerning historical backgrounds, evolutions, usages, cultural connections, and similar material which could not be revealed by the car traverse method of surveying. From this work it was possible to visualize the course of development of previous landscapes and to understand and to project into the future the content of the present scene. The use of logs for construction purposes was revealed as the most significantly unique cultural

\(^1\)For notes to Introduction see page 157.
complex of the region and thus became the special province of this study.

During the spring and summer of 1952 a third field ses-

sion was made possible by the grant of a Ford Fellowship.
This field work was conducted in Scandinavia in an attempt to
determine the extent of cultural ties between the log con-
struction area of the American South and an area of log
construction in Europe. Origins of log house types and other
cultural traits were sought. Methods of research were similar
to those used in the study of Hill Louisiana and the results
were worth the additional expenditure of time and energy. Of
prime importance, the origin of Hill Louisiana's major house
type was established. Field work was not restricted to these
three well defined periods, however, but has been conducted
as required and whenever possible subsequently.

Documentary evidence, essential to supplement field work,
was not neglected. Library research has been pursued contin-
uously since the inception of the study. For the most part,
however, such library work has proved generally sterile for
the purpose of such a study as this, since few historical
accounts are descriptive of the more commonly encountered
features of the landscape. Consequently, the bulk of the
material included in this thesis is primary information ac-
quired through the above-stated field work.
LOUISIANA
Parishes, Principal Cities, and Rivers

LEGEND
(State Capital)
(parish seat)

NOTE: ALL OTHER PLACES HAVING 2,000 OR MORE POPULATION

SCALE
10 0 10 20 30 40 50 MILES
Chapter I

PHYSICAL AND CULTURAL BACKGROUND

Definition of Area

The areal extent of Hill Louisiana is not necessarily coincident with any topographic or natural region of the state. It is those portions of the state in which the material expression of the Log culture of the Southern Hills was still recognizable in 1949. In one instance—the east wall of the Red River Valley (Plate II)—a direct association was found between topography and culture, but in no other instance was such a direct association found. The extent of Hill Louisiana is defined in terms of core areas of the Log culture, since cultural boundaries are generally lost in broad belts of transition and blending. Five such core areas of the Log culture were recognized within the limits of the state in 1949.

(1) The Red-Ouachita Divide*—The first of these areas lies within that broad region between the Red and the Ouachita rivers, extending northward without interruption across the Arkansas state line. This is the most extensive single area of Log culture in Louisiana.

(2) The Bastrop Hills—A second area lies to the east of

*These areal terms are introduced for future convenience in reference. Local terms for the areas (e.g., Dolet and Bastrop) are used where possible.
THE DISTRIBUTION OF LOG CULTURE IN LOUISIANA 1949
the Ouachita River. It is centered about the Bastrop Hills and it, too, extends northward without interruption into Arkansas.

(3) The Dolet Hills—A third area lies within that region between the Red and Sabine rivers. To the south it loses its identity in the cut-over pine lands of Vernon Parish. It is the most insular of all portions of Hill Louisiana in that its core area was already isolated from the Southern Hill culture in 1949.

(4) and (5) The Florida Parish Hills—The two remaining cores of Log culture are continuations of the Southern Hill culture into the Florida Parishes from Mississippi. One extends into Washington Parish and the other into St. Helena Parish. They are separated by the Tangipahoa valley.

These five segments represent a cultural unit within the state. The point must be made that the larger river valleys such as the Red, the Ouachita (at least as far north as Monroe), and the Tangipahoa are excluded on a cultural basis from the study area. Attention should also be called to the broad expanse of the Mississippi flood plain in north Louisiana. No recognizable Hill extension was apparent in this richer farmland.

These five core areas represent the extent of Log culture in Louisiana in 1949. The individual areas are decreasing in size and breaking down into smaller units. At its maximum extent Log culture spread across the Mississippi flood plain. It occupied Macon Ridge and some of the natural levee systems
of the Tensas Basin. Similarly, it must have occupied previously unsettled stretches of the valleys of the Ouachita, Red and Tangipahoa rivers as well. It extended much farther south of its 1949 limit in western Louisiana. In that part of the state it occupied the forest to the prairie's edge and even further south along the river courses into present-day Calcasieu Parish where a log house was built in 1770. In the Florida Parishes it extended far down into Livingston and St. Tammany Parishes. The richness of the valleys, the exploitation of timber, and the improvement of communications have all been contributing causes to the retreat of Log culture and its break-up into isolated relict areas.

Physical Setting

The agrarian character of Log culture was favored in Hill Louisiana by a humid sub-tropical climate. The two staple crops of the settler were cotton and corn. Both of these thrived in the favorable climate of the newly settled area.

The average annual temperature of north Louisiana is 65.2°F, with a cold month average of 48.3°F (January) and a warm month average of 82.1°F (July). These temperature conditions satisfy the requirements of both cotton and corn. Cotton requires a mean annual temperature of over 60°F and corn thrives where the mean summer temperature is 70°-80°F. Mild winters and hot summers in Louisiana afforded a

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1 For notes to Chapter I see page 157.
long growing season for the Hill farmer's crops. The growing season decreases significantly toward the northwest (Plate III) but is everywhere satisfactory for both crops. Cotton requires 180 to 200 frostless days and corn requires only 140.

Precipitation also decreases toward the northwest (Plate III) but it too is everywhere sufficient for the two crops. Cotton does well in areas having from twenty to forty inches of rainfall annually and corn flourishes where the rainfall is between twenty-five and fifty inches annually. The rainfall in Hill Louisiana is rather evenly distributed throughout the year but the minimum monthly averages occur during the growing and harvesting season of the summer and fall (Table I). This is a significant factor in cotton cultivation. Wet summers induce excessive vegetative growth, retard fruiting, and favor a rapid increase of boll weevils. If the season continues excessively wet as the crop matures, it retards maturity, interrupts the picking and discolors or damages the exposed fiber.

Tornadoes are significant occurrences in Hill Louisiana, the area being struck by an average of two of these destructive storms per year. An area frequently struck by tornadoes is indicated on Plate III.

The Log culture occupies areas of the state which may best be described as low, rolling hills whose crests are sites of settlement and cultivation. The highest elevation in Hill Louisiana (and the state) is 535 feet for Driskill Mountain, Bienville Parish. The northwesterly portions are influenced structurally by the Sabine uplift along the east
LOUISIANA
ANNUAL PRECIPITATION

- 62-58 IN.
- 58-54 IN.
- 54-50 IN.
- 50-46 IN.
- LESS THAN 46 IN.

GROWING SEASON ISOPLETHS IN DAYS

AREA OF FREQUENT TORNADOES

WEATHER STATIONS ON TABLE I

DATA FROM YEARBOOK OF AGRICULTURE, 1941

SCALE - MILES

10 0 10 20 30 40 50
Table I - Substation Precipitation and Temperature Normals—thirty years

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Spring-March Summer-June Fall-September Winter-December
April July August October November January February
flank of which are generally found the interior salt domes (commonly called "salines" or "licks").

Only tributary streams drain Hill Louisiana. These streams were never important transportation routes. Occasionally, they were used for rafting logs or other localized movement as noted by Huner. For the most part, however, occasionally during flood stage, timber and staves were floated out by rafting or flat boats along the Dugdemona Bayou or Castor Creek. Few farm products were marketed this way, however, they were a deterrent to transportation, as also noted by Huner.

When these streams were in high flood, the various communities were isolated from one another.

Transportation from the interior parts of these parishes was by ox-wagons. Materials were hauled to or from the various landings on the large rivers. In Winn Parish because of the difficulties in crossing the Dugdemona swamps, those inhabitants living north of the bayou shipped by way of Columbia and the Ouachita, those living to the south by way of St. Maurice and the Red River.

The narrow, often swampy, flood plains of these streams were exploited for specialized agricultural pursuits but were more often avoided or relegated to use as forage grounds for livestock.

The soils which developed on these forested hills under the humid sub-tropical climatic regime are lateritic soils—chiefly red and yellow podzolics. They are sandy and well drained. For the most part they are highly leached and subject to sheet and gully erosion. In relation to other soils of the state they occupy a low position in productivity.
Although not the best of soils, they were suitable for the growth of the settler's two staple crops. The relative poor­ness of the soil has actually helped maintain the Log culture which tends to retreat rapidly before improved economic status.

Most important to the Log culture of Hill Louisiana was the forest cover of the occupied areas. Timothy Flint, who traveled through portions of Hill Louisiana in 1835, ably, although lyrically, describes the appearance of the forest.¹²

I have seen the pine woods of New England, and many others, but this grand and impressive forest is unique and alone in my remembrance. I have seen nothing equal or to compare with it. Millions of straight and magnificent stems, from seventy to a hundred feet clear shaft, terminate in umbrella tops, whose deep and sombre verdure contrasts strikingly with the azure of the sky. Not a shrub, not a bush, nothing but grass and flowers is seen beneath this roof of verdure gently waving in the upper air. The openness of the woods is such as to allow the rider on horseback, or even in a carriage, to select his own road. Indeed the appearance is of trees planted out for a park; and deer, of which we saw more than one herd, may be descried bounding away over the undulating slopes for more than a league. The ceaseless rustle of the breeze along the wide extent of this roof, swinging like the oscillations of a pendulum, breezing and swishing on the ear, is best imagined by the shifting hues of a field of wheat in flower, when played upon by the vernal winds.

In its natural state (Plate IV), Hill Louisiana was forested in its southern and eastern portions by longleaf pine (*Pinus palustris*). The northwestern portion was originally a forest of shortleaf pine (*Pinus echinata*), mixed with southern hardwoods. First- and second-bottom forests, including cypress (*Taxodium distichum*), tupelo gum (*Nyssa aquatica*), red maple (*Acer rubrum*), magnolia (*Magnolia macrophylla*), red gum (*Liquidambar styraciflua*), were found in raft lakes and other poorly drained localities.
THE NATURAL VEGETATION OF INTERIOR LOUISIANA

GENERALIZED FROM BROWN (1945)
Cultural activities have considerably altered the natural vegetation. Much of the shortleaf pine forest has been destroyed, and the longleaf pine areas were modified in extent and appearance. Most of the present second forest is "old-field" pine consisting of loblolly (Pinus taeda) and slash (Pinus caribaea). The pines are competing with other trees, such as post oak (Quercus stellata), blackjack oak (Quercus marilandica), and hickory (Carya tomentosa, Carya pallida, Carya ludoviciana, and Carya texana).

Cultural Background

The area occupied by Hill Louisiana might aptly be termed a "land of transients" from its earliest cultural history until well into the 19th century, because it suffered in a relative sense in comparison with the much more attractive bottom lands of the neighboring river valleys. The first human inhabitants of Louisiana apparently selected settlement sites in close proximity to the routes of travel—the large rivers, such as the Mississippi and the Red. The richness of the bottom lands satisfied the agricultural needs of the Indians, and fish and game were more than abundant.

However, the neighboring uplands were not totally ignored by the aborigines. Early Indian cultures sent occasional hunting parties into these areas, attracted by the abundant game, and a few village sites of later cultures were located in Hill Louisiana itself. Of great importance to the Indians were stone and salt. Hill Louisiana had stone in bedrock and gravels, and salt in the salines. Both items were exploited.
as articles of primitive trade. Such usage is recorded by Harris and Veatch.\textsuperscript{13}

Drake's Salt Works ... east of Saline Bayou ... seems to have been one of the first sites of salt making in Louisiana. This locality more nearly agrees with the descriptions of the position of the salt pits which Daniel Coxe described in 1726, from which the "Natchitock" Indians made salt with which to trade with the neighboring nations, than any other locality we know of.

Traces of the Indian cultures are not readily apparent in the present landscape. Cleared fields yield the stone points of the hunters; stone outcrops show the flakes and chips left by the artisans; and the saline contributes the potsherds of the salt seekers. Some of the earliest settlers purchased their land from the Indians. A notable example is Luca Radescich who reputedly "purchased a claim from a Choctaw Indian tribe" on Dugdemona Creek near present-day Tannehill, Winn Parish, in the late 1820's.\textsuperscript{14}

The exploration of the area of Hill Louisiana was accomplished by lone hunters, trappers, and traders rather than organized expeditions. These men, handier with the rifle than the plow, were the first white visitors to most of the study area. As elsewhere, they were generally the predecessors of permanent settlement.

By the late 18th and early 19th centuries a relative handful of people were settled upon the land. Darby\textsuperscript{15} refers to the sparse population as late as 1818 as "the present very inadequate population, and the great disproportion between the land claimed and settled by individuals, and that yet held by the government." He also considered it almost unbelievable that "in 1811, considerable streams that flow
into Red and Ouachita rivers, were unknown."16

There were two broad categories of permanent settlers. One group sought the opportunity inherent in the land itself, while the other found satisfaction in the vast solitude. The former were widely scattered throughout the area in the more-favorable farming sites, (i.e., Luca Radescich on the Dugdemona and his nearest neighbor, John Wyatt, seventy miles to the northeast).17 The latter—the solitude seekers—were generally outlaws and other renegades. The Dolet Hills have a history of extremely early settlement of these solitary people. During the 18th century a strip of land between the Red River and the Sabine became known as "No-Man's-Land" or the "Neutral Strip." The ownership of this strip was the subject of dispute between Louisiana and Texas under several political regimes. The unsettled political condition in the area caused outlaws from many states to make their hideouts there. Conditions became so turbulent that the Federal government sent a detachment of troops to apprehend the outlaws. A small fort, Fort Jessup, twenty miles east of the Sabine, was built, but it was soon abandoned and there is no evidence that any captives were taken.18

The first significant cultural pattern in Hill Louisiana was introduced by an influx of settlers which began just slightly more than a century ago. Effective settlement was attained with emigrants from the east. Families from every state in the present southeastern United States (with the exception of Florida) were found by the writer in Hill Louisiana. Arkansas was represented as well—particularly in the Red-
Ouachita Divide and the Bastrop Hills. The most important areas of migration origin were the Piedmont counties of the Carolinas and Georgia and the states of Mississippi, Alabama, and Tennessee.\textsuperscript{19}

Though Louisiana became a part of the United States in 1803, migrations into the state were slow in coming. "No one wanted to live in the swamps with alligators and mosquitoes and perish with yellow or malaria fevers.\textsuperscript{20}" Settlers began to arrive in greater numbers in the 1830's, but most westward migrations into Louisiana came after the annexation of Texas in 1845 and the gold rush to California in 1849. These later immigrants came in long overland treks by horseback, wagon, or ox-cart. Most of them were traveling toward more-western lands, but again and again the migrants' delight upon seeing Hill Louisiana was repeated and proved a prelude to permanent settlement.

Surprise was expressed at the vast stands of virgin pine, as affirmed by the words of Timothy Flint, previously cited. He was not alone in his admiration. In 1896, when W. T. Norman arrived in Winn Parish, he was impressed by "long straw pines, as thick as they could stand, as far as the eye could see, the waxy green needles glistening in the sun, the fallen brown straw forming a carpet through the forest and over the little roads winding through them.\textsuperscript{21}" The abundance of game was another source of surprise. Numerous comments are made concerning the animal population in the forests. Deer, bear, squirrel, and turkey are specifically mentioned. Many of the Hill people recall that occasionally deer came into the
farmstead with cattle in the evenings. A letter by Edna B. Gamble states, "Uncle Johnny Mathis ... wrote to the family in Georgia of the plentiful game in the forests of Louisiana. This, he often said was what induced them to come." A further cause of satisfaction was the appearance of the soil, whose red color meant richness to so many of the migrants. Thus, many interrupted their travels and settled on lands which appeared "good" to them.

Of utmost importance to the initial cultural pattern was the predominance of Scotch-Irish Southerners among the new arrivals. As Hanna notes,

The backwoodsmen were Americans by birth and parentage, and of mixed race; but the dominant strain in their blood was that of the Presbyterian Irish—the Scotch-Irish as they were often called. Mingled with the descendants of many other races, they nevertheless formed the kernel of the distinctively and intensely American stock who were the pioneers of our people in their march westward, the vanguard of the army of fighting settlers, who with axe and rifle won their way from the Alleghenies to the Rio Grande and the Pacific.

The Scotch-Irish emigration from Ulster was of such magnitude as to dominate the American frontiers. Between December of 1728 and December of 1729 the number of immigrants that arrived in Pennsylvania was 6208. Of that number 5605 were Scotch-Irish, 4500 of whom had entered by way of Newcastle on the Delaware. The numbers of immigrants entering Pennsylvania from the North of Ireland between the years 1730 and 1775 is not known exactly but must have been great. Hanna says, "... in some years the number of emigrants exceeded ten thousand."

