AUGUST 2001

VALLE REVIEW

INSIDE THIS ISSUE

We've got a new look

We've remodeled! We hope our new home on the web is a useful tool with valuable resources for scholars — past, present, and future — as well as our larger community of local and international associates and organizations. We invite you to enjoy the beautiful scenery on our Home Page and learn about our international links in Scandinavia. Exchange Scholars can now apply on line and navigate easily to information related to graduate programs, scholarship exchange regulations, and resources for Nordic universities and the University of Washington. We are excited about our new Alumni Exchange Page and encourage alums to contact each other and the Valle Office to keep us current about your projects, careers, and lives. We hope you visit our new web site soon and often, **www.engr.washington.edu/activities/valle**. Also, please let us know what you think of the site.

As you can see with this issue of the *Valle Review,* the Valle Program also has a new signature look to our publications. We hope that our new poster and brochure are especially of interest to scholars, institutes, and universities in the Nordic countries.

Credit for the outstanding design and development of our publications and web site goes to a team of amazingly talented professionals in Publication Services at the University of Washington — Nigel Heinsius, *Web Publisher;* Dean Driskell, *Senior Publications Designer;* and Maggie Keech, *Publications Coordinator.* Dayna Cole, Valle Administrator, was responsible for overall direction and focus of the publications and web site remodeling project.

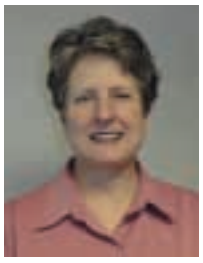
From the Director

When you have contacted the Valle Office in the last few months, you may have noticed new staff members. We are pleased to have with us two excellent additions to the staff — **Dayna Cole,** Valle Administrator, and **Virginia Travers,** Valle Coordinator.

Dayna joined the Valle Program in July 2000. She has extensive administrative experience as a program manager, college advisor, and video producer. Prior to coming to the Valle Office, Dayna held positions as Admissions Coordinator at Cornish College of the Arts and as Office Manager for a Seattle architecture firm. Cole is a Seattle native with Nordic roots and a most welcome addition to the Valle team.

Virginia transferred from the College of Engineering Dean's Office to the Valle Program. At the Dean's Office she was Office Manager and Human Resources Assistant. Virginia has a half time position with the Valle Program. She also includes in her busy schedule graduate student studies in the College of Forest Resources and time for her husband and her year old son, Skyler. Prior to coming to Seattle, she worked with brokerage firms in New York City. It is a pleasure to have her with us.

Joe Greer left the Valle Office in the fall of 2000 to enter the Pacific Lutheran Theological Seminary in Berkeley, California. Joe had been with the Valle Program since 1995 and during that time developed much of the computer applications for the Valle Office. Joe's service to the Valle Program was most appreciated and he has our best wishes as he embarks on his studies for a new career in the ministry.



Dayna Cole

Virginia Travers

VALLE SCHOLARSHIP AND SCANDINAVIAN EXCHANGE PROGRAM

Nordic Consular Offices in Seattle

Consulate of Denmark
6204 East Mercer Way
Mercer Island, WA 98040
TEL: 206-230-0888

Consulate of Finland
11045 SE 28th Place
Bellevue, WA
TEL: 425-451-3983

Consulate of Iceland
5610 20th NW
Seattle, WA
TEL: 206-783-4100

Consulate of Norway
Joseph Vance Building
Seattle, WA
TEL: 206-623-3957

Consulate of Sweden
1215 4th Avenue, Suite 1019
Seattle, WA
TEL: 206-622-5640

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Don Lorentz
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Nordic Advisory Committee
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Bjorn Lundberg
Jaakko Puhakka
Tor Wennesland
Bo Krantz
Gro Øfjord
Konstance Sørevik

Valle Program Staff

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John F. Ferguson, PhD, *Associate Director; Professor, Civil Engineering*
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Virginia Travers, *Valle Coordinator*
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Valle Scholar Survey

The Valle Advisory Committee initiated a Scholar Survey in December 2000 to help assess the Valle Program and explore opportunities for further enhancement of the program. Over 30% of our alumni replied and the responses and scores were overwhelmingly positive. The results will be very helpful to the Valle Advisory Committees in Seattle and in Oslo, Norway as the Valle Program continues to fund excellent students for research and study.

