A House and Automobile Restoration facility
the midwest region as a context for design

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Randall Brian Sherman

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© may 4, 1993
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Bachelor of Architecture Degree Spring 1993 Thesis Design Study

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Introduction/acknowledgements: thesis topic and research methodology

This thesis study centered around the concept of regional design and the influences that local contexts can have on design. The midwest region of the United States, in particular, was studied since it does not have an easily identifiable regionalist style of architectural design. Many aspects of the midwest were studied ranging from native indian intuitive responses to the environment to Wright’s creation of a “prairie style” of architecture as a modern design response to the midwest context. Within this range of study, images and ideas were collected that gave reference to the midwest environment, its climate, its history, culture, and people.

Regional design was chosen as a thesis topic as a gut reaction against the nation-wide “styles” of architecture that are progressively being littered across the landscape. Individual communities in the United States which once had their own unique character and identity are slowly being sterilized by current constructions that are creating a conformist type of image. The individual community is becoming exactly like every other community, eventually approaching the image of franchized towns, much like McDonald’s restaurants that look the same no matter where you are.

The goal of this thesis study was therefore to discover what makes the midwest a unique place and how that spirit of identity can be harnessed in designing structures for the midwest region.

Certain sources of insight should for the thesis study should be acknowledged including forty-five minute commutes to my internship location last spring and summer that took me from a rural midwest setting, through typical suburbia, and into a dense metropolitan city. This commute along with the unique method of looking at American vernacular provided by Benjamin Gianni in a book entitled Dice Thrown gave me the desire to explore this topic.
A discussion on vernacular

An architecture that can have the widest scope of influence is one which is accessible to all. Vernacular architecture, building using local craftsmen and materials along with methods based on tradition, has this possibility of great accessibility by the masses. Since vernacular architecture is a building method achieved by local craftsmen and tradition, it varies from region to region. It is this characteristic that makes vernacular architecture so important. Vernacular architecture is a reflection of the people that construct the building as well as those that will use it. When vernacular architecture is conceived, the traditions of building shared by those of the locality are combined with the aspirations of use that are communicated to those “building” the structure. Hence the vernacular becomes an integration of the local culture and its activities within built space. Architecture in the vernacular tradition is not an abstract representation of theories and philosophies of an architectural ideal that distances a building from its users; but instead is an expression of its users which becomes part of their lives and daily activities.

Vernacular in the United States

In America, a country with a short history, every physical piece of culture or history about its people is important. Vernacular architecture is America’s only built history that talks about its people and heritage. There are a few structures scattered throughout the United States left from the aboriginal inhabitants of the continent, but other than this, the rest of America’s architecture is either borrowed from other areas or is derived through the individual in vernacular creations.

The effect of modern architecture

This connection between user and building is important to insure the success of “architecture.” Modern architectural studies such as the international style have completely severed the individual from consideration in the design of a building in favor of the academic study of geometries and experimental reductionism. Architecture has become a museum piece that is pretty to look at, but is not adept to human interaction. With the advent of modernism, the ability to distinguish use or purpose of a space became impossible, with spaces becoming so abstract that the individual identity of spaces was no longer available as a method to understand what a building is used for. Modern architecture has reduced the uniqueness of building identification as to function or use as well as reducing the recognizability of individual communities.
An introduction to the midwest region of the United States

The midwest region of the United States has many prime examples of vernacular construction which are based on the agrarian focus of the area. The farm complex almost animates the principle of vernacular construction, existing as a collection of functional structures which are combined in an additive process. When the need arises to add a new structure for an added function, it is often tacked on to the existing facility. As one views a typical farm complex in the midwest, the history of the site is revealed as each component is viewed. An original large barn may be the oldest structure on the site, and over the years this original piece may have been added to time and time again, with each addition bringing a physical association of its time period into the overall composition. The midwestern farm can therefore be called a "living history", freezing a history of the general locality in the present time frame.

