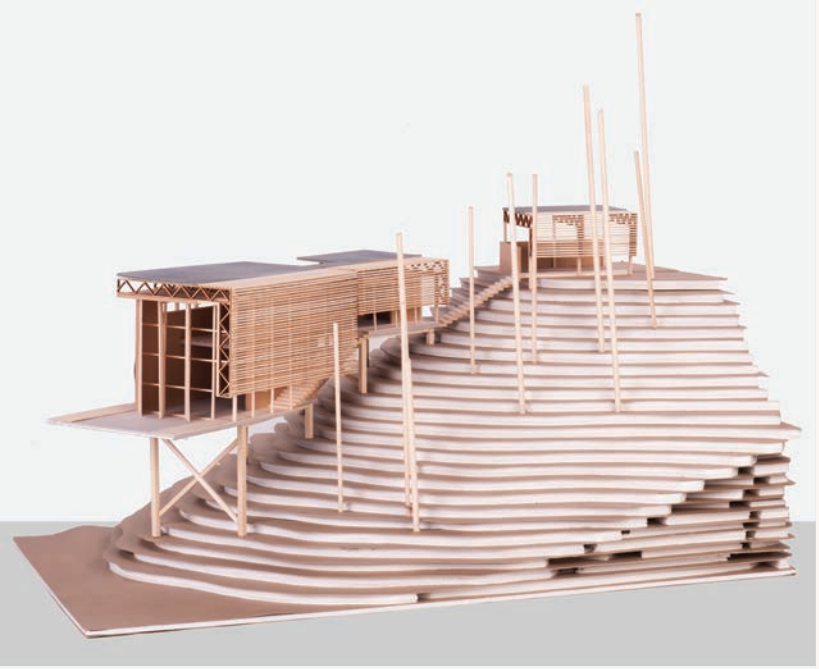
Gary J. Coates
Professor

Department of Architecture
College of Architecture, Planning & Design
Kansas State University
Manhattan, KS 66502

Over the course of my academic career, I have been primarily focused on the question of how to create a sustainable society based on the design of bioclimatically adapted and culturally situated architectures of place that work ecologically, socially and humanly. I have engaged my students in finding solutions to the crisis of sustainability by pursuing a multidisciplinary approach that integrates teaching, research, scholarship and service. My teaching emphasizes experiential learning and community-based design studios that explore the cutting edge of sustainable design. Kansas State University, the American Institute of Architects and the Association of Collegiate Schools of Architecture have recognized my contributions as an educator. My publications include sixteen book chapters, nearly a dozen monographs, five books and more than 60 articles in international professional and scholarly journals. I have been a keynote speaker, lecturer and workshop leader at more than one hundred conferences in the United States, Scandinavia and Europe. To pursue my many and varied efforts I have received more than forty research, demonstration, service and travel grants from a wide range of private foundations and government agencies ranging from the Graham Foundation for Advanced Studies in the Fine Arts, to the Departments of Energy, Labor and Agriculture and the National Park Trust. I have consulted professionally on architectural, town planning and urban design projects. This portfolio provides a representative sample of my work.



Environmental Systems in Architecture I

A required lecture course with a recitation/studio design component

1983 Honorable Mention

ACSA National Educational Research Competition on *Teaching Energy in Design*

2006 Special Recognition

AIA Committee on the Environment's Ecological Literacy in Architectural Education awards program

KSU was rated by Design Intelligence magazine as number one in North America in *Sustainable Design Practices and Principles.* ESA I is the only required course in sustainable design.

Congratulations again on your class- its ability to merge design with technics in a replicable way is a true model for how ecological design can be taught in architecture schools.

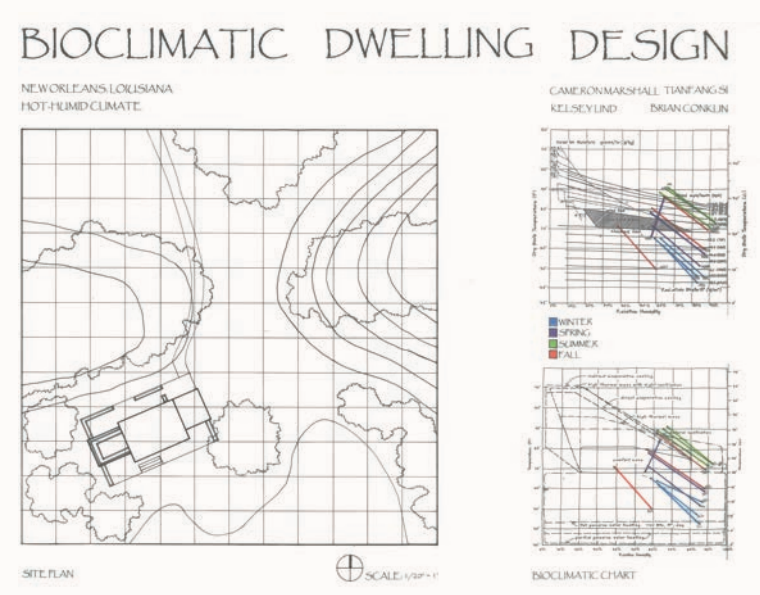
Gregory Mella, COTE sub-committee

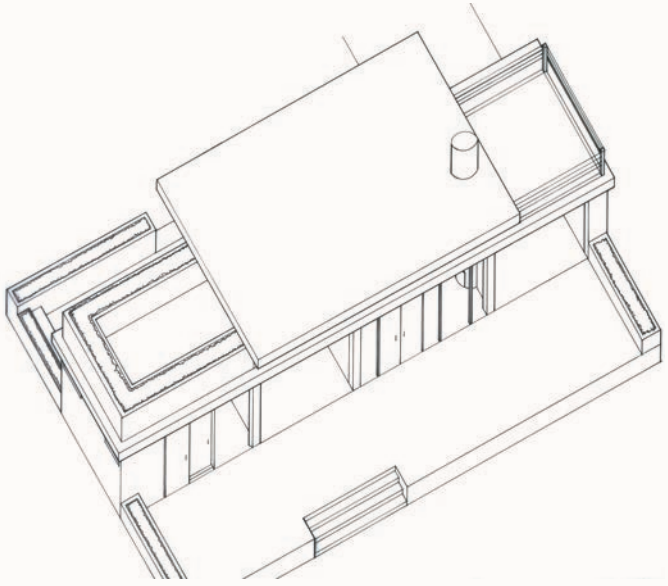
ESA I has provided me with the basics of sustainable design, and enabled me to take responsibility for the far-reaching environmental impacts of buildings.

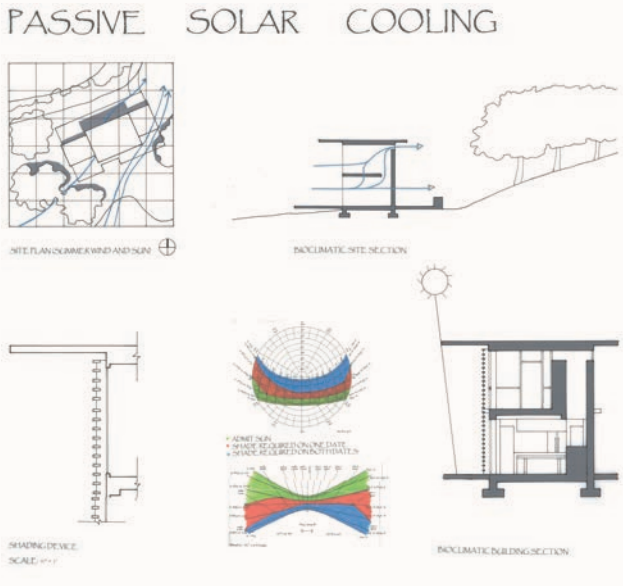
ESA I student

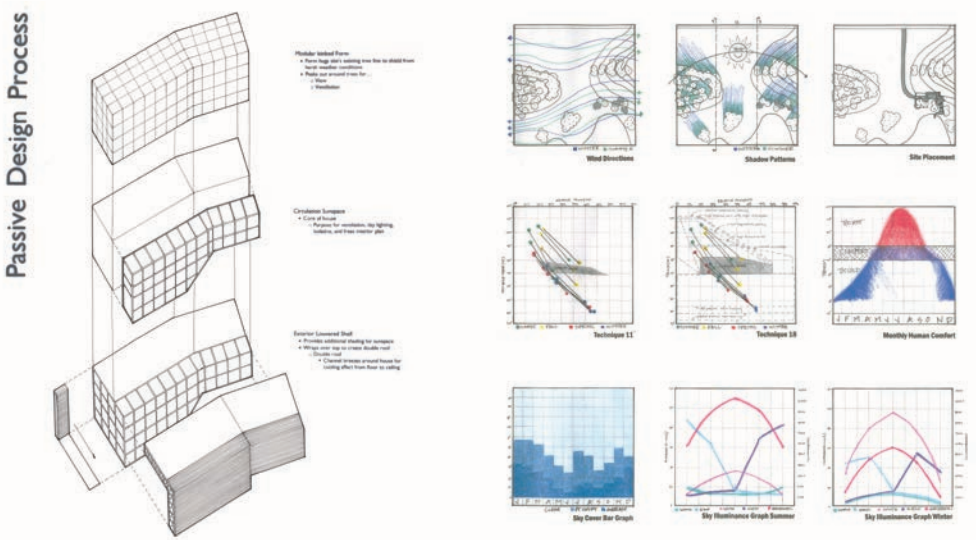
The course presents a new design process for implementing bioclimatic design…it has left a permanent imprint on my design thought process.

