Place: Community Development & The Effects of Nature and Culture

Laura Zimmerman
Landscape Architecture Thesis
2010
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A Design Thesis Submitted to the
Department of Architecture and Landscape Architecture
of North Dakota State University

By:
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In Partial Fulfillment of the Requirements
For the Degree of
Bachelor of Landscape Architecture

Primary Landscape Architecture
Thesis Critic

Thesis Committee Chair

May, 2010
Fargo, North Dakota
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Is it the landscape, the built environment, the people, or more likely a combination of them all? This document explores the factors that contribute to a unique sense of place. With this understanding, how can these factors be utilized to show the effects of nature and culture in site-specific design?
problem statement: How does the authenticity of nature and culture inspire a sense of place in design?

project typology: To inform the planning, growth, and design of a rural North Dakota community by using site specific qualities of nature and culture to design functional and comfortable spaces that coincide with human needs.

theoretical premise: How can designing to maintain the existing character of a community create a stronger awareness of nature and culture?

project justification: Often new developments lose their sense of place in the context of design. It is important to design for culture to determine how site-sensitive design affects human development.
Proposal:
narrative
user/client description
major project elements
site information
project emphasis
plan for proceeding
studio experience
Cities and new development go hand in hand in today’s society. New development is critical for city growth but unless careful attention is paid to the design of these new developments, they can become monotonous and uninviting. It is paramount for development to conjure a sense of place from its surroundings. Using the nature and culture of the area to design specifically for the site gives new development meaning and character.

Nature and culture can be studied to learn the unique needs and wants of a society. From large cities to small rural towns there are similarities and differences to what their communities need. How cultures utilize public space is an excellent example of how a society functions. This among other scenarios give clues to culturally tailored design.

Riva Split, Croatia: Attention to historic architecture and native flora defines new riverfront development.
User Client Description

The intent is for this project to be a tool for those searching to achieve an informative sense of place in design. Understanding how people perceive landscapes and more specifically use public space should be one of the greatest challenges that Planners and Landscape Architects face.

In D. W. Meinig’s essay “The Beholding Eye” he is quoted saying “Any landscape is composed not only of what lies before our eyes but what lies within our heads.” It is important to note that each client views the same landscape (or for the instance of this project, a site) with different perceptions drawn from their own personal experience.
### Project Elements

**Growth**  Casselton, ND is approximately 20 miles west of Fargo. With proximity to an urban center, this rural town continues to expand. With people moving from Fargo to Casselton, this small but growing town is in transition. This growth is an excellent opportunity to exemplify the values that are cherished by rural towns such as neighborhoods and walkability.

**Public Space**  Creating areas where people can gather generates an accessible and social ambiance in a community. Public and semi-public space is already utilized in Casselton by means such as parks, shops, restaurants, golf course, pool, and others. How can design interventions of these public and semi-public spaces be utilized to their full potential?

**Circulation**  In rural communities such as Casselton three primary means of circulation are possible: walking, biking, and driving. Circulation can be improved by creating a system of walking and biking paths that connect to highly traveled areas of the town. There are some existing walking and biking paths but they are limited to certain areas of the town. A designated trail would improve pedestrian safety and increase the use of these means of circulation.

**Stewardship**  With the significant growth Casselton has experienced in the past 15 years, stewardship of natural resources is a critical design element when thinking about future generations. Natural resource stewardship will be addressed by looking at means of creating greenspace and engaging in water and energy conservation.
Governor’s Park: Casselton, ND: Community space dedicated to Casselton’s proud history of four ND governors.
Create outdoor spaces for individual or community use.

Engage the potential of existing development.

Maximize social, economic, and environmentally sustainable design criteria.

Develop the needs and wants of the community for the present and years to come.

Address interest in the regional "ordinary" landscape.

Evok the nature, culture, and history of Casselton as metaphor for design.

Utilize additional safe circulation routes throughout the city.

Provide Casselton Development Strategy
Create outdoor spaces for individual or community use.

Engage community participation in developing goals.

Maximize the potential of existing development.

Utilize the nature, culture, and history of Casselton as metaphor for design.

Evoke interest in the regional “ordinary” landscape.

Provision additional safe circulation routes throughout the city.

Address the needs and wants of the community for the present and years to come.

Develop social, economic, and environmentally sustainable design criteria.
Site Information

Casselton, ND:

1873 Origin. NP Railway sends Mike Smith to plant trees to be cut for future railroad ties.

1875 Harry Priewe is first child born in Casselton.

1876 Railroad establishes a station called Casstown. First school is organized.

1880 Town achieves village status, population 376.

1885 Population reaches 1365.

1920 Railroad excavates a reservoir to supply water for its steam engines. Railroad personnel are transferred, population drops 285 persons.

1930 City water and sewer system are installed.

1946 After World War II, business streets are paved.

1957 Great Northern Railroad no longer needs the reservoir so the 73 acres of park land is deeded to the City of Casselton.

1978 Reservoir is developed into a recreational center.

1996 $8 million Central Cass K-12 Public School opens.

2004 School addition is completed. School district covers nearly 400 sq. miles with over 800 students.

2010 Present population is near 2000. Cottonwood Additions housing development is underway at southern end of Casselton (35 lots, 24 twin home lots). (http://www.casselton.com/history)
Casselton is a bedroom (commuting) community located approximately 20 miles west on Fargo on Interstate 94. Because of its location in relation to the Fargo-Moorhead area, many residents prefer the “small town” environment while being employed elsewhere. This poses many advantages but also disadvantages to the growth and sustainability of the town.

This town is the proud home of four North Dakota governors. It is known regionally for things such as the veterinary clinic, public school, Cottonwood Golf Course, Tin Can Tower, Maple River Winery, Governor’s Inn and Waterpark, and newly developed Ethanol plant.
Currently developing areas in Casselton

- Tharaldson Ethanol Ethanol Plant
- Downtown Renaissance Zone
  - 20 contiguous blocks
- Martins Addition
  - single family homes
- Industrial Park
  - zoned industrial private ownership
- Willow Bend Development
  - 550 single family homes
  - 119 apartment units
  - 20 retirement units
Development is currently taking place in many areas in and around Casselton. On the fringe of Casselton city limits are the Martin’s Addition (left) and Willow Bend Development (right) housing developments. This type of housing does not reflect the nature and culture of Casselton.
### Site Information

<table>
<thead>
<tr>
<th>Statistic</th>
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Project Emphasis

This project will emphasize the opportunities that Casselton possesses in its unique position as a growing commuting suburb. This thesis will convey design characteristics that are true to the nature and culture of Casselton and its design for how people interact with their environment. Its individuality will be heightened with guidelines for development, additional circulation, avoiding density loss, and enhanced sustainability. The goal of the project is to set an example that will be utilized as a tool for new development to harbor more commuters and small community enhancement.

Plan for Proceeding

Extensive and continuing research will be conducted throughout the design process. Quantitative and qualitative data supporting the theoretical premise, programmatic research, and site analysis will be gathered to inform a site specific design. Inventory will be meticulously assembled through observation, surveying, research, photography, and sketching. Ultimately, the inventory and design process will inform my project in a clear and concise manner that is thoroughly developed.
<table>
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<tr>
<th>Previous Studio Experience</th>
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Program:

- research goals
- theoretical premise research summary
- case studies
- historical context
- goals
- site analysis
- programmatic requirements
Research Goals

Identify common values in North Dakotan rural culture to better understand how to design in a rural setting.

