Whidbey Island summer house

Peter Keyes and Linda Zimmer
2006 - 2014

A summer house, designed and built by two University of Oregon architecture faculty on Whidbey Island, Washington.

While this house was built for many reasons, it largely sprang from our need to actually build something. Architecture faculty spend most of their time thinking about architecture, but surprisingly little time designing. While this may develop the rigor of design insight, it is still not the same as designing and building; there are ways of seeing, thinking, testing and learning that can only come through immersion in the synthetic process.

We had both entered the profession because we liked design, and had each spent a decade in practice before joining the faculty. We expected that this design work would continue, but eventually found professional opportunities in Eugene to be rather limited. After a large tree fell on our house and occasioned an extensive remodel, we discovered that we were the best clients we’d ever had. We then saw that a summer house project would give us the freedom to explore and test our ideas in a way that working for other clients just hadn’t.

This presentation focusses upon those ideas that either drove the initial design, or emerged during the eight-year process.
Primary factors

There were three critical areas of consideration which drove the project from inception, and determined the parti:

• how to approach new construction on a site in an important historic area
• how a summer house can most effectively meet the various needs of a small family,
• how the construction of the house can solve issues of budget and long-distance construction, while still allowing for us to do much of the building ourselves.

The practical aspects of these three factors weighed heavily in determining the parti for the project. But the consideration of these issues also supplied much of the inspiration, as understanding all their implications led to other ideas and approaches.

Context and site

Program

Parti

Construction process

Ten perspectives
As the project developed, other ideas emerged:

• A strong historic context and working in a construction system which has evolved over the past 150 years naturally led to engaging the meaning of vernacular building, and how it should influence our project.

• The larger, as well as the built, environment influenced our ideas on materiality, and how this could be translated into the construction process.

• At a more theoretical level, our experience of working in a strong historic context brought us to reconsider the ideas of Postmodernism, which were current when we were in school, and which have been largely discarded and dismissed in the present day.
A few approaches evolved which engaged practical problems, but which also had larger theoretical implications:

- An unusual economic strategy was necessary, to allow us the quality we wanted at a cost we could afford; we think this may be applicable to other projects.
- An approach to building with a clear hierarchy of elements had pragmatic roots, but also led to much of the formal development.
- A summer house with no heating demand may not require a large investment in energy-efficiency or sustainable systems, but it was important to keep such considerations in mind so that the house could evolve over time as uses and needs changed.
The site for the project is on Whidbey Island, a 38-mile long island in the Salish Sea north of Seattle.

Central Whidbey contains Ebey’s Landing National Historical Reserve, which is the first national historic reserve established and administered by the National Park Service.

The oldest agricultural landscape in Washington, it comprises approximately 22 square miles, which is largely preserved in its original donation claims, and contains over 90 buildings listed on the National Register.
The landscape in the Reserve is remarkably varied for a relatively small area.

Penn Cove, the 19th century harbor and current location of sailing regattas and mussel farming.

Coupeville, the center of commercial and governmental activities since 1852.

Ebey’s Landing, with its bluffs facing the Straits of Juan de Fuca and the Olympic Mountains.

Ebey’s Prairie, the location of the first farms from 1850.

Admiralty Head and Keystone Harbor, the site of the former Fort Casey and the ferry across Admiralty Inlet to Port Townsend.
Building in town

The Town of Coupeville was founded in 1853, and has served as the commercial and governmental center for the area since. The original Cranney Plat (shown here), has small 200 x 200 foot square blocks, is five blocks wide, and extends seven blocks from the Penn Cove waterfront at the north to a ridgeline at the south.

The first decision for this project was to build in the original town on a previously unbuilt site, rather than on acreage out in the prairie. While the views in the prairie are spectacular, building new houses there contributes to the destruction of the qualities that make the landscape unique.

Historical context / site

Whidbey Island summer house
Coupeville

The site is located on the southern edge of the plat, where the grid of the town meets a ridge at the top of a slope.

The ridge was formed by the edge of a mile-thick glacier which was located here 15,000 years ago, and which left many large boulders behind.