It is clear that Valle scholarship alumni are a valuable resource for future scholars, research development, and international relations. The respondents seem to feel that the Program lives up to its agenda — preparing people for life long learning, leadership and service through cooperative international education. Please read the following scholars' comments and Summary of Results.

VALLE SCHOLAR COMMENTS

It's been 10 years since I was a Valle scholar to Denmark, and I still reflect very positively on that year. In fact, I had an outstanding experience and would highly recommend the program to others. I believe that I benefited equally from the research experience and the cultural experience.

KEN BRETTMANN, SENIOR HYDRAULIC ENGINEER, ARMY CORPS OF ENGINEERS

Living abroad and working in another culture has made a life-long impact in my life and view of the world. While the exchange of technical information is important, it is the cultural exchange that makes the Valle Program unique.

DR. JOHN OLSON, M.D.

I was among the first US students to go abroad on the Valle scholarship in 1981. My time in Sweden was certainly one of the most important experiences of my life. I still keep in contact with my friends there and often look back with fondness at my project and experiences in that part of the world.

DAVID ROBERTS, WATERSHED PLANNING SUPERVISOR, WASHINGTON DEPARTMENT OF ECOLOGY

The Valle year was really decisive in my development as an architect. Research at the UW was the first major turning point in my professional life, and resulted in a prize-winning entry in an international design competition.

KIRSI LEIMAN, ACTING HEAD OF EXHIBITIONS, MUSEUM OF FINNISH ARCHITECTURE

There is little doubt in my mind that the Valle Exchange Program offers an incredibly good opportunity for students from both the University of Washington and Scandinavia to continue studies in very different and stimulating environments and gain experiences which will help them for their entire careers.

JAY LUND, PROFESSOR, CIVIL ENGINEERING, UNIVERSITY OF CALIFORNIA, DAVIS

VALLE SCHOLAR SURVEY RESULTS

We tabulated all the responses and compiled detailed tables in summation of the data from the survey. The following is a broad summary of the results.

VERY IMPORTANT

- Working with people in another culture was a strong benefit to the program
- Gaining an awareness of cultural diversity

IMPORTANT

- Working independently
- Getting an openness to new ideas
- Assisting in professional advancement
- Communicating effectively with others
- Need for life long learning
- Designing and conducting research
- Understanding technology in your area
- Assessing and reporting research
- Awareness of the impact of your profession on global issues
- Knowledge of global issues that impact your profession
- Commitment to service to others

SOMEWHAT IMPORTANT

- Understanding ethical responsibilities of your profession
- Working in a group
- Functioning in multidisciplinary teams

Question III asked how important certain areas would be to the Valle Program in the future.

IMPORTANT

- Development of additional funding sources
- Support and exchange of faculty

SOMEWHAT IMPORTANT

- Satellite offices in Scandinavia
- Broader areas of study
- Distance learning

LESS IMPORTANT

- Expansion beyond the US and Scandinavia

Valle Nordic Advisory Committee

The Valle Program is fortunate to now have the participation of a Nordic Advisory Committee whose purpose is to enhance the operations of the Valle Oslo Office and to further cooperation between the Scandinavian countries and the Valle Program. The committee consists of an excellent group of individuals including:

Dr. Arild Eikum, Committee Chair, Affiliate Professor at the University of Washington, Director for the Oslo Valle Office and Research Director for the International Water Academy in Oslo, Norway

Dr. Bjorn Lundberg, CEO of IVL (Swedish Environmental Institute) and Board Member of KTH (Royal Institute of Technology) in Stockholm, Sweden.