Examine ecological, social, and economic benefits of an environmentally sustainable community in response to natural resources management.

Analyze opportunities and constraints of living in a bedroom community to create successful design interventions that maintain the existing character of the community.

Identify scenarios of how various cultures perceive and use public space to make an informed decision of how this community would interact.

Understand how nature and culture play a vital role in design to achieve maximum site specific composition.

Tinta Tawa Park: Casselton, ND: Native ecosystems thrive in this reservoir and surrounding park lands.
Theoretical Premise Research

How can designing for a sense of place create a stronger awareness of nature and culture?

Introduction:

Research on the theoretical premise came from documents that had been collected on topics of spirit of place, sense of place, sustainable design, and social interaction. Some thoroughly covered documents very applicable to the research include “The Beholding Eye: Ten Versions of the Same Scene” by D. W. Meinig, Christian Norberg-Schulz’s “Genius Loci,” and “Maintaining the Sense of Place” by Harry Garnham.

These topics are very independent yet relate very well. A sense of spirit or place can been perceived as “One of many characteristics which are displayed by people congruent with local identity. A sense of place is a sense of the beauty and the wealth of phenomena that comprise a particular place” (Xu, 1995).

Spirit of place is a subject that evokes the identity of people and things. The subject is a passionate topic for many people because they find a sense of place in their social environments whether those environments be an urban metropolis, rural town, or backcountry wilderness. Landscapes define society whether we recognize them or not. In Meinig's essay, *The Beholding Eye*, he describes the landscape as ten different scenes. The scenes are: Landscape as nature, habitat, artifact, system, problem, wealth, ideology, history, place, and aesthetic. Through these scenes, people formulate what they see physically and what is in their mind’s eye for their environment to make sense.

Acadia National Park: Bar Harbor, ME: The Maine coastline evokes the identity of pristine wilderness.
Spirit of Place:

“Genius Loci,” the spirit of place, is the notion that each town (or site) has its own particular character, uniqueness, or spirit, which differs from other places. Genius Loci is often best recognized when traveling. Physical features, appearance, and activities are major components of identity that should be recognizable as unique; however, this is not always the case.

In a communication driven world it is simple to share culture, language, and ideas in the click of a button. This integration of a globally spanning network is referred to as globalization. Globalization is often blamed for causing a monoculture of development. This development is marked by physical and economic growth, but tremendous growth can occur without altering the major components which make up a town’s baseline character. In order not to hinder economic development, negative impacts can be avoided.

The book *Maintaining the Spirit of Place* by Harry Garnham Lists items that often contribute to a strong sense of place.

- Architectural style
- Climate, rainfall, and temperature variations
- Unique natural setting
- Memory and metaphor
- Use of local materials
- Sensitivity in important structures
- Cultural diversity and history
- People's values

St. Patrick's Day Parade: New York, NY: This scene depicts cultural traditions and architectural history of Manhattan.
- High quality public environments that are visible and accessible

In contrast, what happens when a spirit of place is not maintained? George Ritzer identifies the dimension of “predictability” in his book titled *The McDonaldization of Society*. Ritzer uses the example of modern suburban housing demonstrating predictability. There is usually little difference between the interiors and exteriors of the houses. Furthermore, the communities themselves look very much alike. Mature trees are bulldozed to make way for more efficient buildings, hills are bulldozed to flatten terrain, and streets are laid out in familiar patterns with predictable landmarks. Many people crave this predictability but is it because this is all they know?

This thesis continues to look at how nature and culture determine a spirit of place in a particular location. Landform, vegetation, and water are three basic elements of nature that should be assessed to identify existing conditions of the landscape. Landform includes topography, unusual features, rocks, soils, hills, rivers, etc. Vegetation analysis includes the amount of vegetation, type, decay or disease, or any basic ecological relationships. Water aspects include rivers, waterfalls, lakes, ponds, beaches, swamps, etc., how these features affect the land, and if there is potential for recreation or wildlife. Cultural information that can be observed includes land use, new development, infrastructure, cherished places, landmarks, circulation, views, activities, political boundaries, populations, etc.

Once these aspects of nature and culture are identified, they can be mapped and utilized to enhance the appearance of the town. A good first impression is an important consideration when designing to enhance a site’s appearance.
**Reading the Landscape:**

The landscape is a tool that can be used to understand one’s culture. Human landscape has cultural meaning no matter how ordinary it may seem. In the essay “Axioms for Reading the Cultural Landscape” by Peirce F. Lewis, he talks about what it means to read a landscape. Most people don’t realize that it’s even possible to “read the landscape” or that there would be reason to do so. But in fact, it is a clue to culture.

“The man-made landscape— the ordinary run-of-the-mill things that humans have created and put upon the earth—provides strong evidence of the kind of people we are, and were, and are in process of becoming” (Lewis 1979). In short, any nation’s culture is reflected in its vernacular landscape.

Some simple clues to how a landscape reflects its culture:

- Houses, roads, cities, etc. represent an investment of time, money, and emotion. People would not change these things unless there is enormous pressure to do so. So, if there is a major change in the look of the cultural landscape there is most likely a major change occurring in the national culture as well.

- If one part of a city or country looks substantially different from another part, the cultures will be too. This could be due to changes in climate, vegetation, city proceedings, settlement patterns, and so on.

- If two areas look alike, the cultures are most likely converging.
- The way a landscape looks can be changed by imitation. Governed by geographic and social diffusion, a culture sees something, likes it, and replicates it (partly resulting in placelessness).

- Different cultures possess different tastes in the landscape. Taste is simply a matter of what a culture deems acceptable. For instance, why do we plant lawns, water them so they grow, then cut them, and impose on those who don’t do the same? Where in history did this taste take hold and why is it still practiced? When a past tradition or practice continues even if better alternatives exist, it is know as path dependency. When a culture is not limited by the decisions it has made in the past, opportunity for true progress presents itself.

By reading the landscapes and gaining insight into the nature and culture of places, we begin to determine similarities and differences between places. Emphasis can be stressed on differences between cultures that make them unique, or the reverse can take place where similarities are emphasized, creating an idea of a universal environment. Pertaining to “spirit of place,” this thesis will discuss more differences than similarities.

Symbolic landscapes would seem most likely to possess a “spirit of place.” In the case of the United States, the Statue of Liberty is one of the most iconographic structures in the country because of its ties to our country’s history of immigration and simply nationhood. Various media are saturated with pictures of the statue and not because of its specific craftwork but because it prompts a connection with our national history that binds people together.
Symbolic landscapes are not only meant to be grandiose statements. Another example of a symbolic landscape is “Main Street of Middle America” (Meinig 1976). The order is linear with the Main Street running east to west aligned with an axis of more development. The economy is a commercial center surrounded by agriculture and supplemented by local industry. The size is not small enough to smother or forfeit friendship. Social morality, progress, and improvement are words that are often spoken. This type of landscape that possesses small town virtues is known as “the backbone of America.”

Both the Statue of Liberty and Main Street (though they may seem ordinary to some) are symbolic, nevertheless.
Why has American culture deemed these and many others as symbolic landscapes? Symbolic landscapes need not be an old or new fad. There are no parameters when determining whether a cultural landscape is symbolic. For residents of a small town, a symbolic landscape is something that strikes a chord of being home. This could be walking by the familiar burger joint on the way to school then crossing the street to campus and arriving at the library where the musty smell of old books is almost discernable outside the entrance.