A change has occurred in the midwestern context which has had a grave impact on its built fabric and its countryside. Originally a highly forested area, the midwest has been gradually cleared over time for farming of the land and for pasture for grazing. Recently, the land has been cleared quite quickly by modern machinery. The industrial revolution created methods of farming large tracts of land causing the need for large farm complexes to house the new machinery of the farm and to store the produce of the fields. This has completely changed the character of the midwest landscape from small, self-sustained, family run farms scattered throughout the landscape to large industrial scale farm facilities and an even sparser natural landscape given over to greater expanses of fields. Thus, the midwestern context offers both new and old images of farming and building construction. A farm building can be composed of naturalistic timber framing with field stone foundations, or it can be made from modern steel frames clad in various thin veneers. This diction of building types within the midwestern farm complex is also combined with a mixed visual stimulation of varied material usage. These conditions of the midwestern farm all work together in presenting an ad-hock nature of building organization and construction.
Modern influences on the midwest region

The industrial revolution and the period after WWII brought the American dream of owning a home in "suburbia." This trend created a new housing type across the nation, the tract house, which also found its way into the midwest. This made a large impact on the midwestern landscape, bringing housing additions and sprawling strip shopping centers and malls into what were once fields. This was quite a change from rural farm houses and urban city block neighborhoods that once dominated the midwest. The organizational patterns of urban city nodes and rural, scattered farms has become blurred, often over powered by the images of suburbia and its visual clutter. Modern times have also brought a "blurred" form of architecture to the midwest. The suburb has a sort of uniformity of image with no character because the goal is inexpensive construction and maximum return on investment. In general, a midwestern suburb looks like a southern suburb. A ranch house in America is pretty much the same no matter what region of the states you are in.

This common phenomena of nation wide image epitomized by franchises such as McDonalds is why regionalism should be brought back; to help retain the importance of individual localities across the United States. A structure in the Southwest need not look like a structure in the midwest, just because they are built with the same mass-produced materials. Mass conformity is not in the best interest of the individual anyhow. One deserves the dignity of their own self expression, even as manifested in objects of their possession, including built structures. Unfortunately, because of mass media and marketing, the idea of "out doing the Jones's" does not perpetuate individuality, but instead conformity. If the individual is truly trying to get the best of everything, however, the best should be what is the best for that individual, not what is deemed the best by one's neighbor or by some marketing plan. This idea again leads to support for regionalism in design, and in this extreme position, an argument for "regionalist" design for each individual.
The midwest region as a context for design

Regional design for the southern, southwestern, and eastern areas of the United States usually has some distinct, culturally centered, and often climatically driven design associations with each respective area. Many architects like Antone Predock have dealt with regional issues of design in the southwest, even under the pretenses of modern architectural principles, with great success. The midwest, on the other hand, does not have any such easily identifiable characteristics, even though a few architects including E. Fay Jones and Frank Lloyd Wright have created some successful approaches for designing within the midwestern context. For this reason, midwestern regional contexts deserve further examination and possible attempts at designing in response to the rich physical and cultural resources that they offer.

The farm

Since the midwest is largely about the agricultural process, the farm complex offers one of the better examples of what midwestern culture and sense of regional place is all about. The midwestern farm is based on loose, open ended arrangements of forms and plan organizations; no formalism is used since academic exercises in organizational relationships have no real need on a farm. The farm is a functional unit with utilitarian emphasis over aesthetic concerns. In a study of American farm vernacular, Benjamin Gianni in a book entitled Dice Thrown, notes that it is important that farm vernacular does not contain the formalistic design exercises that can distance the conception of the building from the individual; to Gianni, vernacular's concern "is to diffuse power among a number of individuals..." (Dice Thrown, p.23).

Another important aspect of the midwestern farm vernacular is its dynamic sense of composition. In an earlier discussion, the concept of a "living history" was inter-
jected as a way to describe the method in which the farm evolves over time. The farm compound is composed of several components that work together as a cohesive whole. This component "additive process" creates a different message to the viewer as compared to other building complexes. In a midwestern farm, the goal of the vernacular "is to compose form in such a way that the part is not dominated by the whole; it is to disperse meaning among the "sum total" of interpretations - restricting questions of value to issues of efficacy and distinguishing such questions from the concept of truth." (Dice Thrown, p.23). Usually a building is designed in such a way that its pieces become part of the total image of the composition; losing individual importance in the process. A water pump in a modern structure is usually hidden because it has no meaning and does not fit within the design philosophy of the building; whereas on a farm, a pump is exposed and may even be brought to attention through the creation of a separate structure to house it. Functional use and the elements that allow a farm to function are the key driving factors in the overall scheme of this regional vernacular. It should be noted that representational forms are not found on the farm, obviously as a result of the fact that only functional forms are erected as they become needed. The creation of built structure on an as needed basis and in forms that are derived from the functional requirements of the needed space gives the American midwestern farm a dynamic character. This dynamic image gives the farm a feeling of something that is evolving; it doesn't look incomplete at any one time but the idea that it may change over time in the future is there. And with the advent of more technological adaptation occurring in the farm it can at times appear as if the machine, under its own power, is animating the farm and is slowly changing its composition. This view of the midwest is a lot like the principles of technomorphic architectural theory and construction.

