Climatic EcoVillages
Climate Response and Sustainable Living

A comparison of four ecovillages in different cultures with similar climate conditions. This study will explore Christie Walk, Cranberry Commons, Duwamish Co-Housing, and Ibsgaardden Project.

Team members:
Maureen McCafferty, Noelle Ji Sun Miller, Michael Hahn, Heidi Spaly
Climatic EcoVillages

~Introduction to Projects
~Site Plans
~Common Spaces and Landscaping
~Culture of Community
~Codes and Government
~Materials
~Conclusion
Introduction - Christie Walk

~Located in Adelaide, South Australia
~Mediterranean Climate —
  Warm, dry summers, cool winters
~Under Construction-stages 1 and 2 complete
  Stage 3 to be completed by Fall 2005
~Ecopolis Architects
~14 Units
~Project can house 43
~Half acre lot
~Cost of homes:
  $120,000-$350,000 (Australian Dollar)
  as compared to $200,000- $600,000
  for a typical Australian home in this area
Introduction - Cranberry Commons

~4272 Albert Street, Burnaby, BC, Canada
~Average daily temperature: 54.0° F
   (61.6° in spring/summer, 46.4° in fall/winter)
~Average annual precipitation: 78.7 inches
~Completed October 2001
~Architect: Birmingham and Wood
~22 units; 48 residents
~Site: 0.4 acres
~Selling price: $130,000 to $375,000 Canadian
   ($104,000 to $300,000 USD)
~Prices are about $10,000 Canadian higher
   than comparable units nearby due to
   cost overrun for common areas.
Introduction - Duwamish

~6000 17th Ave. SW, Seattle Washington
~65° in spring/summer, 41° in fall/winter
~Average annual precipitation: 34 inches
~Completed January 2000
~Architect: Arellano / Christofedes
~23 units; 45 residents
~Site: 2.7 acres
~Selling price: $200,000 to $675,000
~Average condo prices start at about $120,000

Less than the smallest cohousing units
Introduction - Ibsgaarden

~Roskilde, Denmark, population 52,000
~Temperate coastal climate,
   60s in the summer, 30s in the winter.
   Windy, average rainfall 23 inches.
~Completed in 1985
~Architects: Jes Edwards and Helge Christiansen
~21 apartments and a common house
~34 adults and 21 children
~1.5 acres
~Originally government subsidized loan,
  each member of the community owns a share
  in the community and shares common expenses
Site Plans

Circulation
Paths

Community
Spaces

Housing
Types

Entry
Sequences

Christie Walk

Cranberry Commons

Duwamish

Ibsgaardan
Site Plans

Circulation Paths
Community Spaces
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Christie Walk  Cranberry Commons  Duwamish  Ibsgaarden
Site Plans

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Christie Walk  Cranberry Commons  Duwamish  Ibsgaarden
Common Spaces & Landscaping

Christie Walk
Cranberry Commons
Duwamish
Ibsgaarden
Common Spaces & Landscaping

Christie Walk  Cranberry Commons  Duwamish  Ibsgaarden
Culture of the Community
Codes & Government

~11 parking spots for 14 dwellings

~Australian government supports community with resource guide to ecological design.
Codes & Government

~38 parking spots required; only about 25 are regularly used

~City and regional planning: increase residential density to reduce urban sprawl and resulting increased car usage

~Renewable Energy Deployment Initiative (national level) and Renewable Energy Technology Program (province level) helped to fund installation of solar panels
Codes & Government

~ Downpayment assistance for up to 5 units by income eligibility, provided by the City of Seattle

~ Assistance from Puget Ridge Neighborhood Council, Delridge Tri-Council, & Delridge District Council

~ Mayoral and AIA co-sponsored Design Demonstration Project Competition

~ Construction confined by local building codes, leaving little exploration with building technology
Codes & Government

~1981 Cooperative Housing Law

~Parking code 1.5 spaces per unit
Design for current needs and expansion allowed

~Ibsgaarden Cohousing Project
Generally accepted in the community over time

Christie Walk   Cranberry Commons   Duwamish   Ibsgaarden
Materials & Technology

~ Use Strawbale, thermalite, earthcrete, Ecopanel, Flyash, and non-toxic finish products
~ Recycled materials
~ No mechanical heating or cooling (use of fans to circulate air)
~ Thermal-flue (or stack-ventilation) is used to cool units
~ PV panels
~ Water collection for use in toilets and landscaping

Christie Walk  Cranberry Commons  Duwamish  Ibsgaarden
Materials & Technology

- Flyash Concrete Pavers
- Native Planting
- 10% Recycled Timber Framing
- Solar Water Heating

Christie Walk Cranberry Commons Duwamish Ibsgaarden
Materials & Technology

- Hydronic Floor Heating
- Swale
- Solarium

Christie Walk  Cranberry Commons  Duwamish  Ibsgaarden
Materials & Technology

- Traditional Construction Methods
- Building Reuse
- Original Footprint Honored
- Preserving Open-space
- Organic Garden
- Limited Success with Composting
Conclusion

Same end goal of living sustainably, but all had different approaches based on different social and cultural values.

The differences in the building technology were less based on the climate conditions and more dependent upon the sociocultural factors.
(Something Else we Learned)

Conclusion

~We went into this study looking primarily at climatic response, but the influences in choosing materials were first social implication, second the economic condition of the country, and last the influence of climate.
Works Cited

Christie Walk


Works Cited

Cranberry Commons


Works Cited

Ibsgaarden


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