

# SHEELAGH CARPENDALE

---

Address:	School of Computing Science	Phone:	(604) 291-3610
	Simon Fraser University	Fax:	(604) 291-3045
	Burnaby, BC., V5A 1S6, Canada	email:	carpenda@cs.sfu.ca
URL:	www.cs.sfu.ca/~carpenda	Citizenship:	Canadian/British

---

## OBJECTIVES:

---

I am interested in both research and teaching. Recently, I have focused on how visual presentations can enhance the understanding/insight process. My expertise lies in incorporating these ideas into visual presentations created for improving access to and comprehension of information.

Areas of interest include: information visualization, user interface design, graphics, human-computer interaction, graph layout, computational geometry

## EDUCATION:

---

### Computing Science:

Ph.D., Computing Science, Simon Fraser University, Burnaby, British Columbia. 1999  
Information Visualization: "*A Framework for Elastic Presentation Space*".  
BSc., Computing Science, Simon Fraser University, Burnaby, British Columbia. 1992

### Arts:

Emily Carr College of Art, Vancouver, British Columbia. 1981  
Sheridan College, School of Design, Oakville, Ontario. 1975

## EXPERIENCE:

---

### Research:

Research Associate: SEED (Simulating and Exploring Ecosystem Dynamics), SFU, BC. 1996-...  
Developing visual access for landscape dynamics data.  
Research Associate: Algorithms Laboratory, SFU, BC. 1992-96  
Created visualizations for several aspects of network theory.  
Research Assistant: Social implications of computing, SFU, BC. 1987-88  
Studied gender issues in math and computing education.

### Computing:

Computer Consultant: KYAC (Knowledge for Youth About Careers), Surrey, BC. 1991  
Part of a team that developed an interactive career choice program for teenagers.  
Software Designer: MPR Teltech Ltd., Burnaby, B.C. 1990  
Created cohesive user interface, Customer Response Kit, uniting three expert systems.  
Programmer: ALI (Advanced Light Imaging) Technologies, Burnaby, BC. 1989  
Created a diagnostic program used to test hardware.

### Arts:

Artist in resident: GreenHouse Arts Retreat, Christina Lake, BC. 1997  
Artist in resident: Glass Studio, Harbourfront Arts Centre, Toronto, Ont. 1975-79  
Artist in resident: Lippincot Couch House Studio, Toronto, Ont. 1974-79  
Artist in resident: World Craft Conference, Ontario Science Centre, Toronto, Ont. 1974

**Organizational:**

Coordinator: Peace in the Family Festival, Nelson, BC.	1986
Support Groups Coordinator: Nelson Women's Centre, Nelson, BC.	1983-86
Treasurer, Board of Directors: Women in the Arts Festival, Vancouver, BC.	1981-82
Member: Board of Directors. Women In View, Vancouver, BC.	1979-82
Coordinator, Crafts: Board of Directors. Mariposa Folk Festival, Toronto, Ont.	1974-79

**Educational:**

Co-Supervising undergraduate and graduate students. SFU, BC.	1992-99
Co-Teaching: Computational Visualization. SFU, BC	1996
Teaching Assistant: Computer Graphics. SFU, BC	1997
Teaching: Fine Arts, North York Board of Education. Toronto, Ont.	1977-78
Instructor: Harbourfront Arts Centre, Toronto, Ont.	1975-79
Instructor: Humber College. Toronto, Ont.	1973-75

**SELECTED AWARDS AND GRANTS:**

---

**Scholarships:**

NSERC, Postgraduate Scholarship B	1994-96
Simon Fraser University Graduate Fellowship	1996
NSERC, Postgraduate Scholarship A	1992-94
Simon Fraser University Special Graduate Research Fellowship	1992
Simon Fraser University Open Scholarship	1988-91

**Research Grants:**

FRBC: Simulating and Visualizing Forest Ecosystem Dynamics, F. D. Fracchia, K. Lertzman, T. Poiker, M. S. T. Carpendale, and A. Fall Forest Renewal BC Research Grant.	1996-99
Intel Corporation: Accessing Three-Dimensional Representations F. D. Fracchia, M. S. T. Carpendale, and D. Cowperthwaite Equipment and Travel Grant.	1997-99

**Arts Related Grants:**

Artist in the Schools Grant: Ontario Arts Council	1977, 1978
Various grants: industry, and municipal, provincial, federal governments Involved in lobbying, liaising, and procuring grants and equipment on behalf of Harbourfront Arts Centre, Toronto, Ontario.	1975-79

**SELECTED PUBLICATIONS:**

---

1. M. S. T. Carpendale, D. J. Cowperthwaite, and F. D. Fracchia. Extending Distortion Viewing Techniques from 2D to 3D Data. *IEEE Computer Graphics and Applications, Special Issue on Information Visualization*, IEEE Computer Society Press, Vol. 17(4) pages 42 - 51, July 1997.
2. M. S. T. Carpendale, D. J. Cowperthwaite, and F. D. Fracchia. Making Distortions Comprehensible, *IEEE Symposium on Visual Languages*, pages 36 - 45, IEEE Computer Society Press, 1997.
3. M. S. T. Carpendale, D. J. Cowperthwaite and F. D. Fracchia. Three-Dimensional Pliable Surfaces: For Effective Presentation of Visual Information. *UIST'95, Proceedings of the ACM Symposium on User Interface Software and Technology*, pages 217 - 226, ACM Press, 1995.