

PLAN 5481
UNDERSTANDING VANCOUVER'S HOUSING: AN ADVENTURE IN MULTIDISCIPLINARY
POST-OCCUPANCY EVALUATION

2005, WINTER SESSION, Term 2
Thursdays, 7pm to 10 pm
Fridays, 9 am to 4 pm
Saturday 7 April, 9am-12 noon

West Mall Annexe 150

Distinguished Practice Professor Larry Beasley CM and Adjunct Professor Wendy Sarkissian

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This course is open to all SCARP Masters students.

Key words

- Evaluation
- Post-occupancy evaluation (POE)
- Building performance evaluation (BPE)
- Building evaluation
- Housing
- Density
- High-rise housing
- Housing occupancy
- Vancouver's housing
- False Creek
- User studies
- User perspective
- Congruence
- User needs in open space
- Public open space
- Communal or shared open space
- Children's play

Quotes

Why have architects talked about the assessment of building performance for so long and yet have been so slow to do anything about it? ... Post-occupancy evaluation is certainly considered by many designers and clients to be too time-consuming and expensive. Simply facing up to the reality of having to change may in itself be enough of an obstacle in the lives of busy professionals. Putting oneself in the position of potentially having to admit errors and thus opening the way to blame or even litigation may be a fear that is not even easy to admit.

Preiser and Vischer, *Assessing Building Performance*, 2005: xi.

The researching of a city's design achievement is not an end in itself but a means toward a broader goal of seeking to improve the design dimension of planning generally. For a planner/urban designer interested in critically appraising the system in which he [sic.] practices or researches there are few exercises as revealing and rewarding as an extended study of how a different system of planning and design regulation works. It is not simply the prospect of finding exemplary, innovative practices, or resolution of the persistent problems that beset all planning intervention, but rather the sharper more critical perspective with which the practitioner/researcher returns to interrogate his/her native system.

Punter, *The Vancouver Achievement*, 2003: xiv.

Design practitioners seeking a socially responsible approach [to housing planning and design] find little of value in professional criticism. With few exception critiques in professional magazines focus either on building science and technology or on aesthetic principles and style. Rarely are buildings evaluated according to dwellers' responses or the way the buildings fulfil daily functions.

Marcus and Sarkissian, *Housing as if People Mattered*, 1986: 3.

COURSE DESCRIPTION

Cities often aspire to shape the sociological and urban design dimensions of new urban developments with a variety of social-engineering policies and urban design guidelines. Since the mid-1970's, Vancouver has been a leader in these endeavors and, with rapid development, has seen policy come to fruition in fully built and occupied communities. False Creek North (FCN), a 205-acre site in Vancouver's city centre, is a textbook case where a community of 15,000+ people has come together over the last decade.

Seldom is there post-occupancy evaluation (POE) of these community-building efforts and almost nowhere is such evaluation undertaken in a multifaceted, comprehensive fashion. While there may be anecdotal or journalistic evidence of how these communities perform for their residents and users, there is little analytical evidence from which policy refinement or direction can be confidently guided or from which new policy can be developed.

This course will explore philosophy, theory and techniques of multifaceted post- occupancy evaluation and will ultimately apply these using Vancouver's False Creek North as a case study.

The course is arranged in two terms – one focused on conceptual and methodological aspects and the second on application of concepts. A student may take the first term and decide not to continue in the second term. However, a student taking the second term must have completed the initial term.

First term

In the first term, an in-depth understanding of the philosophy, theory and especially techniques or methods of data collection and evaluation will be achieved in a combination of lectures, research and group work. A complete explanation of social and urban design policy that was implemented by the City of Vancouver and the project developers of False Creek North will also be provided in several briefings and will be fully discussed. In both streams of study, an historical perspective as well as the current state of affairs will be covered with both a factual and critical dimension.

Ultimately all this learning will be brought together in a group-focused creative exercise to complete a “game plan” for a specific program of post-occupancy evaluation in False Creek North that will be implemented in the upcoming term. Research approaches, group productivity and project management mentoring will be emphasized.

