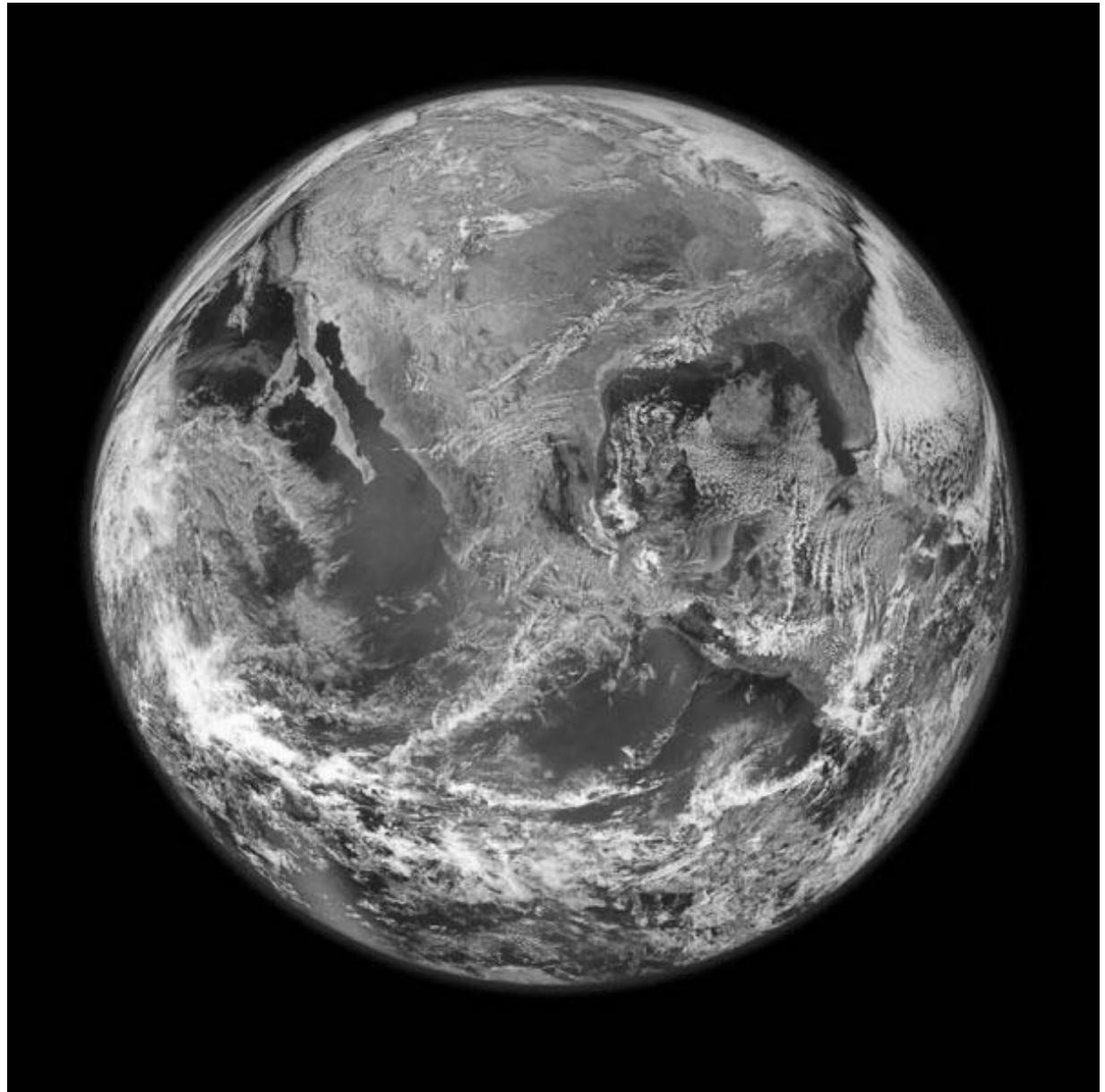


ONE HEALTHY PLANET:

*A Community
of
Humans,
Animals, and
Environments*

*Urban +
Rural*

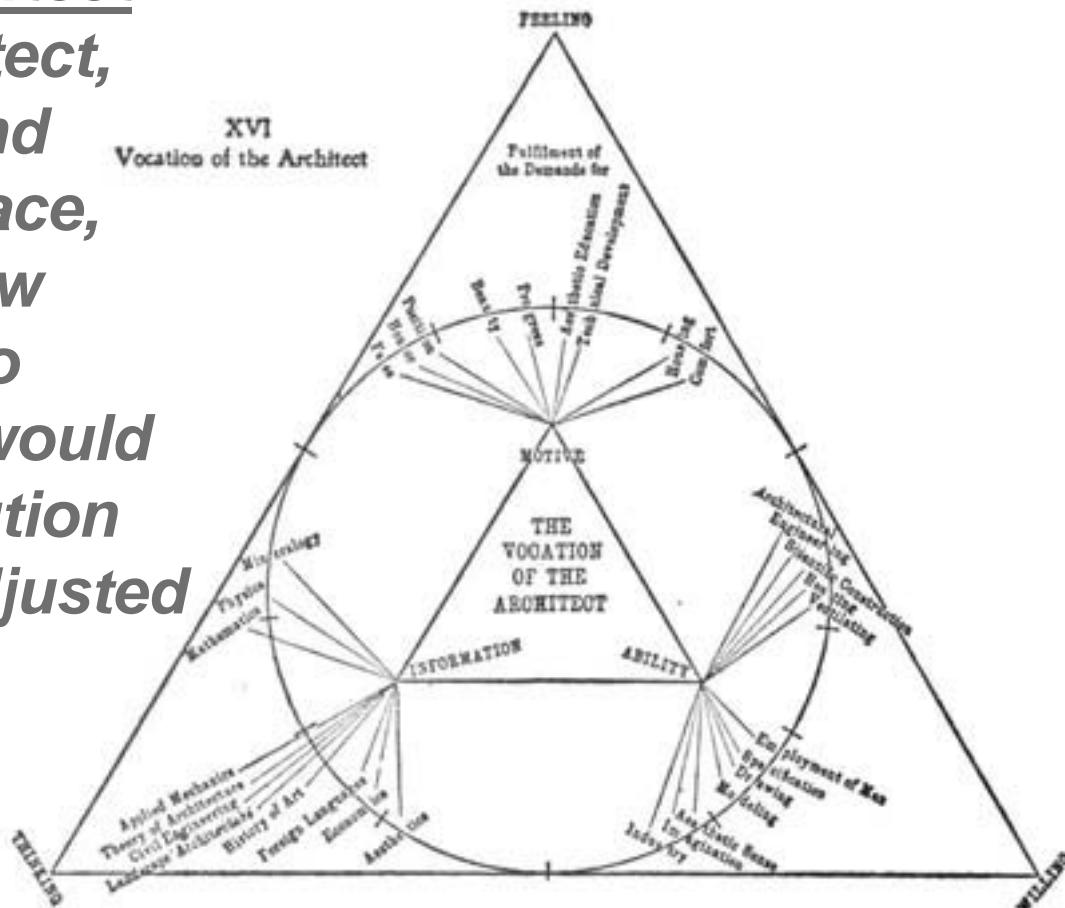


Vocations and Learning (1912)

Hugo Munsterberg, psychologist, 1863 - 1916

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.