Over the past 150 years of European settlement, this location at the edge of town has been marked by a continuous ridgeline of Douglas firs, which have formed the visual backdrop for the town. Construction in this vicinity in the past 30 years has eroded this ridgeline, with the forested area shrinking as shown, from the light grey area to the dark grey area.
Site on the edge of town

Our site is right on this border between the town plat and the ridgeline, so when clearing the site of brush all viable trees were preserved. Eight large Doug firs and two madrone trees remain, reinforcing the ridgeline edge of the town.

As the house stands at the top of the slope above the town, it was painted a dark red color, so as not to stand out strongly against the backdrop of trees.
Blocks in the original plat are 200 x 200 feet, and typical lots were all on corners. Setbacks from the property lines varied wildly, and the pattern of houses and spaces was very irregular, allowing for glimpses into side & back yards. Subsequent parking was in many locations - but usually not in the front yard.

While the Reserve has design regulations which control details of building construction, there is no corresponding understanding of the importance of the historic pattern of buildings and open space, which is what gives the town much of its character.
In fact, the land use regulations that do exist can be seen as having destroyed the spatial character of the newer parts of town.

The problems began after WWII. Some streets were vacated, creating long blocks with many narrower, interior (non-corner) lots. Adopted zoning regulations mandated 25-foot front yard setbacks, mirroring the suburban development of the day. Together, these changes produced houses that lined up uniformly, and front yards became parking lots.

In the older parts of town, the unique character of the town is still strongly felt. The newer parts of town have done nothing to support any sense of the town’s history.
Our site is on two edges - where the town plat meets the wooded ridgeline, and where the pre-war pattern of houses and yards meets the post-1960 pattern. Our site design was driven by these two conditions - reinforcing the contrast at the edge of town, and showing how new construction can reinforce the historic spatial pattern, while still working within the confines of existing regulations.
The house placement was seriously restricted by setback requirements, but still tries to create a pattern of yards which relates to the historic pattern of houses and spaces.

A traditional hedge was planted around the property, rather than the newer practice of high fencing.

Fruit trees were planted in the backyard, echoing the traditional use of deciduous plantings.

A future bicycle shed, as the old houses often have outbuildings.

The driveway was located on the side street, to minimize the visual impact of parking.

Existing trees were preserved to maintain the visual ridgeline.

A formal front lawn, similar to the historic properties.

A half-hidden side yard is the most usable outdoor space - with views of water and mountains.

A spot for a future garden, south-facing but tucked between the hedge and trees.

Whidbey Island summer house.
A wide range of historic house styles are represented in Coupeville - mid-19th century New England vernacular houses (reflecting its founding by New England sea captains), Queen Anne, Second Empire, Gothic Revival, and 20th century bungalows.

How could a 21st century house relate to this context, without badly mimicking a historical style? The key insight is that a contemporary wood frame house is not imitating a historical style, but working in a continuing vernacular tradition: we fundamentally build houses the same way now as 150 years ago, and a simple, straightforward house without self-conscious exhibitions of current stylistic conventions would fit in quite well.
Vernacular influence

The most influential example was the Captain Haller house of 1866 - a simple, narrow gabled box, with punched square and vertical windows.

On the exterior of our project, we stayed within the vocabulary of traditional elements, but altered the relationships and scale in how these elements were used. The house is related to 19th century models, but certainly wouldn’t be mistaken for one. It may have achieved a precarious balance - architects think it is pretty conservative, while the neighbors find it quite radical.

We realized that the vernacular should inform our design in every way - this shouldn’t be a modern house which made some exterior gestures to a historic style, but a building which drew inspiration from the vernacular at every scale - siting, landscape, exterior, interior space, furnishings, color.

The vernacular was not about appearance; it was an ethos - of simplicity and clarity, using readily-available and economical materials and technologies.