Dr. Jaakko Puhakka, Professor and Head of Environmental Engineering and Biotechnology, University of Tampere, Finland

Mr. Tor Wennesland, Secretary General of the International Water Academy, Oslo

Mr. Bo Krantz, Secretary General Emeritus of the International Water Academy, Board Chairman for Easy T Group, Stockholm and former Vice President for SAS Group Management

Ms. Gro Øfjord, Environment and Resource Consultant at Interconsult, currently with the International Water Academy, Oslo.

Ms. Konstance Sørevik, Oslo Valle Office Supervisor and Secretary

Alumni News

Kirsi Leiman (DECEMBER 2000) was editor and graphic designer for *Concrete Spaces: Architect Aarns Ruusuvuori's Works from the 1960's,* a book published by the Museum of Finnish Architecture, Helsinki. The book describes the work of Ruusuvuori in photos of his structures and quotes from his lectures and comments. The book's purpose is to let others beyond the borders of Finland know of this esteemed architect's work and thought. "I feel that architectural quality is above all converted energy. It is the result of a great unselfish process of creation. The designer uses his entire unconscious and conscious capacity to find for the work in hand a solution whose multi dimensionality is the total portrait of our development and culture," notes Ruusuvuori.

PHOTO LEFT: **From *Concrete Spaces: Architect Aarns Ruusuvuori's Works from the 1960's.* Kirsi Leiman, editor, designer.**

Rune Nordquist (VALLE SCHOLAR IN 1983)
In April 2001 Uppsala University Library distributed copies of Rune Nordquist's dissertation for the degree of Doctor of Philosophy in Hydrology. The public examination was in May 2001. The title of Nordquist's dissertation was "Effective Sampling Design for Groundwater Transport Models." His thesis focuses on the exploration of methods for effective design of measurement strategies in the early stages of investigations. Guideline presented are not intended as detailed instructions for obtaining effective designs, but are to provide ideas about design concepts that might be supplied to field problems by practicing hydrogeologists.

Jennifer Barnes and Professor Scott Rutherford, "Stated Preference Survey Design and Analysis for Pre-Implementation Evaluation of the Seattle Car Share Program," Paper No 01-3511, Transportation Research Board Annual Meeting, January 2001. The paper describes a pre-implementation survey and analysis for the Seattle Car Sharing Demonstration Project. Their analysis showed that potential participants represented a variety of socioeconomic levels and that environmental considerations strongly motivated interest in the program. Cost issues were more important to lower income participants but still a factor for higher income people. Higher income people were more influenced by convenience issues.

Laura Grosso (DECEMBER 2000) has returned from projects in Niger. Currently she is with World Vision in Washington DC where she is working on development projects for Vietnam and Indonesia. She says she is delighted with the new endeavor.

Valle Scholars

2001–2002 SCHOLARS

This coming academic year, support will be provided from the income of the Valle trust funds for 21 new scholars.

Seven exchange scholars will arrive from Scandinavia:

FINLAND: **Marketta Jolkkonen,** Architecture, from Helsinki University of Technology; and **Tomi Oravainen,** Architecture, from Helsinki University of Technology.

ICELAND: **David Albertsson,** Construction Engineering, from Icelandic College of Engineering and Technology; **Fridrik Snaebjornsson,** Structural Engineering and Mechanics, from Icelandic College of Engineering and Technology; and **Tomas Ellert Tomasson,** Structural Engineering and Mechanics, from Icelandic College of Engineering and Technology.

NORWAY: **Trude Norddal,** Architecture, from Norwegian University of Science and Technology; and **Gro Øfjord,** Water Resources Hydrology and Hydraulic Systems, from the International Water Academy in Oslo, Norway.