NO. D115100102



World Green Design
Organization

聘 书

Letter of Appointment

诚 聘

We are honored to appoint

Dr. Dewey Thorbeck

as the Vice Director of the World Rural Development
Committee (WRDC)

October, 2015

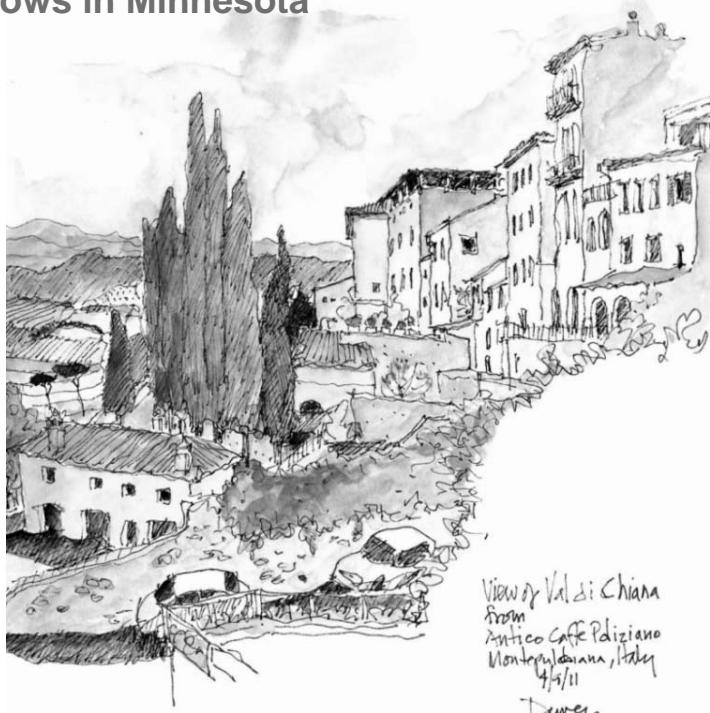


The rural world is the cradle of human civilization, the blood vein for human sustainability, the cornerstone to the national safety and development of all countries, and the hope for a green and eco-friendly civilization for the future.

**WRDC Conference
October 2017**



Cows in Minnesota



Montepulciano hill town in Italy

- 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



Tango dancers in Argentina

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.

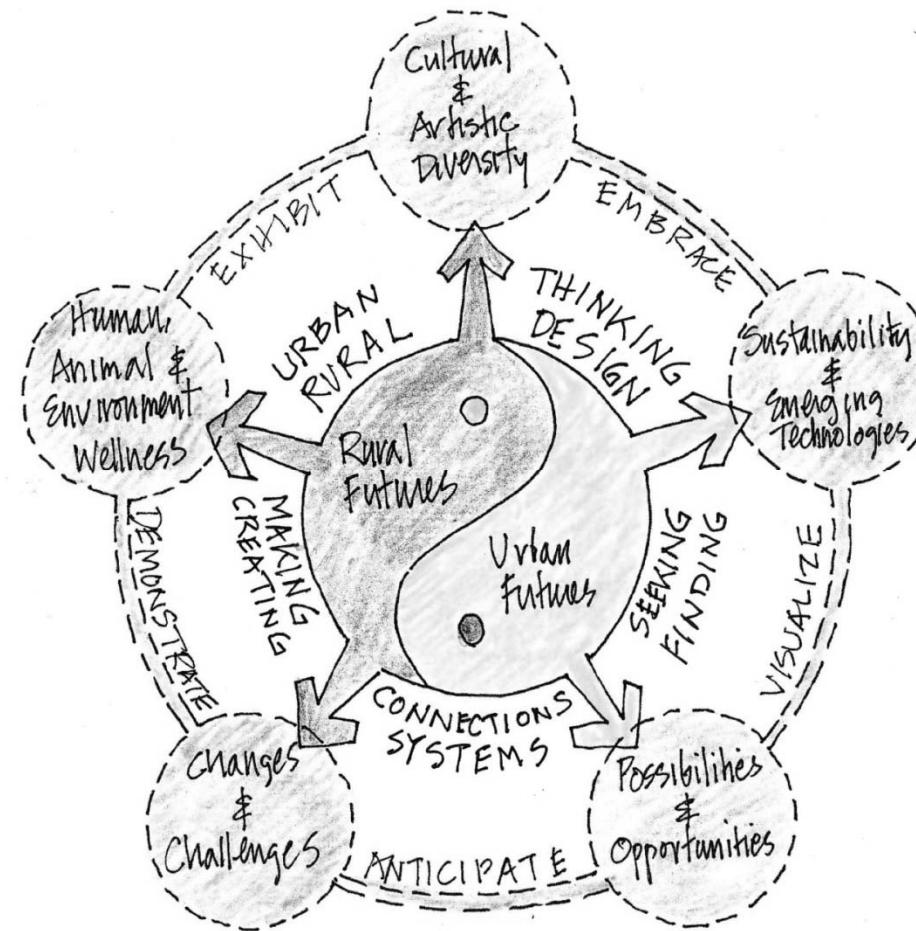
Christian Norberg-Schulz

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



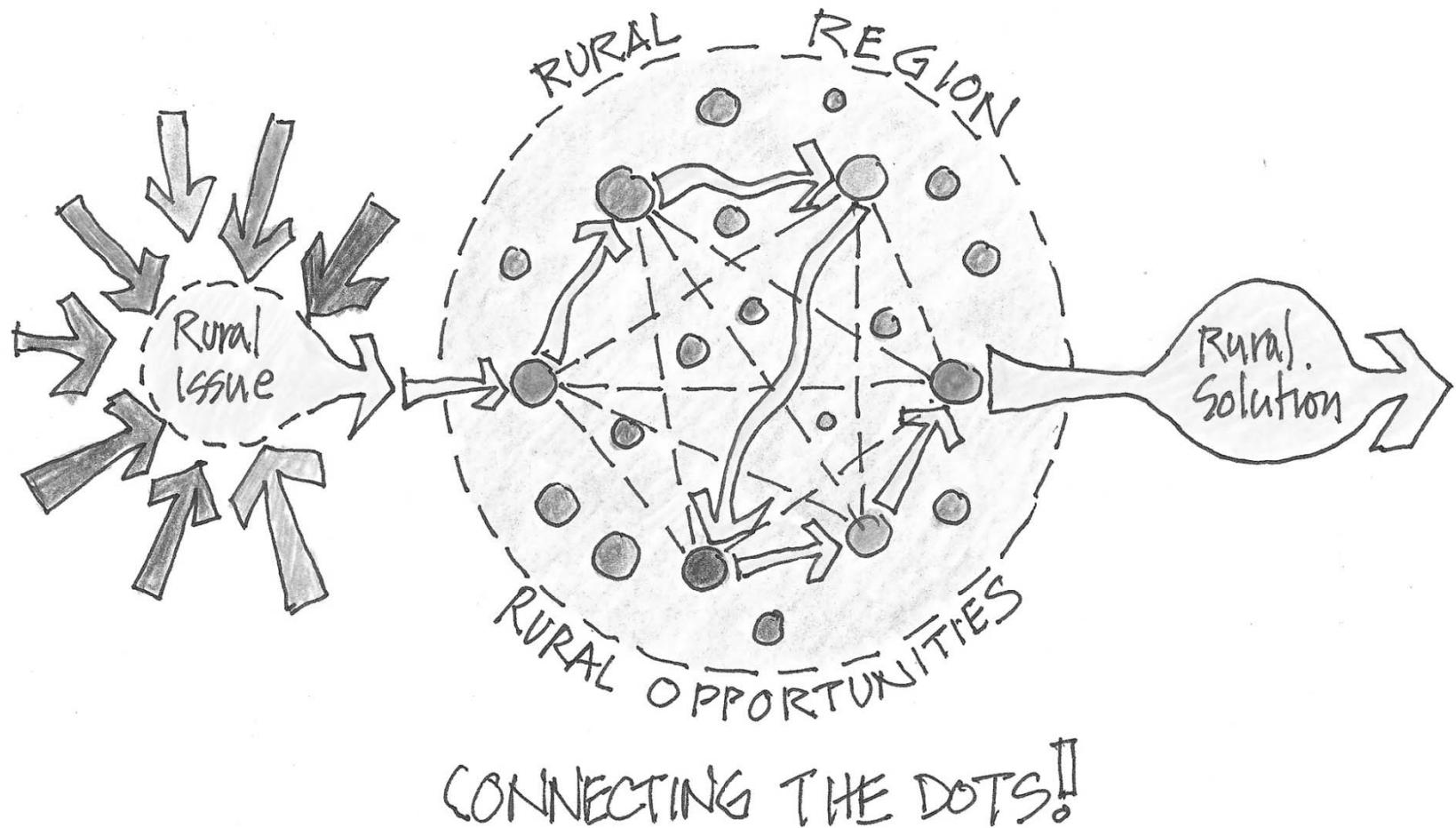
The Medici Effect – Innovation comes from diverse industries, cultures, and disciplines when they intersect.
Franz Johansson (2004 Harvard Business School Press)