Vernacular and style
Vernacular elements

There are traditional rooms at the west end of the house, defined by plaster walls and four-panel doors. Vernacular materials are used throughout. Simple, inexpensive, widely-available, and easily installed, they are not the norm in current custom houses:

- plaster walls,
- wood windows
- painted trim
- beadboard panelling
- wood countertops
- fir and pine floors and stairs

Vernacular influence can also be seen in the extensive use of simple, built-in cabinetwork throughout the house. This system of cabinetry includes guest accommodations in cabinet beds, which are covered with new handmade quilts.
Color and furnishings

The cabinetwork is painted in real, definable hues related to the milk paints of the 19th century. They are not primaries, nor are they shades of grey.

Perhaps the most radical move is the use of traditional furniture, instead of modernist icons - which we love as much as any other architects - but which don’t have to be used all the time. As the classic modernist designs are all at least 50 years old, they are no more expressive of the zeitgeist than the 18th century English / American types used here.

The Windsor and wing chairs are widely available, elegant, and as pointed out by Allan Greenberg, more ergonomic and comfortable than most modernist classics.

Vernacular and style
This house was designed for a small family, but needed flexibility to accommodate many friends and guests. So while there are often only three people living in the 1200 net square feet, there are beds for twelve - and the house has accommodated fifteen.
Light and views

Located at the ridgeline above the town, there are views of Penn Cove, Mt. Baker, and the northern sky. All the rooms are oriented to these views with large windows facing north.

The cooler north light is balanced by the direct sunlight coming through french doors and a large window facing south.
Height

While these views are relatively unobstructed now, if the neighboring house to the north were to be replaced with a house which maxed out the zoning envelope, some of the views would disappear. To ensure that views would be preserved from the major rooms, the house was pushed up to the maximum zoned height of 28 feet. This height allowed for three stories, the lowest of which was mainly devoted to a shop, which could accommodate sailboat storage during the off-season.
Driven by the small buildable area within the zoning setbacks and the desire for views from all rooms, the footprint evolved to a narrow 16 feet wide by 44 feet long.

While most windows and doors face the views to the north and east, the narrowness allows for balanced light from all sides.

The linear plan locates storage and circulation zones along the southern wall, while all rooms open up to the views to the north.

Most of the rooms are the full width of the house, so the narrowness is clearly sensed.
Layering and transparency

The house is layered from north to south, with porch trellis, building shell, sliding screen wall and stair tower walls allowing only filtered views from the street to the interior.

From east to west, the transparency and connection between the common spaces is minimally shaped by open riser stairs and open bookcases.

Parti

Whidbey Island summer house
Structure / shell

The house is a simple, tall, extruded gabled form. Clad uniformly in red clapboard on the exterior and white gypsum board on the interior, it is rather abstract and stark.

The surface of this shell is broken in a 12-foot zone in the middle of the house, where the interior and exterior worlds interpenetrate. The paired 2x12 joists of the loft structure are extended as the framing for the front and rear porches; covered in honeysuckle and climbing roses, they form the major entries to the house. Exterior materials - cedar slats and galvanized metal fencing - are brought into the interior in this zone. Whereas most of the interior shows the contrast between the white shell and the painted cabinetry, in this zone the natural textures of cedar, fir and pine dominate.
The interior is divided into three zones, from common to semi-private to private space.

The common space comprises entry, kitchen, dining and living. These spaces are on two levels, with a four-foot split level between. East-west transparency enhances the unity of the space - one large volume where residents can be pursuing different activities, while still being together.

The living and dining volumes both extend up to the roof ridge, reinforcing their unity, and bringing a sense of space into what are actually quite small rooms.
Central stair tower

A stair tower rises up as the central element through the whole height of the house. In the common area, it is a freestanding element, with all the inhabitable areas defined between the stair tower and the shell.

The walls of the tower are blue-green painted beadboard, a material and color not used elsewhere in the house. The walls are held back from the loft framing, with the stair run bridging across the gap. Descent to the lower level is back between the walls, but with light still coming through the open risers above.