American Valle scholars from other universities are:

Benjamin Brattebo, Syracuse University, Environmental Engineering and Science; **Meredith Mormann,** University of Minnesota, Structural Engineering and Mechanics; and **Kari Vigerstøl,** Rice University, Water Resources Hydrology and Hydraulic Systems. From the University of Washington are **Brian Bennetts,** Geotechnical Engineering; and **David Rosen,** Transportation Engineering.

University of Washington graduate students chosen for study opportunities in Scandinavia:

DENMARK: **Michael Buragas,** Architecture, to the Royal Academy of Fine Arts; **Jamie Fleming,** Architecture, the Royal Danish School of Architecture; and **Brian Oles,** Architecture, the Royal Danish Academy of Architecture.

FINLAND: **Michael Godfried,** Architecture, Helsinki University of Technology.

NORWAY: **Matthew Bietz,** Architecture, the Norwegian University of Science and Technology; and **Carolyn Butchart,** Water Resources Hydrology and Hydraulic Systems, the Norwegian Institute of Water Research.

SWEDEN: **Jason Holdridge,** Transportation Engineering, Royal Institute of Technology; **Adrienne Miller,** Water Resources Hydrology and Hydraulic Systems, Royal Institute of Technology; and **Kathryn Petek,** Geotechnical Engineering, Royal Institute of Technology.

Valle Reception for 2000–2001 scholars, December 2000.

2000–2001 SCHOLARS

ARCHITECTURE
Lisbeth Kristensen
Bryan Cooper
Dustin Eggink
Michael Godfried
Jeffrey Murdock

ENVIRONMENTAL ENGINEERING AND SCIENCE
Veronica Henzi
Sandra Kutzing

GEOTECHNICAL ENGINEERING
Jenny Persson
Gunnar Vestberg
Susan Robarge

STRUCTURAL ENGINEERING AND MECHANICS
Ragnar Jonsson
Alex Lindblad

TRANSPORTATION ENGINEERING
Pamela Arora
Megan Hoyt
Jason Holdridge

URBAN DESIGN AND PLANNING
Michelle Hover

WATER RESOURCES HYDROLOGY AND HYDRAULIC SYSTEMS
Tomas Eidsmo
Stephanie Stolar
Mindy Roberts

Valle Scholars completing degree requirements during 2000–2001:

DOCTOR OF PHILOSOPHY
Gudmunder Freyr Úlfarsson

MASTER OF ARCHITECTURE
Bryan Lee Cooper
William Cory Crocker
Dustin Anthony Eggink
Jeffrey Scott Murdock

MASTER OF LANDSCAPE ARCHITECTURE
Amy Lillian Davis

MASTER OF SCIENCE
Ashley Ballantyne
Megan Hoyt

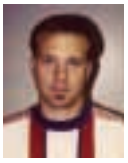
MASTER OF SCIENCE IN CIVIL ENGINEERING
Jostein Aasen
Pamela Lata Arora
Hákon Frank Bárðarson
Ólöf Rós Káradóttir
Jens T. Laursen
David Gordon Lucas
Adrienne Venus Miller
Kathryn Petek
Jennifer Lynn Soderstrom
Joseph William Taflin

MASTER OF SCIENCE IN ENGINEERING
Carolyn Dorsey Butchart

MASTER OF URBAN PLANNING
Michelle Lyn Hover

The following reports are among the Valle Scholar Reports received by the Valle Office and are available for review:

CIVIL ENGINEERING



Jostein Aasen, *"Developing the Modified Electrolytic Strain Gage (MESG) — and its Application to Geotechnical Engineering", MSCE Thesis (August 2000), Major Professor Robert Holtz.* The purpose of Aasen's research was to develop a strain gage for geotechnical engineering applications that could overcome some of the problems encountered using traditional instruments. The instrument developed, called the "Modified Electrolytic Strain Gage", was used to develop resistance-strain curves. The gage was further tested in in-soil conditions and on geo-textiles to test applicability as a monitoring instrument.