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

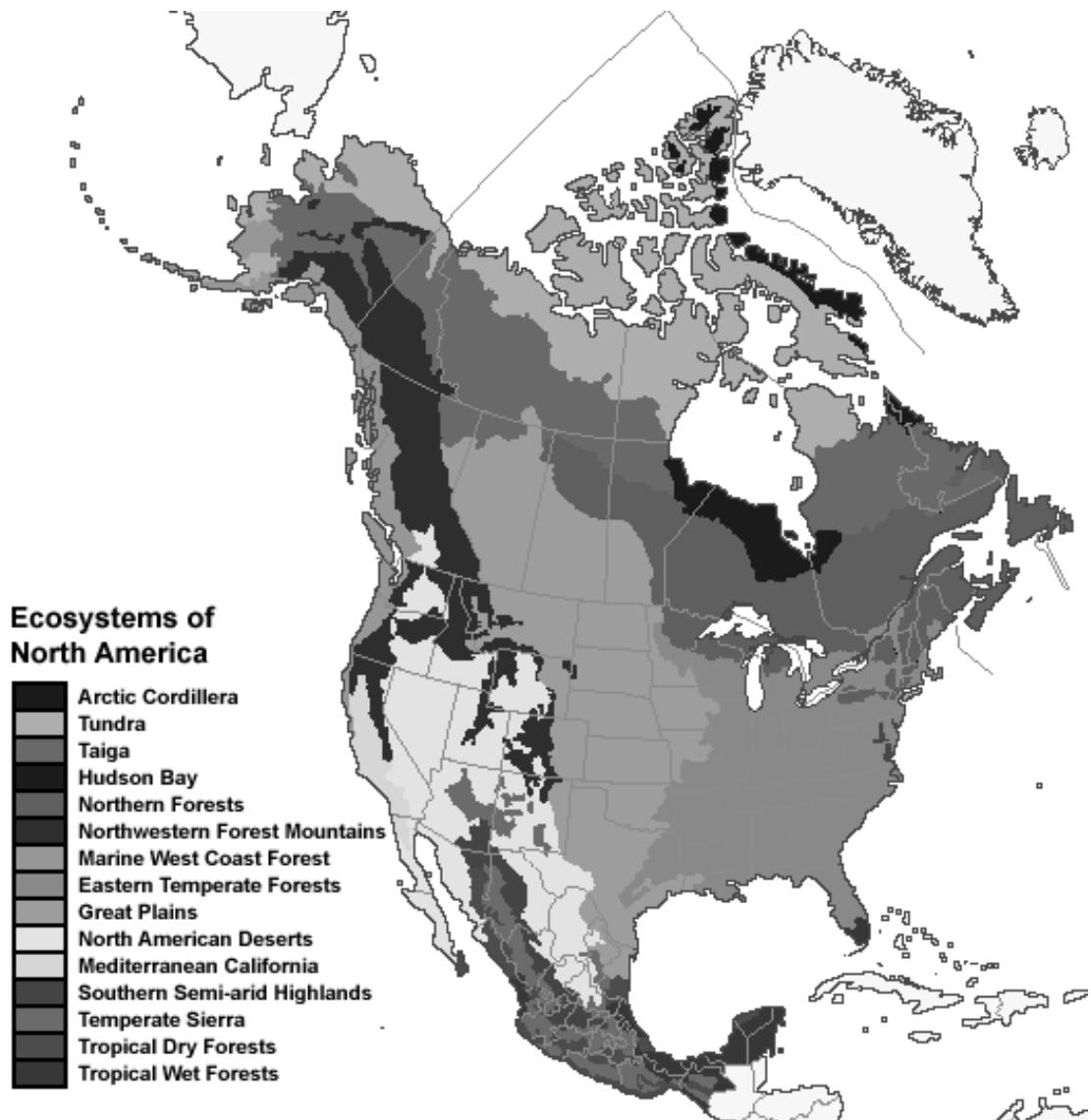


Design is a problem-solving process

Ecosystem communities in North America

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

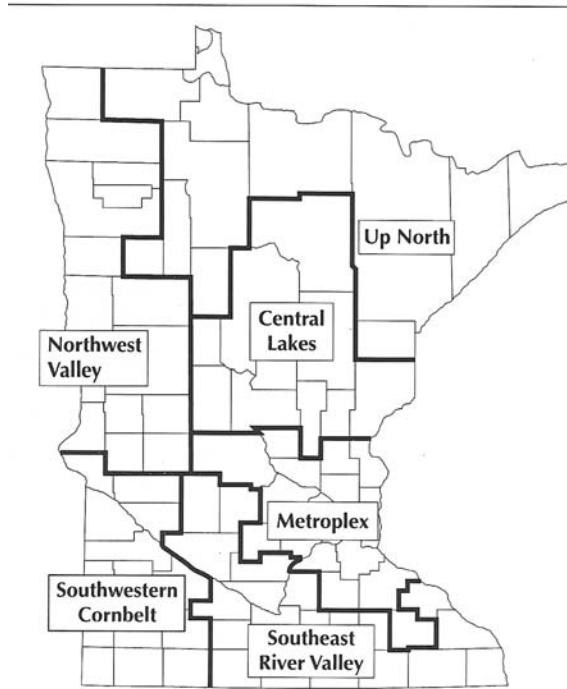
They symbolize the connectivity and importance of crossing boundaries in design thinking



