

EVDA 514– Studio II in Architecture

Winter 2022

Instructor: Graham Livesey

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STEALTH URBANISM: AFFORDABLE HOUSING (VANCOUVER, BC)



INTRODUCTION

The process of endowing small spaces with a social significance should not be taken lightly. Efforts to calculate accurate multi-layer relationships are required. On this basis, I endeavour to inscribe eternity into spaces in establishing a space of concepts. We residential designers are in no way bound to picture some monotonous, grey world in which the gamut of human emotions is forbidden...

Kazuo Shinohara

This studio examines formal, contextual, material, spatial, and social aspects of urban dwelling. The question of affordable urban living is one of the most pressing challenges faces contemporary architects as city populations grow, and climate change continues to impact environments. Architecture cannot be considered independently of the city. The urban dwelling, ranging from the micro-unit to the giant mansion, still constitutes the fabric of the city. Urban propositions must always address quality of life issues, even as ideas about density, social/political justice, technology, and economics proliferate. This studio provides an opportunity to learn about urban environments and affordable housing design, and to innovate in these areas. Design strategies can vary for developing the design.

What is affordability in the context of Vancouver, BC, a city facing a significant housing crisis? Affordability deals with costs and financing, modes of construction, zoning, and size of spaces. But it also includes issues of equity, social structures, community, and economics. By examining these issues in the context of Vancouver, along with input by local experts, students will undertake urban analysis and design.

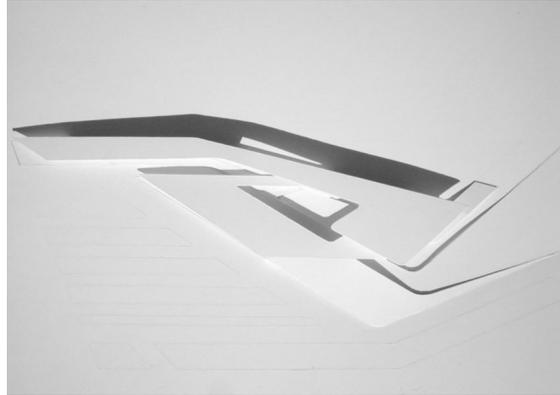
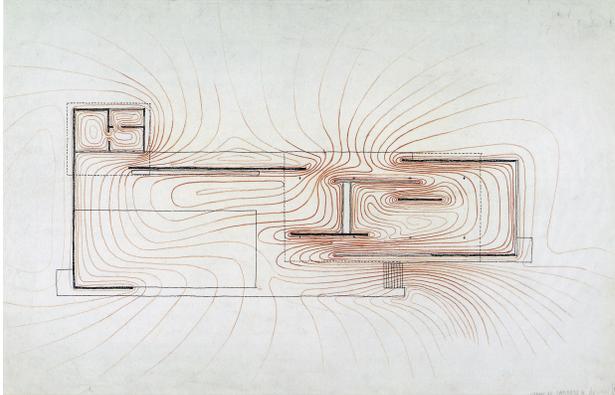
The studio begins with the analysis of a small Japanese house (see list below), this will be the basis for the design of affordable housing; the small house has been the subject of study by Japanese architects for several decades. Following this will be an analysis of the context in Vancouver (see map below). The analysis exercise will be followed with a “making” exercise that investigates one of four formal terms based on Manuel Gausa’s classification of housing typologies (see below). This will form the basis for the affordable housing project. The housing project will focus on identifying a suitable demographic. As inserts into an existing fabric, can these structures act as prototypes, can they provide a “stealthy” approach to the issue of housing.

This studio, while developing skills, is also seen as being a site for discovery through analysis and process. The studio will explore the nature of contemporary housing design, with respect to program, site analysis, cultural and social forces, etc. The studio will involve the integration of consultation, research, readings, precedent studies, etc. Handouts will be given out during the term as required.

PHASE 1: AN URBAN DWELLING UNIT (15%)

Monday, January 10 – Thursday, January 20, 2021 (2 Weeks)

This project will focus on the analysis of a small Japanese house (see list) in order to develop a unit prototype. A second task will be to define “affordability” in the context of housing and to identify a precedent.



Analyze a small Japanese house, select one of the following:

- | | | |
|----------------------------------|-------------------------|------|
| 1. Sky House, Tokyo | Kiyonori Kikutake | 1958 |
| 2. Capsule House K, Kitasaku-Gun | Kisho Kurokawa | 1973 |
| 3. Azuma House, Osaka | Tadao Ando | 1976 |
| 4. House in Uehara | Kazuo Shinohara | 1976 |
| 5. White U, Tokyo | Toyo Ito | 1976 |
| 6. Suzuki House, Tokyo | Bolles Wilson | 1993 |
| 7. Furniture House 1, Yamanashi | Shigeru Ban | 1995 |
| 8. S-House, Okayama | SANAA | 1996 |
| 9. House for Everyone, Kusatsu | Kokhi Hiranuma | 2004 |
| 10. Tread Machiya, Tokyo | Atelier Bow Wow | 2008 |
| 11. House in Buzen | Suppose Design Office | 2009 |
| 12. Minimalist House, Itoman | Shinichi Ogawa & Assoc. | 2010 |
| 13. Cube House, Tokyo | A.L.X. Architecture | 2014 |
| 14. House in Goshikiyama | Tomohiro Hata Architect | 2015 |

Develop a prototypical affordable dwelling unit. The following drawings are required in (as per examples by Patkau Architects, Bolles Wilson and Steven Holl Architects). Drawings on A1 (59.4 cm x 84.1 cm) sheets organized horizontally (landscape). Drawings to be labelled, with scale and context shown.