Symbolism may be rooted in our history and the meaning we are trying to convey is within our cultural landscapes. In Lewis’ historical axiom he tries to unravel the meaning of our contemporary landscapes and what they have to “say” about us from history.

Historical clues to how history reflects the cultural landscape:

- Understand the technology and communication available of the time period and how it occurred.

- Most major change does not occur gradually, but in sudden historic leaps provoked by great events such as depression, war, or major interventions. After one of these events, a landscape may look very different than before.
- Elements of a cultural landscape are best studied in their geographic context. Connections should not be ignored.

It is important to remember the landscape was built by the people who inhabited it. The past inhabitants' tastes, habits, technology, wealth, and ambitions were different than ours today. To understand the objects that were built we must understand the cultural ancestors who built them. While we can analyze the history of our landscapes to understand them, the unfortunate reality is that landscapes have undergone change as a result of activities such as industrialization, real estate speculation, transportation expansion, urban growth, shifts in population, and organized tourism (Garnham, 1985). This change has the ability to alter character, image, and meaning in a positive or negative way. To prevent things that may be seen as negative change, community development programs, revitalization, town preservation, and maintenance can retain town character.
Resiliency and Sustainability:

Sustainable development emerged in the early 1970’s in response to a dramatic growth in understanding that modern development practices were leading to worldwide environmental and social crises (Wheeler 2004). A long-term and holistic approach to sustainability planning is vital. In contrast, resilience is defined as an ability to recover from or adjust easily to misfortune or change (Webster 2010). Planning must consider future generations in order to “sustain” and be resilient when faced with growth or decline. Wheeler recommends that human and ecological planning can look over 100 years into the future.

Environmental Sociologists are credited with attempting to understand these societal changes that affect our environment. There are two major sociological paradigms that have been developed. They are the “Human Exemptionalism Paradigm” (HEP) and the “New Environmental Paradigm” (NEP). The HEP was the world view that was widely accepted and developed before sociologists William Catton and Riley Dunlap developed the NEP. The HEP presented an anthropocentric view of society. The HEP comprises of several assumptions that have been challenged by recent additions to knowledge that would form the NEP (Catton, Dunlap).

HEP:
1. Humans are unique among the earth’s creatures, for they have culture.
2. Culture can vary almost infinitely and can change much more rapidly than biological traits.
3. Many human differences are socially induced rather than inborn, they can be socially altered, and inconvenient differences can be eliminated.
4. Cultural accumulation means that progress can continue without limit, making all social problems ultimately solvable.

Serra de Estrella: Viseu, Portugal:
Stone from surrounding mountains is used as a principal building material in the area.
Environmental problems and constraints, not to mention an uneasy American Society, brought forth the NEP. By understanding this paradigm it will become clear why the NEP was developed to address recent environmental events. By embracing the NEP planners and designers will gain an environmentally sensitive attitude that would translate into the planning and design of our communities.

NEP:
1. Human beings are but one species among the many that are interdependently involved in the biotic communities that shape our social life.
2. Intricate linkages of cause and effect and feedback in the web of nature produce many unintended consequences from human action.
3. The world is finite, so there are potent physical and biological limits constraining economic growth, social progress, and other societal phenomena.

In the process of planning and preserving, agricultural land, wilderness, natural habitat, and species are all affected by outward growth of cities and suburbs. Secondary problems related to urban growth are vehicle use, pollution, congestion, and quality of life. Rapid expansion and low population density is happening although the “compact city” has been a recent sustainable planning strategy. Compact cities is a different model from most 20th century urbanization.

This approach calls for new development through “infill,” as opposed to “greenfield” development which pertains to developing on agricultural land. Infill can be achieved by building on vacant lots within the urban area, redevelopment of underutilized lands where there are deteriorating buildings, and rehabilitation or expansion of existing buildings.
Infill can also improve design by putting strong emphasis on creating parks, gardens, and restored ecosystem features within urban areas. Designing to “sustain” may be able to address these concerns.

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Casselton Renaissance Zone: Areas highlighted in orange represent areas for infill opportunities.
New Urbanism:

New urbanism could also be referred to as the “architecture of community.” This theory results from the evolution of the American metropolis. The past 50 years of growth has produced the typical development style of bedroom communities pioneering the most remote sectors of the metropolitan region. Out of this evolution of the modern metropolis there has grown a profound sense of frustration and placelessness (Katz 1994). The unique nature of each place is overlaid with chain architecture and monotonous sub-divisions. Initially, Americans moved to the suburbs for privacy, mobility, security, and home ownership. Meanwhile, city centers have deteriorated because their economic vitality has moved to the suburbs with the people.

Casselton doesn’t necessarily face the challenges seen in metro area urban developments such as congestion, rising crime, pollution, and overwhelming driving time (produced by rapid growth). But Casselton does face the challenges where local plants, vistas, and architecture that make the community a memorable place are now replaced by smog, pavement, polluted soil, and loss of farmland. To address this problem, it is best to look at a strategy of “managed growth.” If managed growth is not utilized, the familiar results of sprawl and historically distinct neighborhoods will occur.

Infill and re-development is the best way to utilize existing infrastructure and preserve open space. Local citizens must understand that there are options other than sprawl. In turn, this calls for policies and governance that will educate and guide the complex interactions of the economy, ecology, technology, jurisdiction, and social equity (Katz).
The next two images represent two single-family owned houses in Casselton. The top image is located in the newly developing Martin's Addition. The second image is located in an older neighborhood and is unlike any of the houses that surround it. Which house seems to display “placelessness?”

The following two pages show a variety of single-family housing patterns and their respective advantages when designing for community.

Portsmouth, ME: Walkable community center characterized by shaded cobblestone streets.
Single-Family Housing Patterns

A. Reduced setback puts visual emphasis on building and not the garage door.
B. Recessed garage de-emphasizes door and creates a parking niche, reducing emphasis on parked cars.
C. If garage is recessed enough, the automobiles can be parked behind the building line.

A. Side-load garage further reduces view of garage door.
B. Parking apron doubles as front-door courtyard.
C. Side-load garage allows forward entry into the street rather than having to back into the street, improving safety.

A. Recessed parking reduces view of cars from the street.
B. Forwardly oriented front door increases street surveillance, enhancing safety.
C. Larger rear yard results from forward house shift.
A. Combined drainage swales centered on the common property greatly increase the amount of undisturbed area around the houses.
B. More trees can be saved as a result of less land disturbance.
C. Amount of disturbed land between houses can be reduced by one-half.

A. When used in conjunction with side-load garages with shared driveway, there is a greater potential to save or add more trees in front of houses.
The theoretical premise research was primarily centered on what it means to achieve a “spirit of place” and factors such as nature and culture that quantify a sense of place in design.

Research found that designing for a sense of place creates a strong design that is true to the characteristics of the site. It is evident that traveling is a useful tool to identify instances of how cultures exemplify a sense of place in design that functions within society. Planners and landscape architects should design for a sense of place, but most importantly the site should be a place of sense to function successfully in its environment.

Various cultural landscapes were examined to analyze what it means to possess a “sense of place.” The research conveyed that there are no specific factors that create a sense of place but the overall cultural landscape that must be analyzed. By analyzing the existing cultural landscape we can draw clues from its formation, history, and the tendencies of the society that inhabited in the past and present. The inhabitant (or client) is in a constant state of change which causes the landscape to change as well.
Public space and its cultural design was also researched. There are various types of public space, all which should be analyzed carefully for their intended use and the culture that it is designed for. Public space can be anything from the massive plazas of Spain to ecologically constructed wetlands or pocket parks nestled within the urban fabric. Depending on how appropriately the space is designed, people can be expected to use it accordingly. Planning for the future must be considered in developing communities. Urban planning strategies of infill and greenfield development are two different strategies of intervention. Infill is considered a more sustainable approach because it uses existing spaces in cities.