Pamela Arora, *"Analysis of Country-wide Distance Road Pricing", Report for the Danish Technical University, (June 2001), Major Professor Scott Rutherford.* Arora assisted with projects evaluating the impacts of a proposed road pricing policy. Two studies were conducted, the first a GIS model to evaluate costs incurred in traveling from a specific point throughout Denmark. The second study looked at the impact of road pricing on seven model families in cities with different demographic characteristics.

Hákon Frank Bárðarson, *"Dr. Damage – Damage Assessment in Reinforce Concrete Frames," MSCE Thesis (December 2000), Major Professor Gregory Miller.* This thesis presents a prototype analysis framework for supporting performance-based seismic design of reinforced concrete frames. The tool presented provides an analytical framework that enables the designer to quantify seismic damage in a systematic way and these can help characterize performance levels in a consistent and reproducible manner. The focus of the project is on structural behavior and damage to structural elements.

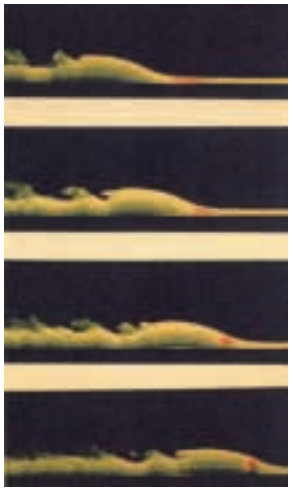
Jennifer Barnes, *"Stated Preferences Design and Analysis for Demand-Oriented Transportation Solutions," Phase I Report (December 2000), Major Professor Scott Rutherford.* Barnes' project consists of three major components — the first being the design and implementation of a stated preference survey to be used in conjunction with a revealed preference survey. This survey combination is intended to give data to help explain conditions under which both traditional and alternative travel sources will or will not be made. The second component of the project consists of interviews to collect mode choice data. In the third component, data is to be analyzed to estimate a multinomial mode choice model. The anticipated result will be a model that can be used to estimate changes in mode market shares that would result from realistic innovative transportation scenarios that emphasize high capacity and non-motorized transportation modes.

FAR LEFT: **From *Developing the Modified Electolytic Strain Gage,* by Jostein Aasen.**

LEFT: **From *Conserving the Character of a Town Through Design Guidelines,* by Michelle Lyn Hover.**

ABOVE: From ***Pedestrian Travel Choice and Behavior in Trondheim, Norway,*** by Megan Hoyt.

LEFT: From ***Complex Order in Architecture*** by William C. Crocker.



ABOVE: From ***Two Dimensional Spatially Periodic Interfacial Waves,*** by Ólöf Rós Káradóttir

Megan Hoyt, *"Pedestrian Travel Choice and Behavior in Trondheim, Norway," Valle Project Report (March 2001) Major Professor Scott Rutherford, NTNU Advisors, Eirin Ryeng and Liv Øvstedal.* Over a four month period — October 2000 to February 2001 — Hoyt made pedestrian travel counts on three streets in downtown Trondheim, Norway. Data collected included pedestrian gender, age, whether persons traveled singly or in groups, and any special circumstances such as walking aids and baby carriages. Megan concluded that daylight was not an important factor in pedestrian travel choice (but also noted that the crime level was low). She observed that people had routines structured more around time of day and day of the week than on weather or level of darkness.

Ólöf Rós Káradóttir, *"Two Dimensional Spatially Periodic Interfacial Waves – A Numerical Model." MSCE Thesis (December 2000), Major Professor Harry Yeh.* Káradóttir developed a numerical model for a two-dimensional periodic interfacial wave. She tested the model for deformations in a quiescent fluid for both an air-water and fresh-salt water interface. The model was found to be capable of simulating strongly non-linear waves up to wave breaking and can be modified to simulate any transient flow for a short time.