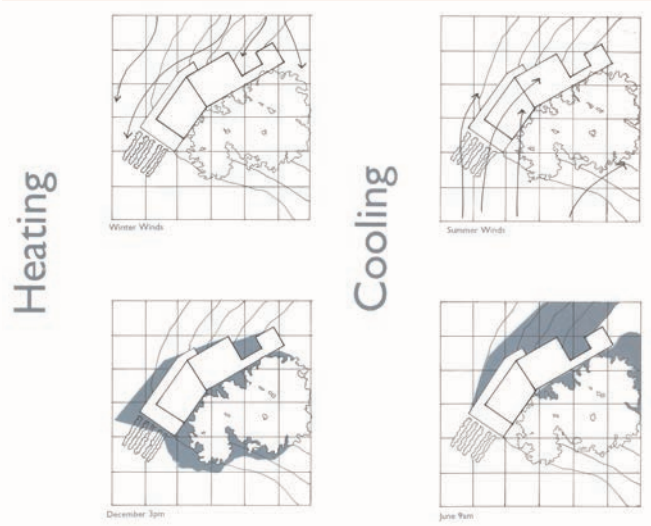
ESA I student

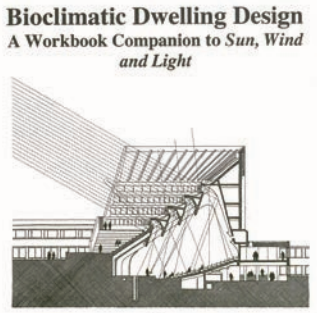












Only by bridging the gap between design and technics within the courses we teach is it possible for students to learn how to reintegrate function and beauty, mechanics and meaning in the design of ecologically sustainable and humanly meaningful buildings, towns and cities. Thus, ESA I is not merely a technical course with design content, but rather, it is a design course with technical content. ***It is unique among North American schools of architecture in that it is both a large required lecture course and a performance-based design course taught with the help of Graduate Teaching Assistants direct recitation sections.***

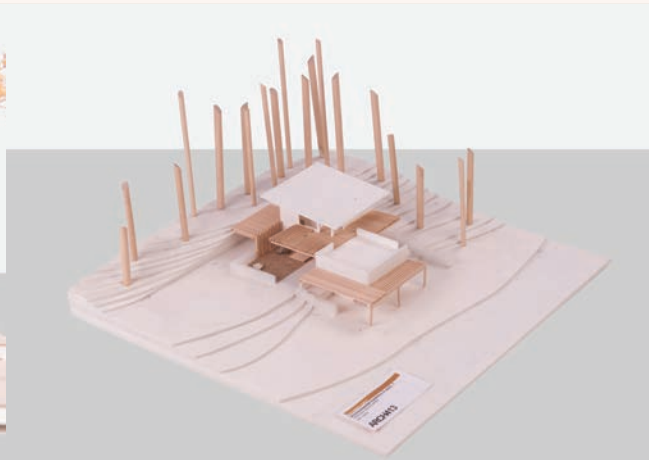
Design Projects

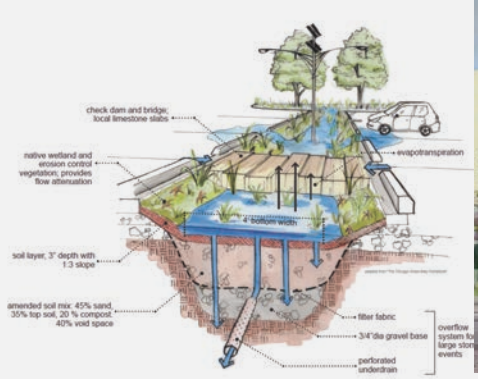
Using my workbook, *Bioclimatic Dwelling Design,* in conjunction with the text *Sun, Wind and Light: Architectural Design Strategies* by G.Z. Brown and Mark DeKay, students work in teams of three to design a small house on a site and in a climate that I give them. This task is divided into four projects· 1) Climate, Site and Human Comfort; 2) Passive Solar Heating Design; 3) Passive solar Cooling Design; 4) Daylighting Design

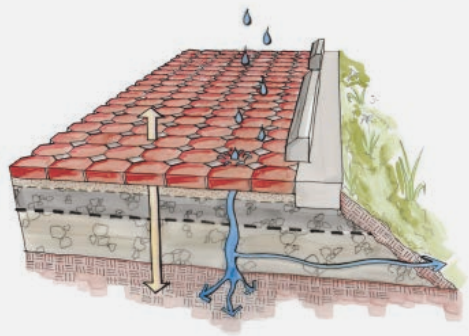
In each project students must demonstrate that they have met stringent performance requirements and they must also submit drawings and models that show how their design fulfills all requirements, including the requirement for good design. For extra credit, students can extend their schemes to make use of local and regionally appropriate materials, generate all or most of their electrical power, harvest on-site rainwater and employ a variety of other techniques of ecological and sustainable design.

Lectures

Lectures, videos and assigned readings in the text, *The Party's Over: Oil, War and the Fate of Industrial Societies*, introduce students to the larger crisis of sustainability and to ecological design as ethos as well as a holistic way of understanding the human place in the natural world. Lectures also practically support the recitation design projects as well as presenting case studies of larger buildings and sustainable urbanism.







South End Project

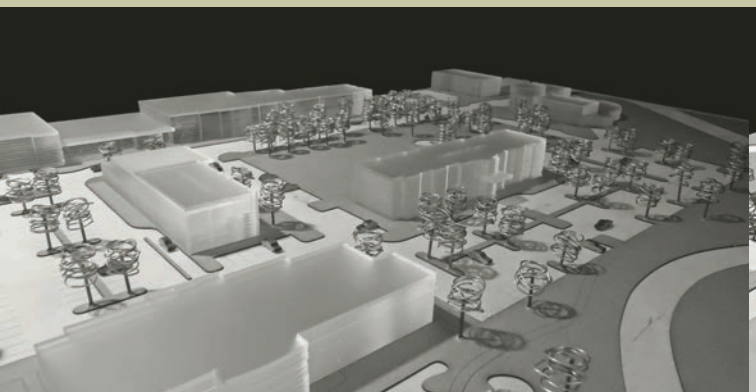
A Green Master Plan and Farmers Market for the South End of Manhattan, KS (2010)

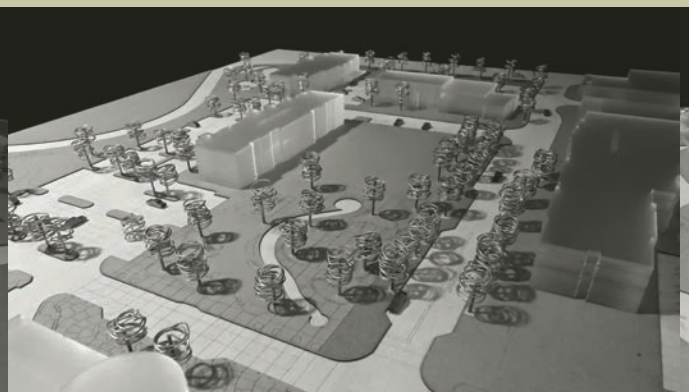
In June 2010, I accepted the challenge from commissioner Jim Sherow to develop of a Master Plan for Manhattan's South End district on land owned by the city as part of my year-long graduate-level design studio. This real-world project was published, along with many other proposals for the future of the city, in, ***Sustainable Manhattan 2050: Visions of Resilient Community in the Age of Peak Oil and Climate Destabilization.***

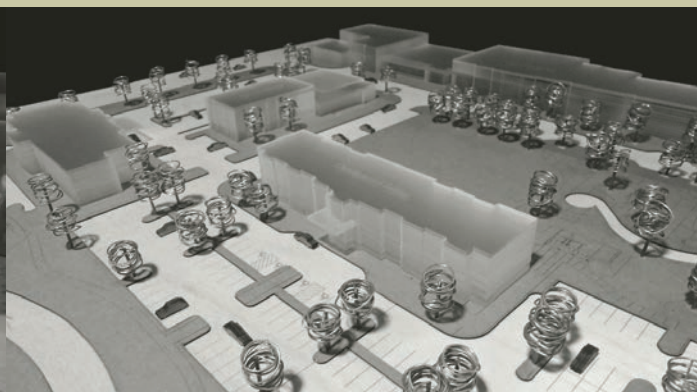
Goals for the South End

_ create a vibrant mixed-use urban district;
_ financially strengthen the Flint Hills Discovery Center and Conference Center and hotel then under construction;
_ attract a local developer and local businesses willing to invest $15-20 million, and able to start construction within a year;
_ be politically acceptable to the Manhattan community and City Commission.

Working closely with city staff, local business leaders and commissioners, we met all requirements with a Green Master Plan centered around a new park, featuring·
_ two hotels projected to bring more than 100,000 guests per year;
_ a mixed-use building with a coffee shop, bakery, restaurant, offices and loft housing;
_ a green parking lot with bio-swales, solar powered lighting and electric recharging stations; a walking/jogging trail winding through native plant gardens;
_a Farmers Market and Events Pavilion at the south edge of the park







In spring 2011 the City Commission unanimously approved the scheme, and two local developers formed Flint Hills Square, LLC with the express purpose of building the "Coates studio plan". Construction is now underway. I continue to work with students, city staff, members of the City Commission and business leaders to design the Farmers Market and Events Pavilion. We plan to bring our proposals for this key part of our master plan to the City Commission for approval and funding.

I have been impressed by Professor Coates' leadership, vision and ability to involve students in a real project. What a wonderful example of how the university can work with the local community to achieve great things for the entire city.

Colin Noble, Partner, Flint Hills Square, LLC

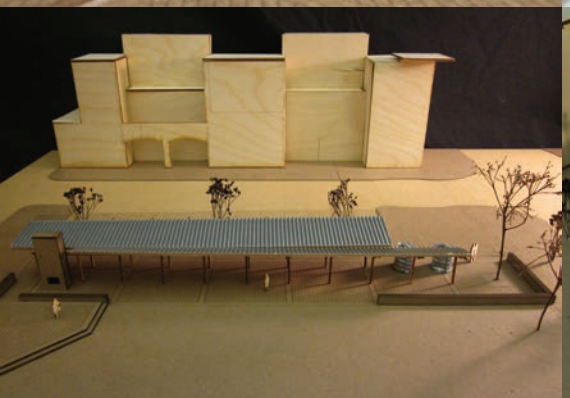
It's not often in a studio that you get a chance to make a REAL impact on a community… Our master plan is now being built. It doesn't get any more REAL than that.