One last important characteristic of the midwestern farm that should be explored is the basis of its organization. It was previously mentioned that it has a loose, scattered arrangement which Gianni makes sure to emphasize: "Its lack of intention in
organization refers to nothing beyond itself" (Dice Thrown, p.24). This comment speaks of referring to another culture or style of design for its basis, much like the Romans did with Greek architecture. This points back to the aspect of American vernacular of being about the individual and his frame of reference. However, orthogonal relationships do remain that do not allow for a totally random layout of the midwest farm. This orthogonally based scheme has connections with its surroundings on a very broad scale. Early planners of America in deciding how to reference the landscape of the new continent came up with a system of county grids that were subdivided into townships, sections, and quadrants; right down to the square acre as a method of measuring the area of land within the grid system. The farm layouts of the midwest in their grid-based layouts are therefore located within their own square quadrant of land which is just an infinitesimal piece in the whole division of the globe into square elements. In the midwest, the grid is manifest in physical form that is plainly visible, like a quilt work laid out on the land in the form of fields.

Other midwest contextual resources

Other physical and social considerations for context exist in the midwest besides its farm vernacular, but they are not as evident or as unique to the midwest region. The small rural town and main street with the urban square is very common along with the town courthouse. Just as the midwestern farm is loosely organized around an open courtyard, in most cases, so are many rural towns. However, the urban buildings in these towns are usually interpretations of other styles in a fashion that was more functionally relevant for their intended use. Many of these buildings were done in the Italianate (Italian-like) style and don't offer as much visible cues about a locality or community like the vernacular constructions do. Also, versions of these types of buildings exist in other regions of the United States; they are not unique to the midwest region. As far as the physical environment, several conditions exist that are regionally specific. The vegetation of the forested areas along with prairie grasses and several brush types of plants give the midwest a wide variety of natural outgrowths. The land is scattered with several forms of surface water ranging from lakes and ponds to rivers and artesian springs. The soil is obviously rich across most of the midwest.
as it is used for the growth of agricultural products, but it also has large areas of rock and sedimentary deposits which are made visible by quarries that spring up every so often. The climate also offers an interesting twist to the context. Weather ranging from almost arid-like temperatures to near artic conditions makes for a dynamic force in the environment. Furthermore, large amounts of percipitation in the winter and summer seasons provides large amounts of rain and snow that keep the surroundings in a state of flux.

Design in the midwest
(with references to spring 1993 thesis)

Frank Lloyd Wright and E. Fay Jones are key influential designers in the midwest context. Wright worked extensively at coming up with ways of relating to the physical context. Refering to the flat character of the midwest prairie was Wright's overriding design principle. This reference went hand in hand with Wright's desire to dissolve the separation between inside and outside. As Wright's residences expanded out into their sites, both goals were accomplished. Fay Jones took Wright's strategies and gave them his own personal meaning and physical manifestation. Fay Jones's work reveals its construction through an intricate process of detailing and, at times, through an open expression of structure. The elegance of the building material and its use in construction is of key importance in Fay's conception of a design. These approaches of relating to the midwest as a context which influences design are rare; especially today with the minimalist, abstract, theorectical studies that are the norm. However, the studies of Wright and Fay Jones did not factor in one major part of regionalist design exploration, which is the culture of the people and the history and tradition that is part of their lives; and thus of their community.
Regional design for the midwest should therefore also include the study of the vernacular creations of its people. Through studies along these lines, a more personal connection can be made for the local area, instead of a generalist response that relates only to the landscape and its physical characteristics. The native Indian populations once common to the midwest region can be an insightful resource in learning how to deal with environmental conditions which are unique to the area. These people did not have technology and an overabundance of materials from which to choose for the creation of their shelter; so the planning and construction of their aboriginal architecture has true, real life meaning and consequences which can be learned from.

