ONE
HEALTHY
PLANET:

A Community of Humans, Animals, and Environments

Urban + Rural
The Vocation of the Architect

The motives of the architect, besides personal gain and honor, are, in the first place, aesthetic ones. Every new task is a problem in art to solve...but the demand would not be fulfilled if the solution were not in every way adjusted to the practical needs.

Form Follows Function
Louis Sullivan in 1896
A global and local perspective - simultaneously

No man is an island, entire of itself; every man is a piece of the continent, a part of the main. If a clod be washed away by the sea, Europe is the less, as well as if a promontory were, as well as if a manor of thy friend’s or of thine own were; any man’s death diminishes me, because I am involved in mankind, and therefore never send to know for whom the bell tolls; it tolls for thee.

John Donne, 1624

As architects and designers in the 21st century doing green sustainable design we should be thinking that Form follows Culture, Climate, and Place as well as Function.
The rural world is the cradle of human civilization, the blood vein for human sustainability, the cornerstone to the national safety and development of all countries, and the hope for a green and eco-friendly civilization for the future.

WRDC Conference
October 2017
• If I wasn’t an architect I would probably be a dairy farmer - I like cows and farms

• Agricultural landscapes inspire me to visit and sketch

• I would love to tango
Rural Design and Urban Design: *Healing the Divide*

Urbanization and rapid change in America and around the world has created a significant divide between urban and rural people.

Architects today have the greatest opportunity to link urban and rural issues through design thinking to find and implement sustainable ways that cities, towns, buildings and limited rural and urban land uses and water resources can be better shaped and utilized in the present without compromising for the future.

*Minnesota AIA Convention, November 15, 2017*

*Dewey Thorbeck, FAIA, FAAR*
A recent survey of rural residents by Professor Katherine Cramer of the U of Wisconsin found three issues strongly felt by rural people:

1. Rural communities are not being listened to by state governments and when they do provide assistance it is top-down and not what they need.

2. More public resource is being devoted to urban areas.

3. Rural people feel that they are not respected by urban people.

Cramer’s work confirms findings by the U of MN Center for Rural Design (now part of the MN Design Center)
Previous Urban and Rural Design Guides

Kevin Lynch
*The Image of the City (1960)*

Wrote about mental maps that city people use to understand their surroundings including:
- Paths
- Edges
- Districts
- Nodes
- Landmarks

He shaped the broad concept of urban design that continues today.

Christian Norberg-Schulz
*Genius Loci: Towards a Phenomenology of Architecture (1979)*

Wrote: “Since ancient times the genius loci or the spirit of place has been recognized as the concrete reality man has to face and come to terms with in his daily life. Architecture means to visualize the genius loci, and the task of the architect is to create meaningful places, whereby he helps man to dwell.”

These ideas are enhanced when urban and rural design is connected.
Urban and Rural Design Linked Together

Critical issues facing urban and rural people:

1. Climate change
2. Food security
3. Water resources
4. Renewable energy
5. Poverty and economic development
6. Health – human, animal, environmental

These are worldwide issues that design thinking can help resolve
Design finds and connects the appropriate urban and rural issues to find a good solution.

Design is a problem-solving process.
Ecosystem communities in North America

Ecosystems in North America are varied and cross the landscape creating their distinct landscape character.

They symbolize the connectivity and importance of crossing boundaries in design thinking.
• Crossing borders – a systemic/interdisciplinary framework using design to nurture regional connections and promote economic development in Minnesota

Minnesota in 1895 based on Public Land Survey from 1785

Tom Stinson - State Economist &
Tom Gillespy – State Demographer proposal for regional cooperation in 2008

Minnesota Vision 2058
THRIVING BY DESIGN
Center for Rural Design
Metropolitan Transect – Today and Future?
Metropolitan Transect – Today and Future?
What is Rural Design?
It is a methodology to bring design as a problem-solving process to rural regions to nurture human ingenuity, entrepreneurship, creativity, and innovation.