The stair is angled to emphasize its differentiation from the normal construction, to create a forced perspective, and to maintain the required headroom at the top riser under the roof, while maximizing usable space in the dining and living areas.
The loft above and guest room below have a filtered connection to the common space. The loft area has a cedar screen wall and cabinetwork along the edge. It has a large work desk, a bed alcove, bookcases, and a door to a balcony. The guest room on the lower level is quite open to the stair, with a six-foot wide gap between the shell and the beadboard wall. This allows the space of the 12-foot high volume to be sensed, and the room can be used as a play area or extra work space, without feeling that one is stuck in a back bedroom.
Rooms with alcoves

Alcoves allow for a higher degree of privacy in larger rooms. The bed alcove in the loft can be closed off by a sliding closet door at the foot of the bed and a black-out canvas curtain, giving both privacy and respite from the sun which rises in the northeast around 6:00 in the morning.

The cabinet bed in the guest room has a single trundle bed below a queen mattress, in a lower-height volume off the main room, tucked away from the main path down the stairs into the shop.

The shop bathroom has a sink outside the bathroom enclosure, and a toilet and shower inside. The walls are sheathed in twin-wall translucent polycarbonate. During the day the light from the shop or the open overhead door illuminates the bathroom, while at night the glowing polycarbonate walls form a nightlight for the guests trying to navigate their way through the shop.
The west end of the house contains the most private rooms - bathrooms, bedrooms and shop. The main bathroom and master bedroom are enclosed by plaster walls and four-panel doors; we think of this as the 19th-century core of the house, contrasting with the 21st century space to the east. There is small back hall which contains the bedroom closet, and which can be closed off by a pocket door.

The loft bedroom is separated from the open loft by a thick wall of cabinetwork and a sliding door.
Local textures

The landscape and townscape of Ebey's Reserve are incredibly rich. The primal elements - of sea and sky, forest and field - are always enhanced by the smaller scales of elements, detail and texture – barn structure, house siding, beach rocks, hedges, waves, clouds. There was a lesson here.

We didn’t attempt to use or mimic these textures in our house, but we wanted an analogous scale relationship – where the larger moves of space, room or plane would be tempered by textures, colors, and details in building fabric and furnishings. In contrast to the current fetish of minimalism, abstraction and immateriality, we wanted maximalism, where even small spaces would be highly-detailed and intense, making a place where the pieces of everyday dwelling could be welcomed and displayed, rather than intrude.

Materiality & texture

Whidbey Island summer house
Contemporary buildings

This approach is a critique of both current architectural design and homebuilding for the mass market.

High-style architectural design features highly-developed spatial schemes articulated by exquisite minimalist detailing. Mass building is determined by the production of enclosed space - conventional spatial arrangements which are covered in undifferentiated planes of gypsum board and carpet.

But both create relatively blank, abstract and undeveloped rooms.

The clients of the first react with a small selection of iconic modern furnishings, perfectly placed to complement the architecture. The owners of the second react by filling the house with their existing furniture and decor, attempting to inject life, character and personality into the otherwise anonymous spaces.

Materiality & texture
This house stands between these two – neither an abstract perfection which cannot be touched, nor an empty void which must be filled – but a house where the intermediate scales of the building fabric reinforce the larger moves of space and light, and allow for the integration of furnishings and stuff. (As summer houses are especially suited to the accumulation of stuff.) We want all these different scales to read, and we want them to welcome people and accommodate the clutter they create.

Maximalism

Materiality & texture
The articulated middle scales of the house come from the development of the hierarchy of essential building elements, rather than through any applied system.

Shell
simplicity of conventional construction. Unadorned white gypsum board

Structure
paired 2x12s, extending through the house to the exterior

Cabinetry
painted plywood cabinets which define spaces and rooms

Stair
central singular element

Hierarchy of elements

Whidbey Island summer house
Modernism and Postmodernism

As are all academic architects (except at Notre Dame), we are essentially modernists, and live in a mid-century modern house with a nice selection of modernist icon furniture.

But there is another side of us (and many other architects), which loves historical buildings, with their richness, allusions, carried historical associations and meanings.

Postmodernism was an assertion of the value of this tradition, not simply a rejection of modernism. As proposed by Robert Venturi, architecture shouldn’t be either/or, but both/and. However, the subsequent embarrassing stylistic excesses of postmodernism caused it to quickly fade away, and we have forgotten what its ideas did contribute to architectural culture.