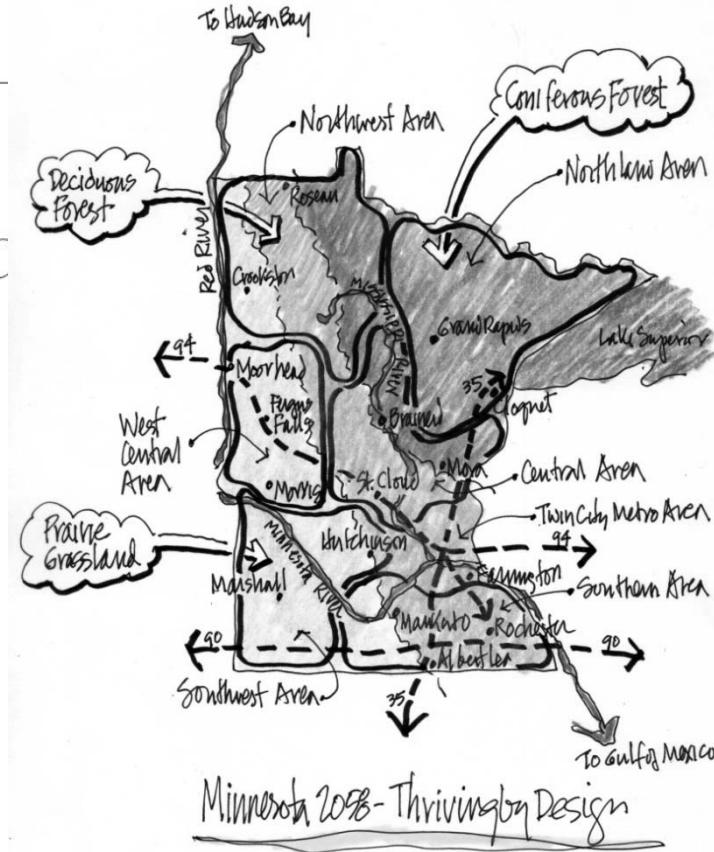
- Crossing borders – a systemic/interdisciplinary framework using design to nurture regional connections and promote economic development in Minnesota