"Scotch-Irish" is a peculiarly American term. It seems
to have become generally used since the Revolution, 26 being adopted by descendants of immigrants of Scottish blood from the North of Ireland. The earliest immigrants usually called themselves "Scotch." The appellation is not an indication of Hiberno-Scottish descent but has geographical meaning instead. The Scotch Presbyterians who settled with their families in Ulster during the 17th century did not mix with the Irish. 27

For 100 years or so after 1700, these people sought a more promising home in America to avoid the oppression to which they were subjected. 28 The migrants entered America by two routes. The most important of these was by way of the Delaware River and the two ports of Newcastle and Philadelphia. 29 It is of utmost significance to this study that a large proportion of these settlers thus passed through the area of Swedish culture on their way to the frontier.

The settlers from the Delaware ports moved west and occupied the lands east of the Alleghenies in Pennsylvania. When the more desirable lands in that area were filled, the course of migration continued to the west and to the south. The Cumberland and Shenandoah valleys were overrun and the southern Virginia counties along the eastern base of the Blue Ridge were settled. The migration continued to move south.

The second route of entry was by way of Charleston, South Carolina. The settlers landing at Charleston moved into the higher, forested country of the interior and extended their settlements north and south. Eventually the two tides of settlers met, having filled the frontier of colonial
The migration then turned westward to the wilderness beyond the mountains. The interior of the South was settled; the Mississippi River was crossed; and Hill Louisiana received its complement of settlers from the ample numbers moving westward.

This Scotch-Irish settlement was the cultural determinant for Hill Louisiana. The resulting landscape was influenced by historical developments for which only a gross chronology can be presented with any degree of areal accuracy.

Gross Chronology

The settling of Hill Louisiana by westward-moving migrants in the mid-1800's continued steadily, but had by no means filled the land by the time of the War Between the States. The conflict disrupted the westward movement of settlers but resulted in only minor material damage. Only one significant battle (Mansfield) was fought within Hill Louisiana. Following the war, the westward migration was resumed, augmented by veterans and displaced families from vanquished Confederate states to the east.

In the closing years of the 19th century, another settlement pulsation was felt in Hill Louisiana. This was the result of two significant events. The first of these was the construction of railroads through the Hill lands, inducing new settlement and altering old urban patterns. The second, immediately following the coming of the railroads, was the beginning of intensive exploitation of the vast stands of virgin pine timber. This epoch—from about 1900 until 1925—
CENTERS OF SCOTCH-IRISH SETTLEMENT IN COLONIAL AMERICA

AFTER HANNA (1902)
was the most significant period in the economic development of Hill Louisiana. Its effect on the cultural pattern was far-reaching, as will appear subsequently.\textsuperscript{31}

The lumbering era ended during a period of road improvement and was followed by the great depression of the early 1930's which significantly altered land-ownership patterns in Hill Louisiana as elsewhere.\textsuperscript{32} The later 1930's saw an increase in the construction of roads which, in improving communications, introduced to the Hill landscape many new material features.

Although the exploitation of oil and natural gas resources began in the early 20th century, production lagged until just prior to World War II. The extractive industries boomed significantly during that conflict. The war effort demanded the oil and gas of the area; the tempo of timber exploitation was stepped up again; and sparsely populated sections of Hill Louisiana were deemed desirable as training grounds for the great numbers of men being prepared for combat.

Post-World-War-II Hill Louisiana has experienced an increasing industrial development, which will certainly do much to erase the old cultural patterns and replace them with a totally new manifestation of state-wide similarity.
Chapter II

FARMSTEADS - HOUSES

Despite the several competing economic activities of various periods of history, cultivation of the soil is, and always has been, the primary concern of Hill Louisiana. The basic unit of an agrarian landscape--the farm--is thus the central theme of this study. These units were found to reveal a pattern of progression with time which reflects the cultural history of Hill Louisiana and the decline of the Log culture. The material aspects of the generalized succession of farm types are summarized on pages 152-155.

The nuclei of these units--the farmsteads--are the dominant features of the Hill landscape. Within this grouping of buildings are best expressed the cultural heritage and its stage of development. They are expressed in the type of buildings constructed, the manner in which these buildings are arranged, and the uses to which they are put.

House Types

No other single material feature of the farmstead reflects the cultural heritage as well as does the type of dwelling built. Wherever possible, man occupies a dwelling whose overall aspect is familiar to him and that familiarity stems directly from his cultural background. It stems from "ideas" regarding houses which may have required centuries to reach
fruition. It would be surprising and worthy of note if such inculcated ideas were less tenacious. As would be expected, the house type appears to be the most revealing key to the cultural landscape.

On the basis of house types, a time sequence for Hill settlement succession was established in the first area subjected to intensive field study. This sequence served as a frame of reference for later field study and, after indicated modification, was found to fit the remainder of the region. It is a sequence of phases of house construction, representing the general economic status and attitude of the people as well as the history and culture of Hill Louisiana. Since the house is of great importance in reflecting the culture, its use as the basis of a developmental scale seemed valid. The sequence is qualified by at least three determinants. These determinants are general economic status, accessibility of the region or transportational facilities, and time. The combination of either or all of these may result in the contemporary conjunction in space and time of two or more phases. Absolute dating of these phases is thus impossible except in a very general sense. They represent relative stages of cultural succession.

These phases are as follows:

(1) The Pioneer Phase—characterized by the construction of crude log cabins or "shacks."

(2) The Log Phase—characterized by the construction of folk house types (the single-pen and the double-pen) in log.

(3) The Folk Phase—during which the folk types mentioned above were characteristically built in milled lumber.
(4) The Recent Phase--represented by a trend toward intrusive folk types such as the bungalow and others.

(5) The Present Phase--a complete divergence from older folk types.

In Hill Louisiana the original mode of house construction employed logs. During the Pioneer phase of settlement in this forested region, logs were the culturally accepted and the most readily available material for the construction of the first hastily erected dwellings. When the pioneer's position became more secure and time for improved construction could be found, he continued to build in log. This Log phase of settlement involved the erection of substantial homes in the prevailing cultural tradition which was that of the Southern Hills. The folk house types in the South seem to have been strongly conditioned by climatic factors. However, climate alone cannot satisfactorily explain the entire adaptation. Cultural factors, constructional problems, frontier expediency, and personal initiative and taste must also be considered as integral causal factors in the development of folk types.

In Hill Louisiana there are two related folk house types indigenous to the Log culture of the Southern Hills. These types exhibit several diagnostic features which relate them to the Southern Hill culture and differentiate them from other cultural areas. Previous study had revealed the following several features. (1) Sideward facing gables are common throughout the area. (2) The pitch of the roof approximates forty-five degrees, breaking to about twenty-two degrees for the porches. (3) Porches are an important and integral part
of the dwelling. They are long and deep, covering the entire width of the house and, not infrequently, appearing at both front and rear. They are integral in that a log member of each side wall is long enough to extend out beyond the house corner to the front of the porch and so act as a support of the porch roof. (Figure 1). (4) Eaves are extremely deep, extending out far enough to enclose the entire breadth of the chimney. (5) The chimney is built outside of the house. (6) The house is rarely built directly upon the ground. Foundation piers of stone or log are used. (7) Later enlargements in Southern Log construction are in the form of an extension of the floor plan rather than the addition of a second story. (8) Shed-roof rooms of board-and-batten are generally added to the rear of the house.

The Single-Pen

The first of the two folk house types of the Log culture is the single-pen. This type, consisting of one square room (Figure 2) is an adaptable form for all types of building materials, but is ideally suited to construction with logs. This elementary form was modified by the Hill culture of the southeastern United States to exhibit the diagnostic characteristics of Southern log houses listed in the preceding discussion.

The single-pen was introduced into Louisiana by the first westward-moving migrants and is still being built in 1956. The functional utility of this form was recognized by many of the sawmill operators, who adopted it as the pattern for their company houses, thus greatly increasing its numbers in Hill
Fig. 1 - Porch-roof support on single-pen.
Natchitoches Parish
FIG. 2 - THE SINGLE-PEN

FRONT

PORCH

PEN

RIDGEPOLE

SHED-ROOFED ROOM
Louisiana during the Polk phase of settlement when building material was milled lumber.

The adaptability of the single-pen has increased its area of distribution until it has spread beyond the cultural bounds of Hill Louisiana as defined in this dissertation. It was used quite often as a tenant house on large plantations in both the Red and Mississippi flood plains, and has been built to serve additional low-cost housing needs elsewhere. The distribution of single-pens as mapped from the data of the 1949 field season exhibits the broad extension of this form beyond the limits of Hill Louisiana.

The Double-pen

The second of the two folk house types is the double-pen. This type of house has many common names. It is widely referred to as the "dog trot" house and, in Hill Louisiana, it is often designated as a "hall" house. It may best be described by the folk terminology, "two pens and a passage" (Figure 3). Its basic form is two single-pens separated by a passage (the "dog trot") and covered by a common roof. This simple structure is modified, however, by the same traits which the single-pen exhibits—traits of the Southern log houses. Appendages to the rear in the case of the double-pens were generally added to only one of the two pens, and the addition of more rooms usually resulted in a further rearward extension attached to the same pen, yielding in floor plan an L-shaped house with an open passage through the front center. This house type was also introduced into Louisiana by westward-moving migrants, who brought it as a characteristic type
FIG. 3 - THE DOUBLE-PEN
of the Southern Hill culture.

The use of the double-pen and its evolution were qualitatively, though not quantitatively, parallel to developments of the single-pen. As the double-pen evolved from its primary stage, the houses were often sheathed in horizontal boards and, later, the passage or "hall" was closed. In more recent years, the type—lacking the utility of the single-pen and being so closely related to the "old way of livin"—is being replaced by other house types. This happens despite the emphatically proclaimed advantages of the open-passage which, according to many informants, caught every breeze that stirred during hot summer days.

The distribution of the double-pen in 1949 (Plate VI) more closely approximates the distribution of Log culture in Louisiana than does that of the single-pen. The reason is rather obvious, since the utility of the single-pen as a low-cost housing unit had spread this type widely prior to 1949.

The Antecedents of the Double-Pen

The double-pen is so typical of the cultural pattern of Hill Louisiana (and of the piney-woods Southeast) as to engender a search for its antecedents. Most of the literature and all of the Hill people consulted contributed to the prevailing confusion regarding the origin and/or evolution of this house type. The problem had presented itself earlier in a study of Southern log cabins. Library research had indicated that the double-pen may have been a Southern invention. This possibility

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1For notes to Chapter II see page 159.
THE DISTRIBUTION OF THE DOUBLE-PEN
1949

PERCENTAGES BASED ON UNITS OF TWENTY HOUSES

0-20 PERCENT
20-40 PERCENT
40-60 PERCENT

Scale - Miles
10 20 30 40 50
is presented by the following direct quotation from the earlier study:

The origin of the double-log pen is obscure. In most cases the architecture authors of the American Guide Series for the Southern states claim that the double-log pen was the indigenous architecture of the state in question. In Chamber of Commerce fashion they intimate that it was an invention consumated within the state. The development of such a type is usually attributed to constructional expediency. Such assertions are based on the following argument:

Consider the restrictions upon pioneer construction. Tools of elaborate nature were as scarce as manpower. The size of the home was determined by the length of the logs which the men could handle. Lengths of logs which could be raised by two men varied from twelve to eighteen feet, depending chiefly upon the thickness of the log. Consequently, the erection of a single-log pen resulted in a crib of logs between twelve and eighteen feet square. If enlargement of the home was required and logs were the only building material, the pioneer was faced with a knotty problem. Two obvious solutions presented themselves. First of all the walls might be extended by adding logs. This, however, would require the inter-locking of new logs in the old walls, an extremely difficult procedure and practically impossible with the pioneer's rather primitive tools. The second obvious possibility was to extend his old walls upward and form a second-story, but this required the removal of the roof, an awkward process at best. ... From the pioneer's viewpoint, then, the single-log pen was an indivisible unit. In order to expand, another had to be built. In a few cases the new cabin was built immediately abutting upon the original, yielding a double wall between the two rooms. The happier solution of expansion however was the raising of the new cabin between eight and twelve feet from, and parallel to, the old. Both cabins and the passage were then roofed into one unit, yielding the double-log pen.

This method of enlarging a log dwelling and thus yielding a double-pen was used quite early in the history of American settlement. The earliest example is recorded in both Shurtleff and the Pennsylvania guide. The first pen of this house was built in 1654, the second pen in 1698, and in 1810 the intervening space was walled with stone. Shurtleff
footnotes his text as follows, "This method of adding to a log cabin was common in all parts of the eastern United States in the nineteenth century." This house was a double-pen in 1698 and thus precedes the arrival of large numbers of Scotch-Irish in America by a full twenty years. On a chronological basis it would thus be impossible to credit the Southern Hill culture, largely a Scotch-Irish development, with the original invention.

The possibility of the derivation of the Southern double-pen from earlier colonial house types was also considered. The basic idea of a central passageway might be attributed to the influence of architectural types then found along the Atlantic seaboard—the Georgian house, for example. Further, the Virginia guide reports that the early frame house was a house one room deep and two rooms wide, or two rooms and a passage wide. This passage, however, was not open. This simple description coincides quite closely with descriptions of frame double-pens found today in most of the South.

In similar vein, the floor plans of certain Irish and Welsh houses resemble closely the plan of the Southern double-pen. On the basis of floor plan alone, the possibility seems strong that the Southern double-pen is a modification of similar house forms known in Anglo-Saxon colonial America and in the western portions of the British Isles. However, one of the most diagnostic features of the Southern double-pen is its open-passage. This aspect of a dwelling was foreign to the Anglo-Saxon cultures involved in the colonization of the Atlantic Coast of America.
Other European culture groups were also represented in the east-coast colonies. One of the earliest permanent settlements of Europeans on the Atlantic seaboard was that of the Swedes who settled on the Delaware. Politically, this was a short-lived (seventeen years) venture. This colony was relatively small. Between 1638 and 1655 twelve expeditions were sent out from Sweden. The first landings were made at Christina Kil, on the west side of the Delaware River at the present site of Wilmington, where Fort Christina was founded. The eleventh expedition did not reach New Sweden, and the twelfth arrived in 1656— one year after the Dutch had taken over the colony. In 1653 the population of New Sweden was seventy. In 1654 it numbered around 350, including some Dutch and a few Finns from Värmland.

Culturally, the colony had far-reaching effects. Extracts from Nelson are illustrative of the ecclesiastical influence of the Delaware colony and its effect on language and other traits.

The English became successors to the Dutch as masters of the settlement, but the Swedes and Finns were allowed freely to develop their farming and their industries.

As the Swedes were the most numerous and received their clergymen from Sweden, whereby service was obtained and the language was maintained, many of the Dutch and even other peoples to a great extent adopted Swedish language. ... Dutch ... English, Scotch, Irish and German families; they all used the Swedish language.

In 1693 139 families and ninety-nine individuals desired to obtain sermon in Swedish. They were for the most part farmers. As for meat and drink they maintained Swedish customs.

Swedish was still spoken on the banks of the Delaware
150 years after the arrival of the first Swedes and 137 years after New Sweden was taken over by the Dutch.

Of greater importance to the present study, however, is the notation by several writers of the construction of log buildings in the colony as well as an early resistance by two neighboring ethnic groups to the adoption of such construction methods. Jasper Danckhaerts, a Dutchman who toured the northern colonies in 1679, points out the relative superiority of the Swedish log cabins. He also points out the fact that the English resisted adopting the type despite the miserableness of their own dwellings. The early Dutch also resisted accepting the type. Wertenbaker says, "... at tiny New Amstel on the lower Delaware the Dutch carpenters, scorning the log construction of the Swedish cabins nearby, went out into the woods axe in hand to trim beams for frame houses."9

The first ethnic group to adopt log construction extensively was the Scotch-Irish. These people began to reach the English colonies in strength in 1718 and by 1719 they were building log houses, a type unknown to them in their native country, but present in the Delaware settlement through which most of them entered America. It appears to have been this group who invented the term 'log cabin' about 1750.10

Although the extent of Scotch-Irish borrowing of log techniques from the Swedes or from the Germans—who achieved a secondary introduction approximately fifty years later in interior Pennsylvania—was not determined, it seemed logical from the expressed influence of the Delaware colony (the major route of entry for the Scotch-Irish) that Scandinavia
was the most likely European area in which to seek the antecedents of the double-pen. Strong support was given to this surmise by two reliable observers who had traveled in Finland and reported the presence there of barns built in the same design as the double-pen. Further support was obtained by personal conversation with Dr. Sigurd Erixon of the Nordiska Museet, Stockholm. Dr. Erixon instantly recognized a simple sketch of the double-pen and termed it without hesitation a "pair-cottage." Consequently, three months were devoted to field research in Scandinavian countries, particularly Sweden.

Three features of the Southern double-pen proved to be of value in unraveling its origin from what at first appeared to be an anastomosing pattern of evolution, counter-evolution, and independent invention. These features were: (1) the open-passage, (2) the gable-end chimney, and (3) the trisected floor plan. Rectangularity of floor plan was of no value. Rectangular plans were known in ancient days in the Mediterranean region, while oval and round plans were primitive forms in other areas of Europe. Rectangularity of plan was spread widely by the Roman legions, Christianity, and North Sea commerce, so that by the time of the peopling of America the rectangular plan was used in all of those portions of Europe concerned with the colonization movement.