Compiling all the research thus far about “sense of place” and social interactions, combined with acquired knowledge from traveling, the research can ultimately be summarized in a final quote by D. W. Meinig’s essay “The Beholding Eye”: “Such a view insists that our individual lives are necessarily affected in myriad ways by the particular localities in which we live, that it is simply inconceivable that anyone could be the same person in a different place.”
Theoretical Research:

Genius Loci:

Reading the Landscape:

New Environmental Paradigm:

Maslow’s Hierarchy of Needs:
Application to the Casselton Development Strategy

This theory, also known as “spirit of place,” evokes an identity of people and things of a place. Part of the Casselton development strategy is to define the phenomena of the town so future development retains the physical and social character of the community.

What specifically contributes to a “spirit of place” in Casselton?

- Architectural style: historical brick facades, gravel alleys, shaded streets
- Climate, rainfall, and temperature variations: drastic summer/winter temperature variance, minor flooding
- Unique natural setting: agricultural grid layout of city and land, vast open space
- Memory and metaphor: homesteaders, railroad history, political pride
- Use of local materials: red brick, clay soil
- Sensitivity in important structures: historical axis of main streets, k-12 school, churches
- Cultural diversity and history: railroad/agricultural history, predominant Scandinavian and German heritage
- People’s values: quality education, family, safety, faith, familiarity
- High quality public environments that are visible and accessible: k-12 school, churches, golf course, main street

This is a method of looking for clues in the landscape and understanding how they effect that culture.

Clues to how the landscape reflects Casselton’s culture:

- Houses, roads, cities, etc. represent an investment of time, money, and emotion. People would not change these things unless there is enormous pressure to do so. So, if there is a major change in the look of the cultural landscape there is most likely a major change occurring in the national culture as well. Development of Casselton’s southern city limits resembles typical cul-de-sac suburban development with little variety among houses.
- Different cultures possess different tastes in the landscape (what a culture deems acceptable). When a past tradition or practice continues even if better alternatives exist, it is know as path dependency. When a culture is not limited by the decisions it has made in the past, opportunity for true progress presents itself. Casselton is in danger of developing a path dependency for sprawling new development.

This paradigm was created to understand the societal changes that affect our environment. By embracing the NEP, planners and designers will gain an environmentally sensitive attitude that would translate into the planning and design of our communities.

The NEP and its implementation in Casselton:
1. Human beings are but one species among the many that are interdependently involved in the biotic communities that shape our social life.
2. Intricate linkages of cause and effect and feedback in the web of nature produce many unintended consequences from purposive human action.
3. The world is finite, so there are potent physical and biological limits constraining economic growth, social progress, and other societal phenomena.

Designing to “sustain” will begin to address these concerns. Sustainable details to be implemented will include drought tolerant plantings, shared driveways, rain water collection, narrow streets, walkable neighborhoods, and boulevard water drainage.

The hierarchy of needs (Abraham Maslow) is a psychological theory where needs are arranged in a pyramidal form with the most basic needs at the base, followed by four more levels of needs that can only be met if the preceding level is achieved. Social needs occupy the top three tiers of the pyramid.

It is the challenge of a designer to respect and enhance these social connections while not sacrificing basic physiological and safety needs.

The Casselton Development Strategy will:
- create safe pedestrian circulation routes throughout the community in the form of walking and biking paths
- allow for points of interaction and chance meeting places by ways of neighborhood layout and improved circulation
Typology: To use site specific qualities of nature and culture to design functional and comfortable spaces that coincide with human needs.

This thesis examines the typology of designing for a growing town by methods in harmony with the natural and cultural phenomena of a site. By looking at the nature and culture of a site, a designer can understand the requirements needed there. If these requirements are met the site will coexist with the needs of humans and in respect with the environment.

The relationship between an individual and his or her environment is called (landscape) architectural sociology. Observing people on a daily basis in their ordinary environment can provide clues to social interaction. Abraham Maslow developed a psychological theory on the hierarchy of needs. The hierarchy of needs are arranged in a pyramidal form with the most basic needs at the base, followed by four more levels of needs that can only be met if the preceding level is achieved. Social needs occupy the top three tiers of the pyramid. The theory shows that social needs are important. It is the challenge of a designer to respect and enhance these social connections while not sacrificing basic physiological and safety needs.
Social needs are of utmost importance in terms of community planning. As the following case studies show, the projects are designed to meet the needs of the user. Two of the studies also show how the designers communicated with the townspeople to achieve maximum want and need satisfaction. Circulation, public space, and sustainable design are examples of other topics utilized by the case study projects.

All three case studies apply to the city of Casselton in various ways. All the projects were very successful in their design and ability to meet the specific needs of the client. Although the geographic location of the sites are very different than rural North Dakota, similarities such as population and goals are evident.
Navasota is a rural Texas town just a one hour commute northwest of Houston. The town, with a population of just under 7,000, is undergoing growth as a permanent and second home location for people of Houston desiring small town or country life (Garnham, 1985). The town is located in a historic area of Texas. In fact, it has three sites listed on the National Register of Historic Places (two homes and the historic downtown district). Because of the importance of their historic sites, in 2009 Navasota was selected as a “Visionaries in Preservation” city by the Texas Historical Commission.

The study is a townscape preservation and enhancement program for the town that was brought about in three major phases. Phase 1 dealt with initial organization, citizen participation sessions, and character assessment. Phase 2 developed an extensive analytical base that produced recommendations and conclusions. The 3rd and final phase revised all previous work, finalized recommendations, and developed design guidelines.

Navasota Basic Assumptions:
1. townspeople involvement
2. growing population and area
3. downtown will remain the major economic-commercial center
4. historic sites will be protected
5. open space developed along Cedar Creek
6. trees will be maintained and planted
7. will become a tourist destination due to State Park proximity
8. design solutions will suit the needs of Navasota

Project Goals:
1. encourage citizen participation
2. identify citizens’ desires
3. maintain certain qualities and characteristics
4. identify locations of change
5. provide a planning and zoning reference
6. preserve and enhance appearance of downtown
7. provide a pleasant and safe pedestrian and motorist experience
8. develop a comprehensive plan implemented as short term projects
9. play upon the historic setting
10. do work of high quality with advanced tools and techniques

This case study is an excellent example of designing for a particular culture. The project was successful because of strong communication lines with the designer and the community.
Case Study

East Clayton Neighborhood

The expanding Canadian city of Surrey, British Columbia is pursuing a sustainable development process known as the Headwaters Project (Wheeler, 2004). The first phase of this project is the East Clayton Neighborhood Concept Plan. This phase is applicable for case study purposes because of its sustainable planning principles to come up with the physical design of the site. The concept plan is a new neighborhood for 13,000 people on 560 acres of land. The community is committed to preserving the nature and culture of the site which is why the smart growth plan is so important. They aim to preserve wetlands, grasslands, habitat, forests, farmland, etc.

