



SCHOOL OF INTERACTIVE
ARTS + TECHNOLOGY

SIAT.SFU.CA



IAT 233 Spatial Design Model The Barnes House by Patkau Architects

SUBMISSIONS

We are accepting student work for our next issue!

To submit, please email your work, descriptions, and contact info to dejinemag@gmail.com



waynefro.com | akbeffect.com

de:jine

Showcase of Simon Fraser
University Design Students
from interactive arts and technology to communication
technology to communication
technology to communication

de:jine 2

ITALIADESIGN FIELDSCHOOL2009

<http://www.sfu.ca/italiadesign>



The ItaliaDesign field study provides a group of skilled and dedicated students with the opportunity to learn and work while immersed within the context and content that they are studying.

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Do you ever find that you think of the best ideas in the most peculiar situations? Everyone has their places, from inside the shower to waiting in line for your next chicken combo. And a year after your teammates decided to rule your idea out, you find another team or web article presenting the EXACT same idea in some type of format. You'll experience this a lot. At least until you jump on an idea and say, "yes, this is worth it no matter what."

Both of us have been out of touch with the SIAT culture. Due to the fact that one of us has graduated and the other one is about to graduate. Pulling all-nighters just isn't the same without fifty other people online and a holster of T&T snacks ready for breakfast, lunch, and dinner. But beyond those circumstances, a second issue of DEJINE has been birthed again for your enjoyment.

We are looking for people to help out with the production and project gathering of this magazine. You'd want this to be "from students, for students," not "from expired students, for students," right?

**Team
Dejine**

Dominic Wong
Wayne Lo

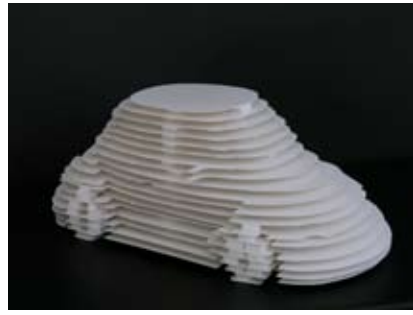


DEJINE, created and published by students, started in 2007. We plan to publish a new issue each fall, as well as add a new student to the production team. This is an excellent portfolio opportunity and resume decoration. If you're interested in joining our team, email dejinemag@gmail.com with your CV.

Karen Lo

4th Year SIAT Student
Interaction Design Major
Communications Minor

www.sfu.ca/~kml0



01 IAT232 paper slice project: VW beetle

“The goal of this project was to create a 3D object using ‘slices’ (paper separated by foam-core). The only requirement was that it must have concave/convex curves. I decided to make a Volkswagen Beetle because it had many convex and concave curves, allowing me to explore different ways of constructing the model.”

02 IAT232 Kinetics Project: Robo Spider (with Sam Yu & Sanny Chong)

This fully functional spider gait movement is made up of 3 Lego Technic sets and a small motor. After doing research on simple machines, paper prototypes of the movement of the spider leg were made for testing. The spider walks on its own and runs on 2 AA batteries.

03 Photography: Lomography Fisheye 2.0

**04 Various Commercial Websites
Designed by Karen**

www.shunfengrestaurant.com
www.ashburykitchens.com
www.inter-besthousewares.com

CATGames: Gesture & Tangible Prototyping

www.catgames.ca

The Butterfly Immersive Bio-Computing Environment

Alissa Antle
Professor

Jinsil Seo
Ph.D Student

Aaron Levisohn
Ph.D Student

This tool enables designers to quickly conceptualize and create physical, tangible and virtual game prototypes based on physical gestures and manipulation of “smart” objects. The goal of the research is to create a toolkit of simple gestures, tangible objects, and player types.

This approach in real-time game authoring processes is the focus of another research component regarding the development of a gesture and tangible prototyping tool to enable designers to quickly conceptualize and create physical, tangible and virtual game prototypes based on physical gestures and manipulation of “smart” objects. Currently, no prototyping environments exist that allow game designers to explore and create games that are physical and human action based such as Nintendo’s Wii or social ambient intelligent games like SFU’s own socio-ec(h)o, or the next generation Twister.

This project is developing a conceptualizing and rapid prototyping environment for physical and tangible games in which a ready toolkit and library of modifiable simple gestures, tangibles and descriptions of players can be assembled and re-mixed to generate a number of prototypes to explore this new hybrid space for digital games.