Primitive construction in Europe utilized quite widely the trisected floor plan. In the earliest primitive forms the trisection was not entirely apparent, although it was recognized that one particular end of the room was for animal
occupancy, the opposite end was for humans, and the central portion was for the fireplace and the cooking (Figure 4A). This recognition of a divided space soon led to partitions with various degrees of permanence. The most significant partitioning was that which separated human from animal, thus yielding a two-chambered floor plan with the smaller chamber occupied by the animals and the larger occupied by the humans and the fire (Figure 4B). Though this two-chambered primitive form reached dominance in Europe, there was still a basic recognition of trisection, if only expressed by the arrangement of furniture\(^\text{13}\) to separate the living quarters from the central fire chamber (Figure 4C).\(^\text{14}\)

A most significant point in primitive construction was the central location of the fireplace. Opposite doors were adjuncts of the central fireplace. The original purpose of the opposing doors was that of controlling the smoke from the fire. After losing this function due to the introduction of chimneys or stoves, the original plan of the doors was still retained.\(^\text{15}\) The opposing doors of course allowed entry into the house from either the front or the back but, more significantly, they allowed passage through the house.

The movement of the fireplace to the gable end of the dwelling placed an increased emphasis upon the central chamber as a means of passage. In Ireland, a significant area for our purposes since it was the source region of the Scotch-Irish settlers of America, this trisected house plan, with emphasis upon the central chamber as a means of passage and the gable-end chimney, was a recognized cultural form at the time of
A - Unpartitioned Recognition of Trisection

B - Partitioning Between Animals and Humans

C - Partitioning with Furnishings

Fig. 4 - Trisection in Primitive European Construction
INDEX MAP OF SWEDISH PROVINCES

PROVINCES
1 ÄNGAN
2 BÖLE
3 BÖLESLAND
4 DALARNA
5 DALSLAND
6 GÄSTERIKLAND
7 GOTLAND
8 HALLAND
9 HÄLSINGLAND
10 HÄLSINGLAND
11 JÄMTLAND
12 LAPPLAND
13 JEMTSLAND
14 NÄRING
15 NORRÖTEN
16 ÖSTERTORP LAND
17 SKÅNE
18 SMÅLAND
19 SÖDLAND
20 UPPLAND
21 VÄSTRA LUNDEN
22 VÄSTRA BOTTEN
23 VÄSTORGÖTLAND
24 VÄSTMALELAND

PLATE VII
America's colonization (Figure 5A). Retention of the fireplace in the central chamber resulted in a decreased emphasis upon the central chamber as a means of passage and finally a partitioning of the chamber to yield a kitchen in the rear portion, thus denying passage through the building. This resulting form is called by Erixon the "Frankish" type (Figure 5B). It is widespread in Europe and extends into southern Scandinavia, particularly Denmark and the Swedish provinces of Bohusländ and Scania.

In Sweden another important building practice was evolved. It was based on two important concepts. One was the very primitive method of house enlargement by the joining together of two similar basic units. Primitive dwellings of many sorts, including conical structures, were enlarged by building two similar units side by side, joining them together with a ridgepole, and then enclosing the enlarged area appropriately. I quote Erixon as follows:

The Nordic system was forme/ry ... quite different from this /the Frankish type/. The building design and the material /jointed timber/ favoured a decided tendency to construct a number of small buildings arranged with regard to suitable corner distances for the timber. When larger buildings or several rooms were to be made, this was done by joining up several houses. The Nordic pair cottage illustrates this with especial clearness. ... The two large side rooms correspond to houses still existing even independently in the country and comprise in one case a kitchen used as living room and in the other a store-room or best room.17

The second concept was Swedish recognition of the commonly accepted trisected floor plan. In a further comment by Erixon, attention should be called to the use of the word "imitation."

Everywhere in Scandinavia, Finland and other parts
FIG. 5 - ADAPTATION TO FIREPLACE ORIENTATION
of the Baltic and neighbouring parts of Russia are to be found pair-cottages of this kind with entrance room having no fireplace in the middle. ... Everything points to this house being a reflexion of the Continental, though the centre fireplace has been dispensed with. The imitation evidently took place by the joining up of two buildings already in existence, the fire-house and the store-house, both with gable doors, leaving an open passage between to be built in later on.18

Erixon brings out here another singular feature which the pair-cottage and the double-pen have in common. Doors in the interior gable ends of the individual pens, affording entry from the passages of double-pens, are not uncommon in Hill Louisiana (Figure 6). In addition, Erixon says:

The result was a pair-cottage with an empty entrance room, open at both sides and unheated, which yet was gradually built and was partitioned to form a centre chamber. The fireplace was retained in deference to tradition in one of the side rooms. This introduction took place ... evidently during the early part of the Middle Ages. Very often the one side room consisted on the Continent of a cowshed. This was replaced in Scandinavia, where people are less disposed than on the Continent to share their dwelling with livestock, by a store-room or a dwelling room.19

Although the development of the pair-cottage resulted in the presence of the fireplace in one of the side rooms of the Frankish type to the south, such fireplaces were not at the gable end of the house.

A detailed study of more-recent architecture in the middle provinces of Scandinavia would be required to determine the degree of cultural induration of the idea of an open-passage through a building. This idea is illustrated time after time in urban construction—even to the extent of routing the main thoroughfare through the city hall of Uppsala (Figure 7A).
A - Pair-cottage, Dalarna Province, Sweden

B - Double-pen. Union Parish, Louisiana

Fig. 6 - Gable-end doors
A tantalizing similarity may be noted between the photograph of the Uppsala city hall and the photograph (Figure 7B) of a Norwegian folk house from Österdal. Further similarities may be noted between the photograph of a warehouse on Klara Östra Kyrka Gatan (Figure 8A) in Stockholm and the photograph of a barn from Dalarna province (Figure 8B).

Thus, at the time of the European colonial effort in America, practically all of Europe was familiar with a tri-sected floor plan—one of the basic features of the double-pen. In addition the Anglo-Saxons, particularly the Scotch-Irish who figured so prominently in the settling of the South, were culturally adapted to the gable-end chimney—a second diagnostic feature of the double-pen. Finally, the Swedes were familiar with the open-passage as a feature of the basic house plan. The Scotch-Irish were not familiar with the open-passage but they were acculturated to the notion of passage through a house. These were the significant cultural ideas prevalent at the time of the colonization of America.

It is an elementary assumption that the Swedish colony on the Delaware was just as much a pioneer settlement as were those of its English and Dutch neighbors and as such a pioneer aspect of settlement features must have prevailed. By the time of the Swedish Delaware settlement, the Frankish house was established in the southern provinces of Sweden. To the north was the Swedish frontier region—the primitive or pioneer section—and in that area the pair-cottage was an established feature of the cultural pattern since the early Middle Ages. There was (and still is) an association in the
A - City hall, Uppsala, Sweden

B - Folk house of Österdal. Bygdøy
Folk Museum, Oslo, Norway

Fig. 7 - Open-passages in Scandinavian architecture
A - Warehouse, Stockholm, Sweden

B - Barn, Dalarna Province, Sweden

Fig. 8 - Open-passages in Scandinavian architecture
Swedish mind of "pair-cottage" and "pioneer." In this country we have a similar association of "log cabin" and "pioneer." Many of the Delaware settlers came from the middle provinces of Sweden (e.g., the Finns from Värmland). It does not appear too naive to assume that at least one pair-cottage was built on the Delaware. It seems more probable that there were numerous examples of the type. Furthermore, the constructional progression of one unit, to the parallel unit, and finally the combination of the two, did occur as duly recorded in the case of the early double-pen cited on page 37. It was the birthplace of John Morton near Chester, Pennsylvania, and corresponds by date and area with the Swedish culture.

Swedish influences still prevailed on the Delaware at the time of the earliest recorded date of double-pen construction within the present Southern states and long after the first large-scale arrivals of Scotch-Irish. The following quotation is extracted from the earlier library research:

"The earliest date of the construction of a double-pen in the south was 1776. It was built at Lawrenceburg, Kentucky, by one Coffman, a "Dutchman" from Pennsylvania. This report, in the Kentucky guide, implied that the double-pen was built as such upon Coffman's arrival at Lawrenceburg, indicating an earlier origin of the type."

Of prime significance is the fact that there were definite early contacts between the Scotch-Irish and the Swedes. As noted earlier, the major route of entry of the Scotch-Irish into America was by way of the Delaware and thus through the heart of the area influenced so strongly by the Swedish culture.
In summary it should be reiterated that: (1) the open-passage was a Swedish building feature; (2) the Dutch, Germans, and English were not only unfamiliar with the open-passage but they also lacked the notion of passage through a house; and (3) the Scotch-Irish were accustomed to the "passage-through" notion as well as the gable-end chimney but were not familiar with the open-passage. The Southern double-pen is thus a building form adopted by other ethnic groups from the Swedes on the Delaware and diffused most rapidly and widely by the Scotch-Irish to whom the open-passage was not a too-greatly foreign concept and to whom may be credited the gable-end chimney modification.

This does not preclude the possibility of independent conception of the double-pen, since constructional expediency plus familiarity with the trisected plan could have led to the same results as achieved by the Swedes earlier. It is conceded that in isolated cases such independent invention may have occurred.

Log House Distribution in Louisiana

Plate VIII illustrates the distribution of surviving log houses in Louisiana as observed and recorded during the survey of 1949. Only eighty such houses were recorded. Field checking during the summer of 1950 revealed that this figure is woefully inadequate. Although a quantitative survey was not attempted in 1950, study of individual areas indicated that the 1949 figures should be tripled at the very least. The log houses plotted beyond the extent of Log culture in 1949
(Plate II) are relict evidence of the once wider distribution of Log culture.

The distribution of surviving log houses, however, is not affected by this quantitative deficiency. Additional log houses were observed chiefly in those areas which already appeared as clusters on the 1949 map. The chief reason for the lack of quantitative correctness in the 1949 survey appears to be the present very isolated locations of most occupied log dwellings.

The numbers of log houses are decreasing rapidly. Log houses are seemingly indestructible buildings and many of them last for well over a century (i.e., the Radescich house—1828-1951). Actually, they are greatly subject to destruction in several ways. Most of them are destroyed by fire, which is caused primarily by faulty chimneys. A large number are torn down for the building material contained in their walls when the economic condition of the area improves. Still others are abandoned to rot, or are used as outbuildings when newer homes are built.

The Decline of Log House Types

The earliest departures from log house types in Hill Louisiana were the quantitatively insignificant architectural creations built on Hill plantations. The earliest homes of large-scale farming enterprises were simply large and well-built double-pens (Figure 9). With increased economic status, home of impressive mien (Figure 10) replaced the large folk house types. These were not the homes of yeomen, however.
Fig. 9 - The Radescich house. Near Tannehill, Winn Parish

Fig. 10 - A Hill plantation home. Near Robeline, Natchitoches Parish
The decline of the Log culture, as evidenced in house types, was accomplished by three new house types. All of these introductions have been attributed to the lumbering activity of the early years of the 20th century.23

The most important of the three house-type introductions is the bungalow (Figure 11). The bungalow's greatest departure from Hill folk types is its frontward-facing gabled end. Its shape is elongate with the ridgeplate. In floor plan it is two rooms wide and several rooms deep. The bungalow became widely adopted due to its explosive introduction in association with the period of commercial lumbering. It entered Hill Louisiana from both north and south24 and dominated the Recent phase of cultural succession. It matched in utility the familiar single-pen. The type now has wide distribution in all parts of the state.

The other two house types were more effective in supplanting log house types in urban centers than in rural areas. The "shotgun" house is one of these introductions of the lumbermen.25 It is one room in width and several rooms deep, with gabled ends to front and rear (Figure 12). It has not achieved prominence in rural Hill Louisiana but has remained an inexpensive urban dwelling. Similarly, the pyramidal-roofed house was an introduction of the lumbermen.26 This type is a house of square floor plan whose diagnostic feature is its roof of four oblique hips rising from the corners to a central peak or a short horizontal ridgeplate (Figure 13). This house also failed to spread extensively through rural regions but remains an urban house of more ostentatious nature.
FIG. 11 - THE BUNGALOW
FIG. 12 - THE SHOTGUN
FIG. 13 - THE PYRAMIDAL HOUSE
than the "shotgun."

House Yard

The term yard is used to refer to that area immediately adjacent to the house, which may or may not be fenced. Beginning in the Log phase of settlement the yard began to receive some attention. The care consisted of clearing all grass and weeds from the ground, leaving it bare. The yard, or "stomp," was then kept clean swept with a home-made broom of broom sedge or dogwood switches. In such fashion weed control was no problem. The Louisiana guide expands upon the yard care.

... housewives do not allow grass to grow in the front yards of their homes because they believe it untidy--every blade hardy enough to spring from the hard-packed earth is yanked out by the roots, and if there is any considerable growth, the ground is given a close and thorough shave with a hoe. The grassless yards become hard-packed, and are kept free of leaves and trash by means of 'brush-brooms' made of supple switches of the dogwood tree, chosen because of its toughness.27

In most cases a chinaberry (Melia azedarach) tree was planted, if no other shade trees were present. Other desirable yard trees were the black walnut (Juglans nigra) and the wild pecan (Carya illinoensis). Also, it was the usual practice to plant several clusters of canna lilies (C. flaccida) or other flowers requiring little care. Customarily, they flanked the front step.

The bare house yard is an integral part of the culture of the Southern Hills. The first lawns, which were grown during the late stages of the Folk phase, were another indication of the decline of Log culture. Bare yards are still found in
Hill Louisiana today. Most of them are associated with Folk house types in the more-isolated areas.

House Fence

House fence refers only to a fence which immediately encloses the house, or the front part of the house, with the house yard. House fencing was not a widespread practice of the Log culture. When such fences were built their purpose was to keep cattle and hogs away from the dwelling. These house fences were of the picket type (Figure 14) although in most cases the slats were not pointed at the top.

Such fences were introduced into America by the earliest English settlers. The pickets, or "palings," are referred to by Captain John Smith at Jamestown in 162428 and the Dictionary of American English29 cites several references to palings in the New England colonies during the early 17th century. Such fences were probably not widely built by backwoodsmen due to the scarcity of nails on the frontier.

During the late Folk phase of settlement in Hill Louisiana milled pickets began to replace rived pickets and house fencing became a more common practice. Pickets have since been almost completely replaced by Recent woven-wire fencings.
Fig. 14 - Picket house fence. Sabine Parish, Louisiana
CHAPTER III
LOG CONSTRUCTION METHODS

As a frontiersman, the farmer of Hill Louisiana necessarily possessed a working knowledge of carpentry. He was by no means a professional carpenter and joiner but his knowledge of log construction techniques was sufficient to house his family, shelter his stock, store his supplies, and fence his fields. Generally he was poorly provided with tools for the work required of him but this lack was offset by the borrowing of tools which was a universal practice on the frontier.¹

The basic tools for log construction were few and the average settler was equipped with the necessary items. They consisted of a felling ax, a broadax, a froe, iron wedges, files, and whetstones. In addition to these essentials, the more fortunate settler possessed a crosscut-saw, an adze, an auger, a drawknife, and a chalk line. Mercer says of these tools,

Though nearly all made in America, the tools of the house-builder of one hundred and fifty years ago, ... do not appear as American inventions but as European heirlooms, often in type two thousand years old, modified, rather than transformed, by a new environment.²

Supplemental tools used by the Hill farmer were buck saws, open hand saws, rasps, planes, and various types of

¹For notes to Chapter III see page 160.
hatchets or hand axes. In addition, the settler constructed a few carpentry tools on the farm. These tools were chiefly mauls or mallets and wooden holding devices such as saw and shingle horses.

Log construction methods were generally the same in all parts of the Southern Hills. Where variations occurred, they were usually of small significance and only local occurrence. As settlers moved into an area houses were needed and logs were the material at hand. Construction was begun as soon as possible—clearing the land and planting a crop getting top priority. Thus the first cabins were hastily erected and were of the crudest construction. After the land was cleared and the crop was raised, a sounder home was considered.

Construction could be as much or as little work as the settler allowed. The first step in the building of a log home was, of course, the selection and felling of the trees. The proximity of suitable trees to the building site was taken into consideration. The most desirable logs were those which could withstand rot, and they were given preference when available. The most desirable shape was straightness combined with only a slight taper diametrically. Pine was the predominant log used in Hill Louisiana, although oak was occasionally employed.

Log house construction cannot be accomplished single-handedly. The sheer weight of the logs makes additional help a necessity. Often, house construction, particularly the building of the walls, was a neighborhood co-operative effort. Such "house raisings" were practiced in Hill Louisiana.
There, as elsewhere in the South, they usually achieved great prestige as social events. As Connor states, 3

...the occasion was one of hilarity and social importance. Certain amounts of convivial imbibing have been reported at these get-togethers, and some pioneers have reminisced that it was well that the finer finishing work was left for more sober moments.