Minnesota in 1895 based on Public Land Survey from 1785



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

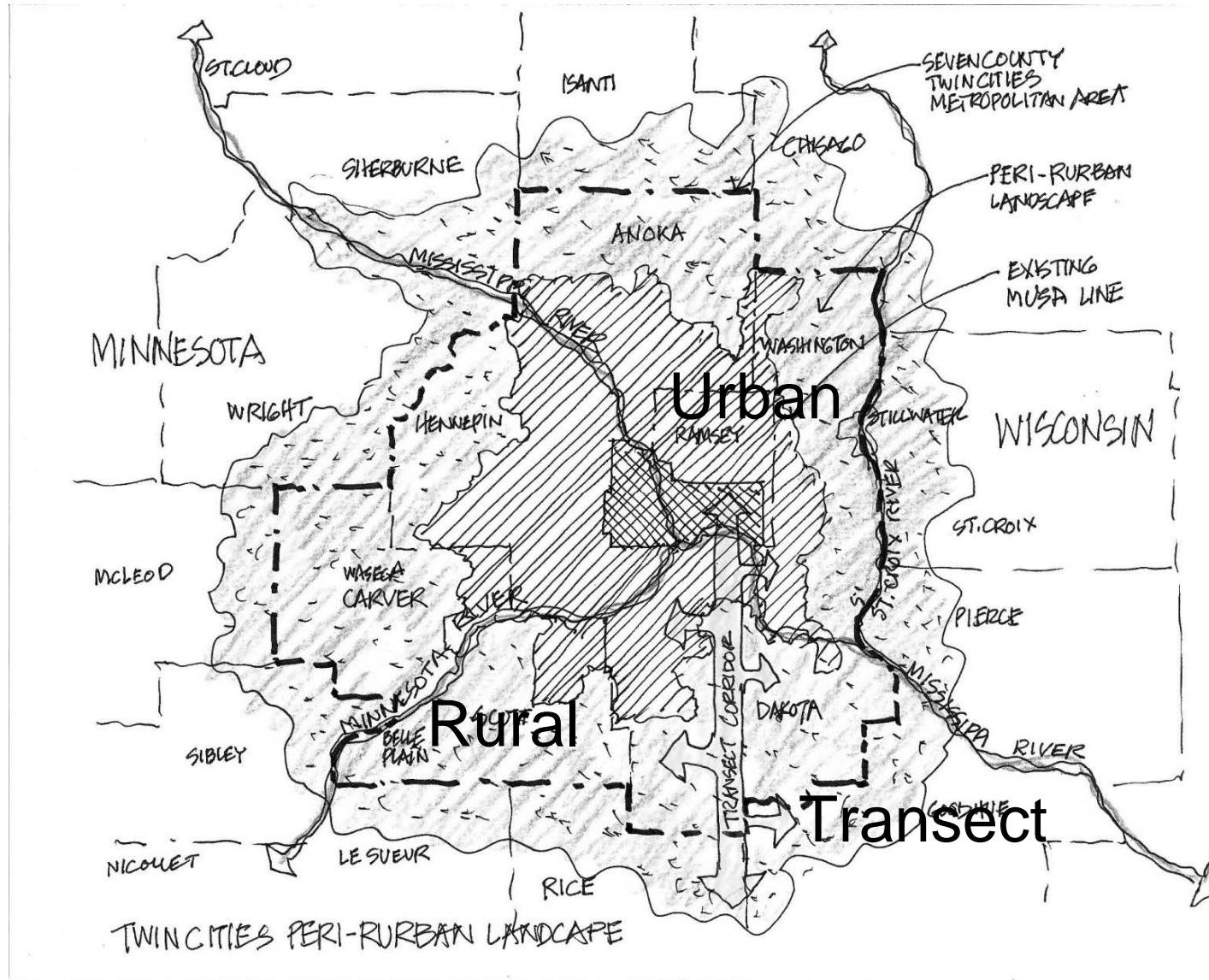


Minnesota Vision 2058

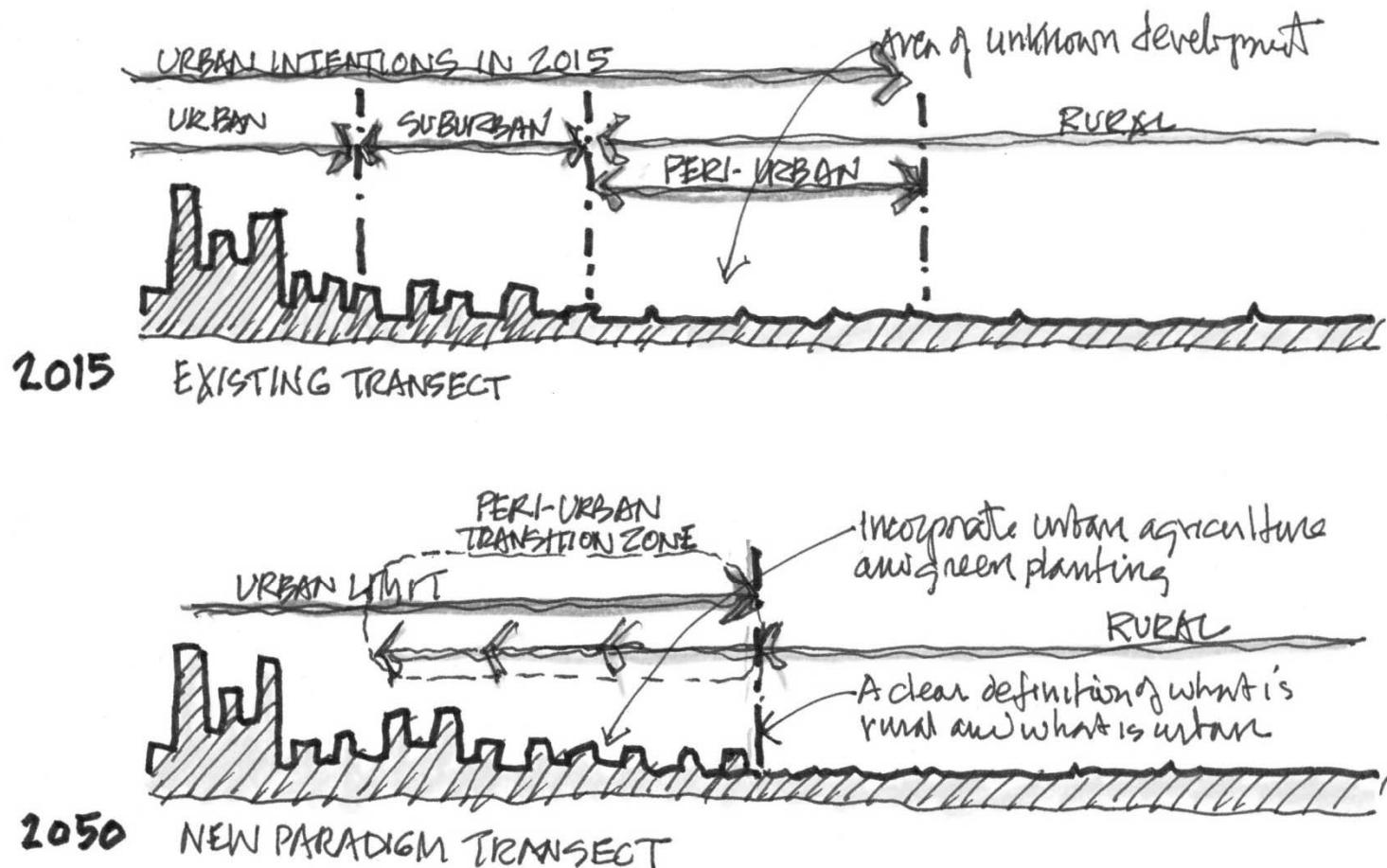
THRIVING BY DESIGN

Center for Rural Design

Metropolitan Transect – Today and Future?



Metropolitan Transect – Today and Future?



What is Rural Design?

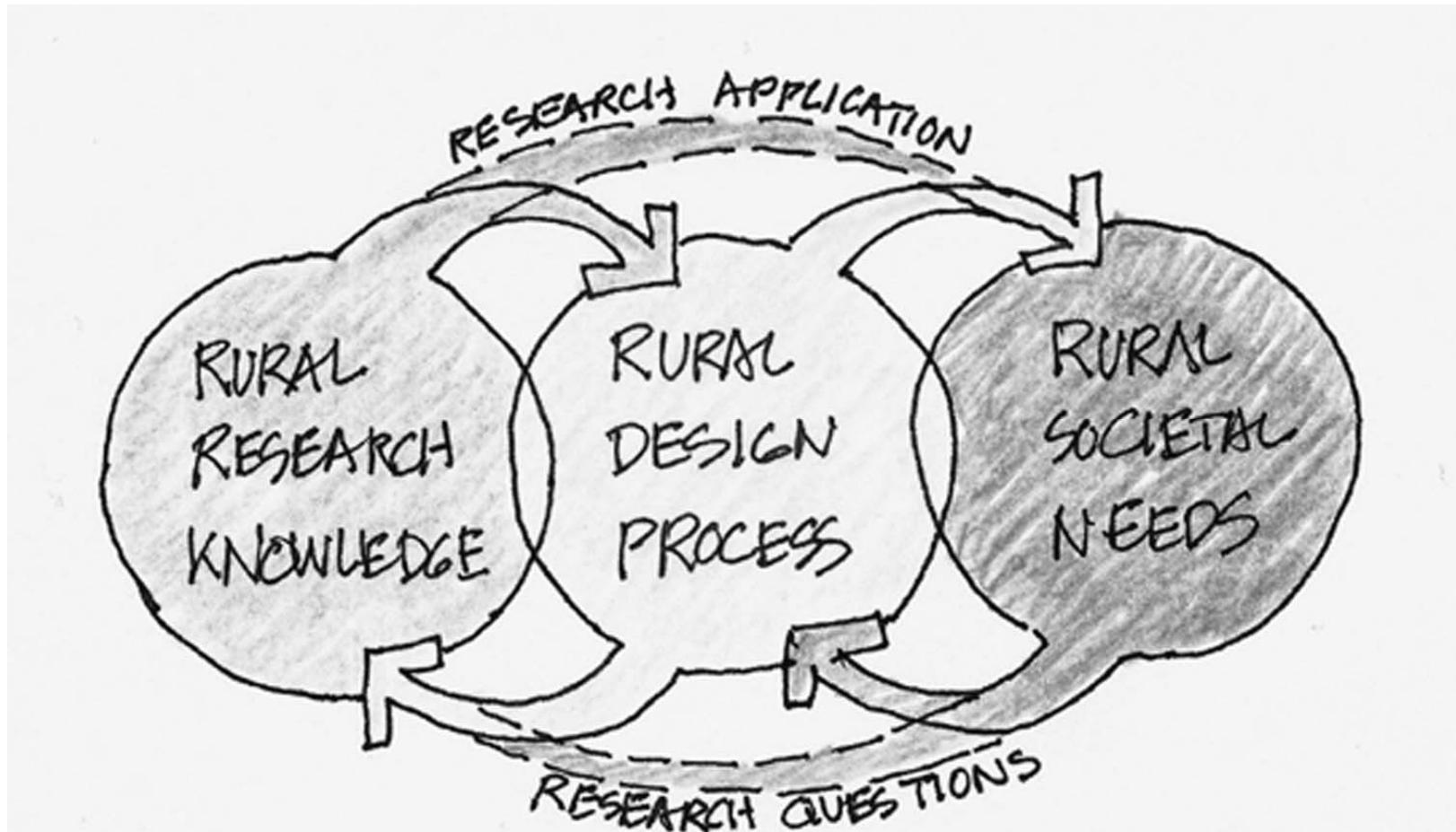
It is a methodology to bring design as a problem-solving process to rural regions to nurture human ingenuity, entrepreneurship, creativity, and innovation

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



Old Russia Wooden Orthodox Cathedral in Irkutsk, Siberia

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



Glenorchy, New Zealand



Chuan Di Xia, China

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



Chile Market



Myanmar Market



Morocco Market

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

Two different design perspectives that need to be linked for shaping a healthy and prosperous future



