GreenSummer in Freiburg/GreenFreiburg in Madison

A Model for Undergraduate Immersion to revitalize sustainability in Wisconsin

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Wisconsin Without Borders

Is a collaboration at the University of Wisconsin-Madison between:

- The Morgridge Center for Public Service
- Division of International Studies
- Center for Global Health

16 pilot projects in summer 2011:

- Interdisciplinary, community-driven, and in global context
Elements of WWB: Science Shop model hybrid

- 1) innovative instruction: community-based and driven
- 2) seminars and colloquia that explore cutting-edge ideas; social action goals
- 3) small grants for community-based learning/research
- 4) research across disciplines at all levels from undergraduates through dissertators, including support for faculty community-based research
- 5) rigorous evaluation and outcome assessment
Projects in developing countries

Uganda

Rwanda
Women’s microfinance in Ecuador
And one in a developed country: Germany!

The six-week program gave students international service learning/internship opportunities in the fields of:

• renewable energy
• transportation
• sustainable neighborhood design
• passive house technique
• and other related environmental activities
Why Look at Europe?
Why Look at Germany?

A wide variety of renewable energy, energy efficiency and sustainability policy support incentives …
(ie: Feed-in tariff, carbon trading, etc.)

More support incentives = More green projects
More green projects = More green lifestyle choices

Europe provides good sustainability models for US - Germany has some of the best examples and related technologies …
Why look at Freiburg?

Madison’s German “Sister City”
Sustainable Projects in Freiburg
Facts & Figures on Freiburg

- Population: 220,000
- Area: 173 km², of which 40% forest
- University: 550th anniversary 2007; 30,000 students
- Economy: 67% employment in service sector
- Tourism: more than 1 million overnight stays per year
Facts on Madison

- Population about 220,000; area is 153 sq. km.
- University with 42,000 students
- Exchange with Uni Freiburg since 1960s
- Tourism: $1.1 Billion spent on tourism (2007)
- Approximately the same latitude (important for solar energy consideration)
1975 – Protest Against Atomic Power Plant
March 2011: 80,000 fill the Capital Square in Madison nearly every day
Car-free City Centre

Before ...

... after

FREIBURG GREEN CITY
Car-free downtown Madison

- Before
- After
The Lord Mayor of Freiburg is a Green Party guy ...
Madison’s Mayor is also Green
Freiburg GreenSummer 2011
Collaboration Partners

- City of Freiburg
- Freiburg’s GreenCity Marketing Entity
- City of Madison
- Wisconsin Without Borders
- US Department of Energy
Spend a Green Summer in Freiburg, Germany

Receive academic credit while gaining practical experience during a summer internship in Freiburg, Germany!

15 students from various disciplines:

- Environmental Studies
- Engineering
- Political Science
- History
- Education
- International Studies
Cultural Immersion
... and some nice protests ...
(Made us feel like we had never left Madison!)
A Primary Target Goal of the GreenSummer in Freiburg Program:

Helping students to explore how sustainable systems work by researching and then actually experiencing those systems ‘in action’; in order to return to Madison with new knowledge to disseminate and expand.
How was this accomplished?

- Course on Green Economics taught by Professor Annette Kern of Uni Freiburg
Living/Learning Community in Freiburg’s sustainable neighborhood of Stadtteil Vauban

- Flats for 5,000 people in Low Energy or Passive House
- District heating
- Multiple social infrastructure facilities
- Since 2006 connected to city railway
Stadtteil Vauban

A Model of Sustainability and quality of life
Madison’s Willy Street Neighborhood
Field Research in Vauban

… led by resident experts to get best data…
Sustainable Planning: Green Spaces
Components of sustainable living
Passivhaus Architect Meinhard Hansen points out neighborhood design elements.
Biowaste pick-up in Vauban
Sustainable Public Transport

... and using the ride as a teaching moment ...
Sister-City tribute was nice… but no cowboys or bison in Madison!
Many energy-related site visits, including the largest Passivhaus Remodel in the World!
Expert on urban planning leads site visit to the Rieselfeldt neighborhood – many of these contacts coordinated by Green City Freiburg liaison
After initial site visits: Internship Projects

- parks clean-up
- inventory of Green space planning
- research on brown-field remediation
- Fraunhofer Solar Research team
- Passivhausarchitect team research
- Green policy comparison
- Green Marketing
Some unanticipated outcomes:

- UW students were ambassadors to Freiburg – showing not all Americans are gas-guzzling SUV drivers

- UW students lived in residence with students from all over the world; learning from their practices and also busting American stereotypes

- Relationship building: Helped expand and strengthen Madison – Freiburg Sister-City ties and developed future exchanges
So what did we do with all that GreenSummer knowledge upon returning to Madison?
GreenSummer turns to Fall

Students return to UW and continue to:

- Present to civic groups at local venues & campus
- Internships in sustainable business development
- Plan a UW Field Station for research
- Independent study in policy writing and advocacy
- Start new student organizations (conservation, composting, urban farming)
- Research on creating sustainable neighborhoods
GreenSummer presentations: build awareness

City of Madison Sustainable Engineering and Design Committee, UW-Madison events and professional workshops, Badger Bioneers Conference, etc. …
Internships and Projects:
with the City Planning Department and others
Passive house information presented to local developers to plan buildings
Other outcomes from Freiburg for Projects in Madison …

- Food Waste Biogas Digester research
- Green Tour Booklet
- Sustainability Neighborhood planning

… the returning GreenSummer students are helping make these types of projects happen!
What is Immediately Feasible?

Cleaning up our lakes and rivers
- Increase regulation at the municipal level

Environmental education
- Community gardens in the schools
- Outdoor fitness
- Bring the discussion to UW residence halls

Sustainable local communities
- Solar thermal – even passive house technology

Waste flow
- Madison already recycles 66% of its waste
- Interest in biodigesters, city composting initiatives
What will take more time?

- Macro-level change (especially at the state level)
  - Start local, act as a model

- A change in our transportation infrastructure at the macro level
  - State-wide and nationwide train system
  - Installing a streetcar system
Working on adopting new models
The ‘vision’ and dream
So what is next for the GreenSummer initiative?

- A *GreenSummer Freiburg in Madison 2012* course which looks at Madison through the ‘Freiburg’ experience: will translate to Madison’s needs and landscape

- ... a return to Freiburg with a new group of students in Summer of 2013.
Thank You - Danke!

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With assistance from: City of Freiburg, Petra Hess, Klaus Hoppe, Meinhard Hansen, Ted Markus Petith and others.