An in-depth study of parking placement on the site was stimulated by jurors at intermediate reviews. The argument was drive well into the site and enter from within, and to relocate the produce market nearer to the road, as a replica of the road-side stand. My intent was to create an atypical parking area, a pleasant experience in itself, where one could leave their car, and their fast past lives, behind and enter the harmonious tranquility of the farm, or something like that.

The study resulted in a greater self-confidence in my decisions and designs.
These sketches demonstrate the evolution of an English herb garden design typology to a unique agricultural garden derived from the geometric designs of Pennsylvania-Dutch hex symbols, a common barn decor in New England. I suppose any passing hot air balloons might notice the intent.
A Detailed Account of the
Sequential Experience of the Farmstead:

Entry to the site is located at the bottom of the hill, to have a minimum impact on the owner's private residence and lawn, while remaining visible to passing cars. Customers will be drawn in by the visibility of other cars and the positioning of the welcoming gatehouse and road-side market pavilion. The pavilion offers convenient drive-by sales of over-abundant seasonal produce such as berries, corn and tomatoes. A one-way traffic loop aids the efficiency of drive-by sales at the front of the parking area and encourages passenger drop-off back toward the cafe and garden entrances. The parking area becomes an outdoor room, enclosed by tall berry bushes that offer patrons a free taste of hand-picked produce. The cars rest on patches of grass growing up through a concrete arid, resembling the bumpy pasture that previously occupied this plot of land.

A pedestrian corridor is differentiated by a tree-lined gravel path directing patrons to the activities awaiting them. The path is intersected by a patterned brick surface leading to the downstairs cafe entrance to the east and the demonstration garden straight ahead. Retaining walls slip past to the west of the garden, defining a service access for pick-ups and deliveries. This low-profile service access leads back to the lower-level storage/root cellar entrance.

Following the brick apron to the cafe entrance, the patron enters under a small new pent-roof through a pair of heavy, hand-crafted doors. The cafe level has exposed concrete foundation walls, which are echoed in the design of a new staircase to the upper level. The new stair serves as a division between the employees' open workspace, and the back seating area.
creating a backdrop for both settings.

The demonstration garden, a vibrant mix of aromatic herbs and colorful perennials, terraces up to the west entrance of the barn. The garden is modeled after English herb gardens in plant varieties and sizes, but takes its geometric pattern from the decorative agricultural Pennsylvania-Dutch hex symbols. This garden serves as an introduction to the farmstead, which is a large-scale garden itself.

Once within the demonstration garden, the patron has the option of continuing straight south and passing under a trellis that marks the beginning of a circuit path through the farm, or going into the main level of the barn which houses the year-round herb market.

The circuit path allows the patron the opportunity to see the growing plots, plant variety and farming techniques being employed. Methods of natural herb and flower drying can be observed at a small drying crib along the path. The animal shelters on the back acre provide a destination for the wandering visitor. Feeding and composting methods can be observed nearby. Eventually, the path terminates at the outdoor produce market-place.

Choosing to enter the herb market from the garden, the patron would enter the cool shadiness of the barn and be met by a newly constructed staircase rising up to the hayloft in the center bay of the barn. This circular stair, made up of slender vertical framing timbers rising from the concrete staircase of the lower level, supports curving shelves holding greenery and potted plants for sale. The patron is led into the space by the interrupting curve of the staircase, a clever marketing strategy. The remaining floor area of the barn's main level is open and adaptable to any logical arrangement of tables and shelves.
Twelve-inch white-painted tubular columns penetrate the south end of the barn, an interior continuation of the newly attached greenhouse structure. The south-end wall becomes transparent, stripped of its original siding and encased in glass. The greenhouse benefits the barn by supplying solar heat, improved air quality, and plenty of natural light, but mostly by the quality of space it offers. Entering the greenhouse from the barn, the patron will pass through a slatted corn-crib-like pathway which plays on the contrast of the dim, enclosed barn versus the bright, open greenhouse. This contrast of enclosure and material combined with the complementary nature of the massing and form results in a successful relationship between the barn and greenhouse.