Jon Olson, former student

In 2010 Manhattan had reached an impasse with regard to the design and development of the South End portion of the city's large-scale downtown redevelopment project. I knew first hand of Gary's expertise in urban design and knew he could provide city commissioners with an excellent vision of what could be done. I was not disappointed. The City Commission unanimously approved the master plan he and his students developed for a mixed-use urban district and it attracted the interest of two prominent local developers. Construction is now well underway. None of this would have transpired if not for the superb community- centered work of Gary and his students. Through Gary's efforts town- gown relationships were enhanced, his students learned first hand about community service, and an attractive and economically and politically successful project is now emerging as a showcase for the entire city. Gary's architectural talents, his unique abilities as a teacher and his commitments to community show the positive results that come when the work of the ivory tower sets foot on main street.

Jim Sherow, Commissioner and former Mayor




THE EMPORIA GAZETTE

Nightly News

Off the Ground

Jones Fund grant gets cooperative project started

Teen dies in rollover

Priorities for cuts

The Jones Education Center, Emporia, Kansas

A Cross-Institutional Collaboration in Community Service Education (2009)

In August 2009 faculty at the Flint Hills Technical College (FHTC) in Emporia, KS, and I agreed to collaborate on the design and construction of a 7,500 sq. ft. near-net-zero energy school for teaching independent living skills to special needs high school students in the local school district. The idea was that my students would do the design and their students would do the construction. Following the client's desire for a building in the form of an "ordinary" house, students in my third year studio worked in two person teams over a period of only four weeks to develop various design proposals. The special needs teacher and FHTC faculty selected the winning scheme.

Sustainable Design Features

_ passive solar heating with in-floor thermal mass and partial earth-integration;
_ 12 " insulated concrete form walls for their energy efficiency and strength against wind loads; low-e double and triple glazed windows;
_ an electrically powered ground source heat pump for heating and cooling;
_ a 10 KW photovoltaic building integrated system;
_ a solar water heating system;
_ solatubes for maximum daylight use;
_ cross ventilation and stack ventilation for passive cooling;
_ an air-to-air heat exchanger for ventilation; and,
_ energy efficient lighting and appliances.

Collaboration with Local Architect

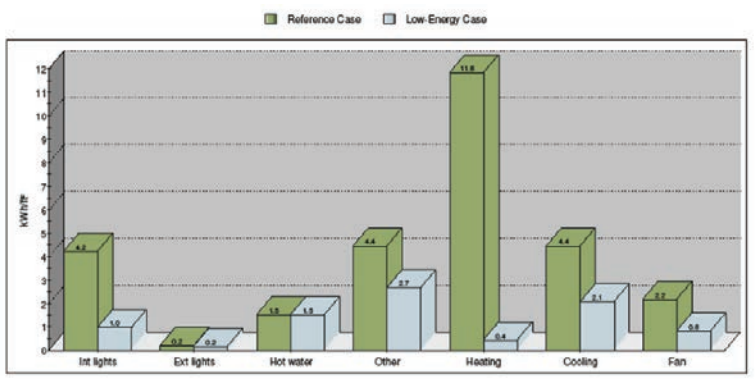
I arranged for the selected team to continue developing their design into their next semester. I also recruited a local Emporia architect, who had previously served as the studio critic and who would later become the architect of record, to work with these students to refine their design and develop construction details.

Jones Foundation Grant Proposal

In spring 2010, I served as an advisor to FHTC in writing a proposal for $350,000 to the Jones Education Foundation for additional funds to help build the school. The proposal was fully funded unique nature of the project.

Wind Energy and Edible Landscape

From the beginning I envisioned the Jones Education Center as a demonstration of sustainable living that would serve as the anchor for Emporia's adjacent community gardens and as a living laboratory for classes taught by FHTC's highly popular Sustainable Living Center.



There has been a tremendous amount of interest from our community and from around the state in this living demonstration of cutting edge design and construction technology. The knowledge being learned by our Construction Technology students will be invaluable to them as they enter the workforce.

Dr. Dean Hollenbeck President, Flint Hills Technical College

Flint Hills Technical College students get to see the concepts and technologies that we are teaching integrated right into their daily lives and the entire complex,when completed, will give us the opportunity to reach out to the entire community with our Sustainable Living Center and Community Connections program and offer classes on other sustainable practices such as composting, xeriscaping, energy efficient building design and much more.

Amy J. Becker, Director FHTC Sustainable Living Center

The Jones project gave me my first real taste of working alongside engineers and contractors to create a building that not only fits the functional needs of the client, but one that informs the community about how good design can positively affect the environment.

Sara Dews, student

The Jones Education Center project taught me about the impact architects can have on their communities. I worked with professionals from different fields who all had a stake in the success of the project and had to cooperate on its design and construction. Altogether it was an experience which served as real-life practice for the work I will do as a practicing architect.

Levi Wall, student

Toward this end I led various efforts

_ I proposed to FHTC and the Emporia school district that a community-scale wind generator be added to complement the solar photovoltaic system on the school roof, and that the entire site be developed as an educational and therapeutic organic edible landscape

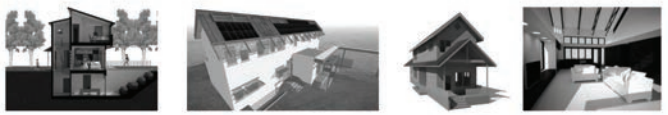
_ I recruited a professor from KSU's electrical engineering department to work with FHTC to write a grant to the Kansas "Wind for Schools Project" for a 2.3 KW wind generator. This proposal was funded in spring 2012 and was just recently erected.

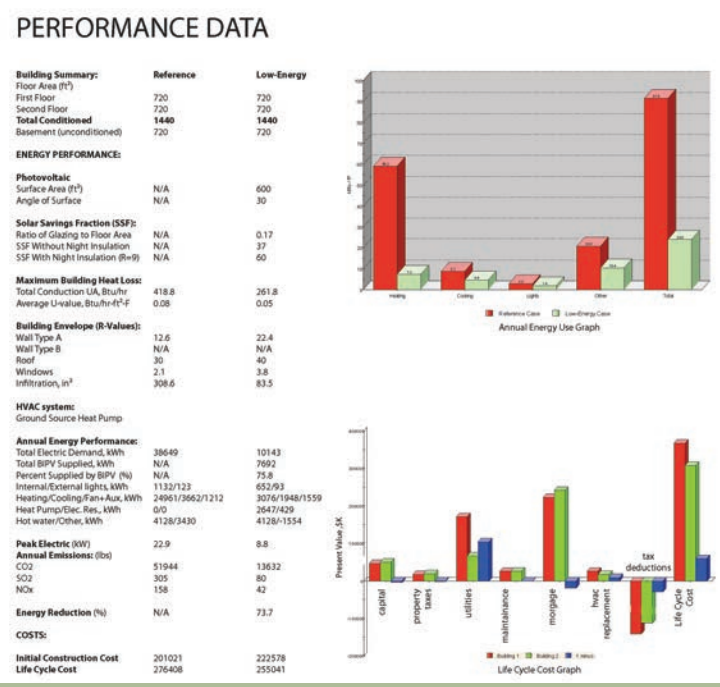
_ I also recruited a KSU landscape architecture professor to work with me and his students to develop a site design for the edible landscape. As of fall 2012 a landscape architecture student is now developing that design as a thesis project, to be completed in spring 2013. As part of her efforts she will work with me and FHTC to write grants for funding this model sustainable and therapeutic landscape.

Project Outcomes· Building construction began in fall 2010 and is now nearing completion. The implementation of the organic edible landscape will provide design/build opportunities for community volunteers, FHTC and Kansas State students for years to come. This project is now being promoted by all parties involved as a national model for the design of special needs teaching facilities, sustainable building and landscape design, and cross-institutional service-oriented education. It demonstrates the many synergies that result when three publicly funded educational institutions collaborate to satisfy previously unmet community needs.

Greening Greensburg *Affordable and Sustainable Homes (2008)*

On May 4, 2007 an EF5 tornado, nearly two miles wide, with winds of up to 205 miles per hour, cut a swath through Greensburg, KS, leveling 95% of the town's buildings and leaving most of the rest of them uninhabitable. Some fourteen hundred people were left homeless. Miraculously only twelve people were killed by this catastrophic tornado. With great courage and vision, Greensburg decided soon after the storm to rebuild itself as a model sustainable community for the twenty-first century. Toward that end, the town accepted a comprehensive plan prepared by BNIM in Kansas City as the basis for reconstruction. At present Greensburg is on track to have the greatest concentration of LEED certified buildings of any town in America.





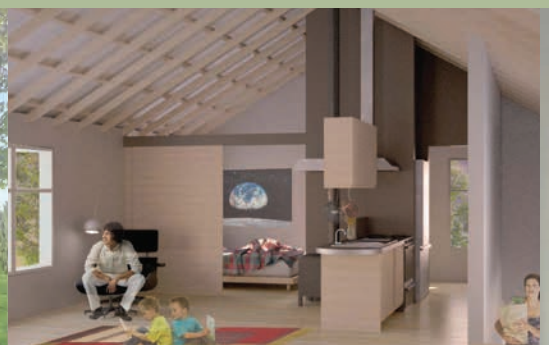
Perhaps the most daunting task facing Greensburg, however, is building affordable, beautiful and sustainable housing. During fall semester 2008 twelve graduate students enrolled in Architecture Design Studio 7 led by Professor Gary J. Coates joined forces with Greensburg Greentown, a non-profit agency dedicated to rebuilding the town sustainably, to take on this particular challenge. Working with an Advisory Board comprised of town officials, area residents, members of Greensburg Greentown, and representatives of the business community, Kansas State students did background research and developed eight dwelling designs for 25 foot, 50 foot and 75 foot lots over the course of the entire semester.