If the entire house raising was a neighborhood affair, a group of "choppers" 4 felled the trees and cut them to the proper length. Usually, however, the settler himself cut the trees and trimmed them, well before the time for the house raising.

The seasoning of logs before use was seldom considered by the settler. The logs seasoned in the walls. This practice is common in Scandinavia, although an entirely different approach is taken to the problem of shrinkage and warping. In America, except in cases of carefully hewn log construction, notching was done in such a manner as to support the weight of the logs at the corners. They were seldom allowed to rest upon the member below. This was done to prevent warping at the corners as the logs dried. In Scandinavia, corner notches were designed to allow the log to settle as it seasoned and an emphasis was placed upon supporting the entire length of the log upon the lower member. 5

The length of the logs cut ranged from twelve to eighteen feet and they varied from one half to two feet in diameter. Large logs were generally split in two. If unhewn logs were used, they generally varied from six to twelve inches in diameter. If hewn logs were to be used, larger diameters up
to two feet would be selected. Generally, forty logs were required for the construction of a single-pen.

If the logs were far from the building site, they could be rolled to it by means of poles or bars. Usually, however, some beast of burden was used to drag them in. In Hill Louisiana the ox was widely used for this purpose. Carts were occasionally employed and in such cases they supported only one end of the log. If the house raising was a co-operative affair, a man with a team was selected to haul the logs in. Usually the settler hauled his logs in before the co-operative effort began.

If the house was to be of hewn logs, the hewing took place at the site, either by the settler alone or by joint effort. Popular usage has applied the term "hewn" to a log which is square in cross-section but it is also applicable to logs with only one or two faces smoothed. All three hewing practices were used in Hill Louisiana. The most common usage was hewing the split side of a halved log. Two-sided (Figure 15) and four-sided (Figure 16) hewing, however, are not uncommon.

A log was generally marked for hewing by use of the chalk line. The drawing-iron (draget), so commonly used in Scandinavia, was not used in Hill Louisiana. Hewing was accomplished with the broadax, a "broad-bladed, short-handled instrument, more than twice the size and weight of the felling ax." The blade was chamfered to an edge on one side only, the other side being flat and level. The American broadax generally had a rectangular poll for pounding as opposed to the European ax
Fig. 15 - Dovetailed notching. Two-sided hewing

Fig. 16 - "Flat-end" timbering. Four-sided hewing. (The Radescich house)
which was usually without a poll.® The handle of the broadax had a conspicuous bend which kept the knuckles of the hewer clear of the log face. The broadax was wielded with both hands—right hand foremost—and the log face was set against the workman's left side.

Occasionally, the hewing was done with an adze or simply a hand ax. The latter was used to scalp, or "skelp," logs after the walls were raised. Brewer mentions the use of the broadax for this purpose.

After the walls were raised the split side, which was inward, was hewn comparatively smooth, and the outside likewise well skelped with the broad axe.®

The nature of the tool and the usual lack of scaffolding casts doubt upon his statement, however.

The technique of hewing a log is described by Mercer as follows:

...the fresh-felled tree, laid about knee high above the ground on underplaced cross strips, was first pared to the brown under-bark with the draw knife, then white chalk-lined on the brown for the hewing line. Thereupon, the workman standing on the log "scored it in," preferrably for ease and speed, with a common felling axe, i.e. hacked into the log side with a succession of deep cuts, and split off the intervals nearly to the chalk line. Standing then on the ground with the log on his left hand and close to his left knee, he held the axe right-hand foremost with its flat side against the vertical log face, and hewed with both hands, not longways with the grain but diagonally downward across it.®

Connor described a variation of the technique.

In hewing a good, straight face on a log it was the general practice to mark a straight line to guide the work. There were several ways of marking a log; the best probably was by using a chalk line. After a mark of some kind was made a shallow niche was cut with a hand ax along the mark. From
the practice of marking a log to be hewed probably arose the expression, "hew to the line." 

This latter variation was occasionally employed in Hill Louisiana but shows no regional proclivities. The niche was occasionally used instead of "scoring off" when hewing unpared logs of small diameter.

The square-hewn log house is often credited to the Germans, whereas the unhewn log house is attributed to the Swedes. This is obviously erroneous, since the hewn log is as much Swedish as it is German. Erixon and personal field observation furnish ample illustration of this (Figures 17 and 18).

The most excellent expression of skill and ability in log construction technique is found in the means employed to interlock the logs of the building's walls at the corners. Such corner-timbering is the key to log construction. There are many types of notchings which can be used to interlock logs in corner-timbering. All of the types used in Hill Louisiana, with one possible exception, are found in Scandinavian architecture. Most of the refinements of notching such as "necking," "cats," "lips," and "grooves" of Scandinavian jointing are unused in America. Only an occasional indication of "necking," which is the paring off of some of the thickness of the log at the notch, was noted. The lack of complexities in American timbering is not too surprising since log techniques had centuries to develop in Europe but were adopted, used, and abandoned within a two-hundred year period in America. A rare opportunity to observe one of the refinements of Scandinavian jointing was found in a provincial
Fig. 17 - Square-hewn timbering.
Västmanland Province, Sweden

Fig. 18 - Square-hewn timbering.
Uppland Province, Sweden
outdoor museum in Gamla Uppsala, Uppland Province, Sweden. There the heads of several logs of an old building had been removed to reveal the use of the "single-cat" (Figure 19). The excellence of this device in providing a secure joint is demonstrated in that the joint is still self-locking and requires neither spikes nor pegs, although the logs' heads have been removed.

The most common notch in Hill Louisiana and the oldest in Europe is the round or saddle notch. This is simply an arcuate notch cut at right angles to, and generally on the bottom of, the log so that it rests snugly upon the round upper surface of the log below. A widespread variant of the round notch in Hill Louisiana was the notch employed with split-log construction. Only a semi-arcuate notch was cut in the log to fit the member below (Figure 20). A rare variant of the round notch in Hill Louisiana appears to have no antecedents in Scandinavian timbering. This joint stands alone in Louisiana in that it shows necking. In this case it is top-necking. The use of such necking resulted in a pear-shaped head and an oblique notch (Figure 21).

A more difficult notch to produce is the dove-tailed notch, frequently used in America as well as Scandinavia. The type is ably described by Connor,

...this method could be used on either hewn or round logs, but it was supposed that any man taking the pains to make a dovetailed corner would also build from hewn logs. To make a dovetailed joint from hewn logs ... a two-way bevel was carefully cut at the ends of each log. This two-way bevel sloped in about 15 degrees from horizontal in a direction parallel to the log's axis and sloped
Fig. 19 - The use of the "single-cat" in Swedish architecture. Gamla Uppsala, Sweden

Fig. 20 - Split-log notching. Nip 'n Tuck, Union Parish, Louisiana
out a corresponding amount in the direction perpendicular to the log's axis and facing the wall to be connected.

This type of notch, like the round notch, was self-locking, but the logs did not project beyond the corner. Such smooth-cornered houses were easy to sheathe at a later date.

Another type of notching popular in Hill Louisiana was the square corner, or "flat-end."\textsuperscript{17} This type was used invariably with hewn logs. The ends of the logs were notched, top and bottom, to accommodate both the upper and lower intersecting logs (Figure 16). A common variant of this type was the halved-corner in which one half of the log's end was removed to receive the projecting half of the log above or below. These two corners were not self-locking and required either spikes or pegs to hold the timbers in place. Usually wooden pegs were used, since spikes as well as smaller nails were scarce.

As pointed out, notching in Hill Louisiana was generally made on the bottom side of the log. This helped to facilitate drainage and avoid excessive rotting at the corners. Bottom notching is in sharp contradiction to most Scandinavian notching, which is top notching.\textsuperscript{18} Only in Norway is bottom notching emphasized. Top notching does not appear to be a refinement in log techniques since it was used in prehistoric construction.\textsuperscript{19} Bottom notching appears to be an adaptation to climate.

In Hill Louisiana notching might be done prior to the house-raising time, if circumstances permitted. A more common practice, however, was to cut the notch as the log was fitted
into the wall. In this manner a better fit could be achieved by the notcher. 20

Corner-timbering ability is significantly lacking in Hill Louisiana today. Some pole construction for small buildings is still being carried on, but the notching techniques are no longer efficient. In most cases the notching is so shallow and crude that spikes are necessary to hold the pole members together (Figure 22). In one case an odd interpretation of corner-timbering was noted in that only the logs of two walls were notched (both top and bottom) to receive the unnotched logs of the other walls (Figure 23). Opposed to a general decline in log construction in America is the persistence of the practice in Scandinavia, where fine timber work is still accomplished in rural regions and where log usage is often found in other than rural buildings (Figure 24).

In Hill Louisiana the house raising lasted from one to three days. The raising of the walls was the true beginning of the affair. Small houses were raised in one day and a dance, to "warm the house," was had the same evening. If the roof purlins were not in place by the end of the first day, the builders would return the next day to finish the job. 21 The work was carefully divided. Men skilled with the ax were chosen as "corner-men," 22 one to each corner. Their job was to notch the logs to fit as the walls were raised. Other men passed logs to the corner-men as needed. Scaffolding was not used. The corner-men depended upon the cracks between the logs and the top of the uppermost log for footing. 23 In Hill Louisiana the bottom log or sill never rested upon the
Fig. 21 - Top-necking resulting in a pear-shaped head. Claiborne Parish, Louisiana

Fig. 22 - Recent pole construction in Louisiana
Fig. 23 - Recent pole construction in Louisiana

Fig. 24 - Recent hewn-log construction in Sweden (Railroad station, Boden)
ground. Foundation piers were of stone where that material was available. In such cases the stones were selected and stacked, quite often without mortar. The more common practice was to use short lengths of log, or blocks split from large logs, as piers.

The common method of obtaining a tight wall was by chinking the cracks between the logs. The larger cracks were often filled with solid material before daubing was applied. Poles, sticks, chips, and stones were used to chink the cracks in ruder construction, but in more-finished work carefully fitted pieces of wood were used. The best work was achieved with split heartwood of pine trimmed to shape with the drawknife and placed diagonally in the crack. Daubing was then applied over this material and in the smaller interstices. The durability of the interstitial material was dependent upon the type used. Clay, tempered with straw, moss or chips, was most often used in Hill Louisiana.

In the Southern Hills chinking was quite often shoddily done and settlers became resigned to walls with gaps in them "big enough to stuff a cat through." Unfortunately, some observers have misinterpreted this folk resignation to gaping walls. Zelinsky, for instance, says, "...even the straightest and roundest logs cannot be superimposed without leaving wide chinks." One need only glance at photographs of European log walls or American examples, such as the Radescich house, to realize the shallowness of such statements. In America tight walls were achieved chiefly with square-hewn logs. In Scandinavia tight walls are found on all log buildings,
including those built in the round. In most cases tightness was accomplished by the use of the "long-groove." The entire bottom side of a log is grooved to fit the convex upper side of the log beneath (Figure 25). This long-groove was never used in the Southern Hills.

When the walls reached the proper height they were drawn in, literally, with rafters and split boards to form the pitch of the roof. A ridgepole was set across the peak. Purlins were then fastened up. The purlins were set parallel to the ridgepole and spaced from one to two feet apart. Both rafters and purlins were of poles, split logs, or split boards. The roofing was then fastened to the purlins.

The most widely accepted roofing material in the Southern Hills was the split wooden shingle or "shake." Here we find a striking difference between the American South and Scandinavia. In the latter area the shake is relatively unknown. Only two examples of shake roofs were found by the writer in Scandinavia. One was on an old barn in southwestern Dalarna Province. The other was on a barn associated with a soldier's cottage from Småland Province in the Museum at Skansen. On the latter roof, the shakes overlapped in their width as well as their length (Figure 26). Scandinavian roofs are commonly of sod, split boards, or tiles.

Shakes were brought to America by the first New England colonists in the 17th century. The tool for riving shakes—the froe—was also brought to America by the earliest English settlers. Mercer says of the froe,
Fig. 25 - The "long-groove." Skansen, Stockholm, Sweden

Fig. 26 - Shake roof on barn from Småland Province. Skansen, Stockholm, Sweden
...an ancient European instrument, referred to by Captain John Smith to cleave pale at Jamestown in 1624, and frequently mentioned in the Probate Records of Essex County, Massachusetts, 1635-1681.

A prerequisite of the shake was a straight-grained wood which could be easily split into thin slabs. It was also important that the wood be rot resistant. White oak is ideal for such purposes and it was used extensively along with other types of oak, as well as chestnut and walnut. Where available, cypress was also used. Shingle trees were carefully selected by the settler and, after he was housed, he singled out and watched over a likely tree from which he intended to rive shakes or pickets on days when his fields could not be worked.

To make his shakes the settler cut the tree down and sawed it into short sections—their length depending upon whether he was making shakes or pickets. Shakes were between two and two and one-half feet long, and pickets about four feet long. The lengths of log were then split into roughly squared segments which approximated the width of the finished product. Shakes were from six to eight inches in width and pickets were slightly narrower. These segments of the log are termed "baulks." This term appears to be a corruption of the term "bolt" as used in the early New England colonies.

From the baulks, shakes are split by means of the froe. This is a cleaving tool which appears in many forms to fulfill specialized purposes but it is represented in Hill Louisiana by only one general type, which varies somewhat in actual size. It consists of a long (twelve to eighteen
inches) wedge-shaped blade with a handle at one end—the handle being at right angles to the blade (Figures 27 and 28). The blade is pounded into the end of a baulk with a maul or mallet, and, using the leverage afforded by the handle, the froe is worked down, splitting off a thin layer of wood (Figures 29 and 30). The froe is still used in isolated spots in Hill Louisiana for the splitting of shakes and pickets.

The maul used with the froe in Hill Louisiana is commonly called the "nigger-head" maul (Figure 28). It is a short (eighteen inches), heavy club, rough hewn from a small tree limb. It is generally of white oak (Quercus alba), since the mauls are made on the spot at the felling of the shingle tree and these trees are generally white oaks.

When a more finished product was desired, the shake was "shaved" in a home-constructed shingle horse. Such holding devices were not commonly employed in Hill Louisiana. Only occasionally were they built and used. The shingle horse is a bench-like device with a foot-operated clamp which holds the shake while the workman shaves it with a drawknife (Figure 31).

The shakes were placed on the roof, heart edge to sap edge, so that they overlapped about half of their length. They were fastened to the purlins with either nails, pegs, or thongs. In early construction shakes were occasionally held in place by weight poles or "butting poles." These poles were laid on top of the rows of shakes and fastened to the end rafters. They prevented the rows of shakes from sliding as well as weighting them down (Figure 32). In other parts
Fig. 27 - "Nigger-head" maul and froe

Fig. 28 - Froe and "nigger-head" maul
Fig. 29 - Starting the froe in the baulk

Fig. 30 - Riving the picket
Fig. 31 - Shingle Horse

Fig. 32 - Weight or "butting" poles
of the Southern Hills, stones were occasionally used to supplement the weight poles. Both of these practices were noted on old buildings in Scandinavian folk museums to hold board roofs in place (Figure 33). An additional refinement in the form of a yoke to fasten the weight poles was also noted (Figure 34).

The weather-proofing of the crest or peak of the roof presented its own problem. The solution in Hill Louisiana was the simple expedient of allowing the shakes on the windward side of the roof to extend beyond the ridge. This comb or crest-like effect was sufficient to seal the ridge. An interesting example of the persistence of this practice was noted in Hill Louisiana where a galvanized-iron roof had replaced a shake roof. The sheets of metal were extended beyond the ridge to form a comb, although the bending of the metal over the ridge would have yielded a more effective seal. The roof comb is a feature of Scandinavian board roofs also (Figure 33).

Log house construction in Hill Louisiana employed sills and boards for flooring. Occasionally, however, floors of packed earth were found in the shed-roofed rooms appended to the rear of some single-pens. These earthen floors, however, were covered with boards and appear to have served as supports for the boards rather than direct flooring (Figure 35). This is a modification of the puncheon floor. Puncheons were log slabs split from a tree trunk and fitted together in a bed of sand or soft dirt with their flat sides up. Puncheon floors were used in a few of the earlier cabins in Hill Louisiana.32
Fig. 33 - Weight poles and roof comb. Gamla Uppsala, Sweden

Fig. 34 - Weight pole yoke. Skansen, Stockholm, Sweden
Openings for doors, windows, and chimneys in log houses were first framed with boards before being cut through the wall. Despite this precaution, there was an inevitable sag in the logs which had been cut. After the openings were cut, they were framed with heavy timber. In many cases a small opening was cut adjacent to the fireplace through which wood for the fire could be passed (Figure 36).