The greenhouse encloses a sizeable area of growing plots, enabling early spring and off-season plantings to take place within. The practicality of this structure does not prohibit it from being a feature of the farmstead. Patrons can circulate through the main level on the defined path and continue up a steel-framed circular stair to the second level above. The second level's steel-grate flooring system allows light through to the plots below. Young, potted trees and hanging plants occupy the majority of the second level, while a few raised beds provide a ledge seat for visitors and employees. The grate floor continues into the barn's hayloft level, spanning one bay of the new greenhouse-structure. This continuation provides a transition between the two spaces and welcomes patrons to continue into the barn's hayloft level as well. This interior space is now occupied by the private business offices of the farmstead operation. Patrons are invited to pass through the offices' receiving area and down the barn's feature staircase, back into the herb market. From here, the patron can exit the barn through the east doors, stepping out of the herb market and into the produce marketplace.
The produce marketplace is composed of four quarters, an open pavered market space occupies one while three market pavilions occupy the remaining three quarters. In the summer and fall, vendors' tables line the pavilions but in the winter, the pavilions are encased in visqueen and used as temporary cold-frame greenhouses. Visitors could access the circuit path from this marketplace, or use this as a meeting point for parents with adventurous children. Outdoor toilet facilities are just to the south of the markets, toward the circuit path.

Straight east of the produce marketplace is the cannery, home to special seasonal events and workshops. Here, patrons can experience small-scale, hands-on processing techniques and seasonal celebrations. These might include: making strawberry jam, raspberry preserves, grape jellies and apple butter; the annual apple cider press weekend; canning tomatoes and juice; a maple syrup / pancake weekend; a sweet corn harvest roast; and hand-cranked ice cream weekends. The raised floor design demonstrates a traditional vernacular method of keeping insects and rodents out. The continuous porch creates a relaxing atmosphere surrounding the hustle and bustle of activities within.

The interior facilities are divided into four work spaces to allow for small, interactive groups and a diverse schedule of activities. The kitchen work spaces are laid out according to the common organizational sequences found in most processing. The stove-tops are placed directly under the ridge vent for quick release of heat encumbered through the processing. The walls, composed of operable panels and screens, also aid in cooling the interior by admitting cool summer breezes. In the winter, the cannery is dormant, and the panels are sealed to keep out moisture and animals. The
south end of the building offers a contrasting degree of enclosure, similar to the barn / greenhouse relationship. Here, the southern two bays are screened only, maintaining the openness of the porch while providing a bug-free, shaded meeting place for groups and organizations, or a space for selling the processed goods of a day's labors. Its double doors open to the porch, and steps, on axis, lead to an open expanse of grass, where crowds of patrons can comfortably gather to enjoy the seasonal celebrations. It is an 'overflow' zone, where temporary tables and/or tents can transform the grassy lawn into a hub of activity.

The lawn expanse is bordered to the south by the equipment shed. The shed, which houses the farmstead's tractors and implements, is open on both sides; on the north, or grassy side, visitors can check out the equipment up close, while the south side is open for tractor use only. This division of public-viewing on one side of the shed and private-use on the other is a good strategy for satisfying human curiosity and interest while first maintaining safety.

At the west end of the equipment shed, patrons can find public toilets as well as the start of the circuit path. It can be traveled in either direction, for those visitors who have not yet gotten their exercise.

Exhausted and content from a day's adventure on the farm, whether it was lunch in the cafe, shopping at the market, laboring in the canner, relaxing in the garden, or simply exploring, the visitor will leave not only with bags of fresh produce, trays of herb plants and dirty children, but also with a greater respect for agriculture and community. The farmstead's active existence will help to establish and deepen the community's connection to the land, their roots.
Demonstration Garden / Herb Market / Greenhouse / Open Market
Main Level Floor Plan and Site Plan
An Active Farmstead  

Cafe / Root Cellar / Restrooms  
Lower Level Floor Plan

Office Space / Greenhouse  
Hayloft Level Floor Plan
An Active Farmstead

Produce Market / Downstairs Cafe
North Elevation

Greenhouse / Market Pavilion / Main Level Herb Market
East Elevation
An Active Farmstead

Barn / Greenhouse / Produce Market
South Elevation

Barn / Greenhouse
North-South Section
Cannery
West Elevation

North

Cannery
Floor Plan

Cannery
West-East Section
The master plan was derived from two main factors: the study of building relationships and the contours of the land. Traditionally, farm buildings were arranged orthogonally according to the most compatible, convenient functions. The master plan takes on a similar simplicity, with emphasis of thought on the ease and grace of building/spatial sequence.