A more recent historic context is also available as a resource in learning how to respond to the midwest; the settlement of the land by white man and his attempts at dealing with the midwest environment. White man brought his own preconceptions about how a building should be constructed and proceeded to impose his traditional viewpoint of building construction on the midwest environment. The “white man” of America had a varied background in the midwest, he could have been from a Norwegian country such as Sweden or Denmark or from a European country such as Germany. When the United States became open territory as a new country, emigration was massive and these emigrants, although looking for a new life, still believed in and only knew of the methods and traditional ways of doing things that they brought with them from their homeland. When white man progressed into the midwest territory, he cleansed the area of native Indian people and, for the most part, lost the opportunity to learn from them how to relate to the foreign environment. So white man’s settlements were completely different from the native Indian and are another construction type that should be reviewed.
The vernacular of the farm complex has already been exhaustively discussed, but it is the primary informer as to the culture and history of the white settlers of the midwest. Building vernacular from their respective native countries may not have been buildable in the American midwest because of material availability or of the functional needs of the structures that they built, but the vernacular that they created in the midwest was still an expression of their experience. Many of the construction techniques such as heavy timber building can be traced to roots across the oceans that border the United States, and some of the forms like gambrel roofed structures are also based on traditions of construction found in other countries. The point of studying white man’s settlements is that personally informed building was done by the local inhabitants and this makes a unique statement about the people and their community. Furthermore, if close attention is payed, one can see variations on traditional building techniques that were a result of conforming to the demands of the midwest region. Design decisions such as fire place/hearth placement in homes and the creation of a summer kitchen are common responses to the duality of seasons that must be dealt with in the midwest climate.

Reflection of the study of the midwest context

In summary, the midwest region has many potential, unexplored avenues of influence that can become a catalyst for design. The midwest has a richer resource base than the southwest for creating a regionalist style, but since the midwest’s image is not as immediate, it gets overlooked. As for those designing in the midwest, I feel that they are missing great opportunities to put the midwest on the map as a place with a history, image, and regional culture. This sort of action would also do the designers well as far as getting recognition for their own efforts in striving to help their local communities establish a concrete meaning for their unique existence. An effort such as creating a regionalist design for midwest communities would change the way people live their lives in these areas. Given an identity, the residents would no longer be lost in a pool of sameness that is epidemic across the country, instead they would be proud of where they are from and would have a place that they could point to as a reference that others would understand as having meaning. The midwest is more than just corn and cows, flat fields manicured by machine. This is an argument in favor of architecture taking the forefront in resolving community disillusion and problems; a position that architecture should take hold of and retain, since it is a physical construction of the environment in which the community as a whole must live and interact with.
Bibliography:

B.A.S.E. Architects, Inc.: Internship experience and insights into the midwest context; Indianapolis, IN, spring and summer 1992.


Jones, E. Fay: Lunchline interview, Ball State University; Muncie, IN, spring 1993.

Project Description

The project utilized in this thesis exploration is a dual purpose facility. It serves as a home in which the owner operates his full time hobby; automobile restoration. The house will become an entertainment facility for restoration clients and will at the same time provide all of the needs of habitation for the family. The organizational layout of the house needed to work with two user groups; the family and the client. The client needed to be able to be invited in the house and take a tour through an indoor showroom facility and restoration office without disturbing the family in the main family gathering space. The kitchen needed to be isolated in such a way that if the family wanted to use the space while a client was in the house, they will not be disturbed. In the same token, if the owner wanted to take the client into the kitchen for refreshments, the family needed to be able to occupy the family room and not be disturbed by the client being escorted to the kitchen area.

The spaces needed for this facility included two bedrooms with a common bath, a master suite, laundry room, kitchen area with a pantry, dining room, and breakfast area, a family room, an entrance foyer, an indoor car display area, and a restoration office. Also needed were an outdoor display area and a detached garage and restoration area.
Design objectives / methodology

The design of this project evolved in such a way to evoke images of volumes on the landscape, similar to farm complexes of the midwest. As free-standing volumes in the landscape, the ideas of how structures meet the ground and sky were explored in conjunction with the effective use of materials in dealing with the environment and climate. Aboriginal responses by native indians of the area along with building concepts brought to the midwest region from early settlers were intergal aspects of influence in the design of the project. These concepts were important because they reflect ideas about the cultural heritage of the region and are a means by which the rich history of midwestern buildings can be integrated into current midwestern regional design. Combining these notions of design with regionally available materials; modern materials and building processes were altered to produce a regional language and building concept for the midwest.

To accomplish these goals, research was done to learn of aboriginal structures, regional vernacular (especially the midwestern farm), and of the work of Frank Lloyd Wright and E. Fay Jones; two noted architects that have expressed regional concerns of the midwest in their work. Images were compiled in a sketch book from the research studies and preliminary design ideas were sketched out and studied in model form. This process continued with model building being the primary exploratory method. The model was constructed in a rather ad-hock additive process which led to the finished composition. As the model was constructed, details of the design were worked out in sketches and in refinement of the model.
Final project design solution

The final design solution as illustrated on the final pages of this study is a summation of four months of study through the evolution and construction of the final model. The final design resulted in an elevated platform on which the house and its related components rest. The platform acts as a datum, or common mediator between built structures and the irregular landscape on which the platform sits. The platform along its longitudinal direction extends out into the landscape in narrow, parallel walls. These extensions are intended to relate to the linear manipulation of the midwest landscape through the creation of fields. The platform itself also relates to the elevating of the barn floor of a typical midwestern barn to reduce the intrusion of rodents into the structure.