Doors were generally of oak or pine boards and were usually fastened by a latching which consisted of an inside bar or pole pivoted at one end and swung free to drop into a slotted keeper, effectively locking the door. It was thus impossible to latch or open the door from the outside without the latchstring. A hole was bored through the door above the free end of the bar through which a thong attached to the bar was threaded. If "the latchstring was out," the visitor was welcome. Windows of Louisiana log houses were either wooden shutters or glass panes, depending upon the settler's financial status.

Chimneys and fireplaces were usually poor and hazardous in Hill Louisiana. If possible, stone or brick was used for chimney construction. Chimneys of brick were often built on Hill plantations. The brick was usually manufactured locally. When stone chimneys were built, the stones were either carefully stacked without mortar (Figure 37) or they were extremely well-mortared iron-rock chimneys (Figure 38).

The stock chimney was also constructed in Hill Louisiana. Such chimneys were of short lengths of logs, square hewn and corner jointed (Figure 39). They were chinked and daubed and
Fig. 35 - Packed-earth floor. Shed room of abandoned single-pen. Natchitoches Parish

Fig. 36 - Opening for wood beside "stick-and-mud" chimney. Abandoned single-pen. Natchitoches Parish
Fig. 37 - Remnant of mortarless stone chimney. Germantown, Webster Parish

Fig. 38 - Iron rock chimney—well mortared. Near Corney Lake, Claiborne Parish
the firewall itself was of packed clay or earth.

Most chimneys, however, were constructed of sticks and clay (Figure 40). These chimneys consisted of a framework in the form of a firebox and a chimney of poles and wattled sticks. In some cases they were simply plastered over with clay. In others they were formed with "cats." Cats were rolls of adhesive clay mixed with a tempering material. They were about one foot long and several inches thick. The cats were wrapped around the framework and smoothed down after construction was completed. The fireback was packed to near solidity and in some cases faced with brick or stone. Above the chimney opening on the outside of the building the general practice was to allow the chimney to stand free of the gables by about eight inches, as a concession to the fire hazard otherwise presented. Such chimneys are common throughout the Southern Hills.
Fig. 39 - Sketch of stock chimney

Fig. 40 - Stick-and-mud chimney.
Sabine Parish
CHAPTER IV

FARMSTEADS - OUTBUILDINGS

The settlement pattern of the Log culture in its most unadulterated expression is one in which farmsteads include few outbuildings. Most of the outbuildings present in Hill Louisiana today are introductions, reflecting divergent economic activity, improved social status, or the encroachment of technological advances, rather than the material expression of the indigenous culture.

As indicated by Plate IX, log outbuildings were much more numerous and more widespread than log houses in 1949 (Plate VIII). The peculiar utility of the Hill barn is largely responsible for this distribution. One example was observed on lower Bayou Lafourche whose construction required the importation of pine poles from Washington Parish.

The earliest Hill outbuilding\(^1\) and certainly the most tenacious and resistant to change is the Hill barn. It has maintained its integrity of form and construction throughout the complete panorama of house-type phases. Only the rapidly fading skill of the people in log techniques can and will end its existence. In contradistinction to house types, copies of the Hill barn in frame construction are rare.

The Hill barn appeared early in the Pioneer phase. It

\(^1\)For notes to Chapter IV see page 162.
LOUISIANA
LOG OUTBUILDINGS
1949

EACH DOT REPRESENTS ONE OUTBUILDING
reached overwhelming predominance of type during the Log and Folk phases and maintained its dominance until very recent years. Such barns are still being built, due to their ease of construction and the abundance of building material. Their numbers, however, are decreasing and the log techniques employed show a progressive decline in skill of execution.

The Hill barn is of small size. In floor plan it is rectangular, seldom having dimensions greater than twelve by ten feet. It is a gable-roofed structure with the entrance in the gabled end—a sharp departure from the Hill house types. Invariably, Hill barns are built on foundation piers and are floored, although this was not so generally true of the Pioneer phase. Similarly, they almost invariably have a shed roof attached to one side and this too was not so thoroughly true in the Pioneer phase of settlement. This was, and is, the Hill barn type (Figure 41).

On rare occasions, a more roomy barn of the double-pen type was built. Its period of existence is only somewhat shorter than that of the Hill barn in that it was not built during the Pioneer phase. The double-pen barn exhibits similar characteristics to the double-pen house and, in usage, serves in the same manner as the Hill barn, with the additional advantage of a passage into which a wagon can be driven for loading or unloading to or from either pen. In mode of construction techniques it parallels the Hill barn, but quite often it is found with shed-roof extensions on all sides (Figure 42).

Larger variations of both Hill and double-pen barns were
Fig. 41 - The Hill barn. Near Chatham, Jackson Parish

Fig. 42 - The double-pen barn. Near Pelican, DeSoto Parish
built on the so-called Hill plantations (Figure 43). The Hill barn was never accompanied by a fenced barnyard. These innovations are associated with the larger barns of recent introduction.

Like the double-pen house, the double-pen barn appears to be of Scandinavian origin. It probably reached Louisiana by way of the Swedish Delaware settlements and the Scotch-Irish migrations. Numerous double-pen barns were observed throughout the middle and northern provinces of Sweden and in the lowlands of Österbotten in Finland. In the latter area and in Västerbotten, Sweden, across the Gulf of Bothnia, such barns bear a most striking resemblance to the Southern double-pen. This is particularly true when hay poles are stacked against the gabled ends. From a distance, the stacks of poles resemble exterior chimneys of stick-and-clay. Other Scandinavian double-pen barns are less striking in appearance, having their passages closed by heavy doors (Figure 8B).

The use to which the Hill barn was put sets it distinctly apart from its more recent cousins. In actual practice it was a two-purpose building. Its dual purpose was that of both barn and corn crib, with the emphasis on corn crib. Early in the pioneering stage unfloored and shedless barns were used to house stock, thus justifying by origin the continued use of the term "barn" to refer to these structures. It soon became apparent to the pioneer that climatic conditions required ample space for feed storage and de-emphasized the need for stock shelter. The result was that the main body of the barn was floored and converted to the function of corn storage,
Fig. 43 - A Hill plantation barn. Near Robeline, Natchitoches Parish

Fig. 44 - "Old house" barn, single-pen. Germantown, Webster Parish
and a shed was attached to the side of the building to offer token shelter to the farm animals. This shed, during the course of the region's history, sheltered both animal and fowl, "drag" and wagon, and--more recently--it served as a pre-garage shelter for the first automobiles and trucks. This evolution of barn use is common to the Southern Hills.

Methods used in Hill barn construction parallel those of house construction in log. The construction materials have remained rather constant. Foundation piers are invariably of split-log blocks or wedges, except in those limited and localized areas of stone usage. The barn floor was of split boards until the time of milled lumber. The main body of the barn was originally of split virgin-pine logs (Figure 20), but the advent of lumbering rendered such construction financially unwise and replaced it with pole construction (Figure 22). Chinking of the crevices between logs was never practiced in such barn construction. Roofs were--and still are in many cases--of shakes, and shed roofs paralleled barn floors in their evolution from riven boards to milled lumber. The small door which became a necessity following the barn's conversion into a corn crib also evolved from riven boards to milled lumber.

In any consideration of barn types in Hill Louisiana, one must take into consideration what might be called the "old house" barn. Wherever the field worker turns he is confronted with abandoned houses which have been given over to the shelter of stock and feed. Almost invariably these old houses are of sturdy log construction and were abandoned after
the building of newer homes. In some cases they represent
the homes of smaller farmsteads which are now incorporated
into a larger farm unit. The log houses of an entire nucle­
ated settlement (Germantown) are now relegated to use as barns
and storage buildings on a single farmstead. As in the case
of Hill barns, the main body of these houses, of both the
single- and double-pen types, is converted to feed storage and
the broad protective porches now function as shelters for the
stock and the feed troughs (Figures 44 and 45).

Troughs for the feeding of livestock were used throughout
the cultural history of the area. They were simple to con­
struct and resulted in a saving, since feed was not trampled
into the mud of the barnyard. For the most part, troughs
were simply long boxes made of boards (Figure 45). Some were
fastened to the side of the barn under the shed. Others were
mounted on legs and set under the shed or out in the open near
the barn. Those used for hog feeding rested directly upon the
ground. Many of the latter were hollowed from split logs
(Figure 46), the ends of which were closed by boards whose
rectangular form prevented the round-bottomed trough from
rolling and spilling its contents. Some of the surviving log
feed troughs have been in use for decades in Hill Louisiana.
More elaborate feeding troughs of various kinds have been
introduced recently into the area along with differing live­
stock practices.

Log feeding troughs were used throughout the Southern
Hills but were not unique to the Log culture. Many troughs
were more skillfully made than those seen in Hill Louisiana.
Fig. 45 - "Old house" barn, double-pen.
Nip 'n Tuck, Union Parish

Fig. 46 - Hollowed log hog trough. Nip 'n Tuck, Union Parish
Mercer mentions log troughs which were carefully "...excavated on the inside downwards, with the adze." Such troughs were boat-shaped and required no additional closures at the ends.

An early Hill outbuilding which resembles the Hill barn in physical appearance but differs from it in that it has reached practical extinction is the smokehouse. The smokehouse appeared on the Hill scene in the Log phase of settlement. It persisted until the early stages of the Recent. Many of these structures, abandoned or converted to a new use, still appear in the landscape due to the soundness of their construction. In form and general appearance they are exact, though somewhat smaller, replicas of the Hill barn. The side shed is missing, however, and the heavy chinking is readily apparent. Unlike the Hill barn, the smokehouse lacks flooring and rests directly on the ground (Figure 47). The form is common to the Southern Hills but the smokehouse per se is a far more universal feature.

Pioneers, of course, are faced with the problem of meat preservation if they intend to maintain a reasonably steady protein supply of domesticated meat in their diets. There are several pioneer methods of solving the problem but the hillman's answer, as amply illustrated in the landscape, was the smoking of meat. A tightly chinked building was required for this purpose. Fuel for the fires that smoldered on the structure's earthen floor was supplied by hardwood trees (chiefly hickory) of the bottomlands. The resulting bacon and hams were generally of excellent quality. Though a very few of these buildings are reported to be still in use in a
Fig. 47 - Smokehouse. Near Corney Lake, Claiborne Parish
desultory manner in some areas, the majority of them have been displaced in the farm economy by more-recent methods of preserving meats. The most important of these is the deep freeze as first represented by the community deep-freeze lockers. The advent of lockers marked the functional death of the smokehouse.

Two other outbuildings, sheds and outhouses or privies, may truly be said to be a part of the typical Hill farmstead since they appeared during the Folk phase. Their late arrival may correspond to their time of arrival in similar phases of the other cultural landscapes of Louisiana, since such outbuildings are found throughout the state.

Sheds were not built in the Hill area during its early phases of settlement, since the barn and house served well for storage of the few tools and implements owned. They came into being in many nondescript forms when sawmills made available the slabs and scrap lumber needed. Availability of material and need for additional storage space increased practically simultaneously, and sheds of all forms and sizes were built, though seldom more than two per farmstead. As farm mechanization increased, so did the number and variety of sheds.

No attempt will be made to describe shed types, construction, or use, since each shed usually represents the individuality, need, social status, and the like, of its owner or builder rather than the nature of Log culture.

During the early phases of settlement succession the outhouse or privy was not an integral part of the Hill farmstead.
During those periods settlement was extremely sparse, so cornfield or woodland furnished adequate privacy and served the purpose well. With increased density of settlement, however, outhouses were built.9

Though the type of construction of outhouses in Louisiana varies considerably in minor detail, an overall type can be generally described. The Hill outhouse is normally built to accommodate one person. Its height is from six to seven feet and the floor is roughly three feet square. The roof is of a simple shed type.

From the beginning these structures were of boards. No example of log construction was noted for the Louisiana Hill area. Construction materials range from fine milled planks to sawmill slabs. The boards are placed vertically in the walls, thus eliminating excessive framing. Battens are seldom used. Homemade doors are of similar construction but, not infrequently, they are absent, being replaced by a variety of cloth hangings or no closure at all. Quite often an open space is left at the base of the rear wall to serve as ventilation. The seat, occupying the entire rear wall of the interior, represents a greater amount of care in construction—the hole being carefully cut and smoothed for purposes of comfort. These structures are portable and, as occasion requires, a new pit is dug and the outhouse set over it. The Hill outhouse does not differ in form or function from other such structures in Louisiana and elsewhere.

Two more outbuildings became elements of the Hill landscape of Louisiana. The first of these, the syrup mill,
an element of an individual farmstead but it serves community needs. The second, the storm shelter, is a local phenomenon.

The syrup mill was first used during the Log phase of settlement and it persisted until the later stages of the Recent phase. The use of the syrup mill has decreased to the barest minimum and such use will probably cease entirely within a short period.

The typical syrup mill consisted of a grinding device, a vat to catch the juice, and a fire pit to boil out the syrup. The most striking feature of the mill was the long horizontal boom which was mounted off-center on the top of the grinding device. One end of this boom was hitched to a horse or a mule which walked around the grinder in a wide circle, thus activating a vertical roller which, in conjunction with two others, pressed the juice out of the cane as it was fed into the mill. A vat was used to catch the juice which was then "cooked" or boiled to yield syrup. This boiling was often done in a kettle over a wood fire but, wherever material was available, a fire pit of stone was built. The pit was covered with a shake roof and had a chimney of large stove pipe or similar material (Figure 48).

As Dick points out, the mill required at least four men to operate it. One was needed to drive the horse; another to tote the cane; a third to feed the stalks into the mill; and the fourth to feed the stalks back through the other two rollers. In addition, it was desirable to have a fifth man to carry the juice to the kettle for boiling.

The syrup mill marked the farm of an entrepreneur.
Practically every farmer planted a patch of ribbon cane in the moist bottom lands. Individual effort in grinding cane would have been futile in that a single crop could not justify the construction and maintenance of a mill. Consequently, one of the more enterprising farmers of the community would erect and operate a mill to grind the community cane. In return for this service the operator received varying amounts of the syrup produced—one quarter being the usual figure. Since the mill at times served as many as twenty or thirty farms, the profits were generally worth the additional labor involved. This may lead one to believe that the operator would accumulate an excessive supply of cane syrup, but such is not the case. Practically everything on the Hill man's menu—from cornbread, through yams, to hog belly—was liberally doused with syrup as long as the supply lasted.

A few of the mills still operate despite the competition of commercially produced syrups. The mill syrup retains most of the original sugar, whereas the commercial product must have sugar added after processing. Such mills may still be seen scattered sporadically throughout the hills. Their distribution, of course, has never been dense since they must of necessity be spaced to fit community needs.

The syrup mill probably reached Hill Louisiana from the south along with the sugar cane. It was not an adaptation of the sorghum mill, for Dick points out that the sorghum mill was a later development. It was probably introduced to the southernmost portions of the Southern Hills and was then adapted to sorghum in more northern regions.
The grist mill is not peculiar to Log culture but is a feature of every corn-producing region. Most grist mills in Hill Louisiana were actually commercial projects on the order of cotton gins. Some few, however, were individual farm enterprises and these grist mills paralleled syrup mills in local history and operation, but were more limited in distribution. Syrup mills could be constructed entirely from local materials but the grist mill required the costly importation of the mill stones. A further factor which limited the mill as a farm endeavor was power. Horse or oxen power was sufficient for such usage but truly efficient grinding required the ponding of water for power, or the expensive alternative of engines, which only a commercial operation could afford. Most mills of Hill Louisiana were powered by oxen or horses.

Such farm mills as were built generally operated on a share basis and produced four or five grades of ground corn. In order of decreasing fineness of grind they were cornmeal, grits, "chops," cracked corn, and a grind suitable for cattle feed. The latter was a rough grind of dried corn which included a liberal portion of cobs and shucks. Cornmeal and grits were produced in the greatest quantities with the exception of the cattle-feed grind. It is believed that information on the production of cracked corn has been minimized to the extent of unreliability, since the major use of this product was in the illicit manufacture of whiskey.

A familiar adage is "the mill grinds slow" and so it was. Dick illustrates this nicely with an anecdote of a
small boy and a miller.\textsuperscript{18} The small boy, seeing the trickle of meal from the grindstones, stated that he could eat it as fast as it was ground. The miller agreed, but asked how long he could eat it. To which the boy replied, "Until I starved to death." The very slowness of the mill was of social importance in that it guaranteed the presence of a group of waiting men at grinding time. Consequently the mill served as a seasonal social center for the Hill men.

Storm shelters were built during various periods of the region's history, with a definite correlation to intervals following destructive tornadoes.\textsuperscript{19} They show continuing existence and will likely be built and used as long as tornadoes strike Hill Louisiana. Such shelters appear to be culturally rather than climatically controlled, however. All of north Louisiana is subject to tornadoes but shelters are common only in the northwestern portion of the Red-Cuachita divide.