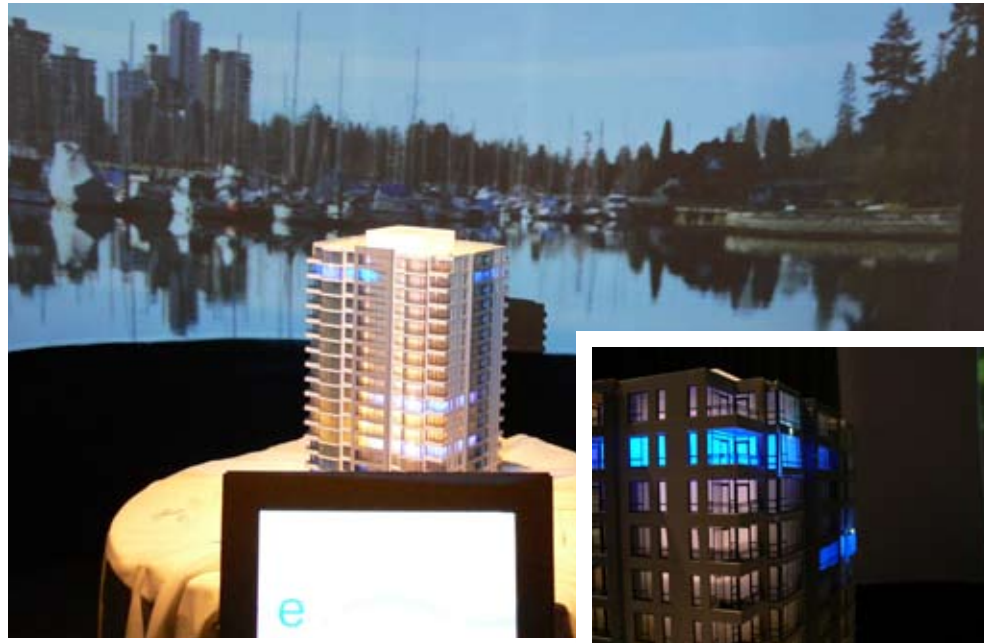
Research is conducted by faculty, graduate students, and undergraduate students in the iViz Lab at SIAT.

For more information, visit www.siat.sfu.ca/faculty/Steve-DiPaola and vizlab.sfu.ca

In the Butterfly immersive bio-computing environment, the human body, mind and computer become inseparably linked and responsive to each other through biofeedback. The player controls the environment by using their mind to modify their physiological states. In turn the player’s physiology is affected by changes in the environment. This bio-computing environment allows us to explore the implications of extending human cognition outside of our bodies and into computationally embedded environments. The environment was also developed to help school aged children learn about the connection between their physical bodies and mental-emotional states in a game-based immersive environment.

For more information, visit: www.antle.iat.sfu.ca

E2:
Christie Anderson
Diana Kidd
Sara Salevati
Arlen Chudley
Alan Li
IAT 405 Interdisciplinary
Design Studio



4th Year SIAT Students
Interaction Design

www.NuDesignGroup.com

E2 aims to enhance the home buying experience by immersing the prospective buyer in the architecture and lifestyle of the development. E2 allows users to explore the development by interacting with the building and touch display while viewing panoramic images of the area on the 180 degree projector screen.

Sweet Avengers:
Simon Kwok
Simon Shum
Annie Wong
Andy Huang
Omar Satari
Midori Uematsu
BUS 443 Marketing for
New Ventures



The idea behind the Sweet Avengers is to disseminate and promote sustainable and socially responsible ideas. Each character was created to reflect the idea that it represents: cradle to cradle, open source, biomimicry.

Andrew Thong

4th Year SIAT Student
Interaction Design

www.andrewthong.com

Andrew is a multi-purpose designer: jack of all trades, master of none. He enjoys rapid prototyping and doodling in class.



**01 IAT 405 Interdisciplinary
Design Studio
Sustain-a-Stack
Presentation Poster**

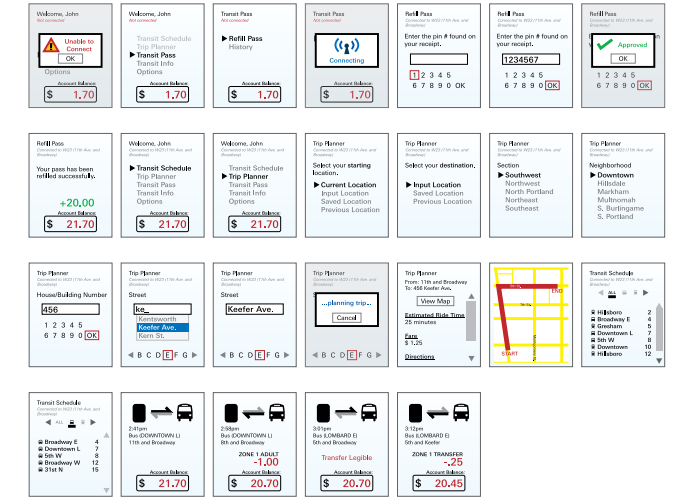
A Tado-inspired poster that expresses the team's and the project's environmental values and goals. We still have a long way to go on the road to sustainability.