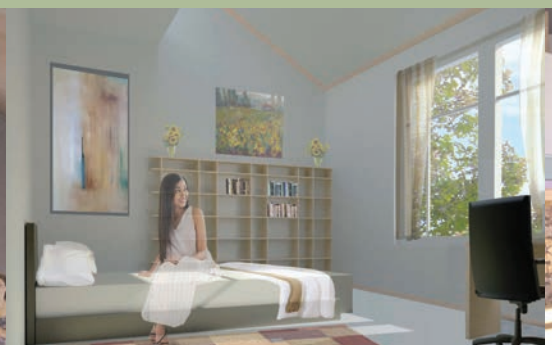
Each design is a super insulated passive solar heated, naturally ventilated structure with a ground source heat pump for heating and cooling powered by a building integrated photovoltaic system. Energy efficient lights and appliances were used in all cases.

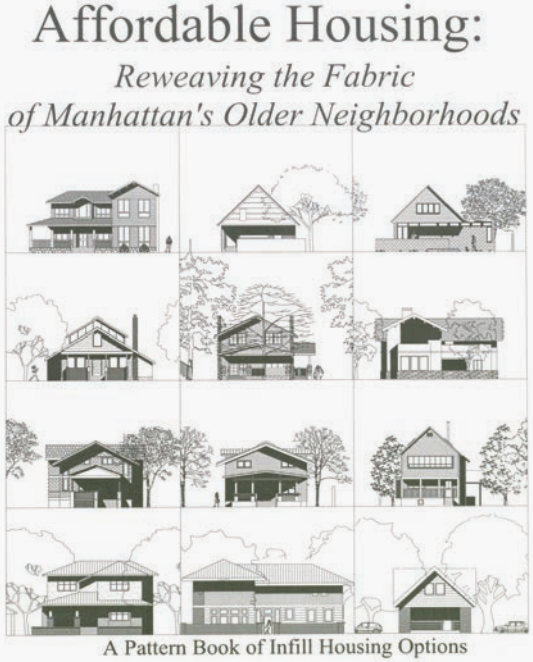
Project Outcomes: The studio produced three major project outcomes · 1) A book, *Greening Greensburg Affordable and Sustainable Home Designs* 2) CDs containing a digital version of the book as well as additional drawings and energy performance data for each design, and 3) An exhibition and design presentation 4) a permanent exhibition of selected designs that serves as inspiration for Greensburg residents in their efforts to rebuild.

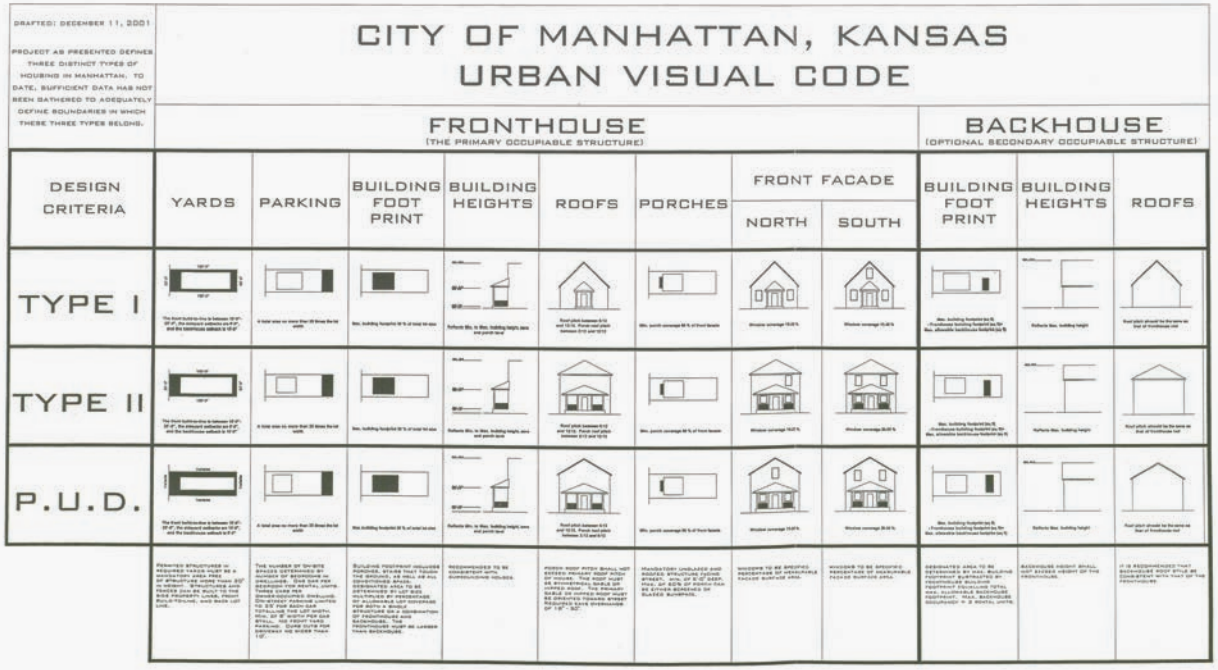
In fall 2008 we worked very closely with Professor Gary Coates and his students on the design of net zero energy homes for Greensburg. They made presentations to the community and mounted an exhibition of models and drawings that we still have on display today. This project was very important to our now widely recognized "Green Initiative."

Daniel Wallach, Director, Greensburg GreenTown









Affordable Housing

Reweaving the Fabric of Manhattan's Older Neighborhoods (2001)

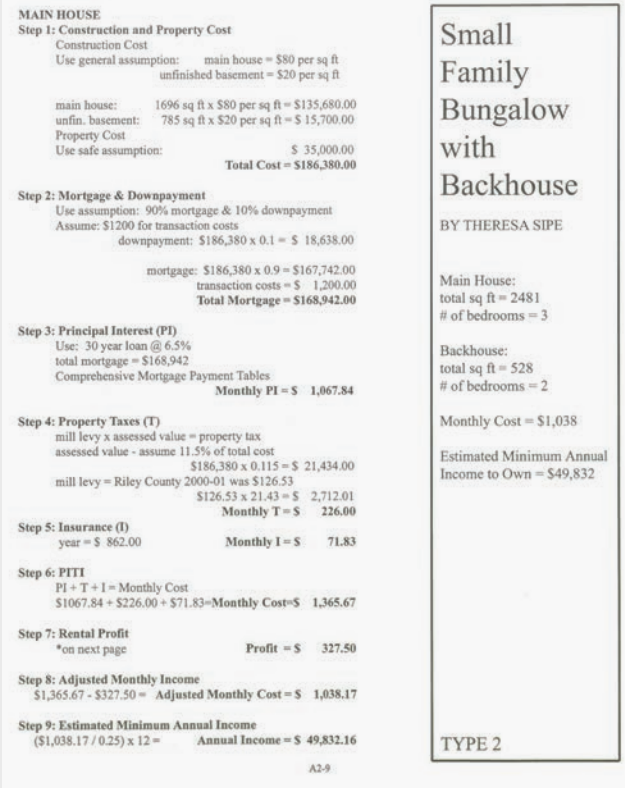
2002 American Institute of Architects Education Honor Award

In summer of 2001 Mayor Bruce Snead asked me to work with students in my fall fourth year design studio to develop proposals for increasing the density of Manhattan's historic older neighborhoods while preserving and enhancing the neighborhoods' architectural character and livability. Working closely with an Advisory Board comprised of neighborhood leaders, builders and city staff, students analyzed the social and architectural character of the older neighborhoods as the basis for an Urban Visual Code (a form-based code), and Architectural Guidelines for infill housing. Students then designed infill housing suited to each neighborhood using a pattern of owner-occupied Fronthouses with basement apartments and/or small Backhouses for rent. Students presented their work to the City Commission and mounted exhibitions of large scale models and drawings at the library and City Hall.

As a result of this studio the City rezoned the older neighborhoods and created Traditional Neighborhood Overlay and Multi-Family Overlay ordinances that not only helped resolve contentious development issues in Manhattan, but also have been recognized for their innovation and positive results, both locally and nationally.

The quality of the student work, the professionalism of their presentations and the relevance and creativity of their ideas exceeded all expectations and inspired the city to make major changes…The contribution to community solutions that Professor Coates helped drive through his teaching and leadership should be emulated by other architecture and planning faculty.