There are two broad categories or types of shelters. The type closely associated with the rural Hill pattern is rarely more than a simple bank dugout, crudely closed with planks. It is the simplest to construct since digging a semi-cave into a bank, taking advantage of natural depressions, requires less effort than digging a vertical hole and also obviates the construction of a stairway or other means of entry. Banks resulting from road cuts are ideally suited for this purpose. This type of shelter is closed on top and front with boards. The shoddy, decrepit construction leads one to wonder how much protection they would actually afford
in case of a tornado (Figure 49).

The other type, the true dugout, consisting of a pit which is entered from above, has been relatively rare in Hill Louisiana. It is achieving greater prominence in urban areas where these shelters, some of concrete construction, may be seen associated with sophisticated urban dwellings.

The size of the storm shelter varies with the size of the family, but they are always small and cramped since the duration of a tornado is very short and comfort need not be considered in construction. The use of the structure, of course, was for protection from the recurring tornadoes of north Louisiana. However, after long periods of quiet between destructive storms, the owners quite often become lax and relegate the shelters to sweet-potato storage. In such cases they refer to them as "bank stores," perhaps through some fear of ridicule for living in a "cyclone," as the areas struck by tornadoes are called. The distribution of storm shelters is curiously confined to the northwestern portion of the Red-Ouachita Divide (Red River, Bienville and Webster parishes).

An unobtrusive but important element of the earlier phases of the Hill farmstead was the "bank store" of sweet potatoes. Most of these features were low mounds resulting from the filling of a pit or bank cavity with sweet potatoes and then covering them with straw and earth. This type of storage proved adequate enough for the Hill man's supply of potatoes. As has been pointed out, however, storm shelters were also used for such storage and referred to as bank
Fig. 48 - Syrup Mill. Alabama Bend, Bienville Parish

Fig. 49 - Storm Shelter. Near Ringgold, Bienville Parish
stores. Bank stores were always located in close proximity to the house. This system of storage was practiced in Ireland. Evans notes that "The crop is then 'pitted,' that is, piled in long heaps in the field and covered with straw and earth."21

Of the outbuildings which have been introduced into the Recent and Present Hill landscapes, few have been modified. When rare modifications of form or type are found they are invariably in minor respects and generally associated with construction materials. These recent introductions have never been absorbed by the Log culture in the sense that all respects except function have been modified; rather they represent a decline of the Log culture as well as a trend toward an over-all cultural homogeneity for the state.

Two of the outbuildings introduced recently into Hill Louisiana are complete departures from Log culture. One of them is the chicken shelter. The Hill farmer did not raise chickens extensively. The chickens and other fowl present were left to roost in the barn. The other outbuilding is the pig shelter. Pigs were an accepted part of the Log culture but they were left to roam the woodland and to subsist chiefly from mast and rooting in vulnerable cultivation. They too were free to wallow in the shelter of the unfenced barn.

An important feature of any farmstead is its water supply which is generally drawn from wells. The wells of the individual Hill farmsteads kept them supplied with water of a reasonably good quality. The earliest wells were open pits from which the water was drawn by a bucket at the end of a
Prior to their appearance on the scene water was taken directly from streams. The open well evolved with individual initiative in accordance with a general plan. It progressed from a pit, to a pit with reinforced walls, to a covered pit. The water-drawing mechanism advanced from the rope and bucket to the rope, bucket, and windlass or pulley. All stages were present in 1950 and apparently were co-existent throughout history with the exception of the Pioneer phase and direct use of streams.

The first step in the general evolution of the well was the strengthening of the walls of the original pit with stone, boards, or poles, if caving of the walls was experienced. This lining was generally topped by a well curbing that stood a few feet above ground level. In areas of available stone this medium was occasionally used. In other areas the well curbing was built of boards or poles. Somewhat later, concrete—frequently in the form of a large drain pipe—was used for such purposes. The advancement to curbing meant the addition of a windlass or pulley—if either had not been built previously. Usually well and windlass were roofed over. The roofing used most often was shakes on a pole frame (Figure 50). Since the use of open wells is declining in the area, more-modern materials such as sheet metal and shingles are seldom used.

Hand pumps were first used during the Folk phase, and were more desirable water suppliers than the open well. Only the cost of hand pumps seems to have prevented the extinction of the open well. Some of the Hill people still look to the
Fig. 50 - Open well. Nip 'n Tuck, Union Parish
hand pump as a longed-for luxury. Frequently the pumps are installed on the rear porch or in the home itself. This convenient position adds greatly to their desirability. Hand pumps are presently co-extensive with open wells.

The important fuel supply for Hill Louisiana was and still is wood and liquid fuels such as kerosene, oil, and gasoline. An ever-present feature of most farmsteads is the woodpile with its associated chopping block and sawbuck. The piles vary in size and neatness with the nature of the individual house-holder but seldom contain more than one cord of wood.

**Grouping of Buildings**

The Hill farmstead has always been a loose cluster of buildings showing little tendency toward specific orientation of one to another. This is the typical pattern of the Southern Hills.

Some general, though far from positive, observations may be made concerning the grouping of buildings. It was observed that the barn most commonly occupied a position to the right rear or to the left rear of the house (quadrants two and three of the locational diagram in Appendix A, page 177). The only cases in which the barn occupied a front quadrant in relation to the house were found when the two occupied opposite sides of a road lying closely between them. Smokehouses were similarly situated to the rear of the house and generally counterpoised the barn.

The only building usually found at a distance from the
others is the syrup mill, which was operated close to the bottom lands. All other buildings were located on the higher, interfluvial ridges. Proximity to a road was a desirable site for the house during all phases and, in areas subject to tornadoes, road cuts have long been convenient locations for storm shelters.

These general groupings of features have apparently held true throughout the cultural succession of the region. No current tendency away from the traditional dispersed grouping of buildings was noted.
The Hill farm averaged from forty to sixty acres in size, including both cropland and woodland. Cultivation was restricted chiefly to the better-drained ridges. Bottom lands were wooded but were used for grazing and minor crops such as ribbon cane. These farms were devoted chiefly to the growth of cotton and corn. They were widely dispersed throughout the forested area occupied by the Log culture.¹

The largest of the Hill agricultural units was the Hill plantation. This unit was, as elsewhere, a larger-scale utilization of the land than the farm. The chief distinction was that hired labor—at first slaves and then tenants—was required. The plantation operator exhibited his greater prosperity in the pretentiousness of his plantation home (Figure 10).

The term "Hill plantation" has become freely used in north Louisiana, due perhaps to its status implication. Farms of somewhat larger size than their neighbors, or in somewhat better condition, or employing occasional hired hands, are often referred to as Hill plantations. Reference of a derogatory nature was also noted, particularly in the event of valley or urban dwellers referring to a tumble-down and decrepit establishment

¹For notes to Chapter V see page 163.
of the Hill area. The actual number of plantation-type operations in Hill Louisiana is few—far fewer than the number of farms referred to as Hill plantations would indicate.

An indication of the decline of Log culture is the increase in farm size since the Folk phase of settlement. The average acreage had increased to from seventy to ninety-nine acres by 1914 and it is becoming less uncommon to find farms of 120 acres or more at present. This increase in the average size of farms is complemented by a recent decrease in the actual number of farms. These trends reflect growth by the addition of idle farm units, which is characteristic of a declining small-farm economy. Census figures reveal as well that the acreage of idle cultivation is increasing in Hill Louisiana. These figures are further indicative of the declining emphasis on an agrarian economy.

In addition, technological advances which have resulted in greater mechanization have been largely responsible for altering the material aspect of the farms. Mechanization brought an increase in the percentage of acreage devoted to cash crops, such as cotton, and a corresponding decrease in the percentage of acreage devoted to crops, such as corn, which had previously been grown chiefly as stock feed.

The grain of settlement of the Log culture was characteristically coarse. Farm units were irregularly dispersed, with farmsteads separated by several miles from their neighbors in most instances. Further emphasis was given to the sparseness of settlement by natural regions of non-habitation. Almost invariably farmsteads avoided the bottom lands and were found
on ridges and higher ground. The same held true for most cultivation. This pattern is still evident as illustrated by a map of central Lincoln Parish (Plate X) prepared from aerial photographs taken in the 1930's. As elsewhere, there was a tendency for dwellings to cluster in small groups at crossroads or other advantageous spots.

Fields

The fields of Hill farms were scattered irregularly through the woodland. Their shape and size varied considerably. The shape was largely influenced by physiography. Large fields of from ten to twenty acres generally occupied higher portions of the farm. In the low bottom lands the farmer cleared only small patches of a few acres.5

During the Pioneer and early Log phases of settlement, field use was chiefly of a subsistence type. Corn was grown mainly as livestock feed, and truck crops were raised for subsistence. Toward the end of the Log phase, cotton was being grown on a par with corn and bottom-land cane was widespread. Cowpeas, oats, and other forage crops were introduced late in the Folk phase, and corn production was increased.6 In striking contrast to farms in the neighboring valley lands, beans were not cultivated in the same rows with the corn.

Field use as pasturage is a most recent introduction in the area. Occasionally in the past, fallow fields were turned over to the stock for grazing, but no real attempt was made to establish permanent pasture land. The association of usage in the present case is with the introduction of improved breeds
CORRELATION OF INTERFLUVIAL RIDGES AND CULTIVATION
CENTRAL LINCOLN PARISH
- CULTIVATION
of cattle.

Farming Methods and Tools

Most of the methods and tools of cultivation of the Hill farmer were of more universal usage. His basic tools, for instance, -- the hoe, the plow, and the spike harrow--were not unique to the Log culture. Some few practices were peculiar to the Southern Hills, however, and these will be reviewed.

The pine forest was both friend and enemy to the agricultural pioneer in Hill Louisiana. It was a source of construction material, fuel, and other products, but the trees had planted their persistent roots in the land which was desired for cultivation. The first clearings were made in conjunction with the cutting of trees for building purposes and the pioneer cultivated small fields thickly spotted with the stumps of pines. In anticipation of future cultivation, "deadenings" were made. The trees standing upon land destined for agriculture were "girdled" by cutting a gash around the trunk deep enough to cut the cambium layer (Figure 51). The trees were thus killed as they stood and left to fall as they rotted.7 Deadenings were labor-saving devices for the settlers when forest resources seemed unlimited. In addition they offered a supply of ready firewood. The practice of deadening is still used to some extent (Figure 52), chiefly as a forest conservation technique. Post oak (Quercus stellata), blackjack oak (Quercus marilandica), and other trees of less commercial value than the pine are girdled so that the pines may grow freely.

The trees of the deadening stood for many years after
Fig. 51 - A girdled tree. Near Ivan, Bossier Parish

Fig. 52 - A deadening. Near Ivan, Bossier Parish
farming had begun. On windy days falling limbs were a constant menace to the farmer. To the boys, girls, and women of the farm fell the job of "picking up the chunks" or clearing the fallen limbs from the cultivated area. When clearing large numbers of fallen trees from a deadening or from an ax-felled clearing, the Hill farmer relied upon the help of his neighbors for a "log-rolling."

Prior to the time of this event, the owner of the land to be cleared reduced the logs to smaller, more-manageable lengths. This was most often done by "niggering off" the logs. This process consisted of burning through the logs at intervals rather than chopping or sawing them into smaller lengths. The "niggering off" fires burned for days as fuel was constantly added. A day or two before the log-rolling the farmer went over the area, sawing through the unburned portions of the logs, if such still remained.

"Log-rolling" is a misnomer for the Hill man's method of removing logs from the fields. Actually, the logs were carried off. The occasion was one for displays of strength and, no doubt, resulted in innumerable cases of rupture. The logs were carried with handspikes made of dogwood. They were about five feet long. Their diameter in the center was about three inches but the ends were smoothed with a drawknife to smaller diameters. The handspikes were pushed beneath the logs. Several pairs of men—one man to each end of a handspike—then lifted the log, carried it out of the field, and threw it upon a pile.

After this "toting" came the "frolic" which made the
log-rolling a social event. In most such affairs, the fun was not restricted to the frolic. The omnipresent practical joker often inserted the opposite end of the handspike in fresh manure before pushing it under the log to his partner. From this type of humor arose the expression "getting the dirty end of the stick." A similar joke was to push the stick under the log so that the log was not centered on the handspike. The joker's partner was given a shorter length of the handspike and consequently bore most of the weight of the log. Thus arose the expression "getting the short end of the stick."

The "new ground" of the deadening required little cultivation. Both Dick and Phillips mention the use of a dibble or a sharp stick to plant the first corn crop. In any event, cultivation required nothing more than crude plowing and extensive use of the hoe.

Plows were occasionally brought into the region by the pioneers themselves. More often, nothing more than the plow share was brought in the immigrant wagon and the remaining parts of the plow were locally constructed. Increased settlement, of course, brought the necessary blacksmiths and artisans to furnish complete plows to the settlers. The early plows—as well as hoes—were not unique to Hill Louisiana but were a vital part of the Hill farmer's equipment. Oxen were the most widely used plow animals of the first three phases of settlement, but have since been completely replaced by the mule and the horse. Early plowing practices were highly conducive to erosion, since furrows were plowed with complete disregard of the slope of the land. Contour plowing, now a widespread
practice, is a very recent introduction into Hill Louisiana.

To break the clods of the newly plowed land, a triangular-shaped spike harrow was used widely. This too was a pioneer tool of home construction. The only parts brought in by the settlers were the heavy spikes themselves. The triangular frame was constructed on the farm, following a design familiar to the Southern Hill culture.¹⁹

Dick details the harvest method for the corn crop.²⁰ The first step was the pulling of fodder. After the ears matured, the leaves from the lowermost ear down were stripped from the stalk. A few days later slides were brought to "haul in" the dried leaves. Shortly thereafter the top of the stalk was cut down to the uppermost ear. Finally, the ear was snapped from the stalk and stored for later shucking or husking.

The cotton crop was harvested, as elsewhere, by laborious hand picking. It was then loaded on wagons and hauled to the gin. Quite often the trip to the gin involved several days of travel.²¹ If the road was especially difficult, wagons traveled to the gin in groups. In that way, all of the ox teams could be combined to pull the wagons individually up the steeper grades or through the more treacherous bottom lands.²²
CHAPTER VI

FIELD FENCES

The fencing of fields was not practiced until the Log phase of settlement. At that time field fences were built in a few cases to exclude livestock. If the field was fallow and used as pasture, livestock were then fenced in, but otherwise pasture was not fenced as such. The fences built during this period, and until late in the Folk phase, were wooden types of rail construction. However, Dick says that the first fences consisted of brush piled around the outer edge of a clearing.\(^1\) Perhaps in some areas such brush piles may have been dense enough to serve as a fence but in the pine forest of north Louisiana underbrush was very sparse.

The rails for the settler's fences were made by splitting a log lengthwise into from six to eight parts, depending upon the thickness of the log. The most common length of a rail was ten feet. The tools required for rail splitting were "a good ax, a maul, two or more iron wedges, and the same number of hardwood wedges, known as 'gluts'."\(^2\) To split rails an ax was used to make the first crack in the log. The iron wedges were then pounded into the crack with a home-made maul (Figure 53) as described by Meredith.

\(^1\) For notes to Chapter VI see page 164.
Fig. 53 - Rail-splitting maul (in foreground)
The maul was made by selecting a hardwood limb about six inches through and the length of an ax handle; one end of this was whittled down into a handle similar to that of an ax, and enough of the butt was left to form a heavy wooden hammer.3

After the iron wedges had been pounded into the crack, the gluts were then used to release their iron counterparts by widening the split. The glut had widespread usage. It was used at least as far north as Bucks County, Pennsylvania.4 Neither Meredith nor Mercer describe the glut as anything more than a wooden wedge. In Louisiana, however, it was described as being conical in shape and made of dogwood.5

With the split rails several types of fences could be built. Actually the various types seem to represent steps in an evolutionary process.6 The suggested sequence of fence types is illustrated by Figure 54.

The nomenclature of these old wooden fence types is often confusing. In many cases they are recognizable in print only by their descriptions. The first of the wooden fences is called the "snake" or "worm" fence in Louisiana.7 Sloane calls it the "Virginia snake fence"8 and Meredith terms it the "Virginia worm fence" or the "Virginia crook fence."9 The Report of the Commissioner of Agriculture for the Year 187110 refers to it simply as the "Virginia fence." The fence was introduced into America early in colonial history. Webb says,

In colonial times the Virginians began to build fences of split rails, laid in panels, eight rails to a panel, and zigzagged so that the ends of the rails interlocked at an angle of about 60 degrees.11

Mercer says of its origin,

This ingenious device...dispensed with holes hewn in the wood or dug in the ground and needed no nails or withe fastenings, probably originated in Scandinavia or Middle Europe. But the writer has failed
Fig. 54 - Sequence of rail fence types
to fix the date of its American introduction. A specimen was seen by Heinrich Partsch standing about 1897 at Bockstein, three miles west of Gastein, in the Austrian Tyrol.12

Personal investigation reveals that this fence type did not originate in Scandinavia. The most typical wooden fence there is the "gårdesgard" (Figure 55). It is augmented by another wooden type of rather flimsy construction (Figure 56). The resemblance between the twin posts of these fences and those of the intermediate stages of the rail fence sequence arouses interesting speculation. Both of the European types are of thin poles rather than heavier timbers. Only a few fences of heavy timber were noted in Scandinavia. These few were house fences, however, and were built of well-hewn timbers (Figures 57 and 58). One example (Figure 57) shows better corner-timbering techniques than are found in most log-house construction in the Southern Hills. These fences are an indication of the intensity of log usage in Scandinavia. Further support is added by the "log post hole" (Figure 59) which is the Swedish answer to fence construction across bed-rock outcrops. A central European origin of rail fences, particularly the worm fence, seems to be indicated.

