

A top-down view of an architectural workspace. In the center is a white sheet of paper with the title 'architectural co-design' in a black box. Below it are the subtitles 'EMERGING BEST PRACTICES FOR INDIGENOUS HOUSING' and 'CHRA Congress 2019 Research Papers and Briefs'. The paper is surrounded by various drafting tools: a compass at the top, a pencil on the left, a yellow level at the bottom right, and several rolled-up blueprints in the background. The entire scene is set on a wooden desk.

# architectural co-design

EMERGING BEST PRACTICES  
FOR INDIGENOUS HOUSING

CHRA Congress 2019  
Research Papers and Briefs

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Canadian Housing and  
Renewal Association  
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BC HOUSING

# Architectural Co-Design – Emerging Best Practices for Indigenous Housing

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*This is a summary of the workshop session “Architectural Co-Design —Emerging Best Practices for Indigenous Housing”, which took place at the Canadian Housing and Renewal Association’s 51<sup>st</sup> National Congress on Housing and Homelessness in Victoria, BC on April 4, 2019.*

Engagement and architectural co-design with Indigenous people is evolving toward more sensitive approaches and culturally appropriate and environmentally sustainable housing designs. Tangible benefits include housing designs that resonate with Indigenous families and communities and become a base for cultural reclamation and growth. The session showcased examples of architectural best practices in Indigenous housing co-design both in urban communities and with First Nations.

## *Panelists*

**Ouri Scott**, Associate Architect, Urban Arts Architecture

**Jackson Low**, Principal, Architect, Low Hammond Rowe Architects

**Louise Atkins**, Member, Indigenous Caucus Working Group, Canadian Housing and Renewal Association

Moderated by Richard George, Board President, Vancouver Native Housing Society

# Architectural Co-Design – Emerging Best Practices for Indigenous Housing

## What is Architectural Co-Design?

Architectural co-design is the collaborative design process between architects and the Indigenous community as client.<sup>1</sup> Through this iterative process, the unique housing needs of Indigenous communities can be identified and better met. The resulting building designs are anchored in Indigenous peoples' connection with the natural world and reflect who they are as people – their traditions, culture, values and lifestyles, and their aspirations.

## Meeting the Unique Housing Needs of Indigenous Communities through Architectural Co-Design

Ouri Scott, a Tlicho Dene architect originally from the Northwest Territories, highlighted some of the ways in which co-design can facilitate a process that better meets Indigenous housing need, particularly for Indigenous families.

To define Indigenous housing need, it is important to acknowledge that housing policy and design in Canada has responded predominantly to the needs of the nuclear family. Indigenous households, however, are more likely to live in a variety of family settings, including multi-generational homes.<sup>2</sup> While the average Canadian household size is decreasing, multi-generational households are the fastest growing type of household in Canada.<sup>3</sup> Furthermore, the Indigenous population is increasing, and since 2006, has grown by 42.5% —more than four times the growth rate of the non-Indigenous population over the same period.<sup>4</sup> Thus, it is critical for housing policy and design to consider the needs of Indigenous households and incorporate values that are common across Indigenous communities, such as prioritizing children and family, honouring Elders, and respect for the environment, land, and water.

*“The values that are common among Indigenous communities in Canada, and the way that they are connected really highlights not the individual, but the family and the community.” – Ouri Scott*

Often, housing needs are identified at the community planning stage, where similar co-design processes are used even before the architect is involved in a specific project. At Urban Arts Architecture, a process called the “intentional spiral” helps the architect hone in on the community’s vision through a community

<sup>1</sup> Louise Atkins, [Four Case Studies Exemplifying Best Practices in Architectural Co-design and Building with First Nations](#), Royal Architecture Institute of Canada (2018).

<sup>2</sup> Statistics Canada, National Household Survey, 2011.

<sup>3</sup> Statistics Canada, Census of Population, 2016.

<sup>4</sup> Ibid.

engagement process that includes a series of community workshops, meetings, design charrettes, and open houses.

Co-design can help to establish the project vision, define programs, set guiding principles, and inform the design. If incorporating “culture as a living practice” is a guiding principle, the community will be able to evaluate design options through this lens, for example, to determine whether the building will support community gathering and feasting. Furthermore, co-design can assist in defining unit size, unit mix, unit types (e.g. accessible), and building amenities.

Of course there are also challenges associated with co-design and community engagement processes, especially when determining the scope of the engagement and what is possible. It is very important to be clear with community members about what is on the table and what is not. Often, due to funding program or budget constraints, the potential unit mix may be fixed, or other aspects of the design are not changeable due to project viability, and these may not always be aligned with the community’s desires. Despite these trade-offs, co-design can help build community, reflect Indigenous values and support community members through the housing design process.