Bruce Snead, Mayor, Manhattan KS



MAIN HOUSE

Step 1: Construction and Property Cost
Construction Cost
Use general assumption: main house = $80 per sq ft
unfinished basement = $20 per sq ft

main house: 1696 sq ft x $80 per sq ft = $135,680.00
unfin. basement: 785 sq ft x $20 per sq ft = $ 15,700.00
Property Cost
Use safe assumption: $ 35,000.00
Total Cost = $186,380.00

Step 2: Mortgage & Downpayment
Use assumption: 90% mortgage & 10% downpayment
Assume: $1200 for transaction costs
downpayment: $186,380 x 0.1 = $ 18,638.00

mortgage: $186,380 x 0.9 = $167,742.00
transaction costs = $ 1,200.00
Total Mortgage = $168,942.00

Step 3: Principal Interest (PI)
Use: 30 year loan @ 6.5%
total mortgage = $168,942
Comprehensive Mortgage Payment Tables
Monthly PI = $ 1,067.84

Step 4: Property Taxes (T)
mill levy x assessed value = property tax
assessed value - assume 11.5% of total cost
$186,380 x 0.115 = $ 21,434.00
mill levy = Riley County 2000-01 was $126.53
$126.53 x 21.43 = $ 2,712.01
Monthly T = $ 226.00

Step 5: Insurance (I)
year = $ 862.00 **Monthly I = $ 71.83**

Step 6: PITI
PI + T + I = Monthly Cost
$1067.84 + $226.00 + $71.83=**Monthly Cost=$ 1,365.67**

Step 7: Rental Profit
*on next page **Profit = $ 327.50**

Step 8: Adjusted Monthly Income
$1,365.67 - $327.50 = **Adjusted Monthly Cost = $ 1,038.17**

Step 9: Estimated Minimum Annual Income
($1,038.17 / 0.25) x 12 = **Annual Income = $ 49,832.16**

A2-9

Small Family Bungalow with Backhouse

BY THERESA SIPE

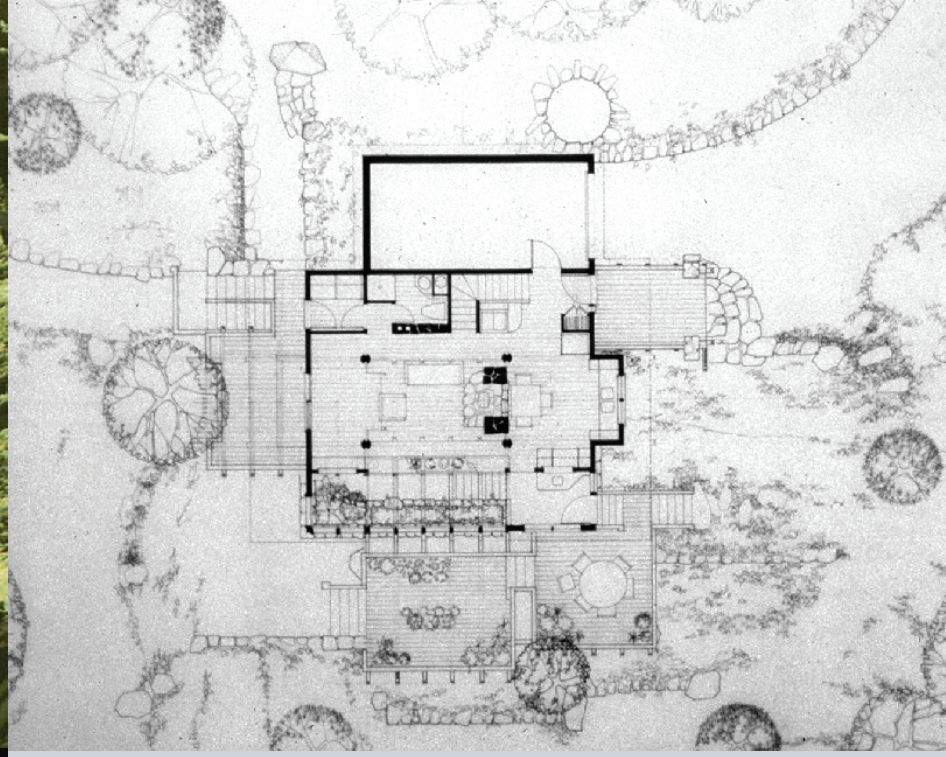
Main House:
total sq ft = 2481
# of bedrooms = 3

Backhouse:
total sq ft = 528
# of bedrooms = 2

Monthly Cost = $1,038

Estimated Minimum Annual Income to Own = $49,832

TYPE 2



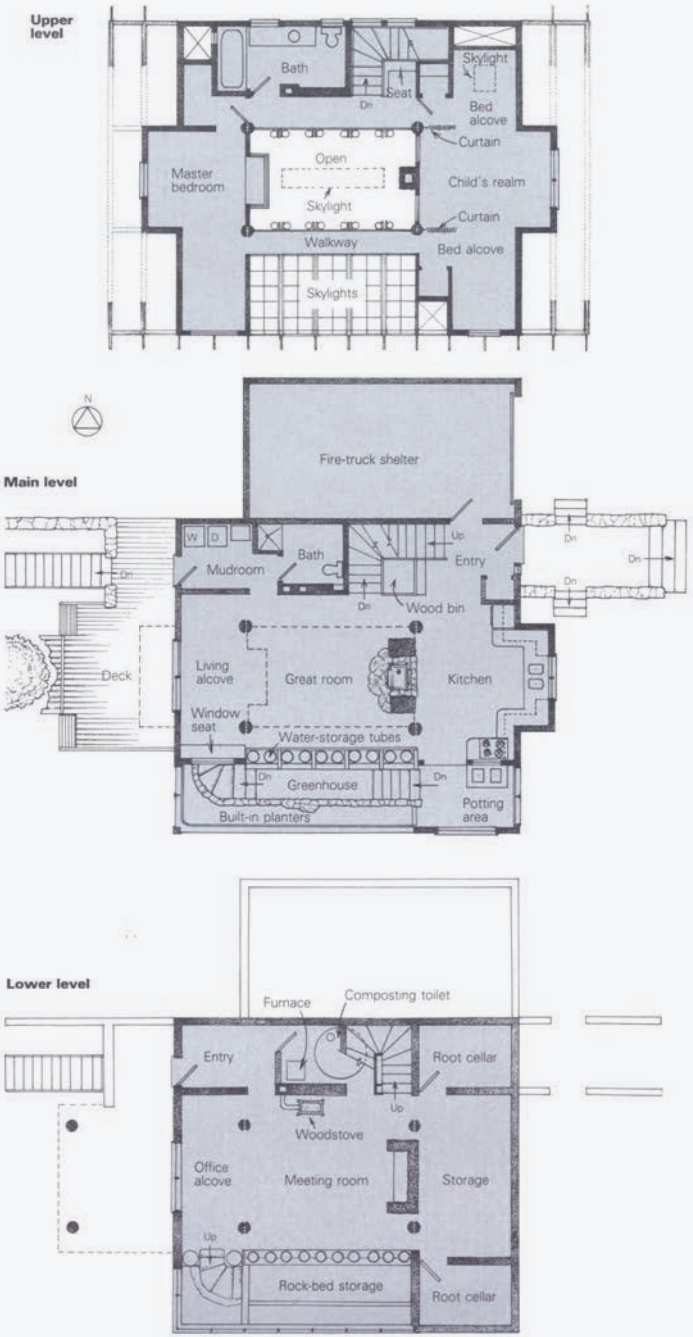
Meadowcreek Project

Designing and Building the Sustainable Farmstead and Staff Housing (1984-86)

To say that the opportunity to design and build the Sustainable Farmstead at Meadowcreek was the highlight of my education and a turning point in my life would be an understatement... There is no way that I would be the person or the architect that I am today, or will become tomorrow, without having studied under Professor Gary Coates. We remain friends and colleagues to this day.

Daryl Rantis, Sustainable Farmstead designer

In spring 1984 I accepted an invitation from Dr. David Orr to focus my fourth year design studio on the development of a pattern-language-based master plan for the Meadowcreek Project, an innovative hands-on environmental education program he was creating in Fox, Arkansas. Based on the success of this studio, and the adoption of the Meadowcreek Pattern Language as the basis for all future development at Meadowcreek, David invited four students from that initial studio to design the Sustainable Farmstead for the agronomist and his family as well as a house for



Meadowcreek's rapidly expanding faculty and staff. David wanted these two structures to be cutting edge examples of ecologically based, renewable energy powered and climatically adapted dwellings using only locally sourced (primarily within 30 miles of the site) and environmentally healthy building materials and finishes. The agreement was that these four students, working under my direction in two teams of two students, would develop a pattern language for the design of each of these dwellings as the basis for their thesis projects, which they would then design all the way through to a full set of construction documents and cost estimates. After graduation, David made the commitment to hire all four students to work with his local construction crew to build their thesis designs.

Both buildings, which were heavily insulated and partially integrated into south sloping hills, were designed to be·

_entirely heated through passive solar greenhouses and south-facing windows, with back-up heat provided by efficient air-tight stoves burning locally and sustainably harvested wood;

_entirely cooled by passive means using internal thermal mass cooled by nighttime flush ventilation and properly sized cross and stack ventilation.

_supplied with water by local wells.

_provided with waterless composting toilets to turn organic and human wastes into garden compost.

_designed so that in the future photovoltaic panels could be mounted on the south-facing roofs.

Project Outcomes

These studio-based demonstration projects were widely publicized in this country and abroad, including;

_in 1985, the four student designers presented their work in a refereed paper at the ***Tenth National Passive Solar Energy Conference.*** Their paper was published in the proceedings.