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

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

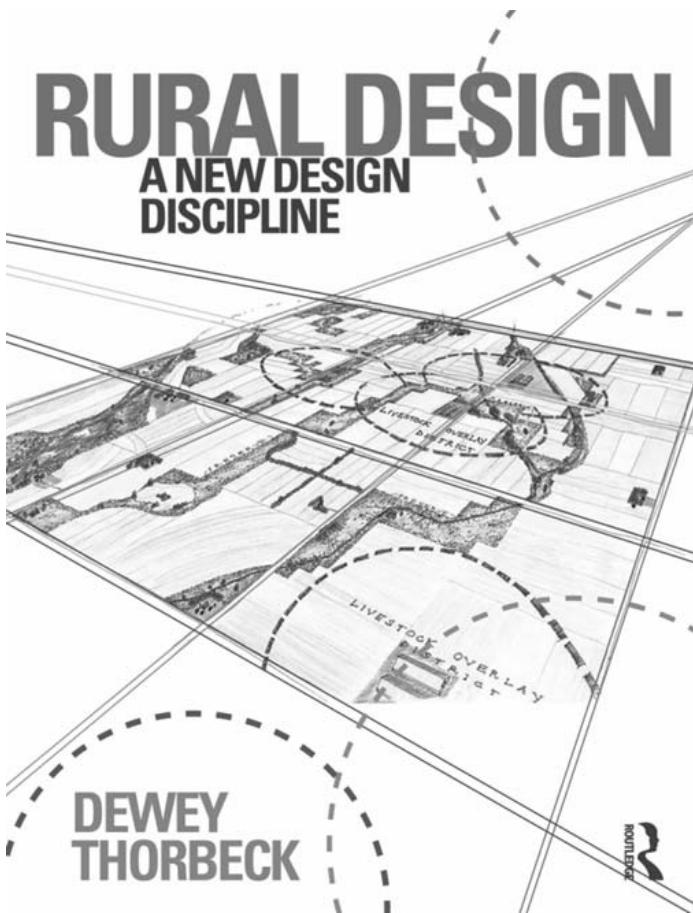
CRD was part of College of Design & College of Food, Agricultural and Natural Resource Sciences at U of MN to bring the problem-solving process of design to rural issues.



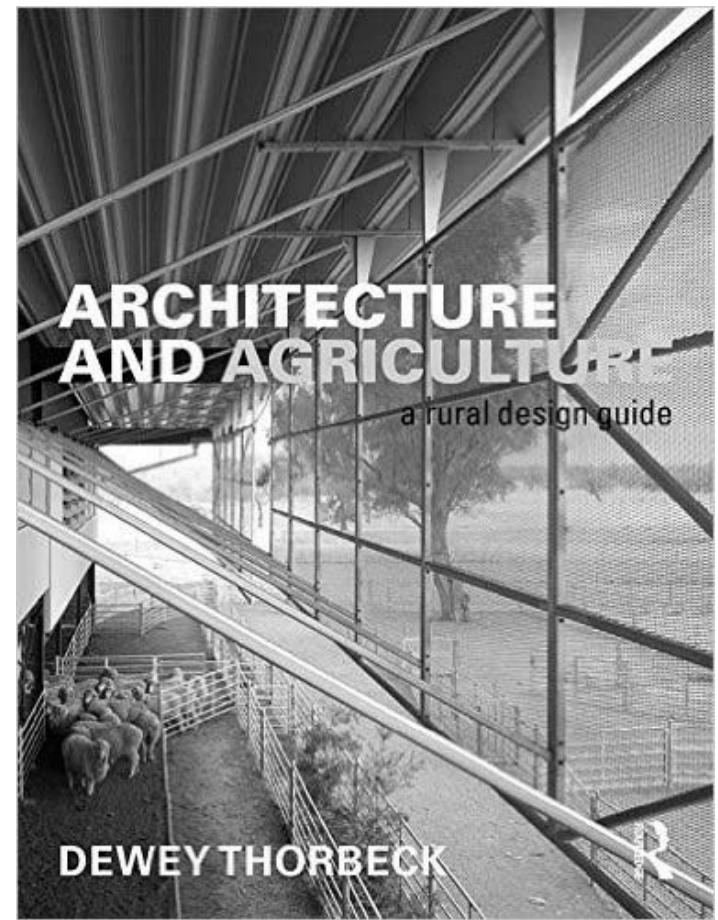
CRD was an award winning multi-disciplinary research and design studio that worked to empower rural communities to find innovative solutions to rural problems in the Midwest, North America, and worldwide.

The Center for Rural Design ceased operation on April 6, 2016 when state funding confiscated by CFANS!

Thorbeck books published by Routledge in UK



2012



2017

Agricultural Landscapes: Seeing Rural Through Design
Third Book in the Trilogy to be published January 2019

Urban agricultural - opportunities/issues



Urban Chickens in Minnesota



Urban Farms in Italy



Urban Community
Gardens and Coffee Shops

Urban agriculture is expanding around the world as people seek food security and food quality – involving both animals and plants



Urban Greenhouses and Hydroponic Farms

Integrating human, animal, & environmental wellness



Girl with calf in Minnesota

The Human & Animal Bond



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



Hani Rice Terraces in China



Mongolia Herdsman



Chiloe Island in Chile



Maasai Village in Tanzania

Forgotten Agricultural Heritage
(Routledge 2017) by
Parvis Koohafkan
and
Miguel A. Altieri



