

A PASSION FOR SOCIAL HOUSING

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Daniel Pearl and Mark Poddubiuk share a passion for social housing and sustainable practices in architecture and urban design. They founded their architectural firm, L'OEUF, in Montreal in 1992. According to Pearl, in the conventional practice of architecture the design process is too quick and simple, often resulting in high operating costs, poor standards of comfort and performance and few gestures towards sustainability.

In an integrated design process the client plays a much more active role, and the architect becomes the creative team leader and facilitator of early collaboration among the structural, mechanical, bio-climatic and electrical engineers. Pearl, Poddubiuk and their third partner, Bernard Olivier are often invited to consult on large projects that have environmental aspects. The firm may be best known for the McGill University Eco-residence.

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Passion for Affordable Housing

Passion in affordable housing led Daniel Pearl and Mark Poddubiuk to cross paths in architecture and social activism. A Canada Council Arts (CCA) grant only fueled this passion. It not only enabled them to travel to Europe and study the Dutch tradition of austerity and sustainable concepts in architecture but also helped set up their own practice upon their return.

L'OEUF (L'Office de l'eclectisme urbain et fonctionnel) was opened in Montreal, Quebec in 1992. Translated, it reads the 'The Office of Urban and Functional Eclecticism. The meaning of each word contributes towards the vision of the firm. Daniel says the following regarding the significance of the name. "'L'Office' because we want to be taken seriously. 'Urbain' because the city is mankind's greatest creation. 'Eclectisme' because it is an inclusive and conciliatory philosophy. 'Fonctionnel' because we believe that buildings should remain useful for a long time."

Both founders share a preoccupation with the design of housing and its role in the evolution and daily rituals of urban living. They feel both consciously and unconsciously, the design of housing is the ideal reflection of the values and aspirations of a culture.

According to L'OEUF's literature, "Social housing and sustainability are inseparable. Demolition is unsuitable for the environment, renovation is the only solution. There is an urgent need

for innovative housing methods." It is this belief that drives all the projects at L'OEUF. L'OEUF has developed a reputation for an architecture that attempts to respond to, reveal and exploit the latent social and environmental characteristics of a particular context as a basis for the architectural project. Almost 95% of their work is in Quebec. The expertise of the partners is well recognized - for the architectural quality of their projects, their professional and technical competency and their active participation in the academic, professional and local communities. This expertise is based upon

maintaining a balance between appropriate technologies, economic feasibility, architectural expression and environmental impact of a project.

Environmental issues are an integral part of L'OEUF's design process - a design philosophy that is analogous to natural phenomena. Thus, their design philosophy is based on William McDonough's principles:

- Waste equals food
- Use current solar income
- Encourage diversity

In each project, L'OEUF attempts to simulate these natural principles in building. They have succeeded in a number of projects in demonstrating the cost-effectiveness and the environmental benefits of waste management, reuse and recycling. They are very conscious of the interaction of the sun with their projects - making the most of day lighting, passive solar gain as well as controlling glare and excessive heat gain. The architects take particular pleasure in conceiving projects that encourage diversity, offering a variety of accommodations for various lifestyles. Examples of this are the ACT (Affordability and Choice Today) grant for transforming a light-industrial complex into flexible and affordable atelier/housing and McGill Eco-residence.



Sustainable architecture Industry drivers

Developers of affordable housing will generally participate in a green building project if it has absolutely no effect on the budget or timetable. Because affordable housing projects can have many different sources of financing, developers are often leery of doing anything that they perceive as further complicating the project. Daniel feels these obstacles can be overcome with a proper balance of education and learning about long term financial incentives.

Nowadays the government is encouraging that all buildings be LEED certified. Public Works which is an association of builders in Quebec has made it mandatory that all new buildings be at least LEED certified. Para government bodies like the utility and electricity companies also give grants and subsidies for projects that are green and energy efficient. Clients' health issues and social

LEED

Leadership in Energy and Environmental Design (LEED) is a rating system developed by the U.S. Green Building Council. LEED is a comprehensive rating system that helps the designer wade through the numerous issues involved in creating a high performance building. A high performance building is one which is energy efficient, has low short and long term costs, is healthy for its occupants and has a low impact on the environment. LEED focuses on sustainable sites, water and energy efficiency, materials and resources and indoor environmental quality. According to the total points a building receives, it will be categorized as certified, silver, gold or platinum standard. It has quickly evolved as the standard for new and major renovation green building projects of an institutional, commercial or high rise residential nature. Recent statistics show that approximately 3 percent of all new construction in the U.S. is pursuing LEED certification. The Canadian Green Building Council (CaGBC) is working to establish the Canadian version of this building rating system. LEED BC is already in use in Canada since last year and Daniel says many architects are already using the working copy of Canadian LEED for their projects currently.

pressure are other driving factors. Patients that are suffering from health issues like asthma ask that their homes be built with concepts of indoor air quality. Sick building syndrome building is another issue that concerns some clients. Universities are feeling the pressure from other universities to introduce programs in business sustainability. There is also a competitive pressure among the firms. In fact, some firms recognize it as a marketing advantage. Additionally, clients are beginning to understand the economic advantages from Life Cycle Costing (LCC) concept of buildings.

Sustainability Tools in Architecture Integrated Design Process (IDP)

According to Daniel, the conventional practice of architecture is one wherein the design process is too quick and simple, often resulting in high operating costs, poor comfort performance and very few sustainable gestures that fall within the client's restrained budget. This is often a surprise to the owners, operators and users, since the conventional design process usually does not involve computer simulations of predicted energy performance and cost. In the slowly changing practice, IDP is about the makeup and role-playing of the initial design team. The client takes a more active role than usual, the architect becomes a team leader rather than the sole form-giver, and the structural, mechanical, bio-climatic and electrical engineers take on active roles at early design stages.

When carried out in a spirit of cooperation among the key actors, this results in a design that is highly efficient with minimal to no incremental capital costs, along with reduced long-term operating and maintenance costs.¹

Challenges ahead

Daniel is on the organizing committee for the recently concluded Phase 2 of the symposium - Greening the Curricula: Infusion of Environmental and Sustainability Issues in Canadian Schools of Architecture, held in Quebec. This unique meeting brought Canadian architecture students, faculty and practitioners from coast to coast to explore creative ways to introduce environmental and sustainability issues into architectural

education. Hopefully, these actions will fill the gap for dearth of bio-climatic engineers and creative thinkers in this industry in Canada.

Samuel Mockbee, an iconoclastic architect and passionate educator says the challenge is finding the balance between environmental considerations and economic constraints. In order to put sustainable architecture into practice on a broad scale, we must educate architecture students, professionals and the public.² It's a slow process because it requires a value shift. It's a brick-by-recycled-brick project. Making the built world healthy and safe is now in the hands of the architects of our future.



¹An integrated design process, report by Daniel Pearl, Canadian Architect, June 2004

²Building dreams: An interview with Samuel Mockbee, Professor at Auburn university by Mindy fox Earth pledge foundation