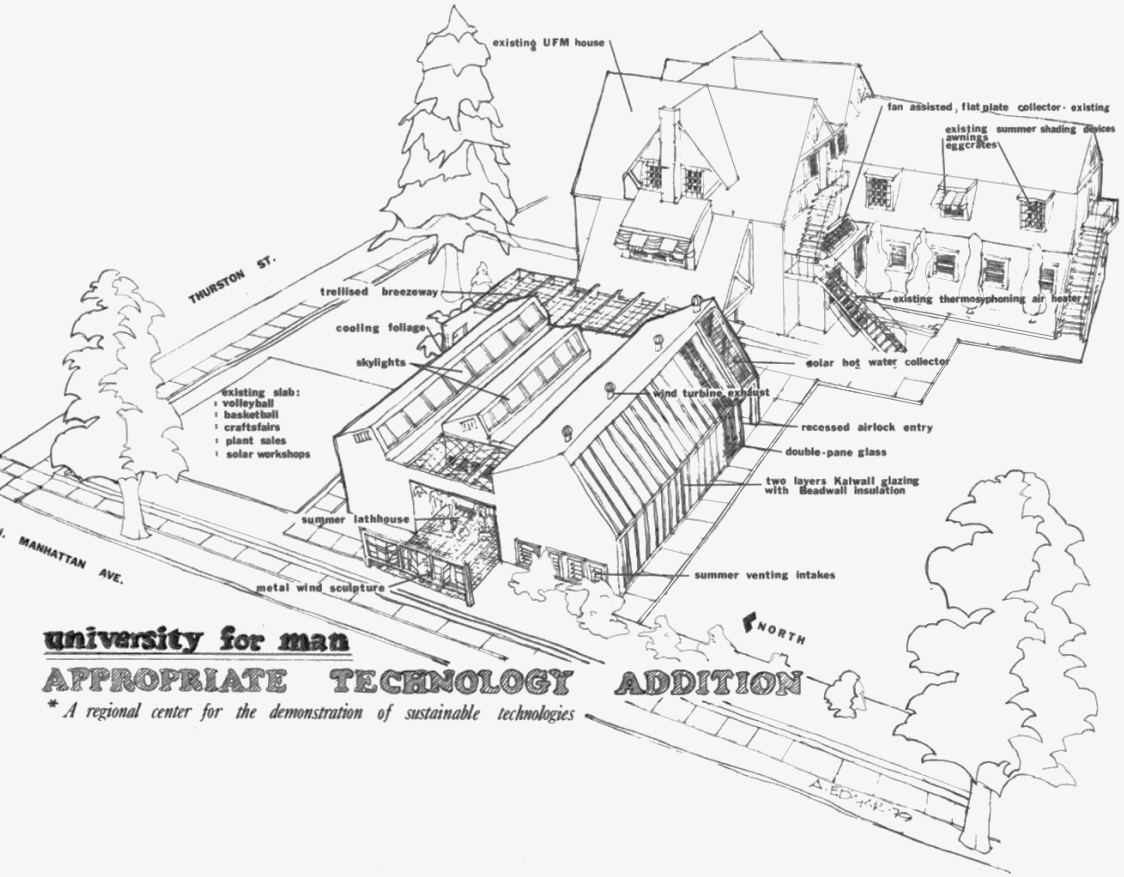
_in 1985 I presented the work of the Meadowcreek master planning studio at the ***Tenth National Passive Solar Energy Conference***, with the paper also being published in the conference proceedings.

_in 1986 the four student designers published an article in ***Fine Homebuilding Magazine*** entitled, "Homework in the Ozarks· Four Architecture Students Design and Build a Solar Farmhouse".

_In 1987 I co-authored an article using the Sustainable Farmstead as a case study, entitled "Christopher Alexander and the Nature of Architecture" in ***Orion Nature Quarterly***.

_in 1989 I published an article on the Meadowcreek project in ***Gesundes Bauen und Wohnen.***

_in 1993 I co-authored a book chapter entitled "Promoting a Foundational Ecology Practically Through Christopher Alexander's Pattern Language· The Example of Meadowcreek", in David Seamon (ed.), ***Dwelling, Seeing and Designing: Toward a Phenomenological Ecology.***



UFM *Passive Solar Greenhouse Addition and Edible Landscape (1977-1983)*

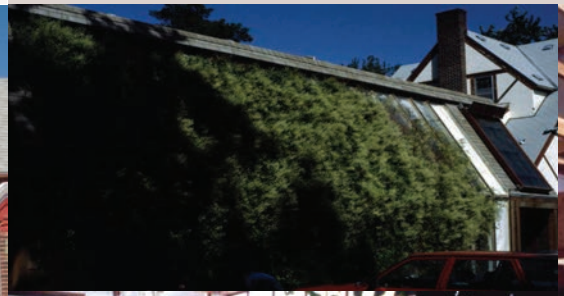
UFM's passive solar addition and edible landscape, designed by Gary Coates and his students, is an important part of our identity and mission as a community learning center concerned with helping citizens to create a more sustainable future.

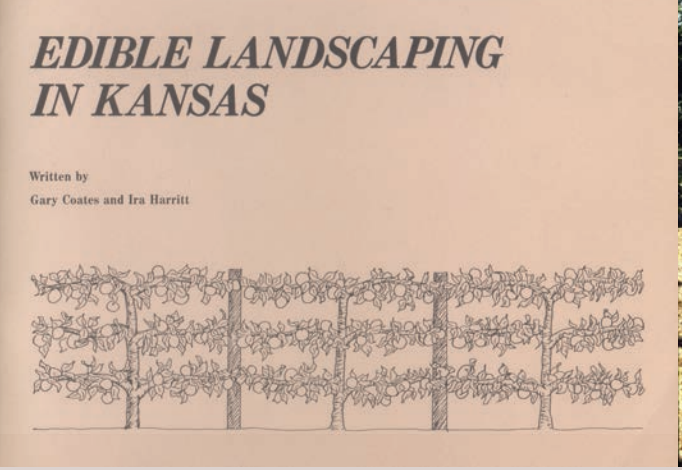
Linda Teener, Director of UFM

This project began in my fifth year design studio in fall of 1977 with the University for Mankind (UFM), Manhattan's free university, as the client. That studio inspired us to seek funds to actually build a renewable energy powered demonstration building based on the studio program, which consisted of·

1) community Solar Greenhouse for year-round organic food production by elderly gardeners and clients of the Big Lakes Developmental Workshop
2) community Woodshop and Tool Lending Library
3) office space for the UFM Appropriate Technology Program that I had created through external grants, and; a kitchenette and classroom space.

In 1979 we held a charrette to design the addition to UFM house for a grant proposal to the *U.S. Department of Energy Appropriate Energy Technology Small Grants Program*, which was funded later that year for $47,500. With additional grants from a variety of sources, architecture students, working with





community volunteers, completed construction of the nation's first community bioshelter in 1980. In 1981, I secured another grant (for $49,773) from the DOE Small Grants Program· The Edible Landscape· Saving Energy Through Urban Agriculture and Community Food Systems. A grant in 2007 from the Caroline F. Peine Foundation provided funds for the renovation of the building and the installation of a 3 KW Sanyo photovoltaic system. With the addition of the PV system the UFM Passive Solar Greenhouse Addition has now became a net zero energy building. Over the course of some forty years many thousands of visitors have toured the UFM solar addition and edible landscape and students and UFM has used it as a site for hundreds of classes on sustainable living.

Social Sustainability: The building and landscape bring together segments of the community that are typically segregated into separate worlds. The food-producing greenhouse provides a therapeutic site in which Horticultural Therapy graduate students can work with adults in need of special care.

The handicapped accessible landscape and greenhouse allow those with mobility limitations to grow fruits and vegetables year-round. Retired citizens can grow bedding plants for their community garden plots. Young and old both take and teach UFM courses on organic gardening and local food systems.

Educational Sustainability: By building upon and extending the model of the land grant university, the idea was to make the professional design knowledge of the Department of Architecture and Department of Horticulture available to ordinary citizens by means of a demonstration project and a decentralized, community-based and user-defined learning system, which empowers the community to make grass roots changes toward a more sustainable society.

Architectural Sustainability: The heavily insulated 1000 sf building was designed to get all of its heating needs from passive solar energy (75%) and an air-tight wood stove. A beadwall system in the greenhouse and shutters elsewhere provide nighttime insulation. The building is cooled entirely by means of cross and stack ventilation and the use of earth-air tubes, which draw cooled air over the large amounts of thermal mass that line the interior of the building (time-lag cooling). The highly productive edible landscape was designed with the help of Horticulture and Landscape Architecture faculty and students. As described my publication, ***Edible Landscaping in Kansas,*** this demonstration of urban agriculture uses locally adapted, ornamental food producing plants, bushes and trees to produce food close to where it is consumed while reducing building energy use by controlling sun, wind and light.

Vitlycke Museum

Research supported by *The Graham Foundation for Advanced Study of the Fine Arts and The American-Scandinavian Foundation*

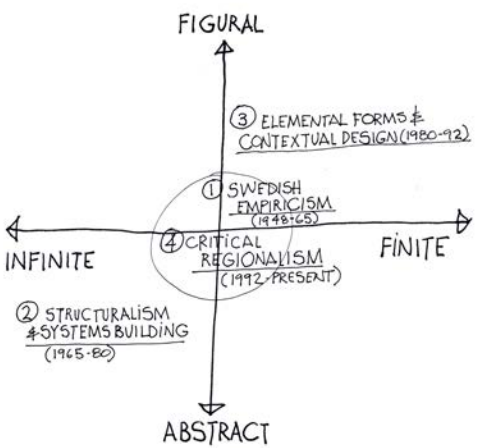
...we can read the story of over a half century of Swedish architectural history through Nyrén's extensive production that covers almost all conceivable architectural tasks.

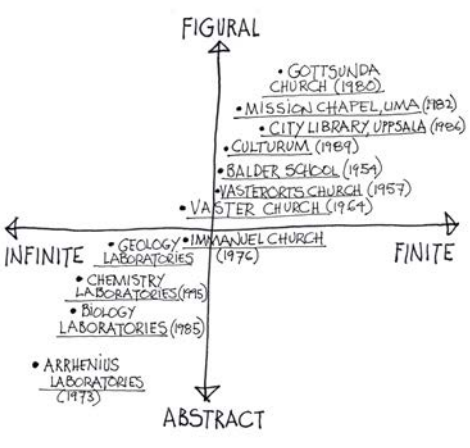
Juhani Pallasmaa, Preface

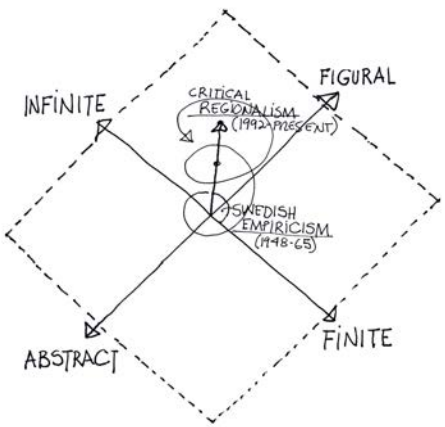
...your chapter on Nyrén's Vitlycke Museum is one of the most subtle and perceptive experiential readings of a building I have ever read.