Neighborhood planning principles:
1. compact
2. relatively high density
3. walkable
4. mixed-use
5. grid organization

On a more detailed level, narrow streets will be shaded by trees, garages will be placed behind homes, homes will be designed to take advantage of solar heating, and extensive greenways and natural drainage systems will be created. This design criteria is complemented by sustainable specifications such as gravel along the roadsides to create opportunities to infiltrate runoff. During construction, sites were backfilled with original topsoil.

Facts:
1. homes cost 20-30% less than comparable suburban houses
2. drive time is 25% less than in comparable developments
3. average 2 min walk to a park or greenspace
4. reduce cost of infrastructure by 20%

Part of the neighborhood plan is the Live/Work area. It provides a place for people to both live and work at densities between 15 and 25 units per acre. The Live/Work area is a transition between the residential and business/office areas. A vibrant business atmosphere is envisioned along with residential use in the upper stories.
Case Study

Paley Park

This well known “pocket park,” designed by the landscape architect firm Zion & Breen in 1967, is located in Manhattan’s high-end Plaza District on 53rd St. between Madison and 5th avenue. The project was funded by William Paley, former Chairman of CBS, which makes it an excellent example of a privately owned public space. It proves that even a small space can be a popular meeting ground and private getaway at the same time. The park is a welcome area from the sights and sounds of the busy surrounding city. Because of its location, just a few steps up off of the street, people are tempted to look in and enter this outdoor room nestled between an array of skyscrapers. If a person unfamiliar with the area is walking with their head down, they will stride past without even noticing.

One strikingly powerful yet amazingly small idea that has gained Paley Park much fame is its use of movable seating. The urbanist William H. Whyte suggests that people prefer movable seating in public spaces because people like to control their space. Movable chairs let them do just that. Having chairs that aren’t attached also sends a message of trust that people won't steal them. Another design feature of the park is the 20 ft. waterfall that occupies the far wall. The white noise adds to the peaceful ambiance by drowning out city noise. Trees provide summer shade and create a sense of privacy.

This park has design features that could be utilized in a city of any size. Movable seating, using water features to muffle surrounding noise, and the idea that people can stumble upon a place where they are tempted to enter into are all excellent design elements in public and private spaces. This case study relates to the previous case studies because they both utilize public space at a small scale because of their location in relatively small developments.
Historical Context

Casselton, ND has always been a progressive town. From its railway origins in 1973 to recent franchise development, it continues to be a dynamic town. The city hasn’t suffered the same fate as many other rural North Dakota towns. It is in a unique position with great potential to take advantage of its growth, location near Fargo, and committed community members. Casselton is a fairly compact community with the exception of recent development nearly one mile south of town by the interstate. These two areas are not traveled between by any means other than car. Physical challenges the town faces are the planning of new development and its relation to the city center. Historically rural towns have been walkable, if not bikeable communities but as the city expands this scenario cannot be taken for granted.
Historical Narrative

The history of the homesteaders is not one that is forgotten. It is still alive in the hearts of many people today because the homestead movement of North Dakota was not actually that long ago; for some only 2 to 4 generations from the present. Farmers and businessmen rode the train west until they arrived at a town where they had family or friends and could get off. Not everyone was so fortunate to already have connections. Other homesteaders simply rode the train west until they saw what seemed like fertile land and stopped.

Immigrants that came to the Red River Valley were predominantly from Scandinavia. The Homestead Act of 1862 is what enticed many immigrants to move west. Signed by President Lincoln, the United States Federal Government granted an applicant title to 160 acres (1/4 section) of undeveloped land outside of the 13 colonies. Eventually, the Act turned over 270 million acres of land, nearly 10% of the area in the United States to private citizens. In order to be eligible for the Act, each homesteader had to live on the land, build a home, make improvements and farm for 5 years. $18 was the only money required, but sacrifice and hard work came at a different price for the settlers (Robinson, 1966).
The peak of homesteading came in 1882. It is estimated that 40,000 people came to the Red River Valley in 1882. By 1886 the homestead boom was over and many people left North Dakota. The population which had risen from 37,000 in 1880 to 152,000 in 1885 grew to only 191,000 in 1890. In North Dakota in 1910, there were about 125,000 Norwegians; 117,000 Germans; 73,000 English and Celtic people (many from Canada); 29,000 Swedes; 13,000 Danes; and people from most of the countries in Europe (Robinson, 1966).

In a dozen years they had turned an empty wilderness into a civilized society. By the late 1880’s, a single wheat crop dwarfed the wealth gathered in all the pre-boom years. North Dakota had taken on a new appearance in terms of wealth and people. In fact, the pioneers had done too well. Not realizing what was to come, they had equipped their new society with more towns, stores, newspapers, churches, and banks than it could support. In the enthusiasm of the Great Dakota Boom, they had inevitably made what can be called “the Too-Much Mistake.” Unfortunately, abandonment soon followed (Robinson, 1966).

The new country could not support itself with its present economic base. Because there were too many towns, schools, churches, etc., all would have a hard and often losing struggle for survival against the difficulties created by distance and the sparseness of the population. The steady increase in farm size and the steady decline of farm population magnified these difficulties.
Space itself had a social cost where a meager population scattered over a wide area increased the per capita expenditures for schools, churches, roads, and many other necessary things for a civilized society. North Dakotans paid a high price to learn that the semiarid prairie spread the population thinly (Robinson, 1966).

Over time, the environment of the prairie fixed certain traits in the character of the people. Remoteness, with its loneliness and isolation, placed a premium on friendliness and courage. North Dakotans became brave and friendly, ready to lend a helping hand. The cool, dry climate made them a hustling, energetic people who took pride in withstanding the rigors of hard winters. The North Dakotan was optimistic. For example, homesteader John Wirch came from southern Russia in 1891 and started farming in Dickey County with just one yoke of oxen. Twenty years later he owned 1280 acres of land, 20 horses, 35 head of cattle, and all of the machinery necessary to operate his farm. However, frontier and drought conditions accustomed them to hardship and made them cautious, always worrying about the weather.

More specifically, a survey of present day values was given to residents in Casselton. Common values among community members included words like family, honesty, hard work, faith, education, safety, and lending a helping hand. This list of values contained many of the same words as the responses residents gave for why they enjoy living in a small town. These responses included warmth, safety, ease of getting to know people, less traffic, neighbors help each other, quality friendships, quiet, and opportunities at school. 100 years ago, North Dakota didn’t have the same problems there are in America today.
With modern advances in technology some hardships of the homesteaders have been alleviated but new challenges have arisen. Although time passes, community values remain similar.

Around 1900, crime hardly existed. There was hardly anything to steal but livestock such as cows or chickens. Because there was so little crime, smaller counties only needed one sheriff and one small jail. Sometimes the sheriff and his family lived in the jail. People who didn’t want to work were “unemployed.” There were always jobs for people that wanted to work. A saying of the day was “Those who never do any more than they get paid for, never get paid for any more than they do.” Poverty in small towns was rare because farmers grew most of their own food. If there was poverty, local churches handled the problem quickly. North Dakota counties had a “poor farm” where the farm grew their own food to support the poor. Having a relative at the poor farm was a closely guarded secret (Aasen, 2008).

North Dakota has inherited a rich culture from many lands. Early settlers didn’t melt into the American culture at once. Many lived in ethnic communities much like the ones they left in Europe. Music was a big part of the pioneer’s life. It helped battle the loneliness of living on the prairie. If they missed the “old country,” music reminded them of “home.” In the early churches, songs were often sung in their native European language and popular dances of the time were polka, waltzes, and square dancing.