The worm fence was an efficient one but it required a tremendous amount of wood for construction and occupied a great amount of ground. The U.S.D.A. Report of 1871 says of it,

It may fairly be ranked as the national fence, though it is temporary, giving way gradually to kinds requiring less timber, and covering less land, as well as making a less awkward appearance not at all indicative of the straight-forwardness of the American character.13

Its strength is noted by Flint as cited by Meredith.
Fig. 55 - The gårdesgard fence. Gästrikland Province, Sweden

Fig. 56 - Sweden's secondary fence type. Värmland Province
Fig. 57 - Swedish house fence. Dalarna Province, Sweden

Fig. 58 - Swedish house fence. Dalarna Province, Sweden
Interestingly enough the old worm, zigzag or Virginia fence outlasts all other wooden fences. It just can't fall because no construction of man can be more tumbledown in appearance and construction. It simply rots in its tracks, sinking back to earth as the lower rails disintegrate. We have them here in Pennsylvania in all stages yet but no new ones are being erected. Old rails are placed on the tops where there is a continuance of the fence. Even the stone walls tumble apart, from the influence of frost and vegetation.

A significant commentary on the decline of Log culture in Hill Louisiana is noted in this connection. When the height of existing old rail fences must be increased due to rotting of the lower rails, the new construction material is generally poles and not split rails. Thus one sees today, rail fences whose upper portions presently consist of thin poles (Figure 60).

As for the efficiency of the worm fence, Scott says,

It forms a very strong fence, though a rough one, but it occupies a great deal of ground. It is, however, easily taken down and rebuilt again, while it will turn any and every description of stock.

The worm fence was one of the two basic types of Hill Louisiana. Examples of the sturdy worm fence are still to be found today (Figures 61 and 62).

Although the worm fence was strong and long-lived, it was noted that "stock could push the top rails off. The 'stake-and-rider' fence overcame that." This type was simply a worm fence with crossed stakes set up at the intersections of the panels. An additional rail, the "rider," was then set in the crotch of the two stakes. The rider could not be dislodged by the stock. Sloane calls this type the "cross-and-rail" fence. A few isolated examples of this type were seen in
Fig. 59 - "Log post holes." Skansen, Stockholm, Sweden

Fig. 60 - Pole additions to a decaying worm fence. St. Helena Parish, Louisiana
Fig. 61 - Worm fence. Jackson Parish

Fig. 62 - Worm fence. Washington Parish
but it was never extensively built.

A third step in the sequence of wooden fences resulted from an attempt to straighten the worm fence and thus save both ground and wood. The first such attempt was probably similar to the fence which Sloane calls the "Virginia stake-and-rail (snake)" fence. The obtuse angles of the snake fence have been reduced by planting pairs of posts at the intersection of the panels between which the rails of the two panels are stacked alternately.

The ultimate stage in straightening the fence was the type which Sloane calls the "Virginia stake-and-rail (straight)" fence. In this fourth evolutionary step, the zigzag pattern (no longer necessary) is gone. Webb definitely notes that this type is an attempt to straighten the worm fence. Meredith calls this the "rail fence." This was the second most dominant type of wooden fence in Hill Louisiana (Figure 64). It vied only with the worm fence. It is called in Louisiana the "post-and-rail" fence, which terminology is generally reserved for the final evolutionary type of the wooden fence sequence. The use of the term "post-and-rail" for this fence type is noted by the Dictionary of Americanisms.

The true post-and-rail fence, with holes hewn into single posts to receive the rails, is the final step in rail fence evolution. It is similar to widespread fence types of many cultures. One of the many similar fences is the "pieux" fence of south Louisiana. The true post-and-rail fence was rare in Hill Louisiana.

The construction of wooden fences required considerable
Fig. 63 - Stake-and-rider fence. Sabine Parish, Louisiana

Fig. 64 - Post-and-rail fence. Near Sugartown, Beauregard Parish, Louisiana
labor on the part of the settler. Two ten-foot panels of a worm fence covered about five yards, and each panel averaged eight rails in height. Thus, it would require about 5,632 rails to fence a quarter section of land. Rail splitting was slow work. Dick says, "A large boy could split 75 ash or 45 honey-locust rails in one uv."\(^2^0\) In another statement he mentions that between forty and fifty rails were finished in two hours.\(^2^1\) At that rate 400 would be the maximum for a full day's work. This is about the average rate for splitting rails.\(^2^2\)

Somewhat of a record in rail splitting was established by Mr. Hamp Tipton of Kinggold. About 1910, he purposely set himself the task of splitting as many rails as possible between dawn and dark. Thoroughly exhausted at the end of the day, he had forced himself to split 1,000 ten-foot rails. Even at that phenomenal rate, it would require six full days to split enough rails for a quarter section.

In Hill Louisiana, barbed wire was introduced as a fencing material late in the Folk phase. Other wire types of various woven forms, chiefly hog-wire (Figure 65), followed this introduction. The Recent phase of settlement signaled the widespread use of wire fencing until, at present, wooden folk types are practically extinct. The rare appearance of stone fences in Hill Louisiana makes them worthy of passing mention. A few were seen (Figure 66) but even in those areas where stone was available they were not important features—a significant reflection upon the cultural preoccupation of the people with wood construction.
Fig. 65 - Hog-wire fencing

Fig. 66 - Stone fence. Near Jonesboro, Jackson Parish
Gates and Stiles

Gates were a problem to be faced individually during the period of wooden fences. Every possible solution was reached by the settlers, although none achieved the excellence of the Swedish gate (Figure 57).

The earliest gates in the wooden fences consisted of several loose rails. At the entrances in the fences, posts were set at the ends of the fence panels. Four or five loose rails with ax-sharpened ends were then inserted into holes in the posts, thus closing the entrance. Later gates were of riven boards on leather hinging. With the introduction of wire fencing, gates became more easily constructed and more standardized in form.

Apparently stiles were not common to the Log culture but they are occasionally encountered in Hill Louisiana today. No information regarding stiles in connection with the wooden Folk type fences could be secured, but this is not too surprising since the rigidity of a wooden fence makes it much easier to climb than a limber wire fence and, likely, stiles were not used. The stiles of today are of two types. One mounts directly to the crest of the fence and thence down the other side. The other parallels the fence, each individual step protruding through the fence to form a corresponding step on the other side.
CHAPTER VII

VEHICLES AND ROADS

The primary vehicles of transportation as introduced into Hill Louisiana were three—the wagon, the cart, and the drag. None of these was unique to, although all were a part of, the Log culture. The most primitive of the three, the drag or "slide," as it is often called, was built and used on the farm itself and seldom served as a vehicle of travel. It may have been used more extensively for that purpose elsewhere in the Southern Hills. Dick mentions that the "ground sled" was known as a "land-slide," and he states that it was used as a family conveyance.¹

The drag was a wheelless, sled-like vehicle (Figure 67). It was simply constructed by building a small platform of boards on a pair of runners which were easily replaceable poles. This vehicle was pulled behind the farm animals. Smaller models were generally used to carry the plow to the fields and larger forms were for the movement of heavy objects such as stones.² Sloane calls such drags "stone-boats" whereas those for general use he terms "pungs."³ Examples of the drag are still used in Hill Louisiana today. This primitive vehicle was adopted in at least one instance by pipeline constructors. Their adaptation was built of welded steel pipe (Figure 68), and apparently had

¹For notes to Chapter VII see page 165.

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Fig. 67 - Small drag

Fig. 68 - Drag used on pipeline construction
been towed behind a tractor.

The drag is not peculiar to the Log culture. Phillips illustrates its continued use in the Tensas Basin and the writer has seen it in use in more southern portions of the state. Similar vehicles seem to have had extremely broad world distribution. Evans mentions "the wide distribution of similar means of transport in countries overseas" in reference to the sledge or "slipe" of Ireland. Evans also describes the seeming evolution of the sledge, to the slide car (a vehicle similar to the Indian travois), and finally to the two-wheeled cart. No such evolutionary sequence was noted in Louisiana. The slide car was never used and the two-wheeled cart was an introduction of the migrating settlers.

The cart in Hill Louisiana was most often drawn by oxen. Most carts were small vehicles with solid disk wheels, but larger models, capable of carrying several bales of cotton, were equipped with spoke wheels. Carts were widely used for transportation during the Pioneer and Log phases of settlement. The smallness of some of these vehicles is noteworthy. A photograph in the centennial edition of the Winn Parish Enterprise shows two such vehicles. They are so small that they are barely capable of seating two persons. In the photograph, the passengers' feet appear to be dragging on the ground. Furthermore, these carts are drawn by oxen no larger than calves. This photograph obviously illustrates two extremely small carts for no single informant mentioned such an extreme in cart size. All carts have been generally abandoned by the Hill people.

The most widely and intensively used vehicle in Hill
Louisiana was the four-wheeled wagon, and variations such as buggies and other more comfortable conveyances. Wagons were used throughout the cultural history of Hill Louisiana and are still used today. They were originally drawn by oxen, but horses and mules are the present draft animals. Wagons were certainly not unique to the Log culture of the Southern Hills but were universally used in Anglo-Saxon America.

The major routes of travel in the area of the Log culture were land routes. As previously discussed, streams were seldom used as means of movement. The overland routes were unsurfaced roads which generally avoided the often swampy bottom lands. On the higher land of the ridges wagons and carts could travel with relative ease since the surface was well drained and the open pine forest allowed free passage. Where roads were necessarily routed across bottom lands they soon became quagmires.

The most important routes were east-west routes over which traveled the streams of immigrants to western lands. One of these extended westward from Vicksburg and the other from Natchez. North-south routes of communication did not become significant until the coming of the railroads in the late 1800's.

During the early years of settlement most minor roads were simply trails and were not maintained. However, a few individuals built private roads and maintained them for their own convenience. An excellent example is the Luke and Wyatt Road. It was built in the 1830's by Luca Radescich and his neighbor John Wyatt. It extended for seventy miles to join the Radescich plantation on Dugdemona Creek with the Veal Farm between present-day Ruston and Monroe.
At best, travel in Hill Louisiana was an arduous endeavor. In most cases trips to valley cities for supplies involved several days of travel. Supplies for such trips invariably included a bell and a tar bucket. The bell was tied to the ox at night and the tar was used as axle grease. Travelers generally moved in groups. In such fashion, all of the draft animals could be used as a single team to haul the wagons and carts over the most difficult parts of the road.

Bridges were rare features in early Hill Louisiana. Most streams could be crossed by fording and such was the usual practice. During the years of migration into Hill Louisiana many of the larger streams, lacking ferries, were crossed by floating the vehicles and swimming the stock. Pete Smith of Sikes, Winn Parish, recalls hearing his grandmother tell of her trip from Mississippi in the 1870's with fifty head of cattle. The cattle were lured across the larger rivers by an apronful of corn and shucks displayed before them from a skiff. Drift logs were lashed to the sides of vehicles for greater buoyance and they were towed across the rivers by their swimming teams. Ferries which soon appeared at strategic points of crossing were generally barges which were either poled across the stream or pulled across by means of a rope or cable.
CHAPTER VIII

THE HILL CHURCH

One of the most unifying features of the Southern Hill culture was religion. Farmsteads were united into communities in the past as they are at present by the central nucleus of a church. Such geographic unification around a religious nucleus was common but not unique to the Scotch-Irish. The Scotch-Irish centers of settlement in colonial America as depicted by Hanna (Plate V) were just such communities centered about a church.

This emphasis upon religion probably played a greater part in the adoption of certain Swedish culture traits by the Scotch-Irish than is readily recognized. The Scotch-Irish Presbyterians came to America primarily as a result of religious persecution—first in Scotland and then in the North of Ireland.1 Tens of thousands of them entered America via the area so greatly influenced by the Swedes as a result of their ability to furnish the pastors needed for religious services.2 Religious affinities, no doubt, made the Scotch-Irish arrivals more receptive to the acceptance of new ideas from the Swedes.

In any event, the church has always been an important rural community center in Hill Louisiana. The chief denominations, Baptist and Methodist, contribute greatly to setting

1For notes to Chapter VIII see page 166.
the material aspects of north Louisiana landscapes apart from those of the Catholic regions to the south. The earliest church services in Hill Louisiana were usually held in previously constructed buildings such as stores, inns, or large dwellings. The earliest church buildings as such were brush arbors. The name describes the type of construction. These brush arbors persisted strongly and are still used today for revival meetings. In many cases the term "brush arbor meeting" is used to create an old-time atmosphere, although the housing may be a tent or even an actual church building. Communal effort generally resulted in the raising of a log church house, furnished with split log pews, early in the community's history. As settlement became more dense and congregations larger, frame churches were erected and finally larger brick or concrete-block structures.

No true Hill type church building was developed although there was a tendency to build churches with double steeples. This form is widely built, however, and cannot be considered a trait of the Log culture.

A cemetery is generally associated with the Hill church. Isolated graveyards, which are frequently seen today, are a result of the destruction of a previous church or, in a few cases, they are the outgrowth of private cemeteries of individual farm families. Hill interments are below ground and the cemeteries are generally fenced with woven wire (Figure 69). Prior to the wire fence, cemetery enclosures were of pickets. Individual graves are quite often highly decorated. Headstones are seldom of expensive marble. They are either
Fig. 69 - A typical Hill cemetery.
Near Lebanon, Bienville Parish
of wood, ironstone, or cement. The grave mounds are outlined
with bits of ironstone or the lustrous shell of the mussel.

An unusual cemetery was encountered which apparently il-
lustrates an extreme interpretation of an old Southern Hill
trait (Figure 70). The cemetery was that of the Zoar Methodist
Church about three miles north of the Winn Parish line on state
route 543. Many of the graves in this cemetery were covered by
elaborate sheds (Figure 71) and one was actually housed in a
small building of horizontal siding, complete with a door and
glass windows (Figure 72). In addition, small shake roofs
were stacked along the cemetery fence and were used to cover
fresh graves until the mounds had settled (Figure 73).

The covering of graves was apparently an old practice which
is still found in some portions of the Southern Hills. Dick
says,

> In the early days, especially among the hill people,
a grave house was constructed over the grave to
protect it from the elements and the grave robber. It
was made of logs covered with shakes.\(^3\)

It is extremely unlikely that such grave houses would have
protected the grave from robbers, but they were a protection
against the elements. Such grave houses still exist in isolated
areas. Barker notes in regard to graves in the Ozarks that,
"some were sheltered by wooden roofs."\(^4\) In Hill Louisiana, how-
ever, with the exception of the cemetery here described they
were not noted.

Hill cemeteries have been cleared of weeds and grass until
just recently when the power lawn-mower became available. The
graveyards were hoed and cleared by periodic cemetery-cle-

ings, a practice which still continues in competition with the power
Fig. 70 - Cemetery of the Zoar Methodist Church, Route 543, Jackson Parish

Fig. 71 - Shed-covered graves. Zoar Methodist Church cemetery
Fig. 72 - Grave enclosed in house-like structure. Zoar Methodist Church cemetery

Fig. 73 - Shake roofs to cover grave mounds. Zoar Methodist Church cemetery
mower. The social aspect of these gatherings was and is an important feature to the Hill people. Considerable quantities of home-made whiskey were consumed from fruit jars at these events. In addition, they served as an occasion for romancing as well as other forms of merriment.
SUMMARY

The distinguishing characteristic of Hill Louisiana is its Log culture. This characteristic sets it apart from the other cultural regions of the state and relates it to the culture of the Southern Hills. The settlers themselves were chiefly Scotch-Irish immigrants from eastern portions of the Southern Hills and they brought with them cultural notions previously alien to Louisiana. The material expression of these notions appears to be a distinct complex compounded of techniques and forms learned from other ethnic groups east of the Appalachians. From the Delaware Swedes the Scotch-Irish learned the use of logs for construction and borrowed a house form. From the Germans of Pennsylvania they probably learned additional log construction techniques and borrowed ideas of wooden fence construction. These borrowings and others were added to their native concepts and were spread, relatively unchanged, across the Southern Hills and into northern Louisiana. During a period of approximately one hundred years the culture has declined, as have others, in the face of a trend toward over-all homogeneity throughout the state.