Juhani Pallasmaa, personal communication

Once the technological aspects of sustainable design have been taken care of the question remains, "How shall we build?" In the work of Swedish architect Carl Nyrén, whose work is widely cited for its contributions to sustainable design, I found a lens through which I could re-examine the history and meaning of post-war Swedish and world architecture and answer important questions about the future of architecture. In the last years of his 55 year-long career, Nyrén achieved a creative synthesis of tradition and modernity in a series of artistically compressed and experientially rich buildings that point the way toward a future of regionally appropriate, culturally and humanly meaningful, and technologically sustainable architecture.



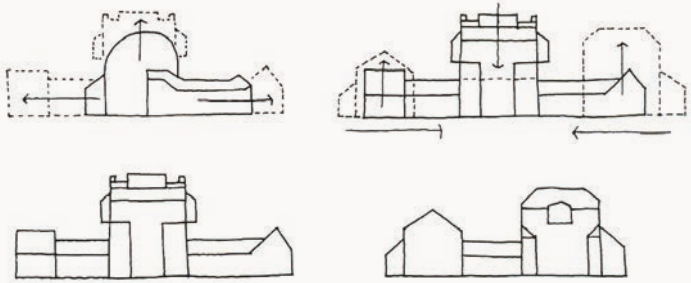




Erik Asmussen, architect

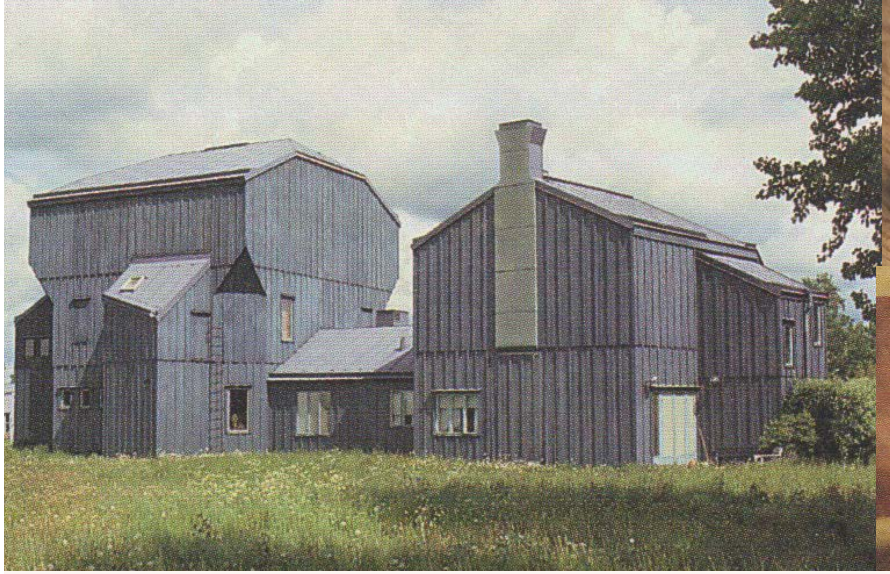
Gary J. Coates

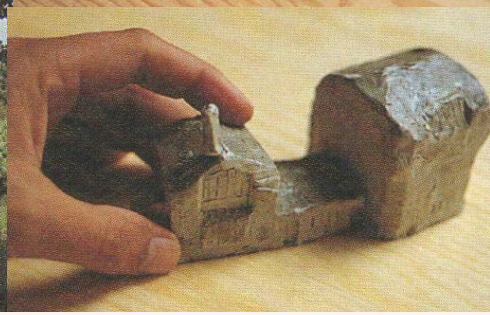
Max Plunger *Photographs* · Susanne Siepl-Coates *Drawings*



The contracted form of Almandinen metamorphoses through expansion into the form of the Library.

The expanded form of the Library metamorphoses into the contracted form of the Eurythmy House.





1997 Svensk Bokkonst Prize Royal Swedish Library

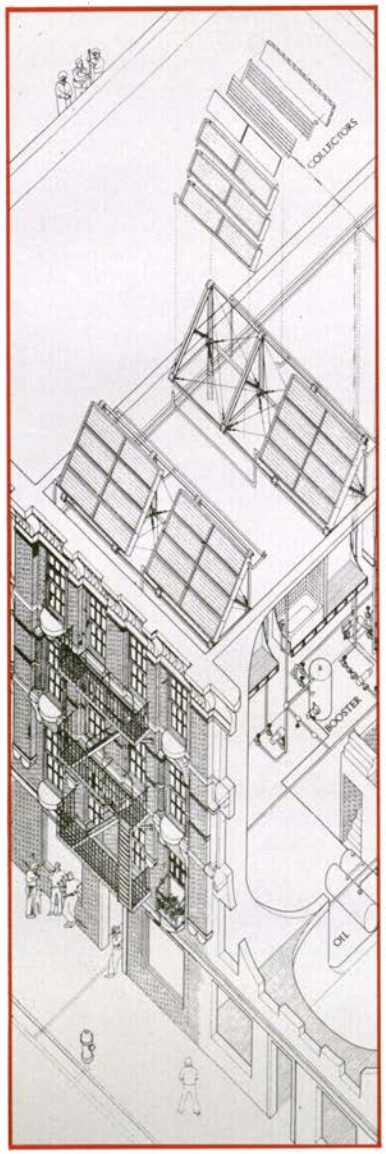
Significantly, (this book) is the first major study to explore in detail the main principles that underlie Asmussen's architecture. The author knows his subject well and understands the framework within which the architect operates.

Dennis Sharp, Foreword

Erik Asmussen's architecture is rooted in both the vernacular and modern Nordic building traditions. At the same time, his buildings give form to the arche-typal and universalizing impulses of the Austrian scholar, artist and founder of anthroposophy, Rudolf Steiner. Asmussens' organically expressive form language evokes an architectural experience of aliveness and a sense of participation in the forms and processes of nature. The focus of this book is on his designs for the anthroposophical community in which Asmussen lived and worked in Järna, Sweden. Comprised of a college, performance hall, hospital for complementary medicine, market garden and housing village, this cluster of nearly thirty buildings is interwoven with gardens, sculptures and patches of wild nature to create a ***Gesamtkunstwerk***, or total work of art. Many consider this community to be Europe's best example of a new model for the development of an economically, ecologically and socially sustainable rural communities.

Research supported by *The Graham Foundation for Advanced Study of the Fine Arts*, *the Bicentennial Swedish-American Exchange*, and the *American-Scandinavian Foundation*

Reviews: Kenneth Frampton *Design Book Review* Juhani Pallasmaa *Architectural Research Quarterly*, *Ptah: Architecture Design Art*, *and Arkkitehti: The Finnish Journal of Architecture* Peter Blundell Jones *The Architectural Review* Stefano Andi, *Domus* Claes Caldenby, *Arkitektur: The Swedish Review of Architecture*



Resettling America

Energy, Ecology and Community

EDITED BY
Gary J. Coates
FOREWORD BY
Amory Lovins

the movement toward local self-reliance

Nominated for ***1982 Transformational Book Award***

(Other authors nominated included Norman Cousins, Jonas Salk, Lester Brown and Hazel Henderson).

Resettling America was one of the first comprehensive, multi-disciplinary books on the crisis of sustainability and the implications of that crisis for the re-design of buildings, towns, cities and regions. Through essays by Coates, which provide a theory of ecological design, and case studies written by leading authors and activists of the time, the book presents a strategic vision of how it would be possible to create a sustainable society worth sustaining through a process of cooperative community development rooted in a radical re-visioning of nature, self and society. During the 1980s, the book was used as a text at more than two dozen colleges and universities in courses ranging from planning and landscape architecture to environmental studies and community education.

...rich in anecdote and detail as well as analysis and theory, this book represents the most important work of its kind since the pioneering studies by Lewis Mumford and the original Regional Planning Association of the 1920s.

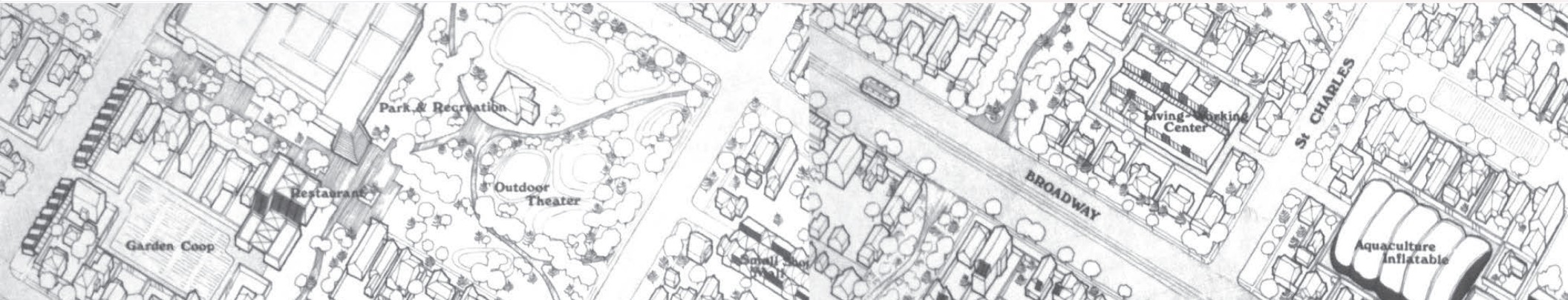
Kirkpatrick Sale, book review in *The Nation*

So many books on the future tend to be either highly theoretical or narrowly technical. Coates' new anthology is different... He has arranged his anthology so that the theoretical pieces create a political-spiritual context for the pieces that describe what people and groups are actually doing.

Mark Satin, editor, *Renewal Magazine*

Resettling America provides one of the most thorough and accessible introductions to the work in progress around the country, and more importantly, to the conceptual framework that will ultimately unify this work in a science of ecological deign and "right livelihood".