Neo-Postmodernism

Whidbey Island summer house
At this moment in architecture, there is no dominant theoretical ism, but there is a dominant style. We all know where the boundaries of permissible practice lay (and wingback chairs are well beyond the pale).

It is the era of Neo-modernism, which is wholly detached from the theoretical underpinnings of Modernism, but which may be seen as a return to the mannerist form-making and stylistic obsession of Late Modernism. And just as the excesses of Late Modernism led to the counter-revolution of Postmodernism, a counterbalance to Neo-modernism should arise.

We are waiting for Neo-Postmodernism to bubble up in the zeitgeist, and we believe there is value in looking back to the ideas of Moore and Venturi, Scott-Brown. How can we resurrect this lost richness of architecture, but without replicating the prior excesses of Pomo?

We don’t reject modernism, but we reject the hegemony of the One True Way. We want a return to both/and.
The construction strategy was one of the determining factors of the parti. How could we build high quality at low cost, at a long distance, but still undertake much of the building ourselves? The answer was building fast and slow.

Building fast is conventional construction. It is efficient and affordable, but at the cost of producing standardized, characterless rooms – five surfaces of gypsum board with enough windows to meet code.

Building slow is custom construction. It may produce beautiful rooms with views, light and interest, but often at three times the cost of conventional construction.

We wanted the quality of custom building, but we could barely afford conventional.

The construction process was closely tied to the economic strategy: we utilized both construction approaches, using each where appropriate.
Factors that determined the construction approach

<table>
<thead>
<tr>
<th></th>
<th>fast building - by contractor</th>
<th>slow building - by owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>distance</td>
<td>The building site is 350 miles away from our home; much of the work needed to be done by others, with minimal supervision.</td>
<td></td>
</tr>
<tr>
<td>immediate use</td>
<td>We needed to live in this house while we were working on it, so the bare necessities had to be built by the contractor.</td>
<td></td>
</tr>
<tr>
<td>age</td>
<td>At 50 years old when construction began, I knew that I didn’t want to frame a house myself.</td>
<td></td>
</tr>
<tr>
<td>time</td>
<td>Work had to be contracted out, as we could only work on this house during the summer and would otherwise take about 20 years to finish it.</td>
<td></td>
</tr>
<tr>
<td>labor / craft</td>
<td>The efficiency and cost-effectiveness of standard construction for the basics.</td>
<td>Expensive, highly-detailed construction could be undertaken later</td>
</tr>
<tr>
<td>sweat equity</td>
<td></td>
<td>The strategy to cut building costs substantially, as our time costs us nothing.</td>
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<tr>
<td>design / build</td>
<td></td>
<td>Acknowledging that the design process continues through construction, as our ideas can evolve in response to unforeseen circumstances and insights made clear through building.</td>
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</table>
Contractor-built shell

The strategy was to have a contractor build us a finished, inhabitable shell during the spring. We could then move in and continue work, beginning the following summer. This differed from a more standard approach of building a small house to begin with, and then adding on to it as needed. We realized there were efficiencies in doing all the conventional construction at once, in not having to obtain subsequent building permits, pour foundations, cut through the existing weather envelope, etc.

To keep the initial cost low and minimize the need for on-site contract administration, we used conventional, foolproof processes and details. The finished shell included:

- Insulation
- Windows and doors
- Painted siding
- Gypsum board painted
- Most electrical (in shell)
- Rough plumbing

This was all built in four months from site work through completion, with two site visits by us, at finished foundation and shell close-in. The total contract cost came out to $83 per square foot.
Finished shell

These pictures were taken on move-in day. The ground floor was left unfinished, as it was mainly to be used as a boat shop. The main floor shows the gypsum board shell and the exposed 2x12 collar ties and loft floor joists (which also take up the roof thrust in the part of the house which is balloon-framed). The floors were exposed plywood subflooring. There were some temporary guard walls at the split-level change and around the stairwell. The loft level did not exist, nor the stairs up to it.