Second term

In the second term, the specific program of post-occupancy evaluation will be confirmed and then implemented for False Creek North in a direct interaction with residents and area users. This will include administering whatever data collection methods have been decided upon, analyzing the results, presenting the findings in a coherent way and drawing relevant conclusions and recommendations from the work.

In the second term, there will also be a separate module on effective report writing from a practical perspective. This will be an optional opportunity, for separate credit, for students taking part in the post-occupancy evaluation.

The intention is that the course will have the character of a working professional team in the field, that the findings will be published and that the conclusions and recommendations will be presented to the City of Vancouver, the particular developers, the broader community and other interested citizens, as well as False Creek North residents and community groups.

Grading for the initial term of the course will be determined as follows:

- 40% for the written submission
- 20% for presentations
- 10% for workshop participation
- 30% for all other aspects of class participation.

By the end of the course, students should be able to:

- Select an appropriate research approach to post-occupancy evaluation of high-density housing contexts;
- Design a post-occupancy evaluation for a high-density housing environment and associated environments;
- Design a survey instrument or other tools for post-occupancy evaluation;
- Assess the effectiveness of post-occupancy evaluations undertaken by others;
- Engage and supervise others undertaking work of this type;
- Work effectively in a team; and
- Identify the limitations of simplistic, impressionistic evaluations or assessments of housing and associated environments.

LEARNING OBJECTIVES

In this course the student will:

1. Become aware of the institutional, social, political, environmental and economic factors influencing the development of high-rise housing in False Creek North.
2. Become aware of the policy contexts in which this housing was planned, designed, developed, occupied and managed.
3. Become aware of the social factors that influence resident satisfaction with and use of housing and associated environments.
4. Develop awareness of the “user perspective” in housing evaluation: issues related to the suitability of housing and associated spaces for particular user behaviours.
5. Become familiar with issues related to “environmental fit” or *congruence*.

6. Become aware of the literature on post-occupancy evaluation (POE) and building performance evaluation (BPE), with particular emphasis on high-density and high-rise housing contexts.
7. Become familiar with and select from relevant social research approaches to assessing environments in use.
8. Learn to design specific instruments for assessing housing from a user's perspective.
9. Become aware of the how use of space meets (or does not meet) the objectives of the original brief or program (either implicitly or explicitly stated).
10. Experience positive teamwork approaches.
11. Practice self assessment and peer assessment at the group and individual level.

FORMAT

The course will be taught by planning professionals with a professional orientation simulating the operation of a professional team in the field. The objective is to develop a compendium of appropriate POE methods for use in the first term of the 2008 academic year (September – December 2007) for the undertaking of post-occupancy evaluation studies in False Creek North.

The format for this class is intended to reflect the approaches used in planning practice within government and private enterprise. This means that there will be an emphasis on teamwork and project management.

Working with students, we are eager to uncover the complexities of the discourse and discover the frontiers of research and practice so that the research work that is subsequently undertaken will be of the highest possible standard and consistent with leading practice worldwide.

It is essential that students become familiar with the most up-to-date and relevant literature on post-occupancy evaluation and building performance evaluation (BPE) so that an informed discourse can take place in the classroom.

There will be lectures on specific topics, small group exercises, brainstorming, discussions and seminar-type sessions. Discussions and exercises will be based on assigned readings.

The intention is that the course will have the character of a working professional team in the field, that the findings will be published and that the conclusions and recommendations will be presented to the City of Vancouver, the particular developers, planning and design professionals, the broader community and other interested citizens, as well as False Creek North residents and community groups.

The course will be taught by Adjunct Professor Wendy Sarkissian, a distinguished Australian social planner, environmental ethicist and author and by Distinguished Practice Professor Larry Beasley, recently retired Director of Planning for the City of Vancouver and the lead planner throughout the development of False Creek North.

ASSIGNMENTS

There will be two kinds of assignments and each student will be involved in one of these, stretching throughout the course.