- House Analysis: Plans and sections (1:50): 1) Density and Flow of Space, 2) Spatial Structure, 3) Circulation/Views (see Paul Rudolph drawings)
- House Analysis: 1 white cardboard relief synthesis construction
- Define “affordability” (300-500 words) and select precedent
- Prototype: Plan, section, and axonometric of affordable unit (1:50)

PHASE 2: URBAN ANALYSIS (15%)

Thursday, January 20 – Thursday, February 3 (2 weeks)

The context for the Vancouver studio is below (bounded by Main Street and Prince Albert Street, and E. Broadway and the railway lines (and Emily Carr University of Art & Design). Analyzing an urban environment is a crucial skill for architects through the use of suitable drawing techniques. Students will analyze the context above and select one of

the indicated sites for their final term projects. Students will produce the following plan and section drawings showing:

- 1) **Territorial Systems (1 Plan)**: patches/territories/spaces, edges/boundaries (porosities), lines/grids, nodes, figure/ground, public spatial definition, green space, potential development sites, landmarks, water bodies, scale, pattern/shape, etc.
- 2) **Flow Systems (1 Plan)**: water, nutrients/waste, energy, bodies, exchange, traffic flows, pedestrian flows, infrastructure, transit, wildlife corridors, topography contours, machines, information/commodities, etc.
- 3) **Content and Expression Systems (1 plan)**: material, technology, structure, narrative, furniture, gender, codes, rituals/habits, history, etc.
- 4) **1 Section Through Site**: public spaces, key surfaces, etc. (as per plans)

PHASE 3: A CONCEPTUAL CONSTRUCTION (15%)

Thursday, February 3 – Thursday, February 17

Using Manuel Gausa's "Open Systems" approach to housing form, the following categories can be understood:

Structural Networks-Nets-Dynamic Guidelines

- A.1. Sequences: series, cadences, counterpoints
- A.2. Webs: nets, rails, circuits

Mixed Developments-Growth-Complex Formations

- B.1. Outbreaks: profiles, excrescences, inflexions
- B.2. Maculae: grafts, parasitisms, commensalisms

Open Spaces-Landscape- Manipulated Voids

- C.1. Enclaves: fields, hollows, matings
- C.2. Terrains: contours, trenches, grounds

Consolidated Fabrics-Dilation-Incisions/Excisions

- D.1. Incisions/Excisions: joints, breaches, abuttals

Select a term (in red) from this list will form the basis of the final projects. The selected word will be used for creating a conceptual construction. The terms selected for this semester are:

Grafts: Insert of fix (something) permanently to something else, typically in a way considered inappropriate.

Parasitisms: The practice of living as a parasite in or on another organism [structure].

Hollows: A hole or depression in something.

Breaches: A gap in a wall, barrier, or defense, especially one made by an attacking force.

Students will also select a 25-40 foot wide site (could be a demolition) as a site. Develop a conceptual construction based on the term above and the multiplication of your unit analysis, in white cardboard (1:100).

READING WEEK

Monday, February 21 – Friday, February 25

PHASE 4A. A 10-20 UNIT AFFORDABLE RESIDENTIAL BUILDING (15%)

Monday, February 28 – Thursday, March 10 (2 week)

PROGRAM

The affordable housing project will focus on design for a selected demographic for 10-20 units; there will be a commercial/light industrial component as well. Parking may be provided for electric car-share vehicles and bicycles. Basic code requirements to be addressed; the units are to be innovative. Handout to follow.

BLOCK WEEK

Monday, March 14 – Friday, March 18

PHASE 4B. A 10-20 UNIT AFFORDABLE RESIDENTIAL BUILDING (30%)

Monday, March 21 – Monday, April 18 (4 weeks)

Final Review, TBD (Handout to follow).

PORTFOLIO (10%)

Due Friday, April 22 at 2:00 pm

REQUIRED READING

Gordon, Josh, "Vancouver's Housing Affordability Crisis," see:

<https://fraseropolis.files.wordpress.com/2016/03/2016-housing-affordability-crisis-report-sfu.pdf>

Illich, Ivan, "Dwelling," in *In the Mirror of the Past*. See:

http://debate.uvm.edu/asnider/Ivan_Illich/Ivan%20Illich_%20In%20the%20Mirror%20of%20the%20Past%20.pdf

Chris Knight and Gair Williamson, "Open Letter to Vancouver City Council," see:

<https://www.canadianarchitect.com/open-letter-to-vancouver-city-council/>

SELECT BIBLIOGRAPHY

Abalos, I., *The Good Life*.

Allen, S., "Artificial Ecologies: the Work of MVRDV," in *El Croquis* 86 (1998).

Allen, S., *Points + Lines, Diagrams and Projects for the City*.

Baudrillard, J., *The System of Objects*.

Chermayeff, S. and Alexander, C., *Community and Privacy*.

Childs, M.C., *Urban Composition: Developing Community through Design*.

de Lapuerta, J.M., *Collective Housing: A Manual*.

Gausa, M., *Housing: New Alternatives, New Systems*.

Kennedy, R.W., *The House and The Art of its Design*.

Leonard, Annie, *The Story of Stuff*.

Lukez, P., *Suburban Transformations*.

Marcus, Clare Cooper, *The House as Mirror of Self*.

Michael Sorkin Studio, *Wiggle*.

Moore, C., G. Allen, and D. Lyndon, *The Place of Houses*.

Morphosis, *Combinatory Urbanism: The Complex Behavior of Urban Form*.

OMA and B. Mau, *S, M, L, XL*.

Reiser + Umemoto, *Atlas of Novel Tectonics*.

Rybczynski, W., *Home: A Short History of an Idea*.

Sherwood, R., *Modern Housing Prototypes*.