It provides an opportunity to reflect upon and integrate human and natural systems into a sustainable design process to improve quality of life – urban and rural.
Evidence-based rural design – a two-way street
Rural communities today are very diverse with multiple characteristics and problems:

- Agriculture communities
- Political communities
- Economic communities
- Cultural/social communities
- Heritage communities
- Place communities
- Indigenous communities
Why is linking Rural Design and Urban Design important?

• Rural and urban landscapes changed slowly until the 1960s

• Over past 60 years there have been enormous changes impacting quality of life, economy, and environment – urban and rural

• Climate change, food supply, renewable energy, water resources, poverty, and health – will further impact for years to come

• By 2050 there may be another 2.5 billion people on the planet. How do we shape land uses today so future generations can also shape theirs
Urban Design & Rural Design Perspectives

Urban Design is the shaping of urban public space with buildings focusing on the pedestrian experience like the bank in Owatonna, MN designed by Louis Sullivan.

Rural Design is the shaping of the rural landscape with small towns and buildings in the open landscape like these steel grain elevators in Nebraska.

Two different design perspectives that need to be linked for shaping a healthy and prosperous future.
Thorbeck Architects – 1970 to 2017

- Minnesota Zoo
- Purina Farms in St. Louis, MO
- U MN Crookston Ag & Equine Center
- International Wolf Center in Ely
- MCAD Studio Additions
- Fort Snelling State Park Visitor Center
- Teddy Bear Park in Stillwater
- Norway House Culture and Event Center, Minneapolis
Center for Rural Design (CRD) – 1997 to 2016

CRD was part of College of Design & College of Food, Agricultural and Natural Resource Sciences at U of MN to bring the problem-solving process of design to rural issues.

CRD was an award winning multi-disciplinary research and design studio that worked to empower rural communities to find innovative solutions to rural problems in the Midwest, North America, and worldwide.

The Center for Rural Design ceased operation on April 6, 2016 when state funding confiscated by CFANS!
Thorbeck books published by Routledge in UK

Agricultural Landscapes: Seeing Rural Through Design
Third Book in the Trilogy to be published January 2019
Urban agriculture is expanding around the world as people seek food security and food quality – involving both animals and plants.
Integrating human, animal, & environmental wellness

The Human & Animal Bond

Girl with calf in Minnesota

Nomads in Mongolia moving with Gers

Cows in Sweden

Terraces in Thailand

Sheep in Italy
Globally Important Agricultural Heritage Systems (GIAHS) with UN-FAO designation starting in 2002

GIAHS places can be models for reconnecting food systems and sustainable development worldwide

- Hani Rice Terraces in China
- Maasai Village in Tanzania
- Farm in Pisac, Peru
- Chiloe Island in Chile

 Forgotten Agricultural Heritage (Routledge 2017) by Parvis Koohafkan and Miguel A. Altieri
Embrace diversity – design to create excitement

*Places that succeed in attracting and retaining creative people are more likely to prosper.*

Richard Florida

Food as a catalyst for wellness and ethnic understanding linking urban and rural at Saint Paul Farmers’ Market – one of the best in the world

Art as a community event and economic engine – steamroller printing event in a rural community in Minnesota by ArtOrg, Cannon Falls, MN
Building Code Issue:
Agricultural buildings are exempt and times have changed!

Traditional dairy barn with 60 cows

Dairy barns with 7,500 cows – Riverview Dairy near Morris, MN

Feeding Aisle

Rotary Milking Parlor

35 humans and 5,000 cows are working in this building 24/7 with no building code for life safety
Design thinking and the problem solving process

Today we have the opportunity….to unleash the power of design thinking as a means of exploring new possibilities, creating new choices, and bringing new solutions to the world. In the process we may find that we have made our societies healthier, our businesses more profitable, and our own lives richer, more impactful, and meaningful.