Methods Evaluation Groups (several):

Most students will be working on one of several project teams to explore a particular technique or method of post-occupancy evaluation. For their particular method, the team will spend the first month scoping out the history and variations on application of the evaluation method. This will be presented to the class in the February meeting.

In the second month, the method will be thoroughly analyzed and critiqued. A short paper summarizing the first month's work and the second month's evaluation will be submitted at the March meeting.

In the final month of the course, recommendations will be framed on the application of the method to the case study of False Creek North, to be used by student researchers in the subsequent term. These recommendations will be presented as part of a class-wide workshop in April where a "game plan" for the False Creek North post-occupancy evaluation, to be undertaken in the upcoming term, will be completed and documented.

Project Management (PM) Group (one group):

One small group will be assigned as project coordinators for the activities of the course. In the first two months of the course, this group will bring together the information from the other groups and merge this with an overview analysis of all available techniques for post-occupancy evaluation.

They will also undertake an overview analysis of the residential and other populations in False Creek North to determine what groupings of population are most logical and practical for administration of the post-occupancy evaluations.

In the March meeting, the PM group will make a presentation that offers the class a comprehensive perspective of techniques and the appropriate application of these techniques to the population in False Creek North. If the group discovers that a valuable method is not being covered by the other groups, they will negotiate with their fellow students to create a new group to complete this work prior to the final class-wide workshop.

The final role of this group will be to design and facilitate the class-wide workshop in April and to coordinate the other students to document the conclusions of that workshop for use in the upcoming term.

The deliverables for these assignments will be:

- **For each of the method-focused groups:** a short (fewer than 10 pages) paper on the method, derived from the academic and practice literature and reflecting the frontiers of both research and critique, summarizing its pros and cons, and including recommendations for its further use in the upcoming term.

A group presentation to the class, at the 1/3 mark in the course, will contribute toward this final paper.

- **For the Project Management (PM) Group:** a written submission of a "game plan" for the post-occupancy evaluations in False Creek North (written primarily by the other students but edited by the Project Management Group to be undertaken in the upcoming term; in a format whereby all the method papers are integrated so as to create one coherent document as a guide for the upcoming term's work.

A presentation to the class, at the 2/3 mark in the course, and production of the class-wide workshop, at the end of the course, will contribute toward this written submission of the "game plan".

These assignments will be undertaken in a manner similar to a working professional team in the field where every participant feels responsibility for completion of the overall product and all the deliverables.

ASSESSMENT

ASSESSMENT/REQUIREMENTS

Course members are required to:

- Attend all classes
- Undertake responsibilities for teamwork and project management
- Group paper and presentation (details below)
- Class participation:

We have selected the readings to form the basis of class discussion (which will take place in pairs, small groups, and the larger group).

Class participation is expected to include expressing your own views, as well as listening to classmates and allowing time for them to express their own views.

Course grading will be determined as follows:

- the written submission will account for 40 % of the grade
- the presentations will account for 20 %
- workshop participation will account for 10 %
- all other aspects of class participation will account for 30%.

The intention is to use **principles of peer assessment** to guide the grading. This will be discussed with students in the first class session.

READINGS

(All four texts (2 required and 2 recommended) have been ordered by UBC Bookstore)

1. Required texts

Preiser, Wolfgang F.E. and Jacqueline Vischer (2005). *Assessing Building Performance*. New York: Elsevier Butterworth Heinemann.

and

Punter, John Vincent (2003). *The Vancouver achievement: urban planning and design*. Vancouver: UBC Press.

2. Recommended texts

Marcus, Clare Cooper and Francis, Carolyn, eds. (1998). *People places: design guidelines for urban open space*. Second edition. New York: John Wiley and Sons.

and

Marcus, Clare Cooper and Sarkissian, Wendy (1986). *Housing as if people mattered: site design guidelines for medium-density family housing*. Berkeley: University of California Press.

Research-Design Connections LLC (2003). *Building and Place Assessments: Expert Advice on Conducting Post-Occupancy Evaluations (POEs) that Benefit Both You and Your Client*. Columbus, Ohio: Research Design Connections.
Available from Wendy for \$Can 8.50.