### Building Relationships through Architectural Co-Design

Jackson Low is an architect and Principal at Victoria-based Low Hammond Rowe Architects, a partnership that specializes in urban design and large site planning projects. The firm’s design philosophy places a high value on relationship building, sensitive response to site and context, an integrated approach to sustainability and energy conservation, and creative co-creation through meaningful engagement with client objectives.

*“I believe in creating relationships with the people we work with. It goes beyond what I consider a ‘job’ or ‘architecture’” – Jackson Low*

Low believes that co-design is fundamentally about how architects and designers connect with the people they are designing for, and described four guiding principles for engaging in architectural co-design for Indigenous housing:

**Collaborate** This principle is about building a partnership between the development team, the client and community, and the agencies involved in the project (e.g. levels of government or public housing agencies). An iterative design process is integral to the principle of collaboration, including soliciting feedback from community members and the end users of the design.

**Listen** This principle urges the architect to ask, “Have we heard you?” As architects, the key is to listen to the needs and desires of clients and to creatively translate those aspirations into a built solution. Particularly with regards to Indigenous communities, who each have unique housing needs. However, listening will not always lead to a complete understanding or deep knowledge of the client’s vision, and it will not always reveal a concrete or tangible thing that needs to be incorporated into the design.

**Learn** This principle is particularly important for non-Indigenous architects working on Indigenous housing. There are many ways for architects to engage in a continuous learning process that will enrich the design, for example, learning from community members, including youth and elders, and learning from the past by understanding the community context, histories, protocols, and cultural practices.

**Understand** A successful project is one where the people enjoy not only the building, but where they live. If architects can achieve this it shows that they have understood what they have learned, and they have successfully interpreted the needs of the community into their designs.

More than just designing and constructing housing, co-design is a process that puts the client first by involving them in all decisions, providing space for ongoing input, and building a sense of place, community, and belonging. The process results in safe and healthy homes that are secure and well-constructed, where clients can feel a sense of belonging.

### Identifying Best Practices through Architectural Co-Design in Indigenous Communities

Louise Atkins shared findings from her research<sup>5</sup>, which set out to explore best practices in architectural co-design in the context of three First Nations and one Inuit community in Canada. The report was prepared for the Royal Architecture Institute of Canada, and although the case studies considered a range of asset types (including institutional and commercial buildings), the learnings are highly applicable and transferable to Indigenous housing.

*“Architecture has an important role in giving agency back to Indigenous people to reclaim their heritage, reconnect with their learnings and traditions, and express their culture and aspirations”. – Louise Atkins*

Co-design is not a formula, and each project will take its own form. The report highlights the following methods as best practices for the co-design process: the establishment of project steering committees, hosting design charrettes and community open houses where community members can review designs, consulting with Elders, and hiring Indigenous architects or architects with experience working in Indigenous contexts. The case studies examined all had architects who listened carefully to the community’s needs, visions and preferences and worked iteratively with the clients until they were satisfied that their vision had been developed into a tangible design which met functional requirements and reflected their values, culture, traditions, lifestyles, and aspirations.

Some of the architectural design features employed by the case study projects include orientation and natural light, ancestral building form, the use of wood and other traditional materials, and siting that anchors the building within its natural surroundings. Each project maximizes energy efficiency and conservation through insulation, and designs that utilize natural heating, cooling, and air circulation systems. The interiors are carefully designed to reflect how the space will be used by community members, and art and artists’ installations were commissioned to convey cultural values and facilitate traditional practices and teachings.

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<sup>5</sup> Louise Atkins, [Four Case Studies Exemplifying Best Practices in Architectural Co-design and Building with First Nations](#), Royal Architecture Institute of Canada (2018).



Furthermore, the projects demonstrate best practices in employment, skills development, and community capacity building by involving community members in the building processes, as skilled tradespeople, Indigenous-owned businesses, and entities employing Indigenous workers.

For Indigenous housing, architectural design matters. It can help meet the physical needs of families, better address household composition, foster a sense of belonging, contribute to healing, reflect Indigenous identity and act as a base for cultural expression, reclamation and growth. This research indicates that architectural co-design can be vital for creating buildings that resonate with the community and will be of lasting value.

## Case Studies

Each of the panelists highlighted Indigenous housing projects that were developed using architectural co-design as a method of engagement. A sampling of these case studies are summarized below.

Successful aspects of these Indigenous community housing projects included: relationship building with the client, iterative and collaborative design and engagement, use of natural materials and local Indigenous art, inclusion of communal spaces and amenities, energy efficiency and sustainable building practices, and family-friendly and flexible layouts that meet functional and intergenerational housing needs. The outcomes of these projects are positive and far-reaching for the architect, the client, and community, and the innovations, methods, and lessons learned can be applied more broadly to Indigenous and community housing.

### Case Study 1: Pilot Nunavik Duplex

*Quaqtaq, Nunavik, Quebec*

*Alain Fournier, FIRAC, Principal, EVOQ Architects*



In Nunavik, the community wanted to design a prototype for northern Indigenous housing that would be culturally responsive, better adapted to climate change and highly energy efficient. Following a two-day design charrette to determine housing preferences in the community, the steering committee hired architect Alain Fournier, with whom the community had a long and trusted working relationship.

