

Large Infrastructure & Urban Context
review of human-scale perception & response

Kathleen L. Wolf, Ph.D.
Research Social Scientist
University of Washington



“the belly of the beast”
changing use of urban lands
in a vehicle - on the ground
aesthetics . . . or human functioning

Alaskan Way Viaduct, Seattle



built 1953; 110,000 ADT; 2001 earthquake

replace structure or build tunnel?

Newspaper headlines!

The Alaskan Way Viaduct
& Seawall Replacement Project

**Draft Context Sensitive Design and
Architectural Enhancement
Workshop No. 1**

Submitted to:
Washington State Department of Transportation
Urban Corridors Office
401 Second Avenue S, Suite 560
Seattle, WA 98104

Submitted by:
Parsons Brinckerhoff Quade & Douglas, Inc.

Prepared by:
AWV Team

November 2006

U.S. Department of Transportation
Federal Highway Administration

Washington State
Department of Transportation

City of Seattle

*Washington State DOT
City of Seattle
Consultants*

November 2006

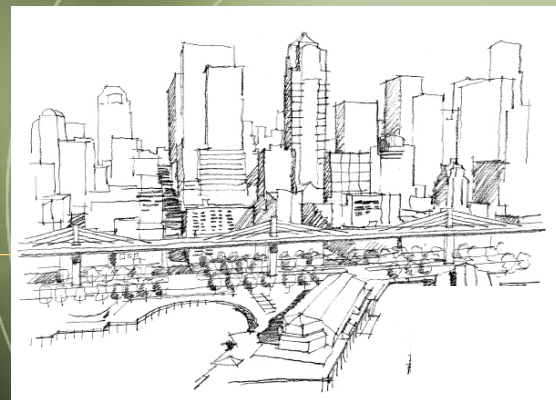
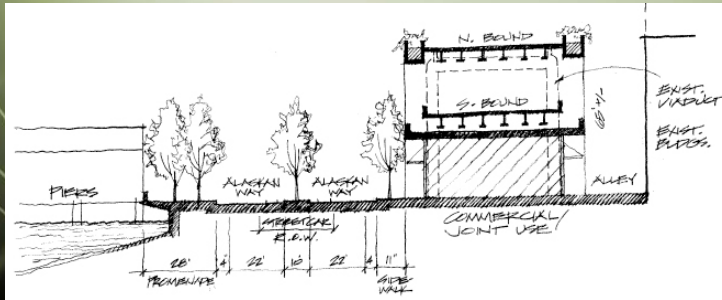
Replace Structure!

⊕ **Two Options**

- ⊕ double deck pre-stressed concrete girder
- ⊕ Extrados cable-stayed, concrete segmental



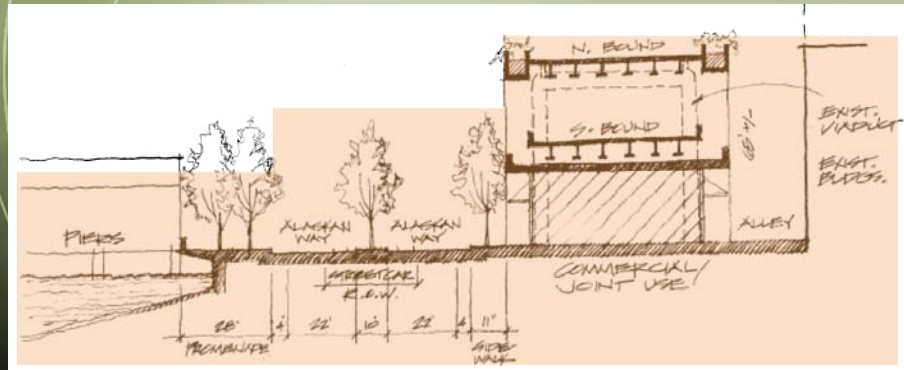
*double deck
concrete girder*



*Extrados
cable-stayed*



determine experiential spaces



waterfront

**major
arterial**

**super
structure**

**city
edge**

Large Structures Design human response & perceptions

*1. physiology
quasi-experimental
measurable response
such as: heart rate, visual acuity, hearing capacity*