The built elements resting on this platform are identifiable as an assemblage of individual components, each housing their own function. The most recognizable form is the huge stone-walled entry corridor and foyer which at its entry ends in an apsidal volume that recalls images of a 50’s dinner entry and a midwestern agrarian storage facility. To the north of this corridor is a kitchen complex that resides below a tower element which contains an accessible observation deck. This tower recalls again images of silos and other storage facilities found on a farm. This element also functions like the aboriginal tipi structures of the native Indian in the way that it naturally ventilates. Just east of the kitchen complex tower is a sunken pit area that serves as the food pantry.

Design imagery used in the creation of this structure references the earth sheltered structures of the American Indian and once again the agricultural storage unit. South of the entry corridor is a three-bayed heavy timber construction that is a car display facility and office on its first level and the sleeping quarters for four on the second level. This structure recalls the framing of old barns while referencing the new farm structures through its lightweight roof system.

The concept of the second floor is that of sleeping in the “attic space” of the structure, much like the second floor of the midwest farm house. The second floor is more like the barn loft in concept, however, requiring one to ascend a spiral stair near the kitchen (like a ladder to a barn loft), cross a bridge that cuts through the entry corridor space before entering the actual “loft space” where sleeping would take place. Finally, at the west end of the entry corridor is the family room which is a radiating wood structure that supports metal roof canopies. This room’s structure was based on the structural system of trees, a natural part of the midwest context. Separate from the house is a garage structure on its own platform. The garage is based on the automobile for the derivation of its form more than the use of the midwest context; although some of its elements relate back to the house. The form is an abstraction of a camshaft and its related components which are part of the lower part of an engine. When a garage door is opened, the roof bay of that section also pivots upward, much like how the camshaft operates the movement of the pistons in an engine.
The site played an important role in the final stage of design as well. The platform with its extensions into the site have already been discussed. The immediate context is the most important factor of the site, however. To the south of the garage at the end of the walls extending off the platform into the site is a rough vernacular construction made from logs and old planks of wood.

This construction is a deer hunting lodge that is an ideal lookout over the valley at the west edge of the site and speaks of the ad-hoc nature of construction of the midwest as well as the rich character of materials that are used. The west edge of the site is bordered by a small steam and a grove of trees between a group of fields. On the horizon to the west, an equestrian ranch is in view. To the north an operational farm complex is in view as is an old steel truss bridge. To the east is a field planted in either soy beans or corn. So the context played an important part in recalling what the midwest is about, and views to the surroundings inhance the notions of design put into the house and restoration facility.
Reflection and assessment

In concluding this thesis study, a lot was learned about the regional character of the midwest and the numerous insights that it can offer to be used to influence design. This study reinforces assertions that the stylistic movements that sweep the United States need not put local regions in jeopardy of having a common type of architecture forced on them. This thesis study does carry a lot of similarities between it and the abstract, expressionist architecture occurring in Los Angeles currently. This style of architecture is becoming in vogue across the United States in varying degrees; but in this particular study only its principles remained when it was applied to the midwest context. In this case, as has been explained through the course of this book; local culture, heritage, history, and building types as well as regional landscapes and environment were the driving force in developing the design concepts of the project. It has been learned that one can still participate in the interests currently being explored in the design fields without forgetting about the local precedents and contexts within which one will be practicing. This project was successful in proving this fact and should be only a starting point in exploring the possibilities of working within the parameters of regionalist considerations of design; even if those regional precedents are not that apparent.
Appendix

Indiana Landmarks Foundation - photographic documentation of structures

- book research: American Vernacular: the Ohio farm house; by: Jim Kemp

Wood, Brick, & Stone: the North American settlement landscape; by: Allen G. Noble

Perspectives in Vernacular Architecture (I,II,III); by: Wells

Ball State CAP library - book research: Wayne County: the aesthetic heritage of a rural area; by: Steven W. Jacobs

Historic Illinois from the Air; by: David Buisseret

American Shelter; by: Lester Walker

various county catalogues of historic structures in Indiana

on site visitation - photo documentation and sketching of local midwestern vernacular buildings and sites

- Burt Buick, Olds, Pontiac, Inc. - to view an automobile service center, body shop, and the owner's classic car collection and storage facility