TWENTY + CHANGE

EMERGING TORONTO DESIGN PRACTICES

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Riverside Architectural Press

Philip Beesley Architect Inc.

Toronto, Ontario

Philip Beesley Architect Inc. combines experimental architecture and digital media art with public buildings and community work with housing cooperatives and community health centres. The practice frequently undertakes theatre and art collaborations. Digital manufacturing and simulation are central design methods for the office. Philip Beesley is a professor of architecture at the University of Waterloo and shares responsibility for the Waterloo Integrated Group for Visualization, Design and Manufacturing.

Recent gallery installations include *Endothelium* (Broad Art Centre Los Angeles 2008), *Epithelium* (Pratt Insitute, New York 2008; Ball State, Muncie 2009), *Hylozoic Soil* (MFA Montreal, 2007; Ars Electronica Linz, 2008; VIDA 11.0 Matadero-Madrid, 2009, Siggraph, New Orleans 2009), *Orpheus Filter* (RIBA, Birmingham 2005; London Building Centre 2005).

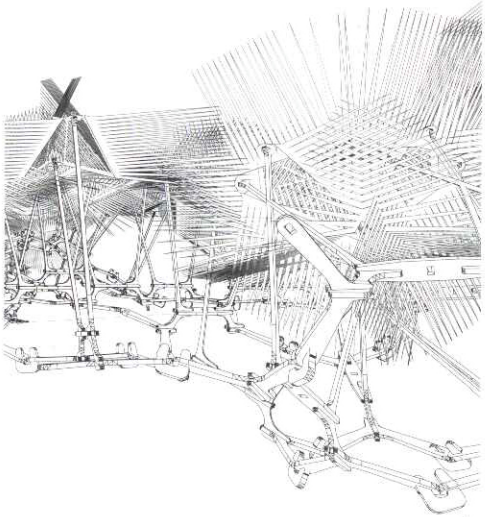
Current built work includes an automated envelope for the North House, a high-performance solar house presented on the Washington Mall 2009. Built works include the Niagara Credit Union, Pia Bouman School, River Beach residential development at Niagara-on the-Lake, the French River Visitor Centre gallery with Baird Sampson Neuert, the Gallery of Korean Art for the Royal Ontario Museum, a trade gallery for the General Consulate for Indonesia, and playground designs for the Toronto District School Board. Distinctions include the Prix de Rome in Architecture for Canada, Fundacion Telefonica VIDA, FEIDAD and Dora Mavor Moore awards.

Implant Matrix

Toronto, ON

Implant Matrix is an interactive geotextile that could be used for reinforcing landscapes and buildings of the future. The matrix is capable of mechanical empathy. A network of mechanisms reacts to human occupants as erotic prey. The structure responds to human presence with subtle grasping and sucking motions, ingesting organic materials, and incorporating them into a new hybrid entity.

Implant Matrix is composed of interlinking filtering "pores" within a lightweight structural system. Primitive interactive systems employ capacitance sensors, shape-memory alloy wire actuators, and distributed microprocessors. The matrix is fabricated by laser cutting direct from digital models. Implant Matrix was installed at the InterAccess Media Arts Centre in Toronto.



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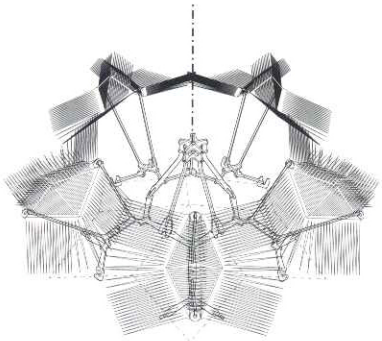

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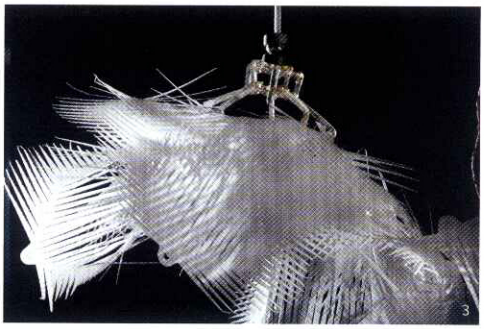

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1 Model view showing arrayed rhombic acrylic sleds holding breathing pores
2 Detail of hemispherical structural node employing pentagonal assembly system
3 Detail of lower-level mylar filter with rotating magnetic mount
4 Detail view of lower-level filter populated by clamping bladders and capacitance whiskers
5 General view showing upper-level breathing pore matrix and lower-level suspended filter
6 View from below, with capacitance-sensing whiskers below filter membrane; actuated breathing pores above

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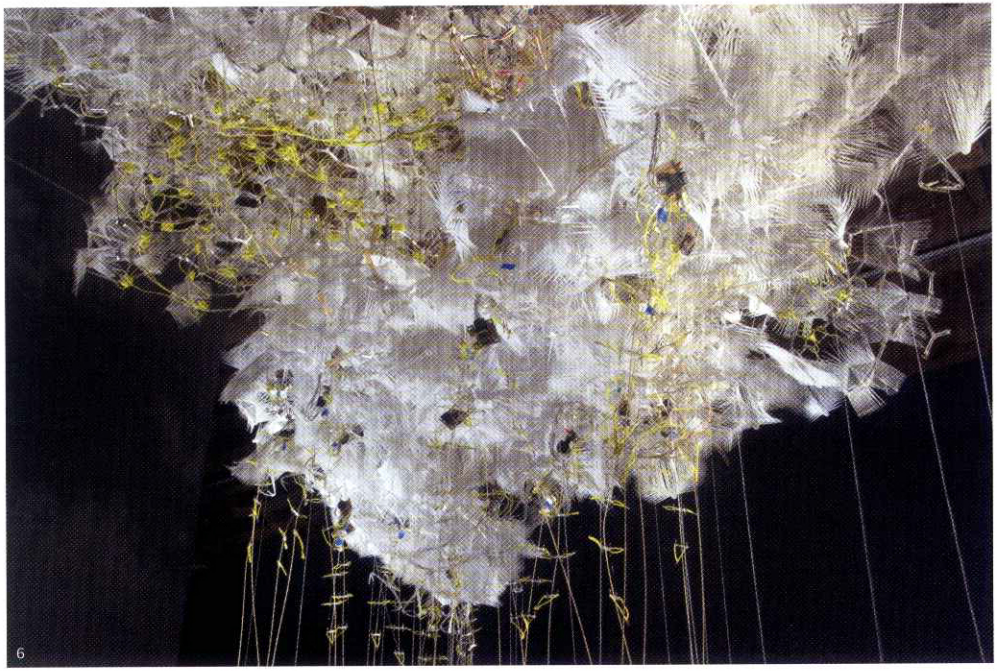

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