The basic feature of the cultural landscape of Hill Louisiana is the farm unit, within which the culture was best expressed. A series of idealized ensembles representative of the typical farms of each settlement phase adequately summarizes Hill Louisiana.
The Pioneer Phase

The pattern for this initial phase of Hill settlement is characterized by crude log house types and small log barns. Initially, the care of livestock was of greater concern than the construction of a sound house. Thus it is intimated that the small log barn is associated with the first log cabins and is older in a relative sense than the true folk house types in Hill Louisiana. Other outbuildings were not built in this phase and fences were equally ignored. Fields were being cleared for a subsistence-type planting consisting of corn for the livestock and vegetable gardening for the pioneer. The fields were small irregular clearings in the forest, spotted thickly with stumps and worked initially with the hoe. The farms themselves were small and widely dispersed on the better-drained ridges.

The Log Phase

This was the phase of greatest cultural significance in Hill Louisiana. As the name is intended to imply, the chief building material was logs. The early portion of this phase is most ideally represented by the single-pen, whereas the later part is dominated by the double-pen. At the height of its ascendancy, the house types of this phase were approximately equivalent in numbers of single- and double-pens. Other house types were quantitatively insignificant. House fences were not generally built but when they were, they were of rived pickets. The house yard was kept clean swept.
The small log barn was universally constructed and used. Usually as much effort was put into barn construction as was put into house construction. Prior to this era, sanitary facilities were unknown except in rare cases. During this period, however, the outhouse achieved significance. The rise of the outhouse is definitely associated with increasing density of settlement. Other outbuildings were generally lacking. Smokehouses were being built but sheds were not needed, since the few tools and supplies were stored in either the barn or the house. Chicken shelters were not built. The chickens which were raised roosted in the barn. Pigs, although present in some numbers, were left to roam the woodlands. Storm shelters were occasionally built in those sections subject to tornadoes. The syrup mill was introduced during this phase.

Field fences were built to keep livestock out of the fields. In some cases, where the fields were fallow and used as pasture, the animals were then enclosed by the fence, but pasture was not fenced as such. The fences built were of the two wooden types—the worm fence and the post-and-rail fence. The land-use pattern of cotton and corn was begun during this phase. Some truck farming was carried on for subsistence and small patches of bottom-land ribbon-cane were being cultivated for syrup. Field size was small, averaging perhaps little more than ten acres per field. A large field consisted of twenty acres or more. These fields had a scattered or dispersed distribution and varied widely in shape. The farms themselves continued to occupy the ridge land and the dispersed pattern of isolated farms was altered only by an increasing density of
The Folk Phase

This phase signals the trend away from log construction rather than any definite change in the Hill settlement pattern. The double-pen achieved its greatest prominence, reaching predominant percentage figures for the region as a whole. Sheds were added and more land was cleared for cultivation. The fields increased in size to as much as thirty acres in some cases. Toward the close of this period, features introduced with the sawmills were thickly intermingled with folk traits.

The Recent Phase

This phase represents the beginning of the decline of Log culture. A house type introduced by the sawmill operators--the bungalow--had taken firm hold and become widespread. The small log barn started to decline in numbers in the face of the need for larger barns, and the smokehouse and syrup mill began to disappear from the scene. Sheds increased in numbers and varieties and garages were becoming an integral part of the pattern. Outhouses began to disappear, being replaced by inside plumbing, and chicken shelters and pig pens were being built. Wooden fence types for both house and field were replaced by barbed- and woven-wire types. Fields were fenced both as cultivated land and as pasture, with woodland also being fenced for grazing purposes. Economic factors were altering land-ownership patterns resulting in an increasing farm size but a decreasing number of farm units.
The Present Phase

This era—the least significant in a depiction of the Log culture of Hill Louisiana—represents a complete divergence from Hill features. New varieties of house types have been introduced and adopted—particularly in urban and suburban areas—with emphasis on the Cape Cod cottage and the Rambler. Industrialization, suburbanization, and changing agrarian patterns are eliminating Hill features as graphically portrayed on Plate XI. Hill elements are being replaced by forms more widely adopted throughout Louisiana.

It is fortunate indeed that the geographic survey of Louisiana has been carried out, for it is still possible to recognize and distinguish between the various original cultural regions of the state. Observations and results of two summers work in the field indicate a trend throughout the state toward an over-all homogeneity of cultural landscapes. This trend will progress to such a point as to obscure the culture regions now present. When this trend eventually culminates in cultural uniformity, the work of the geographer in reconstructing landscapes of the past will be rendered doubly difficult.
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**ELEMENTS**

**EVENTS**

**LEGEND**

- HILL ELEMENTS
- INTRUSIVE ELEMENTS

FIRST SETTLERS

CIVIL WAR
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16. Ibid., p. 84.

17. Winn Parish Enterprise, op. cit.


20. Winn Parish Enterprise, op. cit., section 1, p. 5.


22. Ibid., section 6, p. 2.


25. Ibid., p. 67.


27. Loc. cit.


30. Trout, op. cit.


32. Conversations with Mr. H. Rees, District Agent, Saline Soil Conservation District, Ringgold, Louisiana, during the summer of 1950.

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6. Numerous works including:
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11. Dr. Erixon granted several interviews in June, 1950 at Cooperstown, New York, while guest lecturer for the New York State Historical Society.


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8. Loc. cit.


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CHAPTER IV

1. Conversations with numerous persons in north Louisiana.

2. Conversation with Bruce Maxwell, Coushatta, Louisiana.

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7. Conversations with D. E. Anderson, formerly of Smith County, Mississippi.

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13. Ibid.


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19. Conversation with Millard Tookes, filling-station operator, Route 90, five miles south of Ringgold, Louisiana.

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CHAPTER V

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3. Ibid.

4. Conversations with Mr. H. Rees, district agent, Saline Soil Conservation District, Ringgold, Louisiana.

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22. Conversations with D. E. Anderson, formerly of Smith County, Mississippi.

CHAPTER VI


5. Conversations with Hamp Tipton, Ringgold, Louisiana.


7. Conversations with numerous people of north Louisiana.


17. Sloane, loc. cit.


22. Conversations with Hamp Tipton of Ringgold, Louisiana.

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APPENDIX A


PROCEDURE AND METHODS

The survey. The recording of data in the field was done by car traverse by a field party of three: a driver and two recorders. The state was divided into six sections or series designated A, B, C, D, E, and F, for the convenience of the field workers. Within each section the traverses were laid out and numbered numerically. These were chosen by means of overlay maps constructed from the parish maps of the State Highway Department which show location and density of settlement. Along a given traverse within a series, every twenty houses were called a segment. The field sheets were designed so that each represents a segment.

Three field sheets were used. The first was devoted to the house and the buildings immediately associated with it. Field Sheet No. 2 was used to record land use and associated information about fields. Field Sheet No. 3 was used to record random information—items which had no regular distribution but whose occurrence should be noted, such as artificial ponds and storm cellars. A code was developed for every item to be recorded. It is suggested that a number code be used if the data are to be treated mechanically.

1. Field Sheet No. 1. The recognition of Louisiana folk house types was made possible by Kniffen's work on Louisiana house types. His classifications and definitions formed the basis for the recording of types in the field. Deviation from his classification was necessitated in this survey as a result of the fact that the survey was one of settlement types rather than house types alone. The survey would have been imperiled by any attempt to record such relatively minor salient points of house types as the number of doors, the position of the chimney, the type of building material, the position of the appendages, and many other things which would clarify the picture of the house considerably.

It was apparent that there are four general types and several sub-divisions of Louisiana folk houses. The four general types are: (1) those houses with frontward-facing gables, (2) those with sideward-facing gables, (3) those with a square or pyramidal roof, and (4) those with a shed roof. The subdivisions were derivatives of these four on the basis of salient features. Type one (1) was divided into houses of only one-room width and houses two or more rooms wide. Type two (2) was divided into those which had an open passage through them; those with a built-in porch; and the remainder was classified as single-log pens. Type three (3) stood alone. Type four (4) was exemplified by the trapper shack. Only one example was recorded. This is due, of course, to the fact that the survey was confined to the highway system of Louisiana and did not penetrate regions where such types would be expected.

Two other types were recorded but they were not basically Louisiana folk types and their value to the survey lies only in their contribution to the accuracy of the percentage figures on which distributions are plotted. One of these was the ante-bellum mansion and the other was the suburban home. Included in this latter category were any rural homes—their number was negligible—which defied classification even upon the basis of genesis. These homes were chiefly converted barns, architectural monstrosities, and the like. It is interesting to note that a true folk type seems to be developing among the suburban houses recorded. Several dwellings of extremely decrepit condition, unclassifiable and nondescript, were recorded as "shack."

Quite often general types were encountered which embodied as many as three of the salient features upon which subdivision into types was determined. An outstanding example consisted of the two features, a built-in porch and an open-passage. Frequently these two features were found in conjunction with pyramidal roof. To determine the type in such cases an order of precedence of features was easily established. The open-passage was given top preference. This does not depart from Kniffen's classification since, as in all cases of recording, the most prominent genera were considered. The pyramidal roof was given second preference since it also is genetic and is general rather than a specific type. Third preference was given the built-in porch.

The recording of house condition was done arbitrarily on the basis of the following categories. As in house types, more detailed recording would have been desirable. Only three categories of house condition were set. Each was capable of subdivision. Condition "A" designates a house which has been well cared for. Such a house shows no signs of neglect. Condition "B" designates the average home; a house that has been cared for but still shows signs of neglect either in the way of depreciation or in lack of an attempt to make obvious
improvements. Condition "C" designates any home which has obviously been neglected by its owners. The value of house condition may prove to be of sociological value only, but it was recorded since it has a tendency toward areal distribution and so should have some geographical value--this above the fact that it is of intrinsic value in picturing the settlement type.

The house fence recorded by the survey is only the fence which encloses the house or the front portion of the house. Houses situated behind fences which enclose a large pasture or a cotton field or merely parallel the road, and similar houses were recorded as having no fence. In a few cases double fences were encountered. Such a house would have an enclosed lawn in front of it. The enclosed lawn and the house would be enclosed by another fence. In such cases two fence symbols were recorded on the field sheet, the upper symbol indicating the type of the inner fence.

Yard condition closely follows house condition. The term "yard" designates the area enclosed by the house fence. In the case of a double fence, it designates the area enclosed by the inner fence. Condition "A" represents a well-cared-for yard. Condition "B" designates a yard which has average care. Condition "C" indicates a yard which has been neglected. The value of yard condition seems to have sociological value only.

There was a locational recording of outbuildings. Barn symbols were recorded under the proper locational columns on the field sheet as defined in the following diagram. If other outbuildings were found in the same locations as the barns, the only recording was a check or an outbuilding fence symbol in the proper outbuilding column on the field sheet. If outbuildings were found in locations other than that of the barn,
the proper outbuilding symbol was recorded in the correct locational column on the field sheet. In such cases a check or an outbuilding fence symbol was also recorded under the outbuilding column.

The classification of barns as to type was relatively simple, since these structures seem to resist the tendency—so strong among house types—to divert from generic types. Frequently appendages in the form of sheds were found—chiefly in conjunction with the Vee barn and the double-shed barn—but no correlation with barn type or barn size and no areal grouping or concentration was noted.

Barn size was recorded by the symbols "S" and "L" in conjunction with the barn-type symbol. The lack of an "S" or "L" indicated that the barn was of average size. The sizes were arbitrarily set as follows: An average- or medium-sized barn was one closely approximating the size or cubic capacity of an average three- or four-room house. An "L", or large barn, was any barn larger than the average. The "S", or barn smaller than average, presented a problem in that many were extremely small and easily mistaken for a shed. The criteria for determining whether the structure was barn or shed was whether the structure was used to house livestock rather than pigs and chickens or small hand tools.

If barn fences were encountered they were recorded adjacent to the barn-type symbol. Barn fences were recorded only if the fence enclosed a barnyard, which in many cases enclosed only a portion of the barn. The reliability of the board fence types recorded is much higher than the wire types, since the board or wooden types were more easily recognized. The wire types did not lend themselves to clear observation by car traverse.

Outbuilding fences, as in barn fences, were recorded only if they enclosed the building as a unit. The fence symbol was recorded adjacent to the outbuilding symbol.

Subsidiary houses were recorded in the Remarks column both as to house type and location.

2. Field Sheet No. 2. This field sheet was designed to be used primarily for recording facts of land use. It consisted of twenty blocks which were divided into small squares. One block of squares was used to record land-use facts associated with one habitation unit. Each block was divided into vertical and horizontal columns. The vertical columns referred to location with respect to the house and the horizontal columns referred to the type of land use. Location was determined as indicated in the following diagram:
Types of land use recorded were gardens, orchards, pastures, cultivated fields, and unused and abandoned land.

Those classifications contain no implication of size, only one of intent. A garden was recorded for any patch of vegetables, however small. An orchard was recorded for the smallest group of fruit trees, and in some cases for a single tree. The lower size limit on these two items was never decided and whenever there was any question, decisions were made arbitrarily on the spot. In any case such a notation indicates that either fruit or vegetables were intentionally grown for home consumption. In the case of orchards, the type of fruit grown was indicated near the symbol showing the existence of an orchard. The fact that an orchard was too large to be used only for home consumption could be seen on the field sheet by its distribution, i.e., if orchards were recorded for several locations for one house it was to be inferred that it was of a commercial scale. Vegetable gardens of commercial scale were recorded under cultivation and the word "truck" or simply the letter "T" was recorded in the margin to indicate that fact. The other symbols were self-explanatory. It need only be added that there was no relationship between size and the number of times that these symbols were recorded for any one house. The field noted in one location for one house may be just as large as the combined fields noted in several locations for another house.

The occurrence of one type of land use was recorded by placing a fence symbol in the appropriate square; thus three facts concerning this feature were recorded: (1) the type of land use; (2) its location with respect to the house; and (3) the type of fence which surrounded the field. A line across several squares with one fence symbol indicated that the field extended as one unit to the locations recorded and that it was
contained within one fence. A line without a fence symbol indicated that the field was not fenced. A line connecting two or more types of land use indicated that the several types were contained within one fence. A diagonal line through a unit of squares indicated the total absence of any land use. If two fields occupied the same position with respect to the house but one was outside of the other, the facts were recorded separately and a smaller number "1" was placed next to the symbol for the field nearest to the house, the number "2" was placed after the next, and so on.

Explanatory notes were made in the margin whenever additional information was required to clarify the recorded data. These notes are adequate and require no additional explanation. They were not required often, hence no system of symbols was devised for them. In most cases they varied with the individual problem. However, a few symbols were devised for remarks which were frequently needed.

3. Field Sheet No. 3. No explanation is required for this field sheet. Random notations were made as significant, but scattered, phenomena were encountered. These included artificial ponds, silos, windmills, storm cellars, cisterns, rural business establishments, isolated barns, airplane landing strips, and others.
APPENDIX B


HISTORICAL-FUNCTIONAL STUDIES

1. Field work. The selection of sample areas on the part of the field worker was made necessary by the large areas to be covered. The selection was made on the basis of data obtained from the general survey and, for this reason, it was satisfactory. Selection of sample areas should never be attempted without experience in and familiarity with the entire area of study. There is, beyond the fundamental procedure of the general survey, an element of common sense and personal orientation in the selection of sample areas. There will be, in most cases, several selections which could be made, and that which is selected should be on the basis of time and funds available to attain the purpose of the project.

In general, selectivity was based on the following: (1) preliminary survey and mapping which reveal concentration of typical settlement types; (2) regions of relative isolation which are least affected by cultural invasions; (3) areas recommended by persons familiar with the region; and (4) personal knowledge of the field worker.

The securing of information was made on the basis of (1) house-to-house canvass, which involved broad general questioning and conversation with residents; (2) detailed observation by the field worker; (3) formal interviews or questioning of community officials and leaders; (4) specific questioning of persons on given subjects with which they are especially familiar; (5) academic attention to conversations in public places; and (6) familiarizing one's self with parish and other local records, such as private papers, photographs, diaries, and the like; and (7) the taking of pictures.
VITA

Martin Wright was born in Baltimore, Maryland, on December 21, 1919 and received his grade school education in that city. His education at Louisiana State University began in 1936 in the University High School, from which he graduated with honors in 1938. Between 1938 and 1942 he completed only two years of Geology at Louisiana State University due to financial difficulties necessitating intervals of absence. After three and a half years with the Infantry and the Signal Corps in the South and Central Pacific, he re-registered at Louisiana State University in 1947 as a student of Journalism. Encountering Cultural Geography during that year, he elected that major and graduated as a Bachelor of Arts in Geography in 1949. He received the degree of Master of Arts in 1950 and has remained at Louisiana State University working toward a Ph. D. in Geography.
Candidate: Martin Wright

Major Field: Geography

Title of Thesis: Log Culture in Hill Louisiana

Approved:

Fred Krieff
Major Professor and Chairman

Dean of the Graduate School

EXAMINING COMMITTEE:

Fred Krieff
Alan Chee Lane

W.S. McFarlane

James D. Morgan

William G. Hart

Date of Examination:

July 28, 1956