**02 IAT 333 Interaction
Design Methods
Project Busspass
Screenshots**

This series of screenshots were intended to demonstrate the functionality of a proposed electronic transit pass device.

**02 IAT 333 Interaction
Design Methods
Personas Poster**

This is a three-section poster that represented fictitious characters of the project's intended user group: University staff.



01

02



03

IAT 233 Spatial Design

Architectural Models



As a mid-term project in IAT233 students of the course expanded their understanding of architectural space and their skill in prototyping physical forms through a physical modeling study of specific architectural precedent buildings. The precedents ranged from Contemporary to Modernist to Historical, some local, most European.

After developing prototype models through which the students gained an understanding of the structure of the precedents in their first week they constructed the physical models pictured above in their second week of work.

IAT 244 Digital Photography I

Final Projects



01



02



03

- 01 Adam Drake
- 02 Christian Skaarup
- 03 Michael Lee

IAT 267 Technological Systems

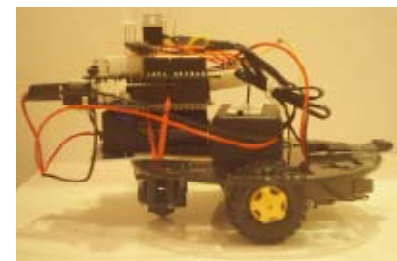
Informatics Projects



01



02



03

- 01 Plant Growth Simulation
- 02 Photomosaic
- 03 CarBOT

This project addressed subjects related to the user of sensors and Arduino and processing in an application. Students developed systems with an input of their choice and translated it via a computer system into a meaningful, surprising, critical or artistically challenged output.

IAT 338 Interactive Objects & Environments

Subculture Information Model



01



02



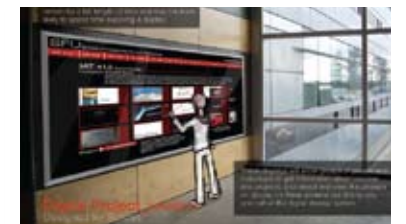
03

- Georgina Chaplin
- Jess Hadden
- Alanna Kho
- Ryan Lai
- Kitty Leung
- Julie Yeem

Information models and concept maps can, when designed well, visually communicate complex relationships between concepts in a surprisingly compact manner. The above models map the core concepts of three books, Boom Bust and Echo, Post-Capitalist Society, and Sub-culture and the meaning of Style.

IAT 235 Information Design

Campus as Gallery



- Georgina Chaplin
- Paul Brokenshire
- Kitty Leung
- Amy Ngai

Students developed a visual proposal for a campus wide gallery and interface designed to make student work publicly visible across the campus. The proposal consisted of information design elements, interface mockups, site planning and display of authorship in order to make it possible to show works in a variety of mediums throughout the campus.

Kirsten Johnson

SIAT Graduate Student (MA)

www.sfu.ca/~kjohnson/lostcause/



01 Lost Cause

Lost Cause is an online interactive movie which explores navigation between the perspectives of three main characters at anytime throughout the duration of the story.

A fourth main character connects together all the three characters through their relationships. The film lasts 15 minutes and contains three parallel storylines which play simultaneously in real time. One large screen displays the main video while three thumbnail screens function as buttons and display each of the three character's point of view.

Each character's perspective is different from another character's perspective creating ambiguity throughout the duration of the film. As viewers interact they piece together narrative fragments of these three characters and build their own interpretation of the story.

Different choices will present varied sequences creating new interpretations of the story. As well their interactions throughout the entire film will determine which of the three separate conclusions will be selected by the end of the film. The film's design uses cinematic techniques such as a split-screen interface and crosscutting editing techniques in an attempt to maintain the suspension of disbelief into the experience as the viewer interacts to uncover the narrative.

**Steve DiPaola
Caitlin Akia**

SIAT Faculty
SIAT Graduate Student (MSc)

ivizlab.sfu.ca/research/vraquarium/
www.siat.sfu.ca/faculty/Steve-DiPaola/



01 Artificial Intelligence 3D Whales Simulation

The Virtual Beluga Interactive is a multimedia interactive exhibit that uses artificial intelligence and real-time animation was created by associate professor Steve DiPaola and his research team, including graduate student Caitlin Akai. The virtual, three-dimensional animals will be used to help teach people about wild belugas and how they behave as a family unit in the wild. Visitors can, for example, introduce an aggressive male into the virtual pod near a young beluga and view the pod's response. The virtual exhibit was conceived to better immerse and engage the visitors in complicated educational concepts about the life of wild belugas compared to what is typically possible via wall signage or a video display, allowing them to ask deeper questions and hopefully have deeper insights into the life of beluga whales. DiPaola and Akai worked with aquarium staff and scientists to better understand how technology-based exhibits can adapt on the fly to visitor needs, or updated scientific knowledge.