Farm in Pisac, Peru

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

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



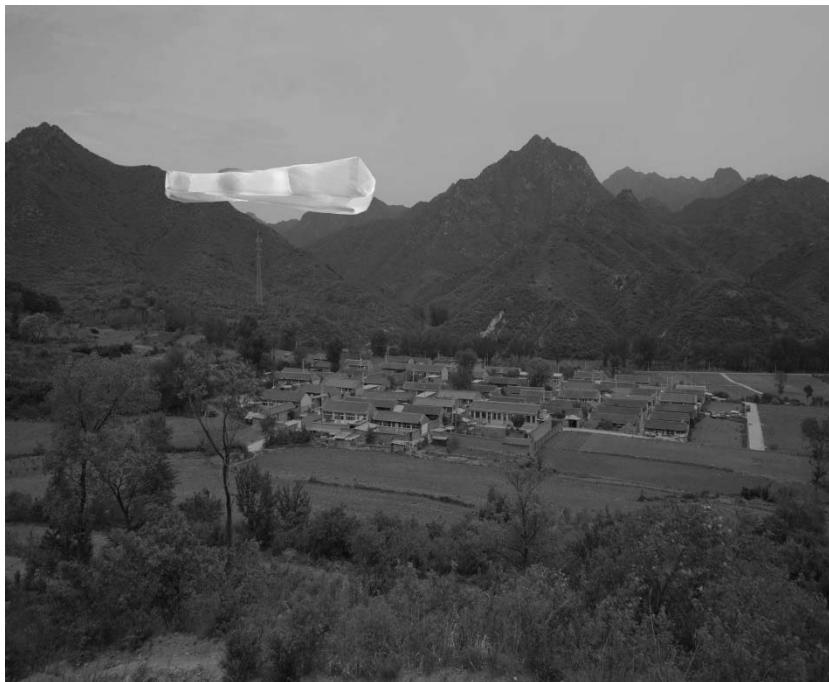
Rotary Milking Parlor

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

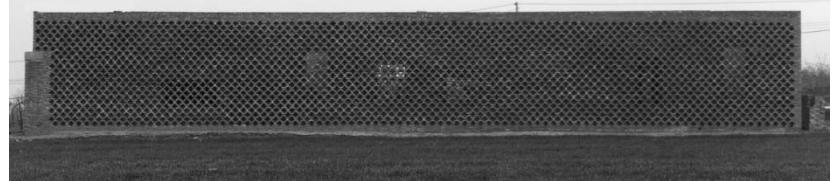


Peter Stuchbury, architect
Deepwater Woolshed
near Wagga Wagga, Australia



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



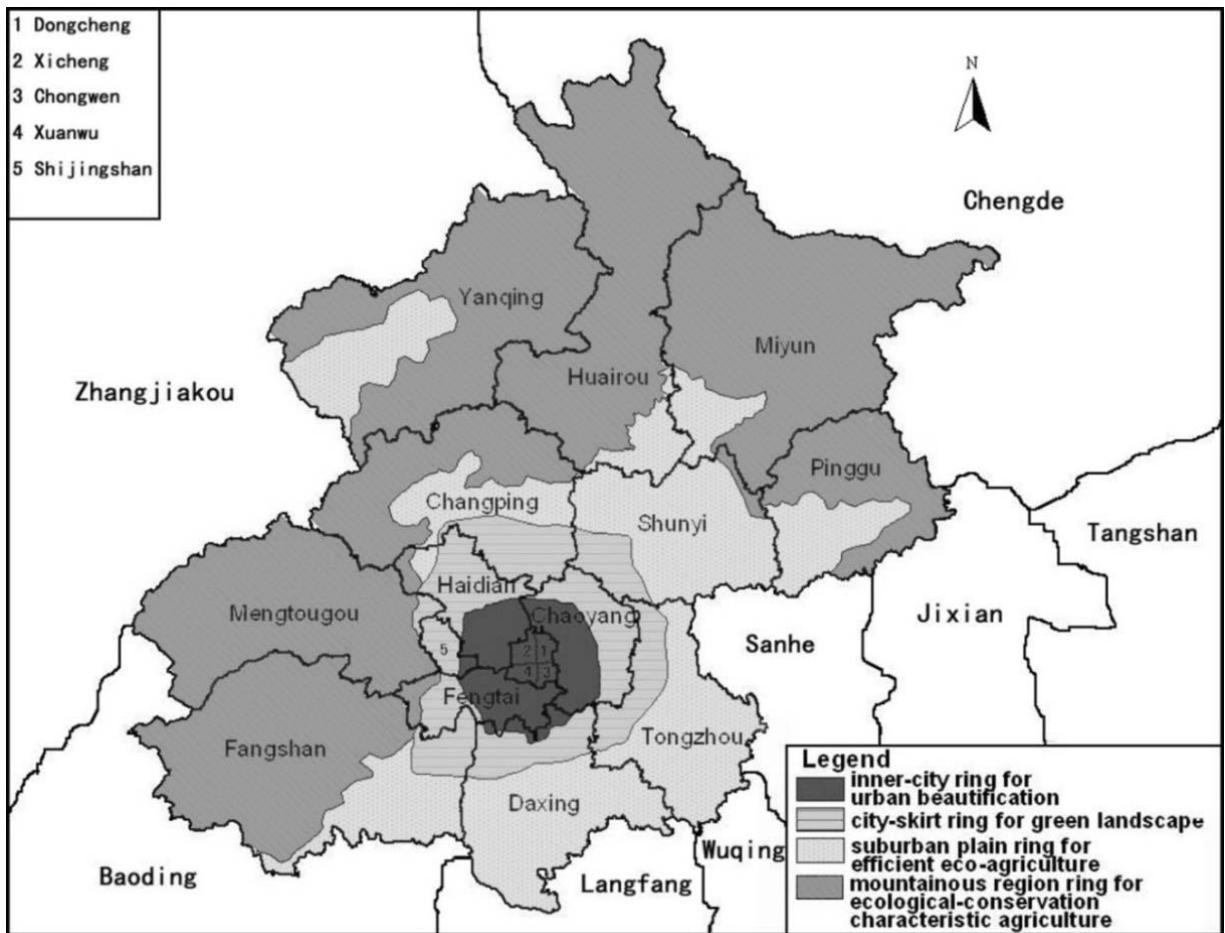
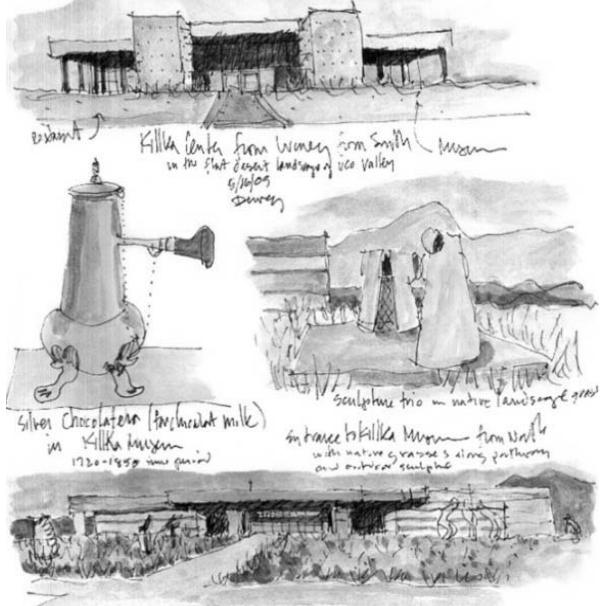
Taylor Made Farm

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!