Access to the house was either through the shop and up a flight of rough-framed stairs, or from the back porch.

Our four-year-old daughter Greta was ecstatic about the wide open spaces, Linda decidedly less so as she realized the lack of appliances (or even plumbing) in the area I had been referring to as the “kitchen.”
Design-build schedule

This is the construction schedule for the first few years. Dashed boxes indicate planned projects, whereas the red boxes show when those projects were actually undertaken.

Needless to say, there was great over-optimism at first about the speed at which the house would be finished. I estimated that it would take 5 or 6 summers to complete, but it actually took 8.

Part of the delay was due to being less experienced than professional builders, part to the inefficiency of doing everything alone, but most of it was due to being an architect, and constantly redesigning every detail, just as it’s about to be built.

Design is not finished until you put the circular saw back down.

Note: a more detailed account of the construction process will be available at another link:

Construction process
Sweat equity / low debt strategy

An economic strategy determined much of the approach to building. This was a summer house, which we wanted to be simple and relatively inexpensive, so we wanted to minimize out-of-pocket costs.

It was also a way of using sweat equity to make a real estate investment. As an architecture professor, I teach 9 months a year, and have summers free to undertake research or practice. Since maintaining an architectural practice in Eugene had turned out to be problematic and barely worth the effort financially, a design/build project would not only allow us to explore design ideas, but also to invest our available time into the value of a house. Not only was my hourly rate as a builder likely to exceed my rate as an architect (and certainly as a professor), but we could also create a large amount of available building work for ourselves, versus the limited amount of design work we had been able to secure.

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
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<tbody>
<tr>
<td>2000-2004</td>
<td>We saved money - approximately half of the total development cost.</td>
</tr>
<tr>
<td></td>
<td>Took out 5.25%, 10 year home equity loan,</td>
</tr>
<tr>
<td></td>
<td>We wanted to minimize interest cost over the term of the loan - total interest paid equalled only 24% of the loan principal.</td>
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<tr>
<td></td>
<td>It was important to finance this through a home equity loan, and not through a construction loan.</td>
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<tr>
<td></td>
<td>The need to get a construction loan approved would have led to a more conventional design. It would also have required construction to be completed within a short time frame.</td>
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<tr>
<td>2006</td>
<td>Construction begins - we spent all available cash, and had to put building materials on a credit card for 6 months.</td>
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<tr>
<td></td>
<td>The cash flow was very tight for a year, but this allowed us to avoid more indebtedness.</td>
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<tr>
<td>2007-2014</td>
<td>Sweat equity construction. We bought materials as needed, and sometimes hired subcontractors,</td>
</tr>
<tr>
<td></td>
<td>Our bank account was rebuilt as our out-of-pocket costs declined greatly after the first few years.</td>
</tr>
<tr>
<td>2014</td>
<td>Home equity loan paid off</td>
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While we intend to use this only as a summer house (with its lack of heating demand and some unconventional programmatic demands), we planned for how it could be adapted to normal, year-round use, as we think that futureproofing is a keystone of sustainability.

- The unfinished shop space allows access for easy installation of future mechanical adaptations, including a conventional heating system, and for a possible greywater filtering system.
- The shop space can be converted into two additional bedrooms.
- Alternatively, the whole ground floor can be converted to an accessory dwelling unit.
- A large part of the south-facing wall is blank, which would be available for solar collection if the house is to be occupied year-round.
This house will probably never be “finished” - there will always be something being added or rebuilt - but we think that it has finally reached substantial completion.

The house has already achieved our primary goals of being an affordable summer house for our family, in a manner which allowed us to explore ideas as designers.

Perhaps the greatest lesson has been how incomplete our initial vision was, how much the design has evolved and improved through this slow, considered process.

Looking at this from a conventional building or academic perspective, this has all been very inefficient and unproductive: this one project has been going for eight years, and it’s still not wrapped up. But from another perspective, it’s been a wonderful process that has taught us a lot; the construction of a house can be a time to be enjoyed and appreciated, not just a necessary and painful phase to be hurried through.