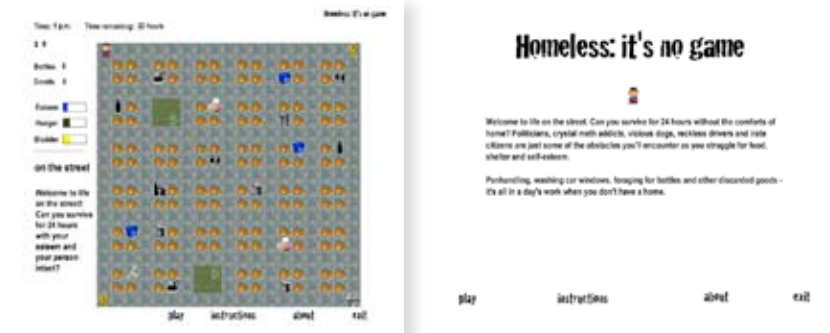
The work is based on DiPaola's collaborative research with Bill Kraus, a NASA artificial intelligence researcher. Kraus created the base digital biology system, which uses the game technology, 3D graphics hardware and artificial life research to develop real-time animation software for creating interactive simulations of living organisms. Benefits of this software include lifelike organic movement, real-time interaction among the virtual belugas and between the viewer and the belugas, intelligent behaviour and a realistic 3D environment. To generate the beluga behaviour, the research team used research data from the live belugas, such as voice recordings and worked closely with marine mammal scientists and aquarium education staff. "But in the end, it is not about the sophisticated interactive projected simulation, but about designing an engaging and exciting collaborative discussion space around it where visitors can feel the rush of scientific discovery and reflect on the life of these amazing animals." The exhibit is still being developed, but the team expects it to be rolled out soon with the aquarium's expansion plans.

"With intelligent and adaptive multimedia systems, we believe the work we do here will be used in the future not only for other social spaces with educational mandates like zoos, aquaria and museums, but also in places where people need to engage with information like airports, train stations and public spaces that today typically use static or text-based signage to inform the public."

Terry Lavender

SIAT Graduate Student (MSc)

www.homelessgame.net



01 Homeless: It's No Game

Parents take heart: your children may not be wasting their time playing video games. They may in fact be learning to feel compassion for the homeless, or reduce their carbon footprint or eliminate malaria in Africa.

That's the view of Terry Lavender, a graduate student in SIAT who has been researching an emerging class of educational video games known as "serious games". Lavender says serious games, which are being produced by such diverse organizations as the U.S. Army, Burger King and Greenpeace, are designed to change people's attitudes – get them to vote a certain way, join the army or buy hamburgers. "There's a perception that video games are just mindless entertainment," Lavender says. "That's not necessarily true. Video games can be used for many purposes, just like any other media of expression. Games can be used to encourage cancer patients, train doctors and nurses, or teach activists for democracy in autocratic regimes how to organize non-violent protests."

Serious video games are now big business, says Lavender. "America's Army, an action video game produced by the U.S. Army, has been played millions of times. And Food Force has been downloaded from the World Food Programme's website more than four million times." Lavender created a video game about homelessness, which he tested with 120 people recruited over the Internet to see whether people could be made to feel more sympathetic towards homeless people.

Although there was a definite increase in sympathy among people who played the game, Lavender says more research needs to be done to see whether the increased sympathy lasted, for example, and what other factors might play a part. And he says parents and players alike should approach serious video games with a healthy dose of skepticism: "What are the motives of the game designers and what information are they leaving out of the game or distorting in order to change your mind?"

Andrew Park

SIAT Graduate Student (Ph.D)

www.siat.sfu.ca/grad/theses/apark/



01 Modeling and Simulating the Role of Fear in Pedestrian Navigation

Research studies in criminology and environmental psychology show that fear of crime can be generated in pedestrians by features of the urban environment such as narrow routes, hidden spaces, dumpsters and litter, and by threatening individuals; this fear may cause pedestrians to choose an alternate route to avoid these features. Criminologists and urban planners have devised a strategy called "Crime Prevention Through Environmental Design (CPTED)" which reduces fear of crime and crime itself through careful environmental design. A quantitative model of the role that fear of crime plays in pedestrian navigation has been developed based on these findings from criminology research. In the course of validating the model, Park constructed a virtual environment (VE) that resembles a well-known fear-generating area where several decision points were set up. Each decision point tested the reaction of pedestrians to environmental features thought to generate fear of crime. A total of 60 human subjects were invited to navigate the VE and their choice of routes and comments during the post experimental interviews were analyzed using statistical techniques and content analysis. From our experimental results, we not only validated our pedestrian model but also discovered new pedestrian behaviour in making a choice of routes. From this research, we propose a new enhanced model of the role of fear in pedestrian navigation. This research also shows that virtual environments can be a useful tool in criminology research.