Models begin to communicate the framing of the existing barn structure. Objectives were to complete not only the barn, but the greenhouse addition, as well. Work is still in progress.
The café level is most complete, showing the introduction of the new circular stair. Thick butressed concrete mimics the walls of the crypt-like barn foundation. The quarter-circle concrete wall would become the foundation for a timber stair above.
Here, a study model better communicates the final concept of the greenhouse addition. The massing and profile of the new addition complement the barn in a traditional, somewhat conservative manner. The contrast lies in the new technology of materials and connections, and the obvious contrast of enclosure.

Three bays of tubular steel and glass extend from the south end of the barn, while two bays of steel structure penetrate into the barn, resulting in a cohesive meshing of the two structures. Internally, the user is informed of the addition by the introduction of the new framing system, creating a transition of interior space.
Externally, the addition appears to extend from within the barn, similar to Hugh Newell Jacobsen's theory of the "telescoping house".

Circular stairs in the barn and greenhouse work together to create a continuous loop traffic pattern.

A new skylight at the peak of the existing barn provides a practical solution on several levels: admits natural light into the dim interior of the barn; continues the rhythm of the glass ridge-vents of the greenhouse; and allows the original slate from this locality to be relocated to worn areas as needed for patching and replacement.
The active adaptation and maintainence of local vernacular architecture will generate a renewed interest in our midwestern agronomous heritage.

In order to accurately test this thesis, the farmstead would need to be built and operated for several years before coming to a conclusion on its success or failure. However, I believe I have presented a solid case in support of the truth of my thesis. In summary, there is a need for greater sensitivity toward the land, and creating an awareness is the first step. I believe awareness can be achieved through public architecture, community activity, and a revitalization of existing barns.

This project greatly benefited from the presence, interest, input, and contributions of a number of people, including:

my Dad, the greatest farmer I know and the root of my interest in agriculture
Kevin & Pam, Levi & Noah
Andy (who, I must acknowledge, helped document, contributed reading material, built a model, but more importantly, listened)
Andrea and Andrew
Bruce Meyer
Joel, who gives the best desk-crits around at 2am
Dan Woodfin
Luis Morales

my Mom, Susan & Brad, Zak, especially Tarah, Tabby, Abby, Lizzy, Caleb, Ethan, Jacob, Lukie, Laura, Brian & Chris & Jessica, Sarah & David & Payton, my big brother Aaron & my little brother Jason

my studio-mates in 416 and the class of 1996

...and
Craig & Myra Hixon, for not tearing down the barn
An Active Farmstead


Berry, Wendell (1967). *A Place On Earth.*


Ferguson, David and Leslie Smith. *Alternative Profit Potentials for Rural Indiana: College of Architecture and Planning, Department of Landscape Architecture, Ball State University.*


**Historic American Buildings Survey**

**Kiser Barn**

<table>
<thead>
<tr>
<th>Location:</th>
<th>4101 West 116th Street, vicinity of Zionsville, Hamilton County, Indiana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present Owner:</td>
<td>Kevin and Pam Kiser</td>
</tr>
<tr>
<td></td>
<td>4101 West 116th Street</td>
</tr>
<tr>
<td></td>
<td>Zionsville, Indiana 46077</td>
</tr>
<tr>
<td>Present Use:</td>
<td>Animal housing.</td>
</tr>
<tr>
<td></td>
<td>Storage space for tractors, boat, lawn and building equipment.</td>
</tr>
<tr>
<td>Significance:</td>
<td>The Kiser Barn demonstrates a high level of integrity and historic significance as a surviving example of a turn of the century vernacular timber structure. The barn also contributes to the significance of the nearby historic village of Zionsville. Architecturally, the barn is significant in Hamilton County as a largely unaltered bank barn with an English-gabled slate roof and symmetrical louvered vents.</td>
</tr>
</tbody>
</table>
Part 1. Historical Information