3. Some further recommended readings

Bechtel, R. and Srivastava, R. (1978). *Post-Occupancy Evaluation of Housing*. Washington, D.C.: US Department of Housing and Urban Development.

Committee on Post-Occupancy Evaluation Methodology (1987). *Post-Occupancy Evaluation Practices in the Building Process: Opportunities for Improvement*. Washington, D.C.: National Academy Press (Wolfgang F.E. Preiser, Committee Chair).

Connell, B.R. and Ostrander, E.R. (1976). *Methodological Considerations in Post-Occupancy Evaluation: An Appraisal of the State of the Art*. Washington, DC: AIA Research Corporation.

Connell, B.R. and Ostrander, E.R. (1976). *Post-Occupancy Evaluation of Mail Delivery and Communications in Bachelor Enlisted Housing*. Washington D.C.: AIA Research Corporation.

Federal Facilities Council (2001). *Learning from Our Buildings: A State-of-the-Practice Summary of Post Occupancy Evaluation*. Washington, DC: National Academies Press.

Friedman, A.C., C. Zimring and E. Zube (1978). *Environmental Design Evaluation*. New York, Plenum.

Furbey, Robert and Barry Goodchild (1986). "Method and Methodology in Housing User Research," *Housing Studies* 1(3), July: 166-181.

International Building Performance Evaluation (IBPE) Consortium. (1995-). c/o Wolfgang F.E. Preiser, School of Architecture and Interior Design, University of Cincinnati, P.O.B. 210016, Cincinnati, OH 45221-0016, USA.

McLaughlin, H. (1975). *Post-Occupancy Evaluations of Hospitals*. AIA Journal, January.

McLaughlin, H. (1997). "Post-Occupancy Evaluations: They Show us What Works, and What Doesn't." *Architectural Record*, vol. 185, no. 4.

Marcus, Clare Cooper and Carolyn Francis, "Post-Occupancy Evaluation", Chapter 8 in Marcus, Clare Cooper and Francis, Carolyn, eds. (1998). *People places: design guidelines for urban open space*. Second edition. New York: John Wiley and Sons: 346-356.

Preiser, Wolfgang F. E. ed. (1985). *Programming the Built Environment*. New York: Van Nostrand Reinhold.

Preiser, Wolfgang F. E., Harvey Z. Rabinowitz and Edward T. White (1988). *Post-Occupancy Evaluation*. New York: Van Nostrand Reinhold.

Preiser, Wolfgang F.E. (1969). "Behavioral Design Criteria in Student Housing". In: Sanoff, H. and Cohn, S. (eds.). *Proceedings of the First Environmental Design Research Association Conference*. Raleigh, NC: North Carolina State University.

- Preiser, Wolfgang F.E. (1974). "Analysis of Unobtrusive Observations of Pedestrian Movement and Stationary Behavior in a Shopping Mall." In: Kueller, R. (ed.). *Architectural Psychology-Proceedings of the Second International Conference*. Stroudsburg, PA: Dowden, Hutchinson and Ross.
- Preiser, Wolfgang F.E. (1996). "POE Workshops and Prototype Testing at the Kaiser Permanente Medical Office Building in Mission Viejo, California". In: Baird, G. et al. (1996). *Building Evaluation Techniques*. New York: McGraw-Hill.
- Preiser, Wolfgang F.E. (2003). *Improving Building Performance*. Washington, DC: National Council of Architectural Registration Boards (NCARB).
- Preiser, Wolfgang F.E. (ed.) (1989). *Building Evaluation*. New York: Plenum.
- Preiser, Wolfgang F.E. and Schramm, U. (1997). "Building Performance Evaluation." In: Watson, D., Crosbie, M.J. and Callender, J. H. (eds.). *Time-Saver Standards for Architectural Design Data* (7th edition). New York: McGraw-Hill.
- Preiser, Wolfgang F.E. and Vischer, J.C. (eds.). (2005). *Assessing Building Performance*. Oxford, UK: Elsevier.
- Preiser, Wolfgang F.E., Rabinowitz, H.Z., and White, E.T. (1988). *Post-Occupancy Evaluation*. New York: Van Nostrand Reinhold.
- Preiser, Wolfgang F.E., Wang, X., Himmel, E., and Wilson, W. (2005). *Facilities Master Plan for the Public Library of Cincinnati and Hamilton County: A Blueprint for the Future*. Cincinnati, OH: The public Library of Cincinnati and Hamilton County (unpublished report).
- Research-Design Connections LLC (2003). *Building and Place Assessments: Expert Advice on Conducting Post-Occupancy Evaluations (POEs) that Benefit Both You and Your Client*. Columbus, Ohio: Research Design Connections.
www.ResearchDesignConnections.com.