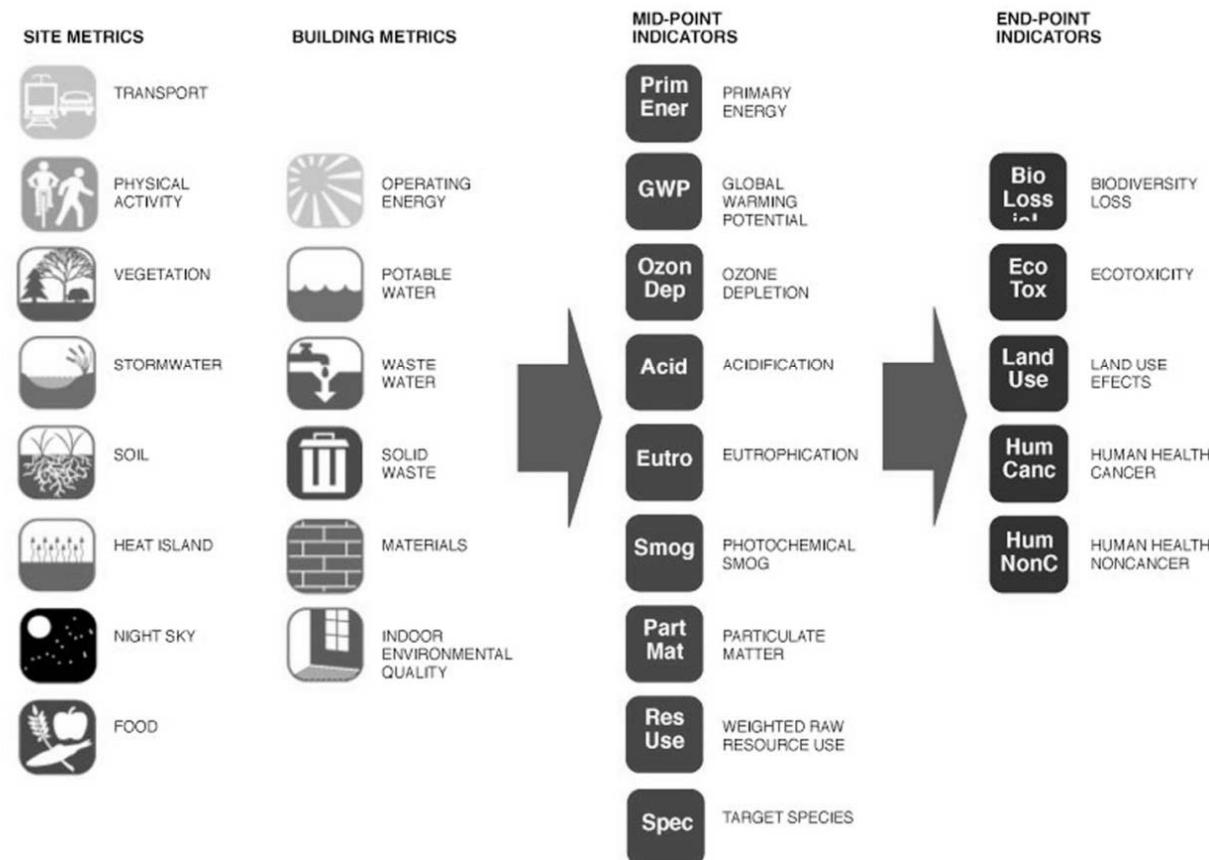
Professor Fengrong Zhang – China Agricultural University - agricultural rings around Beijing to better link urban and rural for the benefit of both!

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

SUSTAINABILITY PERFORMANCE METRICS
ENVIRONMENT AND HUMAN HEALTH
Center for Sustainable Building Research
University of Minnesota



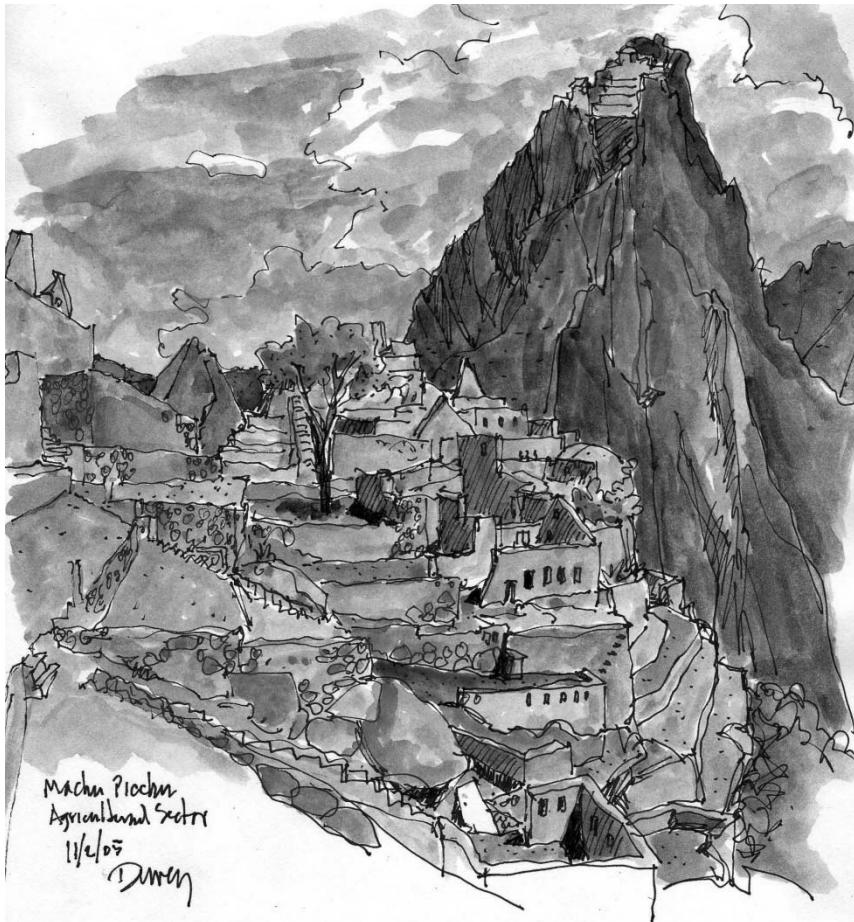
A work in progress – urban and rural -
by CSBR at U of MN

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

Great Wall at Badaling
View from front
4/16/07
Duren

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

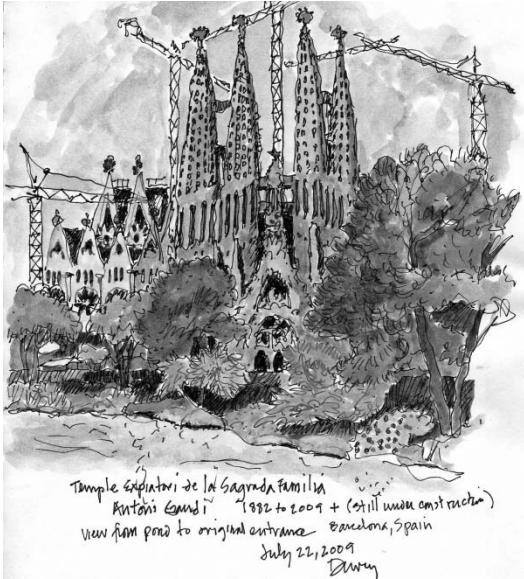


Harbor Shops in Homer, Alaska

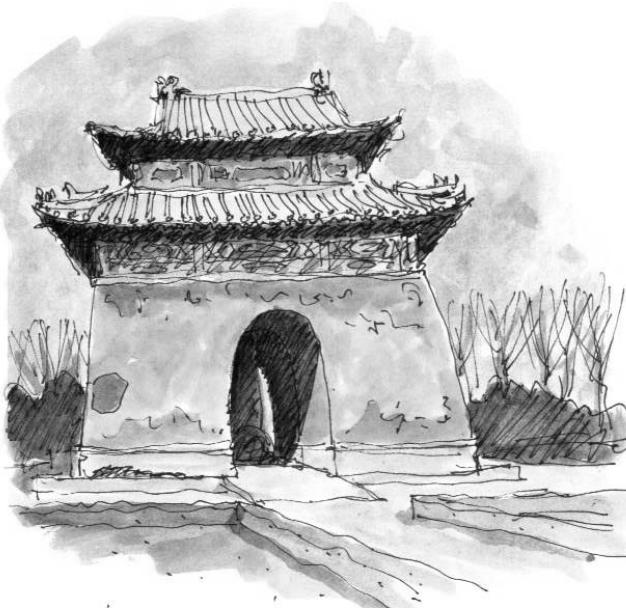


Borgund Stavekirke, Norway

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
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*Urban +
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