The Homestead Act was integral in populating the western nation. Evidence of the act in North Dakota is clear today. Small towns are dotted along railroad lines while larger towns are situated on rivers with railroad lines running through.
But with all the settlement that occurred with the intention of farming, today people that once lived in rural areas are migrating from the country to larger cities. Small towns are a common site in the North Dakota landscape. In fact, there are 126 North Dakota towns with less than 1000 people, 42 towns between 1000 and 6000 residents, and just 13 towns with over 6000 residents, the largest being Fargo with 90,599 residents.

Today:

This loss of populations in small towns is affecting their economy, schools, and way of life. However, not all small towns are suffering in this way and the trend is not the rule. Some small towns, such as Casselton, continue to be growing but partly at the demise of surrounding towns. Because of the rural movement to larger cities like Fargo, Casselton retains its small town status but also continues to grow because of its close proximity to the amenities that Fargo has to offer. If Casselton thrives, partly because of its proximity to Fargo, residents from small towns surrounding Casselton may be tempted to migrate to Casselton because of its amenities.

A rich history has helped to shape and grow a thriving community. One way to assess the people in the community is by looking at its social capital. Social capital includes the norms, networks, and mutual trust among and between groups (Flora and Flora, 2008). Casselton's social capital is made of voluntary, community, and social organizations. People with similar interests, backgrounds, or goals bond together to work toward a common goal. Because Casselton is a small community, unlike groups must bridge together to work toward a common goal.
Casselton: 7 Aspects of Capital

The community capitals framework was developed by Flora & Flora (2008) to identify communities that maintain healthy community development. By looking at the interactions between the seven aspects of capital, it is possible to better understand their effects on community development in Casselton (Soc 404/604, 2009).

1. Cultural Capital
An assessment of racial, ethnic, and gender composition, community history, and spiritual capital.
Casselton: farming history, predominantly Scandinavian and German heritage, four churches, heritage center
Project: native plantings, close-knit neighborhoods

2. Natural Capital
An assessment of available natural resources such as soil water, minerals, environment, and weather.
Casselton: temperature varies from -20 to 95 degrees F, growing season approx. 180 days, average annual precipitation is 22.6 inches, 936’ above sea level, land historically shaped by glaciers, fine-textured clay soil, agroecosystems
Project: create microclimates, use bioswales for stormwater runoff

3. Human Capital
An assessment of current and historic populations of the community, demographic structure, levels of education and primary occupations.
Casselton: population is approx. 1800, 91% of population has a high school diploma or higher, primarily volunteer based leadership, Central Cass Public School, Job Development Authority
Project: revitalize downtown for citizens to enjoy

4. Social Capital
An assessment of voluntary organizations, public facilities, participation in community organizations, and community’s attitudes towards outsiders.
Casselton: 6 volunteer organizations, 16 community organizations, Central Cass Public School, Casselton Business Association, Cass County Reporter, Heritage Center
Project: local businesses profit from renovated buildings and more community spaces
List of Organizations, Casselton, ND, 2009

Community Organizations:
Casselton Business Association
Casselton Community Endowment Fund
Casselton Heritage Center, Inc
Casselton Job Development Authority

Social Organizations:
Cass County Wildlife Club
Eastern Star
Generations Connecting
Masons
Silver Threads

School Organizations:
Booster Club
Dollars for Scholars
PTO

Churches:
Martin’s Lutheran Church
St. Leo’s Catholic Church
United Methodist Church
Westminster Presbyterian Church

Volunteer Organizations:
4-H
American Legion and Auxiliary
Boy and Girl Scouts
Jaycees
Knights of Columbus
VFW

Park District Activities, Casselton, ND, 2009

Youth Sports:
12 & under girls’ softball
10 & under girls’ softball

Ponies Girls’ Softball
American Legion Baseball
T-Ball Baseball

Adult Sports:
Adult co-ed volleyball
Adult Men’s Basketball

Misc. Youth Activities:
Dance/ Creative Movement
Penny & Pals
Small Notes Music Camp
Youth Tennis
Teen Art

Golf:
Cottonwood Golf Course
5. Political Capital
An assessment of community stratification, power structure, inclusiveness, political participation, and empowerment.

Casselton: majority of working population is above 25 years of age, good political relationships, 23 non-profit organizations, civic engagement
Project: create a community center downtown for all ages

Social Stratification Based on Education, Occupation, and Income

Education
(among 25 and over population)
Based on 1,150 educated
   High school graduates: 23.8%
   Some college, no degree: 27.7%
   Associate degree: 13.7%
   Graduate or professional degree: 4.1%

Occupation
(employed civilian population 16 and over)
Based on 935 employed
   Management, professional: 35.0%
   Sales and office: 25.1%
   Production, transportation: 16.5%
   Service: 11.7%
   Construction, Extraction, maintenance: 10.5%

Income
(households, in 1999)
Based on highest % of income brackets = 575 out of 693 total households
   $50,000-74,999: 24.5%
   $35,000- 49,999: 22.7%
   $25,000- 34,999: 13.6%
   $15,000- 24,999: 12.7%
   $75,000- 99,999: 9.5%

Breakdown of Job Types in Casselton, ND, 2009

Management or professional occupation: 16.1%
Service Occupation: 9.7%
Sales and office occupation 41.9%
Farming, fishing, and forestry occupation: 6.5%
Construction and maintenance occupations 12.9%
Production, transportation, and material moving occupations: 12.9%
6. Financial Capital

An assessment of economic, employment, industrial and occupational data.
Casselton: 50% of community has less than a $25,000 income
Project: create quality affordable housing and new business spaces

List of Major Businesses by Category in Casselton, ND, 2009

**Agricultural Services:**
- ADM Edible Bean Specialties
- Central Sales Inc.
- Dalrymple Farms
- Maple River Grain
- RDO Equipment
- Sinner Bros. and Bresnahan Co.
- Titan Machinery
**Automotive Repair:**
- Car Doctor
- Earl's Repair
- Foss Shop
- Gordy's Inc
- Petro Serve USA
- Petro Serve USA-Schlagel Oil
**Building and Road Construction:**
- Burchill Flooring
- Cote Mechanical, LLC
- E.T. Excavating Inc
- Jerry's Excavating
- Rush River Construction, Inc
**Childcare Services:**
- Little Bear Daycare
**Financial Services:**
- Bremer Bank
- First State Bank of ND
- Wells Fargo Bank
**Food and Drink Establishments:**
- Capital Restaurant and Bakery
- Casselton's Cold Storage
- Cool Beans Coffee House and Cafe
- Dusty's Tavern
- Maple River Winery
- Pizza Ranch
- Prairie Sky Concessions
- Red Baron Lounge and Pizza Pub
- Subway
- T's Shamrock Bar
- Wangler Foods

**Funeral Services:**
- West Funeral Home

**Golf Courses:**
- Cottonwood Golf Course

**Hair Salons:**
- That Hair and More

**Hardware:**
- Casselton Hardware Hank

**Insurance Services:**
- Bremer Insurance Agency
- Cass County Mutual Insurance
- Farmers Union Insurance
- Nodak Mutual Insurance
- Toop Insurance
- Weber Insurance Agency Inc