paper 07-1842

*Large Structures Design
human response & perceptions*

*2. perception
self-report*

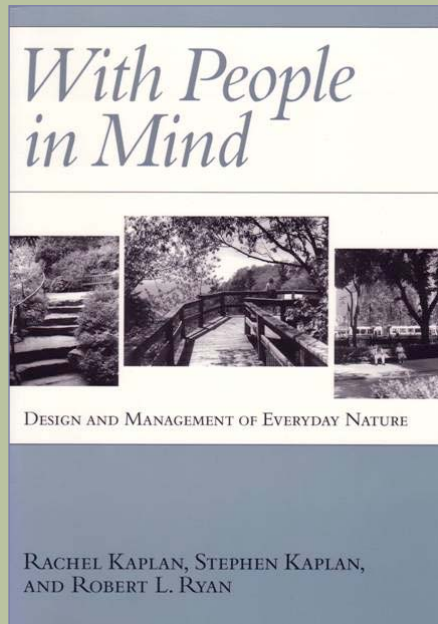
*surveys, interviews, observations
such as: comfort, safety, way-finding, affordances*

paper 07-1842

empirical evidence

*sound & noise - workers, children
light & shadow - legibility, personal safety
spatial configuration - wayfinding, spatial preference
CPTED - crime prevention thru environmental design
nature/tree benefits - stress, frustration, productivity*

paper 07-1842



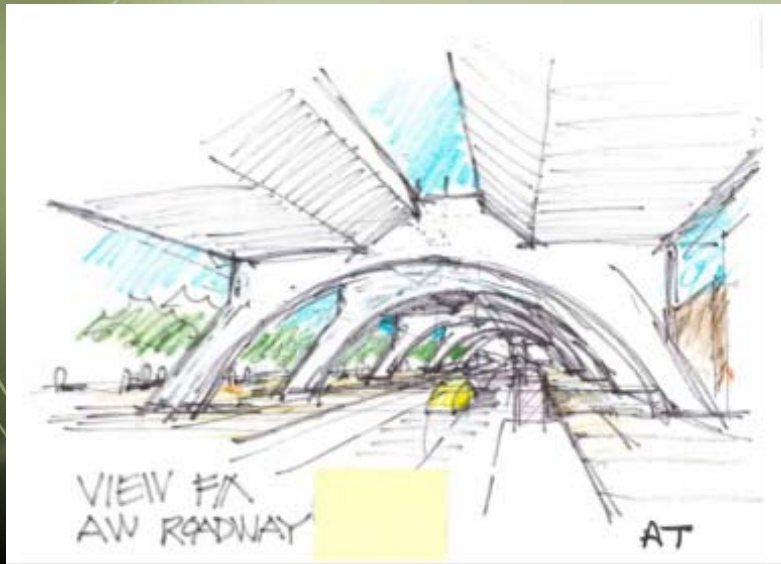
*With People
in Mind*

*R. Kaplan
S. Kaplan
R. Ryan*

1998







place maker - WSDOT workshop sketch



place maker - Promenade Plantee, Paris



place maker - Holbeck, UK



companion uses - WSDOT workshop sketch



scale relationship - WSDOT workshop sketch



companion uses - Promenade Plantee, Paris



Pine St. Convention Center, Seattle



Pine St. Convention Center, Seattle



place & program
- Rotterdam,
Netherlands



place & program - Rotterdam, Netherlands

large structures & human context
place makers
experiential units or zones
physiological response
perceptual response
aesthetics of encounter AND structural aesthetics

www.cfr.washington.edu/research.envmind

Center for Urban Horticulture, College of Forest Resources, University of Washington

Human Dimensions of
Urban Forestry and
Urban Greening

featuring research on peoples'
perceptions and behaviors
regarding nature in cities



Nature and Consumer Environments
Research about how the urban forest
influences business district visitors.

Trees and Transportation
Studies on the value of having quality
landscapes in urban roadsides.

Civic Ecology
Studies of human behaviors and benefits when
people are active in the environment.

International Urban Greening
Scientific explorations of people
and urban nature in other nations.

Urban Forestry and Human Benefits
More resources, studies and links . . .

Research Director
Kathleen L. Wolf, Ph.D.

Sponsors 