John Peterson, *Rain Magazine*





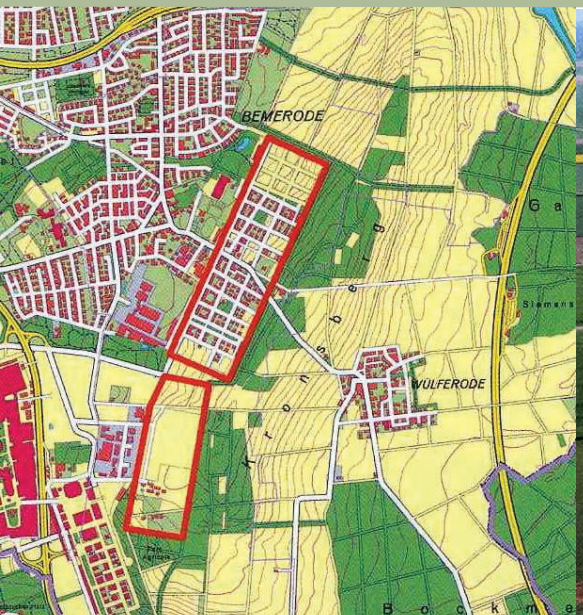

Sustainable Urbanism *Kronsberg, Hannover, Germany*

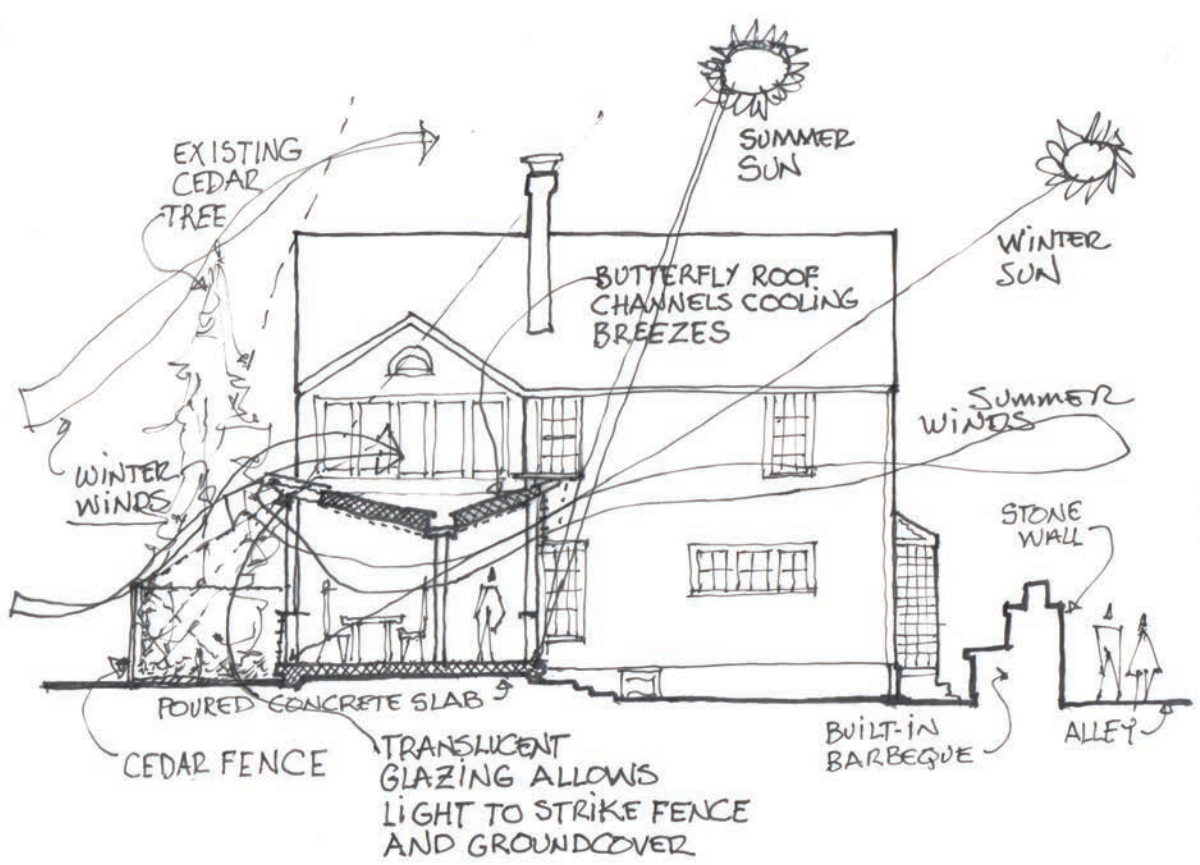
Research project, Victor L. Regnier Distinguished Faculty Chair (2007-2010)

It is increasingly recognized that Germany is the leading nation in the world with regard to the movement to create a society that is socially, ecologically and technologically sustainable. While there are many German eco-communities that are worthy of study, including the Vauban and Rieselfeld districts in "solar city Freiberg" which I will study in more depth during my spring 2013 sabbatical leave, the largest and most significant project to date is Kronsberg, which was planned and built as a model sustainable urban district for EXPO 2000, a World's Fair hosted by the city of Hannover. With release time associated with my appointment as the inaugural Victor L. Regnier Distinguished Faculty Chair, I have studied, written about and lectured about this urban district, which embodies many of the characteristics of sustainable eco-communities that I called for in my 1981 book, *Resettling America: Energy, Ecology and Community*, including

1) A Compact Urban Fabric 2) Diverse Public Amenities 3) An Ecological Landscape Design 4) Integrated Living and Working 5) An Efficient, Decentralized, Integrated Energy System 6) Renewable Energy Systems 7) Urban Agriculture: the Kronsberg Organic Farm and Rural Workshops 8) An Ecologically Varied Surrounding Landscape 9) Multi-Modal Transportation Linkages

In addition to presenting my research in ESA I since 2007, I have made peer reviewed presentations on Kronsberg at a number of professional and scholarly conferences, including the ***47th International Making Cities Livable Conference (2009)***, the ***40th Annual Meeting of the Environmental Design Research Association (2009)***, and the ***International Conference for Sustainable Urbanism: A New Paradigm for Change (2007).*** "Sustainable Urbanism· Creating Resilient Community in the Age of Peak Oil and Climate Destabilization", which uses Kronsberg as a case study, is forthcoming as a chapter in a book on social and environmental policy scheduled for publication in 2013.



Bioclimatic Screened Porch

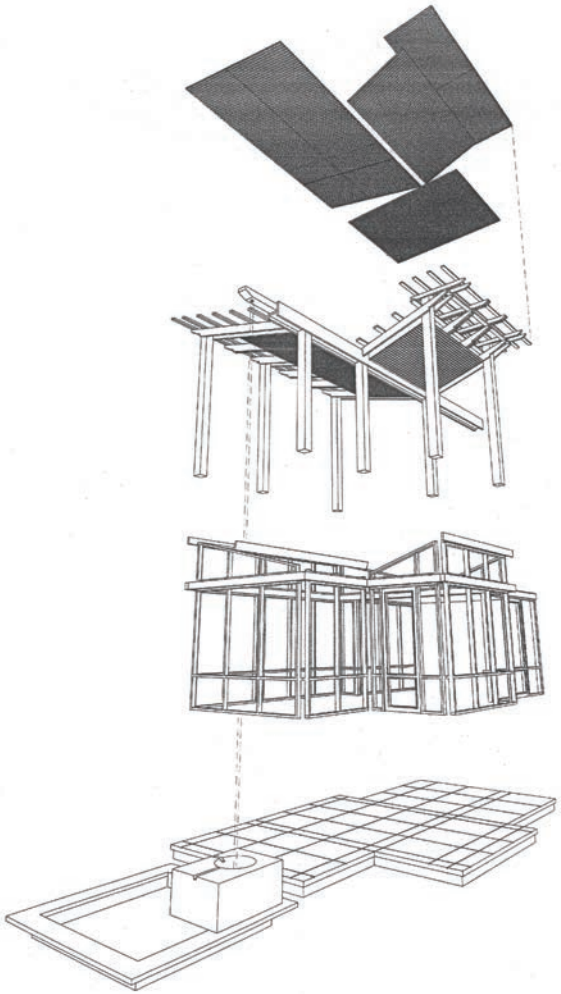
Coates Residence, Manhattan, Kansas

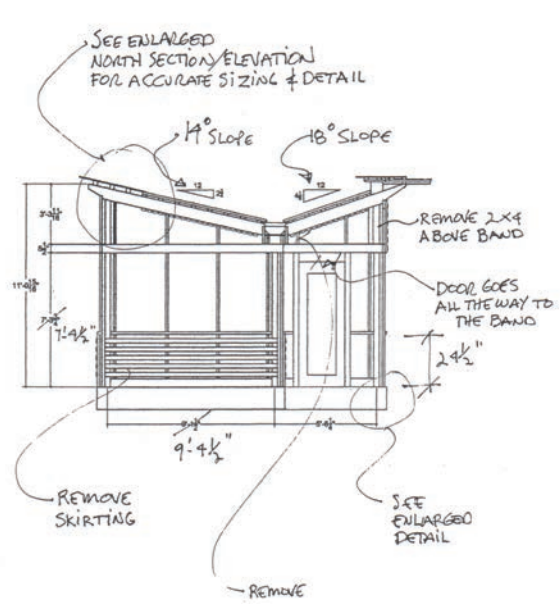
2009 Award for Excellence in Historic Preservation

Manhattan Area Preservation Alliance

In 2003 I designed this large screened porch and rainwater fed limestone fountain and fish pond. It is an example of bioclimatic design and tectonic expression. I present this project as a case study in my Environmental Systems in Architecture I lecture/studio recitation class and tour it with students in design studios that focus on these issues.

Published in ***On the Porch: Creating Your Place to Watch the World Go By*** (2007), by James M. Crisp and Sandra L. Mahoney.




SEE ENLARGED NORTH SECTION/ELEVATION FOR ACCURATE SIZING & DETAIL
14° SLOPE
18° SLOPE
REMOVE 2X4 ABOVE BAND
DOOR GOES ALL THE WAY TO THE BAND
7'-4½"
2'-4½"
9'-4½"
REMOVE SKIRTING
SEE ENLARGED DETAIL
REMOVE