

ECOCAFÉ: A CASE STUDY

- case study in the making
- model of sustainable community
- catalyst for ecological awareness



MODEL FOR SUSTAINABLE COMMUNITY

- GREEN BUILDINGS
- URBAN AGRICULTURE
- PEDESTRIAN ORIENTATION
- PEOPLE "IN COMMUNITY"
- ALTERNATIVE ENERGY
- ECOSYSTEM RESTORATION
- WASTE AS RESOURCE



GREEN BUILDINGS

- energy efficient wall systems
- resource conscious design
- passive solar design
- daylighting
- healthy indoors
- low embodied energy
- supporting local economy



URBAN AGRICULTURE

- integral greenhouse propagation
- onsite permaculture garden
- native medicinal herb garden
- building integrated edible landscape
- rooftop garden



PEDESTRIAN ORIENTATION

- close to rapid transit
- secure bike stands & repair depot
- employee showers and bike storage



PEOPLE "IN COMMUNITY"

- incubate cohousing group development
- support community governance systems
- develop consensus model



ALTERNATIVE ENERGY

- building integrated photovoltaics
- Ballard fuel cell
- passive solar water heating



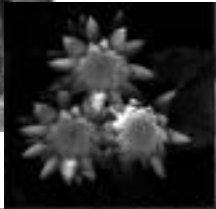
ECOSYSTEM RESTORATION

- incubating biodiversity
- preserving and enhancing wetlands
- re-establishing riparian zones along False creek
- using native species



WASTE AS RESOURCE

- ecological engineering
- industrial ecology



BGBH SEMINARS

- a catalyst for ecological awareness
- state-of-the-art green and healthy building information
- local professional and industry experts
- links to real projects, real materials



BGBH CONTENT

- WATER SYSTEMS
- ENERGY SYSTEMS
- BUILDING SCIENCE
- HEALTHY INDOOR ENVIRONMENT
- INTEGRATED DESIGN PROCESS

WATER SYSTEMS

- FULL CYCLE PLANNING
- WATERSHED PROTECTION
- CONSERVATION
- ECOLOGICAL ENGINEERING
- WATER RECLAMATION
- LANDSCAPE AS INFRASTRUCTURE



FULL CYCLE PLANNING

- watershed
- water supply
- wastewater
- rainwater
- stormwater



WATERSHED PROTECTION

- protected riparian zones
- conservation



CONSERVATION

- low water use toilets, showers, & faucets
- best practice
- hands free fixtures
- drip irrigation
- drought tolerant plants



ECOLOGICAL ENGINEERING

- using wisdom of evolved natural systems
- enhance with minimal inputs
- self-designing and self regulating systems



WATER RECLAMATION

- reclaim water from wastewater
- reuse: cooling, irrigation, flushing
- collect rainwater



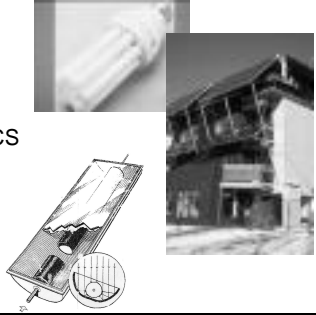
LANDSCAPE AS INFRASTRUCTURE

- biofiltration integrated as a landscape element
- native & intense planting to harvest rain



ENERGY SYSTEMS

- DEMAND SIDE MANAGEMENT
- BUILDING INTEGRATED PHOTOVOLTAICS
- SOLAR WATER HEATING



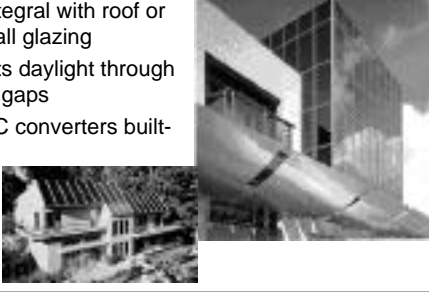
DEMAND SIDE MANAGEMENT

- low-E lighting
- passive solar gain
- shading: awnings, plants, buffer zones
- free cooling-cupola
- elliptical shape-high volume to skin ratio



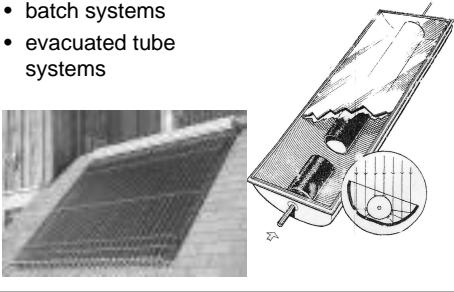
BUILDING INTEGRATED PHOTOVOLTAICS

- integral with roof or wall glazing
- lets daylight through in gaps
- AC converters built-in



SOLAR WATER HEATING

- batch systems
- evacuated tube systems




BUILDING SCIENCE

- ADVANCED WALL SYSTEMS
- RECYCLED CONTENT
- LOW-E GLAZING
- HEALTHY INDOOR ENVIRONMENT

ADVANCED WALL SYSTEMS

- rain screen design
- condensation control in cavities
- condensation control-interior surfaces:HRV
- high insulation levels: rockwool



RECYCLED CONTENT

- recycled post consumer materials
- crop wastes
- used building materials



LOW-E GLAZING

- hard coat low-E
- argon filled
- super-spacer

HEALTHY INDOOR ENVIRONMENT

- low toxicity materials
- effective ventilation: cupola
- filtration: hepa filter, plants
- continuous air barrier
- humidity control: HRV



INTEGRATED DESIGN PROCESS

- DIVERSE STAKEHOLDERS
- BRAINSTORM EARLY IN PROCESS
- SITING, FORM AND TECHNOLOGY

DIVERSE STAKEHOLDERS

- community representation
- regulators
- design professionals
- scientists



BRAINSTORM EARLY IN PROCESS

- establish principles
- social, ecological and economic issues



SITING, FORM AND TECHNOLOGY

- discuss full implications of siting, form and technologies
- include effects on local economy