A. Physical History:

1. Date of erection: According to the Hamilton county Land Surveyors Office, the land on which the barn stands was first purchased from the federal government by Martha Ervin and William Boyd in 1832. Large broad-axed beams (see photo 17) date back prior to the 1850s, while all other members, having circular blade saw marks, suggest that these beams were re-used from an earlier structure. The unreinforced concrete foundation points to dates earlier than 1910 (see photo 8). According to Director of Community Services, Marsh Davis, Historic Landmarks Foundation of Indiana, the barn was probably built sometime between 1880 and 1920.

2. Architect: There is no information available on the architect or builder of the Kiser barn. It is unlikely that an architect was involved in the design.

3. Original and subsequent owners: The following are selected conveyances in the chain of title involving the Kiser barn. The information on ownership is derived from the Recorder’s Office of Hamilton County, Noblesville, Indiana.

   1932-42 Deed Book, Ethel Garner / Ida Klingersmith recorded as owners of property (transactions record the sale of surrounding farmland to various individuals).

   1957-59 Deed Book, Albert and Ethel Garner recorded as owners of property (transactions record the sale of surrounding farmland to various individuals).


   1985 Deed, April 19, 1985, recorded in Instrument #348361 Ruth Garner to Jesse and Alice R. Splawn.

   1987 Deed, December 14, 1987, recorded in Instrument #8749759 Jesse and Alice R. Splawn to Craig and Myra Hixon.

   1991 Deed, June 12, 1991, recorded in Instrument #9119512 Craig and Myra Hixon to Kevin and Pam Kiser.

4. Builders, suppliers: The builder of the Kiser barn is not known. The majority of the structural timber appears to be round blade sawn, and in
standardized dimensions. This lumber was either locally produced or purchased from a merchant in nearby Zionsville.

5. Original plans and construction: No original architectural drawings or plans have been found. No historical views or photographs have been located of the barn.

6. Alterations and additions: Minor alterations/additions have been undertaken with little damage to the original fabric of the barn. An aluminum tube-frame greenhouse was added to the south end of the building (see photos 4, 5, 6). A secondary sliding barn door was added to the southeast corner bay (see photo 3). The use of nails (rather than pegs) suggest some 4"x4" bracing members have been added sometime after the original construction. A window has been replaced in the northwest corner of the lower level.

B. Historical Context: The Kiser Barn is one of the few remaining examples of the traditional vernacular barn left in this area. The barn's context, surrounding Indiana farmland, is hastily becoming Indianapolis suburbia. The barn has a broader context in the nearby historical sites of historic Zionsville village and the Conner's Prairie settlement.

Part II. Architectural Information

A. General Statement:

1. Architectural character: The Kiser Barn is significant to the Hamilton County area as a typical example of a turn of the century bank barn with an English-gabled patterned slate roof, transverse basement plan, timber-frame, broad-axed members (possibly from an earlier structure), and wood peg joinery. These things intensify the integrity of the barn, and deem it an exemplary structure of the vernacular character.

2. Condition of the fabric: Fabric is in fair to good condition. Rot is confined to the south corners of the hayloft, where water has penetrated the roof (due to fallen shingles) and the walls (due to fallen siding). Floor boards on the south end of the main level show signs of rot, as well. Cracking in the concrete foundation proves the absence of reinforcing (see photo 8), but is probably still very stable due to age and settling.
B. Description of Exterior:

1. Overall dimensions: The barn is a rectangular building measuring approximately 50 feet by 40 feet. The gable reaches a calculated 48'-3" on the north end, an overall vertical dimension of all three stories.