Note: Copies will be available for purchase by students from Wendy Sarkissian for \$CAN 8.50.

- Sarantakos, Sotirios (1998). *Social Research*. Melbourne: Macmillan Publishers. Second edition.
- Sarantakos, Sotirios (1998). *Working with Social Research*. Melbourne: Macmillan Publishers.
- Zeisel, John (2006). *Inquiry by Design: Environment/Behavior/Neuroscience in Architecture, Interiors, Landscape, and Planning*. New York and London: W. W. Norton and Company. Revised edition.

Material on Sarkissian Associates Planners website

A number of recent reports on high-density housing by Sarkissian Associates Planners on social factors in high-density housing, articles and other reports for this course are available as downloads on her website on the following link.

<http://www.sarkissian.com.au/downloads.html>

Copies of Wendy's PowerPoint lectures are also available via that link.

Subsequent lecture notes will be posted on the website.

COURSE OUTLINE AND CLASS SCHEDULE

Note: this class meets monthly on Thursday nights and Fridays.

One half-day Saturday meeting is planned for April.

JANUARY 2007

Thursday, January 11, 7:00pm to 10:00pm

Module 1

7:00 – 7:30 Introduction

Course goals and objectives

7:30 – 8:30

Lecture 1:

“The Vancouver Policy Context for the Housing at False Creek North” (LBB)

Required reading: Punter, *The Vancouver Achievement*, Chapter 6, pages 186-240

8:30 – 8:45 Break

8:45 – 9:45

Lecture 2:

“Questions Social Planners Ask about Sites like False Creek North” (WS)

Recommended reading:

- Marcus and Sarkissian, Chapter 3, pages 33-44

9:45 – 10:00 Discussion

Friday, January 12, 9:00am to 4:00pm

Modules 2 and 3

9:00 – 10:00

Lecture 3:

“The Vancouver City Policy Applied to False Creek North” (LBB)

Required reading:

Punter, *The Vancouver Achievement*, Part 3, Chapters 8 and 9: pages 291-345

10:00 – 10:15 Break

10:15 – 11:00 Learning Objectives and Assessment (WS and LBB)

11:00 – 12:30 Select Teams and Discuss Assignment
Larry leaves 12:30

12:30 – 1:30 Lunch

1:30 – 3:00

Lecture 4:

“Building Performance Evaluation and Post-Occupancy Evaluation: Lineage, Approaches, Uses and Benefits” (WS)

Required readings:

- Preiser and Vischer, *Assessing Building Performance*, Chapter 1, pages 3-14
- Preiser and Vischer, *Assessing Building Performance*, Chapter 2, pages 15-26
- Preiser and Vischer, *Assessing Building Performance*, Chapter 19, pages 201-207
- Handout of PowerPoint presentation (to be posted on sarkissian.com.au)

3:00-3:15 Break

3:15 – 4:00

Lecture 5 “Survey research and interviewing” (WS)

Required readings:

- Handout of PowerPoint presentation (to be posted on sarkissian.com.au)
- Preiser and Vischer, *Assessing Building Performance*, Appendices, pages 209- 237

January tasks:

1. Methods Groups begin to undertake scoping research
2. Project Management (PM) Group begins methods and area overviews

FEBRUARY 2007

Thursday, February 1, 7:00pm to 10:00pm
Module 4

7:00 – 8:15

Lecture 6:

“The urban design dimensions of planning and housing policy” (LBB)

Required reading:

Punter, *The Vancouver Achievement*, Chapter 10, pages 346-388

8:15 – 8:30 Break

8:30 – 10:00

Presentations #1 – Methods Groups

Friday, February 2, 9:00am to 4:00pm
Modules 5 and 6

9:00 – 12:00 Site Tour (LBB) (with break)

Meeting location: Lobby of Roundhouse Community Centre – Pacific Blvd. and Davie Street

Required reading:

- Punter, *The Vancouver Achievement*, Chapter 1, pp. 3-14

12:00 – 1:00 Lunch

Return to University by 1:00

1:00 – 2:15

Lecture 7:

“Post-Occupancy Evaluation in Specific Contexts 1: housing with an emphasis on children’s needs” (WS)

Recommended readings:

- Francis in Marcus and Francis, eds., 1998, *People Places*, Chapter 6, pages 259-310
- Marcus and Sarkissian, *Housing as if People Mattered*, 1986, Chapters 8 and 9, pages 107-184
- Handout of PowerPoint presentation (to be posted on sarkissian.com.au)

2:15 – 4:00

Presentations #2 – Methods Groups (with break)

February tasks:

1. Methods Groups do analysis and critique
2. PM Group completes methods and area overviews

MARCH 2007

Thursday, March 1, 7:00pm to 10:00pm Module 7

7:00 – 8:30

Lecture 8:

"Post-Occupancy Evaluation in Specific Contexts 2: social factors in the design and evaluation of neighbourhood parks and public spaces" (WS)

Recommended reading:

- Marcus and Francis, *People Places*, 1998, part of Chapter 5, pages 209-238
- Diane Y. Carstens, "Outdoor Spaces in Housing for the Elderly," in Marcus and Francis, *People Places*, 1998, Chapter 8, pages 346-356
- Handout of PowerPoint presentation (to be posted on sarkissian.com.au)

8:30 – 8:45 Break

8:45 – 10:00

Discussion: *How are we tracking?* (WS and LBB)

Friday, March 2, 9:00am to 4:00pm Modules 8 and 9

9:00 – 10:30

Lecture 9:

Post-Occupancy Evaluation in Specific Contexts 3:
Quantitative and Survey research (Stephanie Chang, Centre for Human Settlements, UBC)

Reading: TBA

10:30 – 10:45 Break

10:45 – 12:00

Lecture 10:

Post-Occupancy Evaluation in Specific Contexts 4: POE and Building Performance
(Lecturer TBA from School of Architecture, UBC)

Recommended reading: TBA

12:00 – 1:00 Lunch

1:00 – 2:15

Lecture 11:

"Reflections on a POE Approach to False Creek North Housing" (LBB)

Recommended reading: None

2:15 – 2:30 Break

2:30 – 4:00
Presentation on Overviews – PM Group

9 am March 2nd: Draft Methods Papers due

March tasks:

1. Methods Groups frame recommendations
2. PM Group designs “game plan” workshop

APRIL 2007

Thursday, April 5, 7:00pm to 10:00pm
Module 10

7:00 – 10:00
Presentations #1 – Methods Groups (on Recommendations) (with break)

Friday, April 6, 9:00am to 4:00pm
Module 11 and 12

9:00 – 12:00
Presentations #2 – Methods Groups (on Recommendations) (with break)

12:00 – 1:00 Lunch

1:00 – 4:00
PM Group Leads Discussion on Methods (with break)

Saturday, April 7, 9:00am to 12:00pm
Module 13

9:00 – 11:00 PM Group Leads “Game plan” Workshop (with break)

11:00 – 11:30 Class closing (WS and LBB)

11:30 – 12:00 Class evaluation

April tasks:

13 April, 4 pm:

- Final Methods Papers due
- Final PM Group Papers due