Some of the design innovations include warm and cold porches, optimal positioning of every house for solar gain, a large flexible kitchen and living space, where families can store and butcher game, and space to hold traditional food feasts on the floor. As a prototype, this pilot duplex is being monitored for physical and socio-cultural performance.

Case Study 2: 550 Goldstream Ave  
*M'akola Housing Society, Langford, BC*  
*Low Hammond Rowe Architects*



This project provides family rental housing in a 47,280 sq. ft. four-storey building with one level of concrete and three floors of wood-frame building above. The mixed-use building is comprised of residential units and commercial office space, which houses the M'akola administration and development service offices. The building replaced five of the 17 existing townhouses on the property, and now accommodates 136 people in 36 family rental housing units on the second, third, and fourth floors. The target tenants are urban Indigenous families in need of stable and affordable housing.<sup>6</sup>

The building is a relatively typical mixed-use building designed to fit into its densifying suburban context in Langford, BC, however, great care was taken to give it identity through the integration of Indigenous art pieces by designer/artist Connie Watts of Chims Studio. The project demonstrates the success of this model, which co-locates commercial and residential uses in order to cross-subsidize the units above, therefore maintaining the affordability of the units without ongoing government support.

Case Study 3: Ōrākei Kāinga Tuatahi Project  
*Au Ōrākei Papākainga, New Zealand*  
*Boffa Miskell*

Through the co-design process, Boffa Miskell worked with the community to identify homeownership, children's safety, shared outdoor living for the community, and multi-generational housing as project goals.

The multi-family residential project includes mostly 3 and 4-bedroom suites to accommodate large families. Safety was an important consideration, and is emphasized through appropriate sight lines onto communal spaces and building orientations that facilitate the supervision of children by the community as a whole. Slow traffic zones encourage pedestrian activity and increase safety for children's play. Open spaces and communal amenities such as BBQs, playgrounds, community gardens, and pocket parks encourage community and group gatherings.



The landscape design further incorporates the cultural values of Ngāti Whātua Ōrākei using the themes of water sensitive design, community, productive landscapes, native and locally sourced plants, biodiversity, and health and wellbeing.<sup>7</sup>

<sup>6</sup> M'akola Development Services, "[550 Goldstream Ave](#)"

<sup>7</sup> Boffa Miskell, "[Ōrākei Kāinga Tuatahi Project](#)"

## Case Study 4: Haisla Nation Multi-Family Housing (in development)

*M'akola Development Services, Haisla Nation, Kitamaat Village*

*Low Hammond Rowe Architects*



This 23-unit residential complex on Haisla Nation Council lands in Kitamaat Village will include six 3-bedroom townhouses, and a mix of 1-, 2-, and 3-bedroom family-oriented apartments. The 3-storey wood-frame apartment building is arranged as a single-loaded building to maximize daylighting and improve the ventilation of units. The building massing and orientation is optimized to the local climate, and site planning responds to solar orientation and distant views of the Douglas Channel, while respecting the adjacent single-family homes. The building is designed to Passive House standards with superinsulation, useful solar gain, and effective heat recovery ventilation to dramatically reduce energy use. Potentially asocial and institutional interior corridors have been eliminated, and the exterior corridors vary in width to create a number of useful places for social activity, with seating, barbecue areas, viewpoints, and transition areas to semi-private decks. An interior courtyard will provide a measure of wind protection for individual ground-level patios and a shared central meeting place.

The project involved collaboration with the Haisla Nation to explore housing options for their members living on and off the Traditional Territory, including conducting a quantitative and qualitative housing study and engaging the community through collaborative design.<sup>8</sup> M'akola employed a multi-pronged community engagement and consultation approach, working closely with Haisla Nation Council to reach members across BC through focus groups, surveys and community forums.

Ultimately, the design reflects this collaboration. For example, the planning strategy creates a number of simple phasing or expansion scenarios to allow adaptation of the design. In fact, there are future plans to develop a five-unit townhouse, and the apartment building has been designed in such a way that it will be able to accommodate a future build on-site, responding to the future housing needs of the community.

## Conclusion

Architecture and design have the potential to reflect, sustain and empower Indigenous people and communities. In particular, the architectural design process is a crucial opportunity for architects to work with Indigenous communities in a good way, making space for community planning processes that result in a common vision, and housing development that reflects the housing needs of individuals, families, and Elders in the community. Through architectural co-design, housing that is rooted in Indigenous teachings, cultures, and values can be better achieved, fostering a sense of wellbeing and contributing to healing, cultural transmission, and reconciliation.

<sup>8</sup> M'akola Development Services, "[Haisla Nation Multi-Family Housing](#)"