2. Foundations: Unreinforced concrete foundation walls taper from 14" at its base to 8" at the top, or sill. The foundation walls are exposed about 9'-0" above grade on the north elevation, and 2'-6" above grade on the south elevation (see photos 1, 2, 7).

3. Walls: The concrete foundation walls are exposed a full story on the east, north and west elevations. The south elevation is the banked side. The concrete surface has been painted white in the twentieth century.

The exterior walls of the main level are composed of seven inch (v) notched board siding running vertically (see photo10). The boards have been painted white in the twentieth century.

4. Structural systems, framing: The structure (see section and photos 12-15, 18, 19) consists of large post and beam timbers joined with mortises, tenons, and hardwood pegs. The exterior wall frames rest on the concrete foundation. The interior frame is supported by timber columns. All beam and post/column connections are braced with 4"x4" (actual) posts at 45 degree angles. The four Great Beams above the hayloft are hand-hewn broad-axed beams (see section and photos 14, 19). Existing empty notches and pego holes hint at the re-use of these members (see photo 17). All other timber members exhibit circular saw-blade marks, suggesting a later date of production. The north and south end top beams, or Great Beams, have been modified with a truss bracing system (see photo 20). The floor joists for the main and hayloft levels consist of 2"x10" (actual) boards.

5. Porches, stoops, balconies, bulkheads: No such features are present.

6. Chimneys: No chimneys are present.

7. Openings:

   a. Doorways and doors: Large pairs of steel-hinged doors exist on the east and west sides of the central bay (main level). The doors are constructed of tongue and groove siding and 1"x board members as framing on the interior. Within the east side central pair of doors exists a human-scale entry door made of the same siding material (see photo 3). Modern, updated galvanized steel pentroofs
exist above the pairs of doors to protect the openings from the elements. A newer sliding door has been cut for a garage/shed area at the south end of the east elevation (see photo 3). The door is constructed from the barn siding and 1"x boards as framing on the interior. It hangs from a steel track above, as does another door at the north end of the lower level. This door is also constructed of the tongue and groove siding material and 1"x framing members, with a galvanized pent roof above.

b. Windows and louvered vents: Four-light windows exist in the foundation and main levels. Conditions range from good to fair, the worst-case examples being the replaced and boarded windows on the west elevation (see west elevation and photo 7). The windows of the main level are placed directly under the louvers, possibly an alteration of the original louvered opening (see photo 9).

Six rectangular wooden louvered vents appear on the north elevation, three on the south elevation and two each on the east and west (see north and west elevations and photos 1-7, 9).

8. Roof:

a. Shape, covering: The roof of the Kiser Barn is gable and runs north and south. The roofing material consists of slate shingles nailed to parallel 1"x3's (actual) that are supported by secondary 2"x4" framing members at two feet on center, which then transfer loads to the primary timber frame. A pattern of rounded shingles runs mid-way through the east and west elevations (see west elevation and photo 3, 7). Some decay has led to fallen shingles on the south end of the barn, causing more decay by exposure to the elements.

b. Cornice, eaves: There is no decorative cornice on the barn. The eaves along the east and west elevations are composed of exposed rafters, tongue and groove soffiting, and fascia. The eaves of the north and south elevations are composed of four tapered protruding beams (that support rafters), tongue and groove soffiting, and fascia (see photo 10).

c. Cupolas: No cupolas are present.

C. Description of Interior:

1. Floor plans: The lower level floor plan contains a transverse farm vehicle bay, livestock stalls, two chicken coops, and storage space (see floor plans).
The main level floor plan consists of three parts: the traditional central threshing floor bounded by hay bays on either side (see floor plans).

2. Stairways, vertical circulation: One staircase exists between the basement and first level floors (see floor plans). The carriages are 2"x12"s (actual) and the treads consist of 2"x10"s (actual). The treads are open (no risers). The stairway is enclosed at the first level and open at the basement level. The enclosure consists of 6" v-notched period interior paneling (possibly scrap wainscoting from the farmhouse construction).

Vertical circulation to the third level, or hayloft, consists of 2"x4" ladders nailed to the main structural members (see photos 14, 19).