**Legal Services:**
- Burgum Law Firm
- Piper Tax Services

**Lodging:**
- Governor's Inn

**Medical Services:**
- Casselton Drug Inc
- Davis Chiropractic
- Hagen Dental
- Innovis Health

**Real Estate:**
- Metro Realtors
- Milstar Properties
- Park Co Realty
- Premier Property Management

**Veterinary Services:**
- Casselton Veterinary Service
7. Built Capital
An assessment of physical infrastructure, zoning and land use, housing development and housing stock and health care system.
Casselton: 33 lane miles of streets, 2 water towers, local water treatment plant, own sewer system, telephone-Quest Communications, internet service-Casselton Community Network, electrical service-Otter Tail Power Co., Swan Creek Diversion, Cass County Sheriff’s Department, volunteer fire department, Central Cass Public School-875 students, school district covers approx. 400 square miles, several parks, swimming pool, golf course, Cass County Reporter, clinic, public library, regional airport
Project: create a plan for “smart growth” development
Physical Site Analysis

Seasonal photo inventory of Casselton.
agriculture. old homes. gravel alleys. friendly. grain elevator. rail road. brick. helpful. wide streets. trains. open fields. powerlines. water drainage. parks. reservoir. big sky. grid pattern. main street axis. four entries. sidewalks. slow pace. opportunity. friendship
The North Dakota Renaissance Zone Act ("Act"), enacted by the 1999 North Dakota Legislature, authorizes a North Dakota city to apply to the state for designation of 20 contiguous city blocks as a "renaissance zone." Property, income, and financial institution tax incentives are available to taxpayers for investing in zone projects within a zone. Casselton was approved for Renaissance Zone status. These tax incentives have ignited new business development in downtown Casselton.

Casselton Renaissance Zone Map

Areas highlighted in orange represent areas for infill opportunities.
Challenges:
Despite the assets to living in a small town there are also challenges. With such a large “in-group” it can be difficult for outsiders to be accepted. In questionnaires given to citizens some expressed that Casselton is sometimes seen as a snobbish town or that there is an underlying emphasis on “keeping up with the Joneses.” Casselton’s small population limits the variety of groups in the community. Individuals with an unusual interest may have difficulty bonding with like interests to form a group.

- Small population
- Difficulty accepting outsiders
- Limited resources
- People drawn to Fargo
- Limited variety of interest groups
- Limited experience in diversity

Assets:
Since the vast majority of citizens have similar values, interests, and backgrounds the community is naturally drawn together. Although they represent a small community they share a thorough understanding of what takes place in the community and where they can find assistance to achieve their goals.

- Strong community bonds
- Understanding and helpful
- Similar values, interests, backgrounds
- Family oriented, close community
- Citizens understand and are invested in their community
- Citizens are involved in many groups
Citizen Survey:

In order to better understand personal sentiment of the citizens toward their community, a short answer survey was created and distributed to a selection of males and females of no defined economic income. Shown below is the template of the survey.

Citizen Questionnaire
1. How do/did your children normally get to school? (walk, bike, drive, bus, etc.) Why? (safety, weather, proximity, exercise, convenience, etc.)
2. What are some reasons you enjoy living in a “small town?”
3. When weather is favorable, how do you travel between places in town? Why? (time, distance, save gas, safety, etc.)
4. What is your opinion of new and current development near I-94?
5. What are some common values of people in the community?
6. Besides size, what do you think makes Casselton unique from other small towns in the region?
7. If you could change/add/subtract one thing about the community, what would it be?

A summary of the results are as follows:
1. drive, walk
2. low-crime, sense of community, values, school system, closeness, safety, friendliness, slow pace of living, small school, opportunities at school, quiet, people come together to help each other, easy to meet people, less traffic
3. walk, drive
4. improves the look of the town, brings more people into the community, too far to walk to, good hotel and fitness center facilities, gives thriving appearance, fear of losing downtown atmosphere, adds variety, creates a “front door,” it’s ok
5. safety, faith, helping in times of need, pride, neighborly, loyalty, family, quality education, nice lawns, hard work
6. closer to a large town, new development, work in Fargo, railroad, fair amount of wealth, unique shops, golf course, variety of businesses
7. see a slower growth-rate, get trains out of town, better grocery store, add a walking/biking path, add a community center, repair some downtown business fronts, have a quiet zone for trains, add a hangout for teens
Topography

Climate

<table>
<thead>
<tr>
<th>Month</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
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</thead>
<tbody>
<tr>
<td>Avg high °F (°C)</td>
<td>16 (°)</td>
<td>23 (-5)</td>
<td>35 (°)</td>
<td>54 (12)</td>
</tr>
<tr>
<td>Avg low temperature °F (°C)</td>
<td>-2 (-19)</td>
<td>5 (-15)</td>
<td>19 (-7)</td>
<td>32 (0)</td>
</tr>
<tr>
<td>Precip (in)</td>
<td>0.75</td>
<td>0.59</td>
<td>1.17</td>
<td>1.37</td>
</tr>
</tbody>
</table>
Water Sites:

Top: Swan Creek used for drainage on east edge of town

Middle: Diversion

Bottom: Permanent reservoir now used for recreation purposes on the west edge of town

<table>
<thead>
<tr>
<th></th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
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<tbody>
<tr>
<td></td>
<td>69 (21)</td>
<td>77 (25)</td>
<td>82 (28)</td>
<td>81 (27)</td>
<td>70 (21)</td>
<td>58 (13)</td>
<td>35 (2)</td>
<td>21 (-6)</td>
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<tr>
<td></td>
<td>45 (7)</td>
<td>54 (12)</td>
<td>58 (15)</td>
<td>57 (14)</td>
<td>46 (8)</td>
<td>34 (1)</td>
<td>19 (-7)</td>
<td>4 (-15)</td>
</tr>
<tr>
<td></td>
<td>2.51</td>
<td>3.51</td>
<td>2.88</td>
<td>2.52</td>
<td>2.18</td>
<td>1.97</td>
<td>1.05</td>
<td>0.57</td>
</tr>
</tbody>
</table>
Thesis Goals

Engage  community participation in developing goals.

Address the needs and wants of the community for the present and years to come.

Maximize the potential of existing development.

Develop social, economic, and environmentally sustainable design criteria.

Provide additional safe circulation routes throughout the city.

Create outdoor spaces for individual or community use.

Utilize the nature, culture, and history of Casselton as metaphor for design.

Evoke interest in the regional “ordinary” landscape.
These goals will be achieved at different stages throughout the design process. The process will start with community scoping to understand the needs, wants, and concerns of the town. At this stage the purpose and goals of the thesis project will also be presented. As design development progresses, community members will continue to be involved. The project will address such issues as circulation, public space, new development, and sustainable development. New design will encompass elements of Casselton's history, nature, and culture while improving upon existing conditions. This project will be a master plan executed in phases that can be implemented as city leaders see fit.
Project:
Casselton, ND
Community Development Strategy

Introduction
Neighborhood Development
Circulation
Infill Opportunities
Resiliency & Sustainability
Planning Strategies
Long Term Development Plan
Where do we want to go?

Casselton wants to foster a growing and prosperous community while maintaining its true identity as a “small town.”

More of the same type of development isn’t necessarily a good thing. A variety of businesses, range of housing choices, local entrepreneurship, and balanced land uses creates a healthy economy.