ARCHITECTURE AND URBAN PLANNING

William C. Crocker, *"Complex Order in Architecture," (April 2001), Major Professor Grant Hildebrand.* Crocker presents arguments to justify the need for order in the environment. He proposes that the qualities of complexity and order are highly valued by individuals because of the utility and pleasure they provide. Crocker states, "We are stimulated by complexity, are curious, and therefore seek resolution. This resolution occurs when we can distill order from the complexity – when we can make meaningful patterns. By continuously adding new patterns, or by reformatting old ones, we grow in complexity ourselves."

Michelle Lyn Hover, *"Conserving the Character of a Town through Design Guidelines: Using the Organic Development of Fishing Settlements as a Clue for Urban Design and Architecture," M.UrbP Thesis (March 2001), Major Professor Ron Kasprisin.* Hover used the evolvement of fishing towns and settlements along the coast of Norway as resource information for recommending guidelines for retaining the historic character of the Thomas Basin neighborhood in Ketchikan, Alaska. Design guidelines for Norwegian fishing villages, Henningsvaer and Bryggen, were created based on existing conditions to describe and understand what characteristics are important to the character of a place. These techniques were then carried over to the Thomas Basin neighborhood. The guidelines are intended as a baseline to point out what characteristics are unique to this neighborhood and why.

University of Washington Class and Holiday Schedule, 2001–2002

AUTUMN QUARTER 2001

OCTOBER 1 ..... Classes begin
NOVEMBER 1 ... **Graduate Application deadline**
NOVEMBER 11 ..... Veterans' Day
NOVEMBER 22, 23 ..... Thanksgiving recess
DECEMBER 12 ..... Last day of classes
DECEMBER 13–20 ..... Final exams
DECEMBER 21 – JANUARY 6 ..... Quarter Break

WINTER QUARTER 2002

JANUARY 7 ..... Classes begin
JANUARY 21 ..... Martin Luther King Jr. Day
FEBRUARY 1 ..... **Valle Application deadline**
FEBRUARY 18 ..... Presidents' Day
MARCH 15 ..... Last day of classes
MARCH 18–22 ..... Final exams
MARCH 23–31 ..... Quarter Break

SPRING QUARTER 2002

APRIL 1 ..... Classes begin
MAY 27 ..... Memorial Day
JUNE 7 ..... Last day of classes
JUNE 10–14 ..... Final exams
JUNE 15 ..... Commencement
JUNE 15–23 ..... Quarter Break

SUMMER QUARTER 2002

JUNE 24 ..... Classes begin
JULY 4 ..... Independence Day
AUGUST 23 ..... Quarter ends
AUGUST 24 – SEPTEMBER 29 ..... Quarter Break

AUTUMN QUARTER 2002

SEPTEMBER 30 ..... Classes begin
NOVEMBER 1 ... **Graduate Application deadline**
NOVEMBER 11 ..... Veterans' Day
NOVEMBER 28, 29 ..... Thanksgiving recess
DECEMBER 11 ..... Last day of classes
DECEMBER 12–19 ..... Final exams
DECEMBER 20 – JANUARY 5 ..... Quarter Break

Holidays occuring during the break between Autumn and Winter quarters are Christmas, Hanukkah and New Years Day.

Additional information in regard to the calendar may be found at the following web site: *www.washington.edu/students/reg/calendar.html*

International Information

Foundation for International Understanding Through Students (FIUTS): International students who do not have a host or friendship family are encouraged to participate in the program. Applications are available from the FIUTS office. *http://fiuts.washington.edu/*

Orientation: FIUTS will conduct its annual orientation program Sept. 13–14 for all new UW international students (except Canadians) entering the U.S. for the first time. New international students are required to pay a $50 orientation fee.

Visas and Passports: Answers to questions in regard to passports, visas, extensions of stay, etc. are available from the International Services Office (ISO). *www.washington.edu/students/gencat/front/International.html*

Registration: International students are required to register full-time (graduate students – 10 credits/qtr.)

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