3. Flooring: The flooring on the main and hayloft levels is composed of 1"x6" boards while the lower level flooring consists of the original poured concrete.

4. Wall and ceiling finish: The main and hayloft levels are open throughout, with no interior treatment to the exterior walls. The exposed structure and raw surfaces are plainly visible (see photos 14-16). The lower level is similar with the exception of interior partitions (animal stalls); the stalls are fabricated with 4"x4" and 2"x4" columns with 6" to 12" wide boards spanning in between (see floor plans and photo 11).

5. Openings:

a. Doorways and doors: The one interior doorway in the barn is located at the top of the staircase. The door is comprised of vertical v-notched siding (same as barn siding) with 1"x boards acting as framing members.

b. Windows: There are no additional interior features for the windows already described.

6. Decorative features and trim: There are no notable decorative features or architectural details in the interior.

7. Hardware and joinery: Traditional hardwood peg joinery is found throughout the timber frame in the main and hayloft levels of the interior (see photos 12, 13, 21). The pegs are thrust through the posts to secure mortise and tenon joints formed by posts and beams and posts and braces.

The door hardware on the east and west elevation hinged doors appear to be of stamped steel fabrication. The door hardware on the north and south-
west elevation sliding doors consist of steel channel track and hanging rollers.

8. Mechanical equipment:
   a. Heating and ventilation: There are no furnaces, fireplaces, or any other permanent means of heating in the barn. Ventilation occurs through the louvered vents discussed earlier under the exterior window treatment.
   b. Lighting: Post-WWII electric incandescent lights have been installed sparsely throughout the main and lower levels.

9. Original furnishings: No original furnishings exist.

D. Site:

1. General setting and orientation: The topography of the Kiser Barn site is one of small rolling hills. Having an elevation difference of approximately ten feet made this a good site selection for a bank barn. The building runs north and south, the north end having lower level access and the south end being banked (see photo 1). The fields north and east of the barn continue to be farmed, while residences have crept onto the acreage south and west of the barn.

2. Outbuildings: There are no outbuildings near the barn. The 1929 Kiser home stands fifty feet north of the barn.

Part III. Sources Of Information

A. Architectural drawings: There are no known original architectural drawings in existence, and none were probably used for construction of the barn.

B. Historic views: No historical photographs of the barn have been located.

C. Interviews: Informal dialogue was conducted with the present owners, Pam and Kevin Kiser, though their limited historical knowledge of the barn and property proved the interview to be inconclusive.
D. Bibliography:

1. Primary and unpublished sources:
   Deed books, Recorders Office, Hamilton County, Noblesville, Indiana
   
   Original Land Transaction Map of the Northwest Territory, Land Surveyors Office, Hamilton County, Noblesville, Indiana
   
   Pam and Kevin Kiser, owners
   
   Marsh Davis, Director of Community Services, Historic Landmarks Foundation of Indiana

2. Secondary and published sources:

   

Part IV. Project Information

The documentation of the Kiser Barn has been prepared as a team project for the Fall 1995 Historic Documentation and Preservation course of Ball State University. The documentation will be used further in thesis work by one team member. The documentation includes an outline format report, 3x5 black and white photographs of the barn, and 1/4" scale measured drawings of two main elevations, one section, and all floor plans of the barn (with reduced copies submitted in the report).

Prepared by: Paula A. Kiser and Andrew R. Noll

Title: Architecture students

Affiliation: Ball State University

Date: November 7, 1995
Kiser Barn Photographic Documentation

1. North West corner of barn
2. North Elevation

3. East Elevation
4. South East corner of barn

5. South Elevation
6. South West corner of barn

7. West Elevation
8. Cracks in unreinforced concrete foundation

9. Louver and window
10. Siding and eave construction

11. Livestock Floor
12. Post and beam peg connection

13. Structural Frame connections
14. Interior framing of hayloft

15. Structural frame connections
16. Storage area under hayloft

17. Broad-axed beam showing texture and older peg holes
18. View of interior and roof structure

19. View of hayloft and structure
20. South wall top beam with truss bracing

21. Wood peg joinery