“We are a nice small town because we are a small town.”
- Casselton resident
Existing Development
1. Martin’s Estates
3. Willow Bend

Proposed Development
2. Willow Bend Phase 2
4. Tinta Tawa Park
5. Westview Neighborhood

Downtown Renovation

Biking & Walking Paths

Safe Routes to School
Starts:  lot size: approx. 12,000-16,000 sq ft

Benefits:  mimics traditional alley development
utilizes shared driveways
alleyways made of permeable material
grid pattern encourages walkability
clear views with street facing windows
alleys allow for spontaneous interaction
reduced house setback, larger backyard
porches allow for street interaction
less pavement than cul-de-sac development
narrow, shaded streets
one-side street parking
encourages “uniqueness” of homes
garbage, utilities not visible from street
opportunity for more street trees
hidden garages
Shared Driveways
Front Porches
Tree Lined Streets
Alley Access
Gravel Alleys
Hidden Garages
Architectural Guidelines:

Architectural guidelines suggest that Casselton, ND keep with the character of this growing community. They are meant to ensure new homes and community structures appear to reflect a spirit of place with close-knit neighborhoods at a tight-scale. Use of front porches, gravel alley driveway access, and varying materials will exemplify the traditional development of this rural town.

Each home builder will have a great amount of flexibility to express their individuality through architectural and landscape architectural design.
Safe Walks:

Safe Walks to school are routes designated by red bricks along the outside edge of the sidewalk. These routes are safe connections from neighborhoods to the school.

- encourage physical activity
- reduce traffic congestion near school
- create neighborhood relationships
walk/bike path
functional diagram
& signage
Casselton, ND
Community Development Strategy
Introduction
Neighborhood Development
Circulation
Resiliency and Sustainability
Planning Strategies
Infill Opportunities
Long Term Development Plan
Infill Opportunities
Tin Can Pile:

The tin can pile is a piece of the community’s history that has developed into a quirky tourist attraction. This image proposes the can pile be moved to a visible location near the highway. With the can pile at this highly traveled entry point, the pile will pique visitor curiosity and encourage additional exploration of the town. Tourist information on the town will be located at the base of the can pile.
parking
berms
slope: 3:1
gabion wall
buffer plantings
parking
art wall

Tinta Tawa
Entry Blowup
Eco-sensitive Design Details

new neighborhoods

walking/biking path
drought-tolerant turf & plantings
shared driveways
pervious concrete & paving
rain barrel water collection
narrow shaded streets
walkable circulation
boulevard water drainage
Planning Strategies

Casselton, ND
Community Development Strategy

Introduction
Neighborhood Development
Circulation
Infill Opportunities
Resiliency and Sustainability
Long Term Development Plan
Where does our community want to go?

1: Define your community's character.

2: Articulate elements of that character in your plan.

3: Establish target areas for future growth that maximize use of existing infrastructure.

4: Offer incentives for development that implements your plan.

5: Negotiate with developers but keep firm to your plan's goals and priorities.

6: Consider if the development proposal would benefit and add variety to your community.

7: Review your plan annually.

“Would you tell me please, which way I ought to go from here?”
“That depends a good deal on where you want to get to.” said the Cat.
“I don’t much care where-” said Alice.
“Then it doesn’t matter which way you go,” said the Cat.

(Alice in Wonderland, Chapter 6).
Casselton, ND
Community Development Strategy

Introduction
Neighborhood Development
Circulation
Infill Opportunities
Resiliency and Sustainability
Planning Strategies

Long Term Development Plan
Development Phases

Phase 1:

Timeline:  
Start: within the next two years  
Duration: up to 5 years

Elements:  
Bike Path  
- connect the reservoir and Willowbend Development

East Tinta Tawa Park Entry  
- gabion retaining walls  
- formal sign at entry  
- entry plantings

Softball Diamond Improvements  
- sound buffer berm with plantings (adjacent to highway 10)  
- additional parking perpendicular to berm  
- planting buffer on the east side of entry road

Art Wall  
- combination of sculptural and structural art pieces

Objectives:  
Extend bike path  
Create two formal entries to Tinta Tawa Park  
Utilize parking space  
Block traffic noise from Highway 10  
Introduce visual art into the park  
Involve the community in design and production of the art wall  
Reveal historical community elements  
Contribute to economic vitality

Phase 2:

Timeline:  
Start: when first phase of Willowbend is 75% complete  
Duration: 5-10 years

Elements:  
Bike Path  
- connect Willowbend Development with Martin’s Estates Development

Willowbend Development (2)  
- continue Willowbend Development

Objectives:  
Continue to extend bike path  
Complete Willowbend development  
“Place” Architectural Guidelines are implemented  
Environmentally sensitive design
Phase 3:

Timeline: Start: at averaged 75% capacity of Willowbend and Martin’s Estates
Duration: 20-50 years

Elements: Bike Path
- loop is finished connecting Martin’s Estates with Tinta Tawa Park

CC West
- residential and neighborhood commercial development
- site for future Community Center

Objectives: Create additional sites for public use
Contribute to community economy
Address housing needs for growing population
Retain existing tree buffer
"Place" Architectural Guidelines are implemented
Environmentally sensitive design

Phase 1-3:

Timeline: Start: ongoing
Duration: ongoing

Elements: Downtown Development
- consider infill opportunities in Renaissance Zone
- utilize vacant sites with transitional improvements

Safe Walks
- designate sidewalks with red bricks along edge along boulevard
- accept donations for engraved bricks
- lead young children to and from school

Objectives: Decrease expenditures by using existing infrastructure
Encourage a dense and lively downtown environment
Increase economic vitality
Enhance the existing sense of community
Recognize ND Renaissance Zone tax incentives
Create safe pedestrian circulation to and from school
Relieve traffic to and from school
Seize the opportunity for physical activity
Achievements

Engage  community participation in developing goals.
Address  the needs and wants of the community for the present and years to come.
Maximize  the potential of existing development.
Develop  social, economic, and environmentally sustainable design criteria.
Provide  additional safe circulation routes throughout the city.
Create  outdoor spaces for individual or community use.
Utilize  the nature, culture, and history of Casselton as metaphor for design.
Evoke  interest in the regional “ordinary” landscape.
Display Boards
What conjures a sense of place?

Is it the landscape, the built environment, the people, or more likely a combination of them all? This document explores the factors that contribute to a unique sense of place. With this understanding, how can these factors be utilized to show the effects of nature and culture in site specific design.

<table>
<thead>
<tr>
<th>problem statement</th>
<th>How does the authenticity of nature and culture inspire a sense of place in design?</th>
</tr>
</thead>
<tbody>
<tr>
<td>theoretical premise</td>
<td>How can designing to maintain the existing character of a community create a stronger awareness of nature and culture?</td>
</tr>
<tr>
<td>project justification</td>
<td>Offer new development to the sense of place in the context of design, it is important to design for culture to determine how site sensitive design affects human development.</td>
</tr>
</tbody>
</table>

Project: Casselton, ND
Community Development Strategy
lopment.Strategy.

North Dakota State University
Landscape Architecture Design Thesis
Laura Zimmerman
2010

agriculture
old homes
gravel alleys
friendly
grain elevator
railroad
brick
helpful
wide streets
bricks
open fields
powerlines
water drainage
park
reservoir
skyway
grid pattern
main street axis
four entries
sidewalks
slow pace
opportunity
friendship
reservoir
compesa
governors
community
history
variety
trees
cottonwood
References


http://www.casselton.com/history/


http://www.pps.org/great_public_spaces/one?public_place_id=69

http://www.nps.gov/home/historyculture/abouthomesteadactlaw.htm
Author: Laura M. Zimmerman

Hometown: Arthur, ND

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701.361.8512
zimmerman.laura.m@gmail.com

“Inspire the Woman, Impact the World.”