Change by Design, Tim Brown, 2009

An example is the Cloud Nine project to bring high speed wireless internet access to remote Shang Shui Guo village in rural China

Prof. Mary Ann Ray at the University of Michigan
Design opportunities in shaping rural futures

• Design with form following function, climate, culture and place

_I like to have a man’s knowledge comprehend more than one class of topics, one row of shelves. I like a man who likes to see a fine barn as well as a good tragedy._

_Ralph Waldo Emerson_

Peter Stuchbury, architect
Deepwater Woolshed near Wagga Wagga, Australia

De Leon & Primer Architecture Workshop
Mason Lane Farm Operations Center near Goshen, Kentucky
Rural village housing – new architecture based on heritage and culture in China

House for All Seasons – Shija Village in NW China - Jon Lin, architect, University of Hong Kong
Rural design with contemporary architecture following function, climate, culture and place in rural China

Jade Valley Winery & Resort – Jade Valley, China – Qingyun Ma, architect and dean of School of Architecture, University of Southern California
Green Design – rural farming connections with place – design in Minnesota

Imle Wild Rice Farm

Architecture without Architects to quote Bernard Rudofsky

3 Imle Generations - Paul, Peter and Sarah (who wants to run the farm)
Green Design – rural farming connections with place – design in Kentucky

Taylor Made Farm

Architecture without Architects

4 sons of the late Joseph Lannon Taylor who wrote Complete Guide to Breeding and Raising Racehorses
Global/local point of view – bring design thinking to rural and urban issues and create place!

Bodega Salentein in Argentina – place making that creates a great vineyard and a great wine!

Professor Fengrong Zhang – China Agricultural University - agricultural rings around Beijing to better link urban and rural for the benefit of both!
Design Thinking & Green Performance Metrics – linking humans, animals, and environments

Long-term green goals:
• Zero carbon
• Zero waste
• Sustainable water
• Sustainable food
• Sustainable transport
• Sustainable materials
• Responsible land use
• Sustainable agricultural systems
• Sustainable economies
• Sustainable human behavior
• Sustainable ecosystems

A work in progress – urban and rural - by CSBR at U of MN

URBAN AND RURAL
Rural and Urban Design principles to help shape Sustainable Environments - Worldwide

• Social, cultural, historic, artistic, and environmental diversity is rewarding
• Empower women to become community leaders and involve youth
• Connect human, animal, and environmental health
• Sustainable economic development is integral to agricultural production and processing
• Sustainable buildings and landscapes must reflect function, culture, climate and place
• Food and water systems are interrelated design problems with land uses and transportation
• Economic and community viability is crucial to short and long-term, but long-term should take precedence
• Harvesting the sun and wind for power is an integral aspect of agriculture
• Improving rural and urban quality of life today is primary goal while allowing future generations the ability to shape theirs
Think bold – no small design plans – make connections – create a better world!

Machu Picchu in Peru

Great Wall in China
Seeing the world through the eyes of an architect

Orvieto Hill Town in Italy

Lofoten Islands, Norway

Arizona Cave Dwelling

Barn in New Brunswick, Canada

Harbor Shops in Homer, Alaska

Borgund Stavekirke, Norway
Architecture reflecting function, culture, climate, and place

Gaudi in Barcelona, Spain
Sacred Way in Beijing, China
Quepos Market, Costa Rica
Campo di Fiori in Rome, Italy
Trulli houses in southern Italy
Uluru (Ayers Rock) in Australia
Summary: Architects and design thinking can help heal the divide between urban and rural by:

• Providing **information** to citizens and policy makers
• Promoting **understanding** of culture, climate, and place
• Using design thinking as a **methodology** to resolve design issue and a **process** for community involvement
• Defining **potentials** for innovation, holistic thinking, creativity, and entrepreneurship
• Creating **spirit of place** to enhance economic opportunity
• Designing to shape and create **character** of place
• Designing to allow **future generations** to shape theirs

Think BOLD and do GOOD! Thank you!

Dewey Thorbeck, FAIA, FAAR
ONE HEALTHY PLANET:

A Community of Humans, Animals, and Environments

Urban + Rural