BAC/Tufts
2009 Solar Decathlon
SOLAR DECATHLON
A DESIGN COMPETITION FOR HOMES
POWERED BY THE SUN
Construction
Oct 1-8

Open to Public
Oct 9-18

Judging

Open to Public

De-construction
Oct 19-23
THE 10 CONTESTS

ARCHITECTURE - 100 pts
MARKET VIABILITY - 100 pts
ENGINEERING - 100 pts
LIGHTING DESIGN - 75 pts
COMMUNICATIONS - 75 pts
COMFORT ZONE - 100 pts
HOT WATER - 100 pts
APPLIANCES - 100 pts
HOME ENTERTAINMENT - 100 pts
NET METERING - 150 pts
Solar houses.
Now in session.

INITIAL GOALS OF THE TEAM - THE 3 E's

- INTEGRATED DESIGN PROCESS
- INTEGRATED PROJECT DELIVERY/BIM
- PREFABRICATION
- UNIVERSAL DESIGN
- BIOMIMICRY
- COMMUNITY SYSTEMS
- ECONOMIC AND SOCIAL ACCESSIBILITY
- BIPV
PARTNERING WITH TUFTS UNIVERSITY

- TUFTS INSTITUTE OF THE ENVIRONMENT
- TUFTS CLIMATE INITIATIVE
- THE FLETCHER SCHOOL OF LAW AND DIPLOMACY
- TUFTS SCHOOL OF ENGINEERING
ORGANIZATIONAL STRUCTURE

PROJECT DIRECTORS- COLIN BOOTH, KEVIN HORNE, SARAH HOWARD-MCHUGH, STEPHEN MESSINGER, MICHELLE STADELMAN, BEN STEINBERG, MATT THOMS.

PROJECT COORDINATOR- COLIN BOOTH

GOVERNING BOARD- VIN MANNO, ANTJE DANIELSON, JEFF STEIN, RICH GRISWOLD,

PRINCIPAL INVESTIGATORS- BILL MOOMAW, GREG DEMCHAK
SPRING 2008

SOLAR DECATHLON STUDIO
SUMMER 2008

- BAC DESIGN WORKSHOP
- TUFTS ENGINEERING AND POLICY INTERNS
- DESIGN TEAM STRUCTURE
FALL 2008

- BAC DESIGN/PRODUCTION WORKSHOP
- BAC INTERIOR DESIGN RESIDENTIAL STUDIO
- TUFTS ENGINEERING AND POLICY WORKSHOP
**DESIGN CONCEPT - EVOLUTION OF SHELTER**

<table>
<thead>
<tr>
<th>-EVOLUTION</th>
<th>-HOW DO WE EVOLVE THE WAY PEOPLE INTERACT WITH THEIR HOME, SO THAT THEY UNDERSTAND IT IN A WAY THAT HELPS THEM LIVE SUSTAINABLY?</th>
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<tbody>
<tr>
<td>-BIOMIMICRY</td>
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<td>-DEPLOYABLE</td>
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<td>-SCALABLE</td>
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<td>-FLEXIBLE</td>
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<td>(URBAN VS RURAL)</td>
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DESIGN CONCEPT - EVOLUTION OF SHELTER
DESIGN CONCEPT – EVOLUTION OF SHELTER

- EGO, CONSCIOUS, VOLUNTARY, CHOICE
- BRAIN, SUBCONSCIOUS, INVOLUNTARY
- ORGANS
- NERVOUS SYSTEM
- SKIN, BONES
- EGO, CONSCIOUS VOLUNTARY, CHOICE
- DATA PROCESSOR
- MECHANICAL, ACTIVE SYSTEMS
- SENSORS, ELECTRONIC WIRING
- ENVELOP, SHELL, SKIN
THE BAC/TUFTS CONSORTIUM WILL USE THE SOLAR DECATHLON COMPETITION AS AN ORGANIZATIONAL CATALYST TO ADDRESS LARGER ISSUES OF SUSTAINABILITY COLLABORATIVELY ON THE LOCAL, REGIONAL AND INTERNATIONAL LEVELS. THE VISION OF THIS INITIATIVE IS TO PRO-ACTIVELY CONTRIBUTE TO AN INTERNATIONAL, CROSS-DISCIPLINARY MOVEMENT TO CREATE HEALTHY LIVING ENVIRONMENTS FOR ALL HUMANS AND SPECIES. THE CONSORTIUM IS ASSERTING THAT FOR A HOUSE TO TRULY ADDRESS CONTEMPORARY ISSUES, IT MUST BE ENVIRONMENTALLY, ECONOMICALLY AND SOCIALLY SUSTAINABLE, AS WELL AS RESORTATIVE AND REGENERATIVE. THE CONSORTIUM WILL DESIGN AND BUILD A HOUSE, INCORPORATING BUILDING INTEGRATED PHOTOVOLTAICS AND OTHER GREEN PRACTICES, WHICH ARE ALSO AFFORDABLE AND LIVEABLE FOR THE MAJORITY OF AMERICANS.

OBJECTIVES

THE BAC TUFTS CONSORTIUM WILL DEFINE AND BECOME SKILLED IN RIGOROUS "SUSTAINABLE CORE COMPETENCIES," INCLUDING CIVIC LEARNING, SO THAT THEY ARE EQUIPPED TO BE LEADERS IN SOLVING 21ST CENTURY PROBLEMS, AND SO THAT THEY ARE ABLE TO ENGAGE EFFECTIVELY IN FUTURE COMPETITIONS, SUSTAINABLE INITIATIVES, AND POLICY-MAKING. IT IS MORE THAN BUDGET AND SPONSORSHIPS. IT IS AN UNDERSTANDING OF SOCIAL RESPONSIBILITY AND AN ISSUE OF COMMITMENT. WHILE THE OVERARCHING AND OBVIOUS GOAL OF THE PROJECT IS TO SHOWCASE A SOLAR HOUSE ON THE NATIONAL MALL IN 2009, THERE ARE CRITICAL OBJECTIVES LEADING UP TO THE MAIN EVENT: CREATE ECONOMICALLY, ENVIRONMENTALLY, SOCIALLY SUSTAINABLE HOUSING OPTIONS THAT ARE DISTRIBUTABLE TO THE PUBLIC; INCREASE STUDENT, FACULTY, AND PRACTITIONER KNOWLEDGE OF SUSTAINABLE PRACTICES AND IMPLEMENTATION; INCREASE PUBLIC EDUCATION AND AWARENESS ABOUT SUSTAINABLE LIVING; RESEARCH AND DEVELOP SUSTAINABLE PRACTICES, TECHNOLOGIES, MATERIALS AND POLICIES; INCREASE CAPACITY TO IMPACT ENVIRONMENTAL POLICIES; DISSEMINATE THE KNOWLEDGE GAINED FROM PROJECT ACTIVITIES, INCLUDING PUBLISHED WORKS; INTERSCHOLASTIC, CROSS-DISCIPLINARY COURSES OFFERED AT BOTH INSTITUTIONS.
CURIO HOUSE

TEAM BOSTON

SCALE: 1/8" = 1'-0"

CONDITIONED SPACE PLAN

ZONE 1
395 SF

ZONE 2
161 SF

NO DATE DESCRIPTION
DEC. 08  DELIVERABLE

12.16.08

SOLAR DECATHLON 2009
FUTURE PLANS

- WORKING WITH LCA TEAM AT TUFTS
- PLANNING PUBLIC EDUCATION EVENTS/SYMPOSIA
- BRANDING/WEBSITE
- NESEA
- BUILDING THE HOUSE!!!