Tackling Brain Research

Recent additions to the Montreal Neurological Institute (MNI) by Bobrow Architects do double duty. Two adjoining pavilions—the Molson Pavilion for Molecular Medicine (completed 1996) and the Brain Tumour Research Centre (scheduled to open officially next fall)—extend a world-renowned, high-tech medical research centre. The façade of the Molson Pavilion also incorporates the anodized aluminum bilingual scoreboard for the Percival Molson Memorial Stadium at McGill University, home of the Montreal Alouettes. During football games, in fact, fans actually sit on portable bleachers that hug the new buildings’ façades.

This cozy relationship between brain surgery and football is longstanding: a McGill Redmen football game was once stopped to allow an RCAF helicopter to deliver a patient to the neurological hospital. A second close connection is in the location of MNI’s mini-cyclotron, the first in North America. Much of the Institute’s ground-breaking research depends on this atomic apparatus, which accelerates charged particles by making them spiral, like an Anthony Calvillo pass, in a magnetic field to produce artificial radioactive chemicals. This process allows medical researchers to obtain detailed coloured pictures of brain activity. In order to shield the radio-activity produced by the advanced technology, the MNI cyclotron was embedded within a concrete vault in the sub-basement of the stadium’s fieldhouse in 1981. It’s a marriage made in gridiron heaven that saved “the Neuro” a bundle in construction costs.

The architecture of the rather elegant and decidedly low-tech university stadium, which was officially dedicated in 1919, is also directly reflected in the plan of the contiguous Neuro pavilions. A single-loaded perimeter corridor follows the curvature of the stadium’s running track. This circulation pattern provides the new laboratories with maximum flexibility and daylighting, not to mention superb views of the playing field.

The Molson Pavilion for Molecular Medicine is constructed on the university fieldhouse, designed as part of the stadium by Percy Nobbs. The Brain Tumour Research Centre departs from the geometry of the fieldhouse and is distinguished from its immediate neighbour by bulging gently in the opposite direction. This rounded section of the centre provides the all-important communications facility, where brain tumour experts from around the globe can huddle and compare game plans. Also, it signals a new principal entry into the stadium.

The cyclotron (in its comfortable concrete bed) is also a component of the McConnell Brain Imaging Centre and the planned expansion of the Neuro’s Webster Pavilion (opened 1984), recently awarded to Fiset Miller Bourke Architects. The stadium, too, is about to expand: thanks to its renewed popularity with enthusiastic Alouette fans, it will be enlarged from its current capacity of 19,600 seats to 24,000.

The close fit between the design of the Neuro and the Molson Stadium is extremely rare. What will happen if the MNI leaves its high-tech mountainside quarters on the upper McGill campus for new digs as part of the controversial billion-dollar proposed McGill University Health Centre, planned to open in 2006 on the former Glen railway yards? The Brain Imaging Centre (including the cyclotron in its concrete bunker), the Molson Pavilion for Molecular Medicine and the Brain Tumour Research Centre will all need to be transferred or replaced at enormous expense. Will the Neuro’s new occupants like football?

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